ॲनिमिया मुक्त भारत अभियान अंतर्गत **"रक्त स्वास्थ संवर्धन"** (ॲनिमिया मुक्त महाराष्ट्र) कार्यक्रम राबवून सन २०३० पर्यंत लक्षित वयोगटातील रक्तक्षयाचे प्रमाण कमी करणे.

महाराष्ट्र शासन
सार्वजनिक आरोग्य विभाग
शासन निर्णय क्रमांकः ॲमुम-२०२६/ई- १८६०८२१/प्र.क्र. ४२/कु.क.-१
१० वा मजला, बी विंग, गो. ते. रूग्णालय संकूल इमारत
नवीन मंत्रालय, लो.टि. मार्ग, मुंबई- ४०० ००१
दिनांक:- ०२ नोव्हेंबर, २०२६

वाचा :-

१. ॲनिमिया मुक्त भारत बाबत केंद्र शासनाच्या जून, २०२६ मधील मार्गदर्शक सुचना.
२. राष्ट्रीय कुटुंब आरोग्य सर्वेक्षण अहवाल (NFHS) ४ आणि ५.
३. ॲनिमिया मुक्त भारत बाबत रक्त स्वास्थ्य संवर्धन कार्यक्रमाद्वारे महाराष्ट्र शासनामार्फत तयार करण्यात आलेल्या जानेवारी, २०२६ मधील मार्गदर्शक सुचना.

प्रस्तावना

रक्तक्षय ही बालके व किशोरवयीन मुला-मुलींमध्ये, प्रजननक्षम स्त्रिया, गर्भवती व स्तनदा मातांमध्ये आढळणारी फार मोठी समस्या आहे. या समस्येवर मात करण्यासाठी आरोग्य व कुटुंब कल्याण मंत्रालयाने ॲनिमिया मुक्त भारत अभियान हा कार्यक्रम सुरु करण्यात आलेला आहे. त्या अनुषंगाने सार्वजनिक आरोग्य विभागाने युनिसेफच्या मदतीने महाराष्ट्रात ॲनिमिया मुक्त भारत कार्यक्रमाच्या बळकटीकरणाकरिता तसेच राज्याच्या स्थानिक परिस्थितीचा विचार करून या कार्यक्रमामध्ये काही सुधारणा सुचविण्यासाठी तज्ञांची समिती गठीत करण्यात आली आहे. केंद्र शासनाच्या आरोग्य व कुटुंब कल्याण मंत्रालयाच्या ॲनिमिया मुक्त भारत (AMB) कार्यक्रमांद्वारे सन २०१८ ते २०२२ या काळात मुले, किशोरवयीन आणि प्रजननक्षम वयोगटातील (१५-४९ वर्षे) महिलांमध्ये ॲनिमियाचे प्रमाण दरवर्षी ३ टक्क्यांनी कमी करण्यासाठी उद्दिष्ट ठेवण्यात आलेले होते. तथापि, निर्धारित लक्ष्ये साध्य झाली नाहीत. सन २०१९-२० मधील राष्ट्रीय कुटुंब आरोग्य सर्वेक्षण ५ (NFHS-५) च्या आकडेवारीनुसार, भारतात सर्व वयोगटांमध्ये ॲनिमियाचे प्रमाण अत्यंत जास्त आहे. महाराष्ट्रात प्रजननक्षम वयोगटातील महिलांमध्ये हे प्रमाण ५४% आणि किशोरवयीनांमध्ये ५७% आहे, काही विशिष्ट आदिवासी आणि इतर जिल्ह्यांमध्ये हे प्रमाण लक्षणीयरीत्या वाढलेले दिसून येते, काही जिल्ह्यांमध्ये तर दोन्ही गटांमध्ये हे प्रमाण ६७% पर्यंत पोहोचले आहे. राज्यातील सतरा जिल्ह्यांमध्ये ॲनिमियाची टक्केवारी राज्याच्या सरासरीपेक्षा जास्त आहे. ॲनिमियाचे उच्च प्रमाण हे सद्य:स्थितीतील धोरणांमधील उणिवा आणि अंमलबजावणी मधील आव्हाने

दर्शवितात. त्यामुळे या समितीने तयार केलेल्या अभ्यास अहवालाद्वारे सार्वजनिक आरोग्य विभागाच्या वतीने "**रक्त स्वास्थ्य संवर्धन कार्यक्रम**" तयार करण्याचे शासनाच्या विचाराधीन होते. त्यानुसार पुढीलप्रमाणे शासन निर्णय घेण्यात येत आहे.

शासन निर्णय-

१. कार्यक्रमाची आवश्यकता:-

- **बहुआयामी कारणे:** ॲनिमियाची कारणे गुंतागुंतीची असून, सुमारे ५०% व्यक्तींमध्ये थेट लोहाच्या कमतरतेमुळे ॲनिमिया होतो. इतर कारणांमध्ये सूक्ष्मपोषक तत्वांची कमतरता (व्हिटॅमिन बी-१२, फॉलिक ॲसिड), वारंवार होणारे जंतूसंसर्ग, आणि थॅलेसेमिया व सिकल सेल ॲनिमियासारखे अनुवांशिक रक्ताचे विकार यांचा समावेश होतो.
- **वाढलेले धोक्याचे घटक:** अन्न सुरक्षेचा अभाव, अपुरा आहार, आरोग्य/पोषण सेवांची मर्यादित उपलब्धता आणि पाणी, स्वच्छता व आरोग्याविषयी आव्हाने.
- **सामाजिक - वर्णनात्मक प्रभाव:** कमी शिक्षण, सांस्कृतिक रूढी, आणि सामुदायिक वर्तन यांसारख्या व्यापक सामाजिक-आर्थिक घटकांचा रक्त क्षय वर मोठा प्रभाव असतो.
- **जागतिक पोषण उद्दिष्टे:** रक्त क्षय हा इतर पाच जागतिक पोषण उद्दिष्टांशी निगडित आहे, खुंटलेली वाढ, जन्मावेळी कमी वजन, बालकांमधील स्थूलता, निव्वळ स्तनपान आणि कुपोषित बालके (wasting).
- **मृत्यूदर प्रतिबंध:** जन्मत: कमी वजनाच्या बाळाचे प्रमाण कमी करण्यासाठी, प्रसूती दरम्यान होणारे माता मृत्यू टाळण्यासाठी, तसेच आयुष्याच्या उत्तरार्धात असंसर्गजन्य रोगांचे प्रमाण कमी करण्यासाठी प्रजननक्षम वयाच्या महिलांमधील रक्त क्षयावर नियंत्रण ठेवण्यावर विशेष लक्ष केंद्रित करणे अत्यंत महत्त्वाचे आहे.
- **वाढता रक्त क्षयाचे प्रमाण:** महाराष्ट्रातील रक्त क्षयाचे प्रमाण राष्ट्रीय सरासरीपेक्षा कमी असले तरी, NFHS-४ ते NFHS-५ दरम्यान सांख्यिकी दृष्टया लक्षणीय आणि चिंताजनक वाढ दिसून येते, ज्यामुळे तात्काळ आणि जलद उपाययोजना करण्याची आवश्यकता आहे.

२. ध्येये आणि उद्दिष्टे:-

- **सन २०३० पर्यंत रक्तक्षयाचे प्रमाण निम्मे करणे:** या योजनेचे प्रमुख ध्येय जीवनचक्राचा (Life Cycle Approach) दृष्टिकोन वापरून रक्त क्षय कमी करण्याच्या प्रक्रियेला गती देणे आणि सन

२०३० सालापर्यंत प्रत्येक लक्ष्यित वयोगटातील रक्त क्षयाचे मूळ प्रमाण ५० टक्क्यांनी कमी करणे हे आहे.

- **राज्य-विशिष्ट उपाययोजना :** ॲनिमिया मुक्त भारत (AMB) कार्यक्रमाच्या राष्ट्रीय उपाययोजना महाराष्ट्राच्या विशिष्ट सामाजिक-भौगोलिक संदर्भानुसार सुधारित करणे आणि जिल्हा पातळीवरील अंमलबजावणी मजबूत करणे.
- **वर्तन बदलाबाबत उपाययोजना:** ॲनिमियाच्या तपासणीत वाढ करण्यासाठी, आहारातील विविधता वाढवण्यासाठी आणि वैद्यकीय उपचार पद्धती सुधारण्यासाठी **"ॲनिमिया मुक्त महाराष्ट्र"** नावाचा एक व्यापक, वर्षभर चालणाऱ्या जनजागृती आणि वर्तन बदल मोहीम आराखड्याची अंमलबजावणी करणे.
- **वात्सल्य कार्यक्रमांतर्गत अंमलबजावणी :** माता आणि बाल आरोग्य सेवांमधील विद्यमान उणिवा दूर करण्यासाठी तयार केलेल्या वात्सल्य कार्यक्रमांतर्गत प्रोत्साहनपर, प्रतिबंधात्मक आणि उपचारात्मक सेवांमध्ये प्रसूती पूर्व कालावधीत रक्त क्षय निदान व उपचार कार्यक्रमाचा समावेश करणे.
- **रुग्ण तपासणी, पाठपुरावा, पुनर्तपासणी आणि तज्ज्ञ सल्ला**: रक्त क्षय निश्चित करण्यासाठी, विविध वयोगटातील व्यक्तींची तपासणी, आणि रक्त क्षय असलेल्या व्यक्तींना नियमित औषधोपचार, पाठपुरावा, सुधारणा न झाल्यास इतर कारणांचा शोध

३. लक्ष्यित वयोगट:-

रक्त क्षयाचे प्रतिबंध आणि नियंत्रण करण्यासाठीच्या उपाय योजनांना संपूर्ण जीवन चक्रात प्राधान्य दिले जाईल, ज्यामध्ये विशेषत: राष्ट्रीय कार्यक्रमातील सहा उच्च-जोखमीच्या वयोगटांना आणि राज्य-विशिष्ट दोन गटांना लक्ष्य केले जाईल :

१. **६ महिन्यांपेक्षा कमी वयाची बालके:** तज्ज्ञांच्या चर्चे नुसार राज्यस्तरीय कार्यक्रमात समावेश, अति जोखमीच्या नवजात बालके, विशेषत: कमी वजनाची (LBW) आणि मुदत पूर्व जन्मलेली बालके .

२. **६ महिने ते ५९ महिने वयोगटातील बालके:** गाव पातळीवर आणि संस्था-स्तरावरील उपाय योजनांद्वारे लक्ष्य.

३. **५ ते ९ वर्षे वयोगटातील मुले:** शाळा आणि अंगणवाडी केंद्रांमार्फत लक्ष्यित .

४. **१० ते १९ वर्षे वयोगटातील किशोरवयीन:** शाळा मार्फत आणि समुदाय स्तरावर लक्ष्यित.

५. **प्रजननक्षम वयाच्या महिला (१५-४९ वर्षे):** गाव पातळीवर आणि संस्था-स्तरावरील उपाययोजनांद्वारे लक्ष्य गट. तसेच *वात्सल्य* कार्यक्रमांतर्गत गर्भधारणापूर्व काळजी (Preconception Care) साठी नोंदणी केलेल्या महिला, तज्ञांच्या चर्चेनुसार राज्यस्तरीय कार्यक्रमात समावेश करण्यात येत आहे.

६. **गर्भवती महिला:** गरोदरपणाच्या सर्व तिमाहींमध्ये उच्च-प्राधान्य लक्ष्य गट.

७. **स्तनदा माता:** प्रसूतीनंतरच्या तपासणी आणि गृहभेटींदरम्यान आशा/आरोग्य सेविका यांच्याकडून लक्ष्यित केल्या जातील .

४. प्रतिबंधात्मक उपाययोजना :-

- **शाळा स्तरावर निश्चित दिवस:** शाळांमध्ये लोह व फोलिक ॲसिड औषधांचे प्रतिबंधात्मक डोस देण्यासाठी आठवड्यातील **प्रत्येक सोमवार हा दिवस** निश्चित करण्यात येत आहे.

- **द्विसाप्ताहिक आयएफए सिरप वितरण:** ६ महिने ते ५ वर्ष वयातील बालकांना घरी पालकांद्वारे आयएफए सिरप प्रतिबंधात्मक डोस देण्याकरिता **प्रत्येक सोमवार आणि गुरुवार हे दिवस** निश्चित करण्यात येत आहे.

- **लोह व फोलिक ॲसिड औषधे : IFA** औषधे घेतल्यानंतर होणारा त्रास आणि पोटावरील दुष्परिणाम कमी करण्यासाठी, लोह आणि फॉलिक ॲसिड (IFA) असलेली औषधे **जेवणानंतरच** घेतली जातील हे सुनिश्चित करणे.

- **लहान मुलांच्या सुरक्षिततेचे नियम:** अपघाती विषबाधा टाळण्यासाठी, वितरीत केलेल्या सर्व लोहाच्या गोळ्या आणि वैद्यकीय साहित्य लहान मुलांच्या आवाक्या बाहेर सुरक्षितपणे साठवले जाईल याबाबत जनजागृती करणे.

- **आयएफए (IFA) गोळ्यांच्या रुचकरतेत सुधारणा:** सर्व वयोगटातील व्यक्तींमध्ये आयएफए गोळ्यांचे सेवनाचे प्रमाण वाढविण्यासाठी आणि औषधोपचारांचे पालन अधिक चांगल्या प्रकारे होण्यासाठी, नवीन आयएफए (IFA) फॉर्म्युलेशनचा पुरवठा (जसे की फेरस एस्कॉर्बेट फॉर्म्युलेशन्स) करणे.

- **Multiple Micronutrient Supplementation (MMS) :** सर्व किशोरवयीन मुलींना व गर्भधारणापूर्व सेवा घेणाऱ्या महिलांना मल्टिपल मायक्रोन्यूट्रिएंट्स (**Multiple Micronutrient Supplementation**) देण्यात येईल.

- गर्भवती महिलांना मल्टिपल मायक्रोन्यूट्रिएंट्स (**Multiple Micronutrient Supplementation**) देण्याबाबत विचार करण्यात येईल.

- **Injection FCM चा वापर:** मध्यम व तीव्र रक्त क्षय असणाऱ्या किशोरवयीन मुली, गर्भधारणापूर्व सेवा घेणाऱ्या महिला, गरोदर माता व स्तनदा माता यांच्या उपचाराकरिता FCM चा वापर करण्यात येईल.

- **तिसऱ्या त्रैमासिकात रक्तसंक्रमण**: गर्भवती महिलेचे Hb प्रमाण ७ ग्रॅम/डेसीलिटरपेक्षा कमी असल्यास Packed Red Cells/Whole Blood द्वारे आवश्यक रक्तसंक्रमण करण्यात यावे.

- **रक्त क्षय उपचार कोपरा (एएमबी कॉर्नर्स)**: सर्व सार्वजनिक आरोग्य संस्थांमध्ये ठळकपणे दिसणारे "रक्तक्षय उपचार कोपरा (एएमबी कॉर्नर्स)" बाह्यरुग्ण विभाग (ओपीडी) क्षेत्रात स्थापित करण्यात येतील. या कॉर्नर मध्ये रक्त क्षयाचे निदानाकरीता तपासणी, उपचारासाठीचे औषधे व प्रोटोकॉल, जनजागृती साहित्य ठेवण्यात येईल.

- **मासिक अनुपालन तपासणी** : आशा व एएनएम यांच्या माध्यमातून लाभार्थ्यांचा दरमहा नियमित पाठपुरावा करून औषधोपचाराचे अनुपालन सुनिश्चित करण्यात यावे.

- **रक्तक्षयाच्या उच्च जोखमीच्या नवजात बालकांची यादी** : आरोग्य संस्थांनी डिस्चार्जच्या वेळी रक्तक्षयाच्या उच्च जोखमीच्या नवजात बालकांची यादी संबंधित आशा कार्यकर्त्यांना उपलब्ध करून द्यावी. आशा कार्यकर्त्यांनी HBNC भेटींच्या वेळी या बालकांच्या उपचाराचा व आरोग्यस्थितीचा नियमित पाठपुरावा करावा.

- **उपचारानंतर सुधारणा न झाल्यास** : उपचार देऊनही रक्तक्षयामध्ये अपेक्षित सुधारणा न झाल्यास इतर संभाव्य कारणांचा शोध घेऊन आवश्यक तपासण्या व पुढील उपचार करण्यात यावेत.

५. वयोगटानुसार तपासणी, उपचार आणि पाठपुरावा:-

५.१ सहा महिन्यापेक्षा कमी वयाची बालके :-

- **तपासणी आणि परीक्षण:** प्रत्येक कमी वजनाच्या (LBW) आणि मुदत पूर्व जन्मलेल्या बाळाची रुग्णालयातून घरी सोडताना पात्र बालरोगतज्ञांकडून वैद्यकीय तपासणी करणे आवश्यक राहील.

- **प्रतिबंध/उपचार प्रारंभ:** कमी वजनाच्या सर्व बाळांसाठी लोहाची पूरक औषधे वयाच्या बरोबर २ आठवड्यांपासून सुरू केली जातील आणि वयाच्या १ वर्षापर्यंत पद्धतशीरपणे चालू ठेवली जातील.

- **पाठपुरावा यंत्रणा:** आरोग्य संस्थेमधून नवजात बालकांना डिस्चार्ज दिल्यानंतर लगेचच रक्तक्षयाचा उच्च धोका असलेल्या नवजात बालकांची यादी तयार करून ती आशांकडे सुपूर्द करणे आवश्यक राहील. आशांना त्यांच्या नियोजित गृह-आधारित नवजात शिशु संगोपन (HBNC व HBYC) भेटींदरम्यान या नवजात बालकांच्या उपचाराचे पालन होत आहे की नाही, यावर देखरेख ठेवणे बंधनकारक राहील. उपचारा दरम्यान कोणतीही वैद्यकीय सुधारणा दिसून न आल्यास, इतर मूळ कारणांचा शोध घेण्यासाठी त्वरित संदर्भित करणे आवश्यक आहे.

५.२. ६ महिने ते ५९ महिने वयोगटातील बालके :-

- **सौम्य आणि मध्यम ॲनिमिया उपचार (६ महिने ते २३ महिने - Hb ७-१०.४ g/dl , २४ महिने ते ५९ महिने - Hb ७-१०.९ g/dl):** उपचारात्मक डोस ३ mg लोह/किलो/दिवस याप्रमाणे देण्यात यावा. **तथापि बालरोगतज्ञ यांच्या तपासणी व सल्ल्यानुसार उपचारात्मक डोस ६ mg लोह/किलो/दिवस पर्यंत देता येईल**. दोन / तीन महिन्यांच्या दैनंदिन IFA सिरप च्या सेवनानंतर मुलाची हिमोग्लोबिन चाचणी केली जाईल. जर हिमोग्लोबिनची पातळी सामान्य झाली असेल, तर हा उपचारात्मक डोस बंद करावा, परंतु प्रतिबंधात्मक (prophylactic) 'आयएफए' डोस सुरू ठेवावा. जर हिमोग्लोबिनची पातळी सुधारली असेल पण ती सामान्य श्रेणीत आली नसेल, तर त्या मुलाला आणखी तीन महिने उपचारात्मक डोस देणे सुरू ठेवावे. जर हिमोग्लोबिनच्या पातळीमध्ये काहीच सुधारणा झाली नसेल तर जवळच्या जिल्हा रुग्णालयात (DH) किंवा प्रथम संदर्भ युनिट (FRU) कडे संदर्भित (refer) केले जाईल.

- **तीव्र ॲनिमियाचे व्यवस्थापन (Hb < ७ g/dl):** बालकास ताबडतोब जिल्हा रुग्णालयात किंवा बालरोगतज्ञ उपलब्ध असलेल्या प्रथम संदर्भ केंद्रात (FRU) पाठवले जाईल. तीव्र ॲनिमिया असलेल्या कोणत्याही बालकासाठी बालरोगतज्ञांचे मत घेणे अनिवार्य राहील.

- <u>प्रतिबंधात्मक उपाय</u> (Prophylaxis): ६ महिने ते ५ वर्ष वयातील बालकांना घरी पालकांद्वारे आयएफए सिरप प्रतिबंधात्मक डोस प्रत्येक सोमवार आणि गुरुवार या दिवशी देण्यात येईल. याकरिता आशामार्फत सुरुवातीला IFA सिरिप कसे पाजावे याबाबत पालकांना प्रशिक्षण दिले जाईल. तसेच सुरुवातीला २ आठवडे आशा प्रत्यक्ष घरी जाऊन बालकला IFA सिरिप देईल. कार्यक्षेत्रातील आशा कार्यकर्ती यांनी महिन्यातून किमान दोन वेळा प्रत्येक बालकाच्या घरी गृहभेट देऊन पालक IFA सिरिप बालकला पाजत असल्याचे सुनिश्चित करतील.

- **तपासणी आणि पाठपुरावा** : राष्ट्रीय बाल स्वास्थ्य कार्यक्रम (आरबीएसके) च्या पथकांनी अंगणवाडी केंद्रांमधील द्विवार्षिक तपासणी (biannual screening) आणि शाळांमधील वार्षिक तपासणीनंतर, रक्तक्षयाचे निदान झालेल्या मुलांची एक यादी प्राथमिक आरोग्य केंद्राच्या वैद्यकीय अधिकाऱ्यांकडे सादर करणे आवश्यक राहील. ही यादी आरोग्य सेविका , आशा, अंगणवाडी सेविका आणि शाळा प्रशासनाच्या एकत्रित मदतीने सातत्यपूर्ण पाठपुरावा करण्यासाठी आणि चाचणी-उपचार-शोध-समुपदेशन (Test-Treat-Talk-Track) टी-४ शिबिरे आयोजित करण्यासाठी वापरण्यात यावी.

५.३. **५ ते ९ वर्षे वयोगटातील मुले**:-

- **तपासणी** (Screening):- RBSK पथक दरवर्षी शाळेतील आणि शाळेबाहेरील मुलांची ॲनिमियासाठी (रक्तक्षय) Invasive Digital hemoglobin meter द्वारे तपासणी करेल. ज्या मुलांमध्ये क्लिनिकल चिन्हे आणि लक्षणे आढळतील, त्यांना Hb (हिमोग्लोबिन) तपासणीसाठी VHNSC/SC/PHC कडे संदर्भित केले जाईल. याव्यतिरिक्त, नोडल शिक्षकांद्वारे क्लिनिकल तपासणी केली जाईल. नोडल शिक्षक/शाळा आरोग्य दूत (School Health Ambassadors) हे "लक्षणे विचारा, चिन्हे पहा" (Ask for symptoms, look for signs) ही पद्धत वापरून आणि ठराविक दिवशी मासिक तपासणी करून ॲनिमियाग्रस्त मुली/मुलांची लक्षणे दर्शविणाऱ्या मुला/मुलींची यादी तयार करतील.
- **सौम्य आणि मध्यम ॲनिमिया उपचार (Hb ८ - ११.४ g/dl):** -उपचारात्मक डोस आयएफए' (IFA) गुलाबी गोळी (४५ मिग्रॅ एलिमेंटल आयर्न + ४०० मिग्रॅ फॉलिक ॲसिड) लोह/किलो/दिवस असा तीन महिने दिला जाईल.
- **तीव्र ॲनिमियाचे व्यवस्थापन (Hb < ८ g/dl):-** ५ ते ९ वर्षे वयोगटातील मुलाला तज्ञ बालरोगतज्ञांच्या तपासणी आणि सल्ल्यासाठी जिल्हा रुग्णालय किंवा एफआरयूमध्ये अनिवार्यपणे पाठवले जाईल.
- **मध्यम ते तीव्र ॲनिमियाच्या (Hb < ८ gm/dl):-** जिथे तोंडी औषधोपचाराचे पालन कमी असते, तिथे इंजेक्शन फेरस कार्बोक्सी माल्टोज (इंजेक्शन एफसीएम) चा वापर करण्यात येईल.
- **प्रतिबंधात्मक उपाय (Prophylaxis):-** ५-९ वयोगटातील शालेय मुलांना दर आठवड्याला IFA (गुलाबी) गोळी दिली जाईल. शासकीय व अनुदानित आणि खाजगी शाळांमध्ये शिक्षकांमार्फत दुपारच्या जेवणानंतर 'स्पॉट फीडिंग' (शाळेतच गोळी खाऊ घालणे) पद्धतीने ही गोळी दिली जाईल. आठवड्याचा प्रतिबंधात्मक डोस घेतल्यावर विद्यार्थ्याचा वर्गशिक्षक "अनुपालन कार्ड" (compliance card) भरेल. नोडल शिक्षक दरमहा वर्गशिक्षकासोबत या नोंदींचा आढावा घेतील. ५-९ वयोगटातील शाळेबाहेरील मुलांना AWW द्वारे IFA गोळी दिली जाईल.

- **उपचार व पाठपुरावा :-** इयत्ता १ ली ते ५ वी मधील सौम्य व मध्यम रक्तक्षयाच्या (ओळख पटलेल्या) मुलांसाठी, शाळेत वर्गशिक्षकांच्या थेट देखरेखीखाली तीन महिन्यांसाठी दररोज एक 'आयएफए' (IFA) गुलाबी गोळी (४५ मिग्रॅ एलिमेंटल आयर्न + ४०० मायक्रोग्रॅम फॉलिक ॲसिड) दिली जाईल. ही गोळी दुपारच्या जेवणानंतर एक तासाने दिली जाईल. शाळेच्या सुट्ट्यांच्या दिवशी, घरी घेण्यासाठी ही गोळी दिली जाईल. तीन महिन्यांच्या दैनंदिन पूरक आहारानंतर गोळ्यांच्या सेवनानंतर मुलाची हिमोग्लोबिन (सौम्य रक्तक्षयासाठी ३ महिन्यांनी व मध्यम रक्तक्षयासाठी २ महिन्यांनी) चाचणी केली जाईल. जर हिमोग्लोबिनची पातळी सामान्य झाली असेल, तर हा उपचारात्मक डोस बंद करावा, परंतु प्रतिबंधात्मक (prophylactic) 'आयएफए' डोस सुरू ठेवावा. जर हिमोग्लोबिनची पातळी सुधारली असेल पण ती सामान्य श्रेणीत आली नसेल, तर त्या मुलाला आणखी तीन महिने उपचारात्मक डोस देणे सुरू ठेवावे. जर हिमोग्लोबिनच्या पातळीमध्ये काहीच सुधारणा झाली नसेल तर जवळच्या जिल्हा रुग्णालयात (DH) किंवा प्रथम संदर्भ युनिट (FRU) कडे संदर्भित (refer) केले जाईल.
- तीव्र ॲनिमिया (रक्तक्षय) असलेल्या सर्व बालकांना तातडीने जिल्हा रुग्णालय (DH) किंवा प्रथम संदर्भ युनिट (FRU) कडे संदर्भित (refer) केले जाईल.
- नोडल शिक्षकांद्वारे मुले आणि पालकांचे (पालक-शिक्षक बैठकीदरम्यान) पोषणविषयक समुपदेशन केले जाईल. यामध्ये ॲनिमियाची कारणे, ॲनिमिया कसा टाळावा, 'आयएफए' पूरक आहाराची गरज, स्थानिक पातळीवर उपलब्ध असलेले लोहयुक्त पदार्थ, लोहाच्या शोषणात अडथळा आणणारे घटक आणि ॲनिमियाची पोषण-व्यतिरिक्त कारणे इत्यादी बाबींचा समावेश असेल. फॉलो-अप (पाठपुरावा), उपचारांच्या नियमित अंमलबजावणी बाबत पालक-शिक्षक बैठकीत (PTM) वर्गशिक्षक/नोडल शिक्षक पालकांना मार्गदर्शन करतील.
- पालकांनी ३० आणि ६० दिवसांनंतर जवळच्या VHNSC/SC/आरोग्य केंद्रावर मुलाचा फॉलो-अप घेणे सुनिश्चित करावे. शक्य असल्यास, संबंधित क्षेत्रातील ANM/LHV/MPW द्वारे फॉलो-अप घेतला जाईल. दररोज उपचारात्मक डोस घेतल्यानंतर विद्यार्थी/पालकांकडून अंमलबजावणीची नोंद (compliance) भरली जाईल.

५.४. किशोरवयीन वयोगट (१०-१९ वर्षे)

- **<u>सौम्य आणि मध्यम ॲनिमिया उपचार</u>** (Hb ८ - ११.९ g/dl,): उपचारात्मक डोस आयएफए' (IFA) **निळी गोळी** (६० मिग्रॅ एलिमेंटल आयर्न + ५०० मिग्रॅ फॉलिक ॲसिड) लोह/किलो/दिवस असा **तीन** महिने दिला जाईल.

- <u>तीव्र अॅनिमियाचे व्यवस्थापन</u> **(Hb < ८ g/dl):-** १० ते १९ वर्षे वयोगटातील मुलाला तज्ञ बालरोगतज्ञांच्या तपासणी आणि सल्ल्यासाठी जिल्हा रुग्णालय किंवा एफआरयूमध्ये अनिवार्यपणे पाठवले जाईल.

- **अॅनिमियाची तपासणी-** शाळास्तरावरील AMB चे सूक्ष्म नियोजन हे ५ ते ९ वर्षे वयोगटातील मुलांसाठी असलेल्या नियोजनाप्रमाणेच असेल. हे नियोजन SC/PHC मधील ANM/MO यांच्या सहकार्याने राबविण्यात येईल. शाळेच्या परिसरात RBSK पथकाद्वारे वर्षातून एकदा विद्यार्थ्यांची तपासणी करण्यात येईल. यासाठी डिजिटल हिमोग्लोबिनोमीटर वापरले जातील. RBSK पथकाद्वारे किशोरवयीन मुला-मुलींची तपासणी केल्यानंतर, अॅनिमिया आढळलेल्या विद्यार्थ्यांची यादी तयार केली जाईल. ही यादी नोडल शिक्षक/वर्गशिक्षक यांच्यासोबत सामायिक केली जाईल. यामुळे शाळेला पालकांना माहिती देणे तसेच संबंधित उपकेंद्र/प्राथमिक आरोग्य केंद्र/Health and Wellness Centre येथे उपचार (T४ Camp), फॉलो-अप आणि आहारविषयक समुपदेशनासाठी विद्यार्थ्यांना पाठविणे शक्य होईल. याशिवाय, इयत्ता ६ वी ते १२ वी तील शाळेत जाणाऱ्या किशोरवयीन मुला-मुलींची त्रैमासिक वैद्यकीय तपासणी नोडल शिक्षक /School Health Ambassadors यांच्या माध्यमातून केली जाईल. निश्चित केलेल्या दिवशी दर महिन्याला लक्षणे विचारणे आणि आजाराची चिन्हे पाहणे या पद्धतीने अॅनिमियाची संभाव्य प्रकरणे ओळखली जातील.

- <u>प्रतिबंधात्मक उपाय</u> (Prophylaxis):- इयत्ता ६ वी ते ८ वी च्या शालेय विद्यार्थ्यांना आठवड्यातून एकदा निळी IFA गोळी (Blue IFA tablet) दिली जाईल. शासकीय व अनुदानित शाळांमध्ये ती मध्यान्ह भोजनानंतर एक तासाने वर्गशिक्षकांच्या देखरेखीखाली दिली जाईल. इयत्ता ९ वी ते १२ वी सोमवारी किंवा आठवड्यात निश्चित केलेल्या एका दिवशी, जेवणानंतर IFA गोळी दिली जाईल. IFA गोळी घेतल्याची नोंद वर्गशिक्षक IFA अनुपालन नोंदवहीत (Compliance Register) करतील. विद्यार्थ्याने साप्ताहिक प्रतिबंधात्मक IFA मात्रा घेतल्यानंतर वर्गशिक्षक Compliance Card भरतील. नोडल शिक्षक दर महिन्याला वर्गशिक्षकांकडील नोंदींचे परीक्षण करतील.

- **उपचार :-** अॅनिमिया आढळलेल्या किशोरवयीन मुला-मुलींना दररोज २ निळ्या IFA गोळ्या, सलग ३ महिने देण्यात येतील. प्रत्येक निळ्या IFA गोळीमध्ये:- ६० mg मूलद्रव्यीय लोह (Elemental Iron)- ५०० मायक्रोग्रॅम फॉलिक ॲसिड (Folic Acid) असेल. ही औषधे मुला-मुलींना मध्यान्ह भोजनानंतर एक तासाने शाळेत वर्गशिक्षकांच्या प्रत्यक्ष देखरेखीखाली दिली जातील. मुला-मुलींना जेवणानंतर गोळी दिली जाईल. शाळेला सुट्टी असल्यास औषधांचे

सेवन घरी करता यावे यासाठी विद्यार्थ्याला औषधे घरी घेऊन जाण्यास दिले जाईल. IFA सेवनाची नोंद मानक नमुन्यानुसार नोंदवहीत केली जाईल.

- **पोषणविषयक समुपदेशन-** पालक-शिक्षक बैठकीच्या (PTM) वेळी नोडल शिक्षकांमार्फत विद्यार्थ्यांना आणि पालकांना पोषणविषयक समुपदेशन दिले जाईल. यामध्ये ॲनिमिया होण्याची कारणे, ॲनिमिया टाळण्यासाठी आवश्यक उपाय, IFA गोळ्या घेण्याचे महत्त्व, स्थानिक पातळीवर उपलब्ध असलेले लोहयुक्त पदार्थ, शरीरात लोहाचे शोषण कमी करणारे Iron inhibitors, ॲनिमियाची इतर पोषणविषयक नसलेली कारणे, योग्य आहार व आरोग्यविषयक सवयी इ. बाबत समुपदेशन करण्यात यावे.

- **पाठपुरावा -** शाळेत ॲनिमिया असलेल्या सर्व विद्यार्थ्यांची लाइन-लिस्ट तयार करून ती शाळेच्या नोंदवहीत ठेवली जाईल. ही यादी संबंधित क्षेत्रातील ANM/LHV/MPW यांना दिली जाईल. VHNSD दरम्यान ANM/LHV/MPW कडून विद्यार्थ्यांचा फॉलो-अप केला जाईल. पालकांनी किशोरवयीन मुला-मुलींचा ४५ ते ९० दिवसांच्या कालावधीत जवळच्या उपकेंद्रात किंवा आरोग्य केंद्रात फॉलो-अप करून घेणे आवश्यक आहे. ३ महिन्यांच्या उपचारात्मक IFA सेवनानंतर विद्यार्थ्याची हिमोग्लोबिन तपासणी (सौम्य रक्तक्षयासाठी ३ महिन्यांनी व मध्यम रक्तक्षयासाठी २ महिन्यांनी) VHNSD/UHNSD येथे ASHA/ANM यांच्या मदतीने करण्यात येईल. हिमोग्लोबिन वाढले असेल, परंतु सामान्य पातळीवर आलेले नसेल, तर औषधोपचार आणखी ३ महिने सुरू ठेवण्यात यावीत. जर हिमोग्लोबिनची पातळी सामान्य झाली, तर उपचारात्मक IFA बंद करण्यात येईल; मात्र प्रतिबंधात्मक साप्ताहिक IFA मात्रा सुरू ठेवण्यात येईल. जर हिमोग्लोबिनच्या पातळीमध्ये काहीच सुधारणा झाली नसेल तर जवळच्या जिल्हा रुग्णालयात (DH) किंवा प्रथम संदर्भ युनिट (FRU) कडे संदर्भित (refer) केले जाईल. गंभीर ॲनिमियाचे व्यवस्थापन १० ते १९ वर्षे वयोगटातील गंभीर ॲनिमिया असलेल्या किशोरवयीन मुला-मुलींचे उपचार संबंधित Medical Officer यांच्या मार्गदर्शनाखाली FRU/CHC येथे केले जातील. आवश्यक तपासण्या करून योग्य निदान आणि त्यानुसार उपचार केले जातील. AWW (अंगणवाडी कार्यकर्ती) फॉलो-अप कार्ड देईल, लाइन-लिस्ट ठेवेल आणि आवश्यक समुपदेशन करेल.

- शाळाबाह्य किशोरवयीन विद्यार्थ्यांचे उपचार, पाठपुरावा, समुपदेशन इ. संनियंत्रण आशा/संबंधीत परिचारिकेमार्फत करण्यात येईल.

५.५ <u>प्रजननक्षम वयाच्या महिला (WRA) आणि गर्भधारणा पूर्व आरोग्य सेवा घेणाऱ्या महिला</u>:-

- ज्या गरोदर नाहीत, स्तनपान करत नाहीत आणि ज्यांचे वय २० ते ४९ वर्षे आहे अशा महिलांचा समावेश प्रजननक्षम वयातील महिलांमध्ये होतो.

- **<u>तीव्र ॲनिमियासाठी प्रगत उपचार</u> :-** गर्भधारणा पूर्व सेवा घेणाऱ्या महिला तसेच ज्यांचे हिमोग्लोबिन (Hb) चे प्रमाण ८ ग्रॅम/डीएल पेक्षा कमी आहे अशा महिलांसाठी, इंजेक्शन आयर्न सुक्रोजऐवजी इंजेक्शन **एफसीएम (FCM**) वापरण्यात येईल.

- **<u>मध्यम आणि कमी तीव्र ॲनिमियासाठी प्रगत उपचार</u>:-** गर्भधारणा पूर्व सेवा घेणाऱ्या महिला तसेच ज्यांचे हिमोग्लोबिन (Hb) चे प्रमाण ९ ग्रॅम/डीएल ते १२ ग्रॅम/डीएल दरम्यान आहे अशा महिलांसाठी, एमएमएस (MMS) देण्यात येतील.

- **<u>मासिक पाळीचा मागोवा</u>**:- गाव पातळीवरील आरोग्य कर्मचाऱ्यांनी पौगंडावस्थेतील मुली आणि प्रजननक्षम वयोगटातील महिलांसाठी एक विशेष मासिक पाळी दिनदर्शिका तयार करून ती अद्ययावत ठेवावी, जेणेकरून मासिक पाळीतील जास्त रक्तस्रावावर लक्ष ठेवण्यात यावे.

- MMS किंवा IFA गोळ्या, फॉलिक ॲसिड गोळ्या आणि जंतनाशक (अल्बेंडाझोल) औषधे देण्याची कार्यवाही लसीकरण दिवस/VHNSD/UHNSD यांसारख्या उपक्रमांच्या माध्यमातून एकत्रितपणे केली जाईल.

- 'वात्सल्य' कार्यक्रमांतर्गत, आशा (ASHA) कार्यकर्त्यांनी नवविवाहित आणि २०-४९ वयोगटातील विवाहित महिलांची यादी तयार करावी आणि त्यांना VHNSD सत्रांना उपस्थित राहण्यासाठी प्रोत्साहित करावे.

- या सत्रांमध्ये, ॲनिमिया (रक्तक्षय) रोखण्यासाठी IFA पूरक आहार आणि जंतनाशक औषधांचे महत्त्व याबद्दल ANM द्वारे त्यांना समुपदेशन केले जाईल. काही चिन्हे किंवा लक्षणे आढळल्यास जवळच्या आरोग्य केंद्रावर तपासणी (ॲनिमियाच्या पोषण-व्यतिरिक्त कारणांची तपासणी करण्यासह) केली जाईल आणि ॲनिमियाचे निदान झाल्यास प्रोटोकॉलनुसार उपचार केले जातील.

- जर हिमोग्लोबिन (Hb) सामान्य आढळले, तर साप्ताहिक IFA किंवा MMS पूरक आहार दिला जाईल. WRA ला वर्षासाठी ५२ आठवड्यांच्या ५२ गोळ्या दिल्या जातील. आशा कार्यकर्त्यांनी हे सुनिश्चित करावे की त्यांच्या गावातील WRA महिलांनी वापरलेल्या IFA किंवा MMS गोळ्यांची रिकामी स्ट्रिप दाखवून VHNSD/UHNSD सत्रादरम्यान ANM कडून त्रैमासिक १५ गोळ्या घ्याव्यात.

- Hb तपासणीनंतर WRA मध्ये ॲनिमिया आढळल्यास, ANM द्वारे दररोज दोन 'लाल' IFA गोळ्या (६० मिग्रॅ एलिमेंटल आयर्न + ५०० मायक्रोग्रॅम फॉलिक ॲसिड) देऊन तीन महिन्यांचे उपचारात्मक उपचार सुरू केले जातील.

- ॲनिमिया असलेल्या WRA महिलांना VHNSD/UHNSD सत्रांदरम्यान ANM ला रिकाम्या स्ट्रिप्स दाखवल्यानंतर सलग तीन महिने ६० गोळ्या दिल्या जातील.

- आशा कार्यकर्त्या गृहभेटीद्वारे गोळ्यांच्या सेवनावर देखरेख करतील. तीन महिन्यांच्या गोळ्यांच्या सेवनानंतर हिमोग्लोबिन (सौम्य रक्तक्षयासाठी ३ महिन्यांनी व मध्यम रक्तक्षयासाठी २ महिन्यांनी) चाचणी केली जाईल. जर हिमोग्लोबिनची पातळी सामान्य झाली असेल, तर हा उपचारात्मक डोस बंद करावा, परंतु प्रतिबंधात्मक (prophylactic) 'आयएफए' डोस सुरू ठेवावा. जर हिमोग्लोबिनची पातळी सुधारली असेल पण ती सामान्य श्रेणीत आली नसेल, तर आणखी तीन महिने उपचारात्मक डोस देणे सुरू ठेवावे. जर हिमोग्लोबिनच्या पातळीमध्ये काहीच सुधारणा झाली नसेल तर जवळच्या जिल्हा रुग्णालयात (DH) किंवा प्रथम संदर्भ युनिट (FRU) कडे संदर्भित (refer) केले जाईल.

- तीन महिने दररोज IFA गोळ्यांचे सेवन केल्यानंतर, हिमोग्लोबिनची पुन्हा तपासणी केली जाईल. जर Hb मध्ये सुधारणा झाली पण ते सामान्य पातळीपर्यंत पोहोचले नाही, तर हा डोस आणखी तीन महिने दिला जाईल.

- जर ती महिला गर्भधारणेचे नियोजन करत असेल, तर ॲनिमिया बरा झाला आहे याची खात्री केली जाईल. गर्भधारणेपूर्वीच्या काळात IFA पूरक आहार थांबवून फॉलिक ॲसिड पूरक आहार (दररोज ५ मिग्रॅ) सुरू करण्याचा आणि गर्भातील 'न्यूरल ट्यूब डिफेक्ट्स' (मज्जासंस्थेचे दोष) कमी करण्यासाठी गर्भधारणेच्या तीन महिन्यांपर्यंत ते सुरू ठेवण्याचा सल्ला ANM द्वारे तिला दिला जाईल.

- तसेच, २०-४९ वयोगटातील WRA (जे गरोदर नाहीत किंवा स्तनपान करत नाहीत) यांना NDD (राष्ट्रीय जंतमुक्ती दिवस) दरम्यान वर्षातून दोनदा जंतनाशक औषध (अल्बेंडाझोल ४०० मिग्रॅ गोळी) दिले जाईल.

५.६ <u>गर्भवती आणि स्तनदा माता</u> :-

- हिमोग्लोबिनच्या (Hb) पातळीनुसार प्रतिबंधात्मक (prophylaxis) किंवा उपचारात्मक (therapeutic) पद्धतीचा अवलंब केला जाईल.

- **<u>मध्यम (Hb ७ - ९.९ ग्रॅम/डीएल) व तीव्र ॲनिमियाचे व्यवस्थापन (Hb ५ - ६.९ ग्रॅम/डीएल)</u>:-** एफसीएम इंजेक्शनचा वापर करण्यात येईल.

- **<u>तिसऱ्या तिमाहीतील व्यवस्थापन</u> :-** ३६ आठवड्यांच्या गर्भवती महिलांमध्ये तीव्र ॲनिमिया (Hb < ७ ग्रॅम/डीएल) असल्यास, प्रसूतीचे परिणाम सुधारण्यासाठी **पॅक्ड सेल / होल ब्लड ट्रान्सफ्यूजनद्वारे** उपचार करण्यात येईल.

- **<u>प्रतिबंधात्मक डोस (Prophylactic Dose)</u>**:- गर्भवती महिलेला ANM द्वारे VHNSD/UHNSD आणि PMSMA सत्रांमध्ये दरमहा ३० IFA लाल गोळ्या किंवा MMS गोळ्यांचा प्रतिबंधात्मक डोस दिला जाईल. तिने गर्भधारणेच्या पहिल्या तिमाहीनंतर १८० दिवसांपर्यंत, जेवणानंतर एक तासाने दररोज एक गोळी घ्यावी.

- **<u>उपचारात्मक डोस (Therapeutic Dose)</u>**:- मध्यम (Hb ७ - ९.९ ग्रॅम/डीएल) व तीव्र ॲनिमिया (Hb ५ - ६.९ ग्रॅम/डीएल) असलेल्या गरोदर व स्तनदा मातांना एफसीएम इंजेक्शन द्वारे उपचार दिले जातील. ज्या गर्भवती महिलांच्या रक्तातील हिमोग्लोबिनची पातळी १०.९ ग्रॅम/डेसिलिटरपेक्षा कमी आहे, त्यांच्यासाठी नियमावलीनुसार (protocol) उपचारात्मक पद्धत राबवली जाईल आणि सौम्य रक्तक्षय असलेल्या गरोदर व स्तनदा मातांना ANM द्वारे VHNSD/UHNSD किंवा PMSMA सत्रात ६० IFA लाल गोळ्या दिल्या जातील. त्यांनी जेवणानंतर एक तासाने दररोज दोन गोळ्या घ्याव्यात. ANM द्वारे MCP कार्ड भरले जाईल; यामध्ये ॲनिमियाचे (रक्तक्षय) निदान झालेले कारण आणि औषध सेवनासाठीची उपचार/प्रतिबंधात्मक पद्धत यांचा समावेश असेल. सौम्य रक्तक्षयाच्या गरोदर महिलांची १ महिन्याने हिमोग्लोबिन तपासणी करण्यात यावी. जर हिमोग्लोबिन च्या पातळीत सुधारणा झाली तर आणखी १ महिना ६० IFA लाल गोळ्या दिल्या जातील. जर दोन महिन्याच्या नंतर हिमोग्लोबिन च्या पातळीत सुधारणा झाली नाही तर गरोदर मातेला संदर्भित करण्यात यावे.

- **<u>जंतनाशक उपचार (Deworming)</u>**:- गर्भवती महिलेला VHNSD/UHNSD/PMSMA सत्रादरम्यान ४०० मिग्रॅ अल्बेन्डाझोलचा (Albendazole) एक डोस (१ गोळी) दिला जाईल; हा डोस गर्भधारणेच्या पहिल्या तिमाहीनंतर, शक्यतो दुसऱ्या तिमाहीत दिला जावा.

- **<u>"ट्रिपल" "ए" (ANM/ASHA/AWW)</u>:**-गावातील सर्व गर्भवती महिलांची यादी (line list) अद्ययावत ठेवतील. त्या 'फ्लिप बुक'चा वापर करून गर्भवती महिलांचे समुपदेशन करतील; यामध्ये ॲनिमियाची कारणे व परिणाम, IFA पूरक आहाराची गरज, स्थानिक पातळीवर उपलब्ध असलेले लोहयुक्त अन्न, लोहाच्या शोषणास मदत करणारे व अडथळा आणणारे घटक, तसेच ॲनिमियाची पोषण-व्यतिरिक्त कारणे आणि त्यांचे व्यवस्थापन यांबाबत माहिती

दिली जाईल. गावपातळीवरील आरोग्य कर्मचाऱ्यांद्वारे (समुदाय आरोग्य अधिकारी आणि आरोग्य सेविका) उपचारांचे पालन तपासण्यासाठी दरमहा १ गृहभेट देण्यात येईल. आशाद्वारे प्रत्येक १५ दिवसाला गृहभेट दिली जाईल.

- **कौटुंबिक नोंदी:-** गावपातळीवरील आरोग्य कर्मचाऱ्यांद्वारे समुदाय स्तरावर, हिमोग्लोबिनच्या नियमित नोंदी ठेवण्यासाठी, प्रत्येक कुटुंबाकरिता एक **कौटुंबिक आरोग्य कार्ड तयार करून** दर सहा महिन्यांनी हे कार्ड अद्ययावत करणे आवश्यक राहील.

६. **निदानाविषयी पायाभूत सुविधा आणि रक्त क्षयाची पोषणेतर कारणे:-**

- **डिजिटल उपकरणाद्वारे प्राधान्याने तपासणी:-** रक्तक्षयाच्या निदानासाठी Invasive Digital Hemoglobinometer चा प्राधान्याने करण्यात येईल. राष्ट्रीय बाल स्वास्थ्य कार्यक्रमांतील फिरती पथके, आरोग्य सेविका, ग्राम आरोग्य स्वच्छता पोषण सत्र, आरोग्य संस्था पातळीवर Invasive Digital Hemoglobinometer उपकरणांनी पूर्णपणे सुसज्ज असणे आवश्यक राहील. या Invasive Digital Hemoglobinometer च्या वापराचे प्रशिक्षण आणि नियतकालिक कॅलिब्रेशन करण्याकरिता निश्चित उपाययोजना करण्यात याव्यात.

- **रक्तक्षयाच्या संशयित रुग्णांचा शोध घेण्यासाठी तपासणी सूची :-** गाव पातळीवरील आरोग्य कर्मचाऱ्यांनी व शाळांमधील शिक्षकांनी **"लक्षणे विचारा आणि चिन्हे शोधा" या तपासणी सूचीचा** वापर करून रक्त क्षयाच्या संशयित रुग्णांचा शोध घ्यावा.

- **निदान आणि प्रयोग शाळा तपासण्या:-** रक्तक्षयाच्या विविध कारणांचे निदान करण्यासाठी विशेष प्रयोग शाळा चाचण्या ज्यामध्ये Complete blood count, थॅलेसेमिया स्क्रीनिंग, इलेक्ट्रोफोरेसिस आणि रक्त गोठण्याबाबतची तपासणी (Coagulation Profile) यांसारख्या चाचण्यांचा समावेश करण्यात येईल.

- **हिमोग्लोबिनोपॅथी तपासणी:-**

    - ***थॅलेसेमिया व सिकल सेल* रक्तक्षयाच्या *तपासणीसाठी* :-** HPLC, NESTROFT या तपासण्या तसेच केंद्र शासनाद्वारे प्रमाणित rapid kits चा वापर करण्यात येईल.

    - आदिवासी भागांतील जोखमीच्या जोडप्यांना विवाहपूर्व समुपदेशन केले जाईल.

    - संपूर्ण आदिवासी भागातील रुग्ण आणि वाहकांचे निदान करण्यासाठी लोकसंख्येची तपासणी प्रामुख्याने करण्यात येईल.

- **<u>इतर पोषणेतर आजार</u>:-**

    - ***<u>फ्लोरोसिस</u>:*** - जिल्हा-विशिष्ट जल सुरक्षा उपाय, सामाजिक आणि वर्तणूक बदल संवाद (SBCC), आणि फ्लोरोसिस प्रतिबंध व नियंत्रणासाठी राष्ट्रीय कार्यक्रम (NPPCF) यांच्या मार्गदर्शक तत्त्वांनुसार अंमलबाजवणी करण्यात येईल.

    - ***<u>मलेरिया</u>:-*** VHNSD/T४ शिबिरांदरम्यान मलेरिया तपासणी आयोजित करणे, त्याचबरोबर घरातील कीटकनाशक फवारणी (IRS) करणे आणि दीर्घकाळ टिकणाऱ्या कीटकनाशक-प्रक्रिया केलेल्या मच्छरदाण्यांचा प्रचार करणे.

    - **<u>अधिक प्रमाणातील मासिक पाळीचा रक्तस्राव (Heavy Menstrual Bleeding)</u>** : - किशोरवयीन मुली तसेच प्रजननक्षम वयोगटातील महिलांमध्ये अशा समस्येची तपासणी, निदान व आवश्यक उपचार करण्यात येईल.

७. <u>T-४ Camps (Test Treat Talk Track) (चाचणी-उपचार-चर्चा-पाठपुरावा) शिबीरे</u>:-

- दर तिमाहीमध्ये T४ (Test-Treat-Talk- Track) शिबिरांचे आयोजन करण्यात यावे.
- ही शिबिरे पोषण पंधरवाडा, पावसाळापूर्व कालावधी, पोषण माह आणि राष्ट्रीय नवजात सप्ताह या कालावधीत आयोजित करण्यात यावीत.
- शिबिरांमध्ये: हिमोग्लोबिन तपासणी, तात्काळ IFA वितरण, आहारविषयक समुपदेशन, उपचार व पाठपुरावा यांचा समावेश करण्यात यावा.
- या शिबिरां बाबत जन मानसात माहीत देण्यात यावी
- शाळांमध्ये रक्तक्षय प्रतिबंधाबाबत जनजागृती कार्यक्रम राबविण्यात यावेत.
- **शिबीराचे घटक:-** प्रत्येक T४ शिबिरामध्ये Hb चाचणी, निकालांवर आधारित तात्काळ उपचार आणि आहारविषयक समुपदेशन करणे आवश्यक आहे.
- **T४ शिबिरे वेळापत्रक**:- राज्यभरात आरोग्य संस्थास्तरावर T४ शिबिरे आयोजित करण्यासाठी महिन्यातील एक विशेष दिवस निश्चित करण्यात यावा. ही त्रैमासिक शिबिरे HWC/PHC/RH/SDH/DH/WH आणि सामुदायिक स्थळांवर घेतली जावीत. ही शिबिरे घेतांना खालील प्रमुख आरोग्य कार्यक्रमांशी सुसंगत असली पाहिजेत:-

१. *पोषण पंधरवाडा* (मार्चमध्ये)

२. *मान्सूनपूर्व कालावधी* (जूनमध्ये)

३. *पोषण महिना / स्तनपान सप्ताह* (ऑगस्ट-सप्टेंबरमध्ये)

४. *राष्ट्रीय नवजात शिशु सप्ताह* (नोव्हेंबरमध्ये)

८. तीव्र व मध्यम रक्त क्षय पाठपुरावा आणि सुधारणा न झाल्यास इतर कारणांची तपासणी:-

गंभीर व मध्यम रक्तक्षय असलेल्या प्रत्येक रुग्णाचे दरमहा हिमोग्लोबिन (Hb%) तपासणीद्वारे पाठपुरावा करण्यात येईल. उपचारानंतर हिमोग्लोबिनमध्ये अपेक्षित सुधारणा होत नसल्यास किंवा सुधारणा अत्यल्प असल्यास, संबंधित रुग्णाची पुनर्तपासणी करून रक्ताल्पतेची इतर संभाव्य कारणे शोधण्यात येतील. आवश्यकतेनुसार रुग्णास बालरोगतज्ज्ञ, वैद्यकीय तज्ज्ञ(Physician), स्त्री-रोगतज्ज्ञ अथवा इतर संबंधित तज्ज्ञांकडे संदर्भित करण्यात येईल.

रक्तक्षय इतर कारणांचे निदान करण्यासाठी खालील तपासण्या करण्यात येतील. तसेच, जीवनसत्त्व बी-कॉम्प्लेक्स व इतर सूक्ष्मपोषक घटकांच्या कमतरतेमुळेही रक्तक्षय होऊ शकते, याचा विचार करून आवश्यकतेनुसार बी-कॉम्प्लेक्स अथवा मल्टिव्हिटॅमिन औषधोपचार देण्यात येतील.

अ.क्र.	तपासणी (Investigations)	रक्तक्षय संभाव्य इतर निदाने (Differential Diagnoses of Anaemia)
१	संपूर्ण रक्तक्षय (CBC) व RBC Indices (MCV, MCH, MCHC, RDW)	आयर्न डेफिशियन्सी ॲनिमिया, मेगालोब्लास्टिक ॲनिमिया, थॅलेसेमिया, दीर्घकालीन आजारांमुळे होणारी रक्ताल्पता
२	पेरिफेरल स्मिअर तपासणी	मायक्रोसाइटिक/मॅक्रोसाइटिक ॲनिमिया, हेमोलिटिक ॲनिमिया, ल्युकेमिया
३	सीरम फेरिटीन	आयर्न डेफिशियन्सी ॲनिमिया
४	सीरम आयर्न, TIBC व Transferrin Saturation	आयर्न डेफिशियन्सी व क्रॉनिक डिसीज ॲनिमिया यातील फरक
५	व्हिटॅमिन B१२ व फॉलिक ॲसिड पातळी	मेगालोब्लास्टिक ॲनिमिया
६	रेटिक्युलोसाइट काउंट	हेमोलिटिक ॲनिमिया, बोन मॅरो प्रतिसादाचे मूल्यांकन
७	ESR / CRP	दीर्घकालीन दाहजन्य किंवा संसर्गजन्य आजार
८	लिव्हर फंक्शन टेस्ट (LFT)	यकृत विकारांमुळे होणारी रक्ताल्पता
९	किडनी फंक्शन टेस्ट (RFT/KFT) व Serum Creatinine	क्रॉनिक किडनी डिसीज (CKD) संबंधित रक्ताल्पता

१०	थायरॉईड फंक्शन टेस्ट (TSH)	हायपोथायरॉईडीझम संबंधित रक्ताल्पता
११	स्टूल तपासणी (Occult Blood, Ova/Cyst)	हुकवर्म संसर्ग, जठरांत्रमार्गातील रक्तस्राव
१२	युरीन रूटीन तपासणी	मूत्रपिंडाचे आजार, हिमॅच्युरिया
१३	Hb Electrophoresis / HPLC	थॅलेसेमिया, सिकल सेल डिसीज, हिमोग्लोबिनोपॅथी
१४	LDH, Bilirubin, Direct Coombs Test	हेमोलिटिक ॲनिमिया
१५	Bone Marrow Examination (गरजेनुसार)	अप्लास्टिक ॲनिमिया, मायलोडिस्प्लास्टिक सिंड्रोम, ल्युकेमिया
१६	ANA, Autoimmune Profile (गरजेनुसार)	ऑटोइम्यून विकारांशी संबंधित रक्ताल्पता
१७	HIV, HBsAg, HCV तपासणी (जोखीम असल्यास)	दीर्घकालीन संसर्गजन्य कारणे
१८	USG Abdomen / Pelvis (गरजेनुसार)	प्लीहा वाढ, स्त्रीरोगविषयक कारणे, अंतर्गत रक्तस्राव
१९	स्त्रीरोग तपासणी व Pelvic Evaluation	अतिमासिक पाळी (Menorrhagia), फायब्रॉईड, स्त्रीरोगविषयक रक्तस्राव
२०	पोषण मूल्यांकन (Nutritional Assessment)	कुपोषण, सूक्ष्मपोषक घटकांची कमतरता

रक्तक्षय संभाव्य इतर निदाने (Differential Diagnoses of Anaemia)

- आयर्न डेफिशियन्सी ॲनिमिया
- फॉलिक ॲसिड व व्हिटॅमिन B१२ कमतरता
- क्रॉनिक किडनी डिसीज संबंधित रक्ताल्पता
- दीर्घकालीन दाहजन्य/संसर्गजन्य आजारांमुळे होणारी रक्ताल्पता
- थॅलेसेमिया व इतर हिमोग्लोबिनोपॅथी
- सिकल सेल डिसीज
- हेमोलिटिक ॲनिमिया
- अप्लास्टिक ॲनिमिया
- बोन मॅरो विकार व रक्ताचा कर्करोग

- हायपोथायरॉईडीझम
- जठरांत्रमार्गातील किंवा स्त्रीरोगविषयक दीर्घकालीन रक्तस्राव
- परजीवी संसर्ग (विशेषतः हुकवर्म)
- कुपोषण व बहुविध सूक्ष्मपोषक घटकांची कमतरता

उपचारादरम्यान सर्व रुग्णांना आवश्यकतेनुसार आयर्न, फॉलिक ॲसिड, जीवनसत्त्व B१२, बीकॉम्प्लेक्स व मल्टिव्हिटॅमिन पूरक आहार/औषधे देण्यात येतील तसेच आहार सल्ला, कृमिनाशन आणि मूळ कारणांवर उपचार यावर भर देण्यात येईल.

९. <u>वर्तणूकीतील बदल घडवण्याकरिता माहिती, शिक्षण आणि संप्रेषण (आयईसी)</u>:-

९.१ <u>चार मुख्य लक्ष्यित वर्तने</u> :- सर्व माध्यमे आणि क्षेत्रीय TV वाहिन्यांवर सामाजिक आणि वर्तन बदल संवाद (SBCC) बाबत चार महत्त्वपूर्ण वर्तनांना लक्ष्य केंद्रित करण्यात यावे.

१. आयर्न फॉलिक ॲसिड गोळ्याचे सेवन आणि जंतनाशक (अल्बेंडाझोल) गोळ्याचे सेवन बाबत संपूर्ण आणि सतत पालन.
२. शिशु आणि लहान मुलांच्या योग्य आहार पद्धती (IYCF), ज्यामध्ये ६ महिने आणि त्याहून अधिक वयाच्या मुलांसाठी पुरेसे, वयानुसार योग्य पूरक आहार सुरू करण्यावर विशेष भर दिला जातो.
३. आहार विविधता, अन्नाचे प्रमाण/वारंवारता वाढवणे यांसारख्या माध्यमांतून लोहयुक्त, प्रथिनेयुक्त आणि व्हिटॅमिन सीयुक्त पदार्थांच्या दैनंदिन सेवनात लक्षणीय वाढ करणे
४. नाळ उशिरा कापण्याच्या (किमान ३ मिनिटे किंवा नाळेचे स्पंदन थांबेपर्यंत) पद्धतीचा अवलंब करणे, आणि त्यानंतर जन्मानंतर १ तासाच्या आत केवळ स्तनपान सुरू करणे.

९.२ <u>IEC ची मुख्य उद्दिष्टे</u>:-

IEC करीत तयार करण्यात येणारे सर्व कम्युनिकेशन डिझाइन खालील उद्दिष्टांशी सुसंगत असणे आवश्यक राहील.

१. ॲनिमियाची गुंतागुंतीची कारणे, शारीरिक लक्षणे आणि दीर्घकालीन सामाजिक-आर्थिक परिणाम यांबद्दल समाजातील मूलभूत जागरूकता वाढवणे.
२. ॲनिमियाचे लवकर निदान आणि त्वरित व्यवस्थापन करण्यासाठी, व्यक्ती आणि कुटुंबांना स्वेच्छेने नियमित निदान तपासणी करून घेण्यास प्रोत्साहित करणे .

३. लोह, व्हिटॅमिन सी आणि आवश्यक सूक्ष्म पोषक तत्वांनी समृद्ध असा संतुलित दैनंदिन आहार तसेच निरोगी जीवनशैली अवलंबण्यासाठी नागरिकांना प्रोत्साहित करणे.

१०. <u>आंतर-विभागीय समन्वय आणि आढावा या करिता ॲनिमिया मुक्त महाराष्ट्र- राज्य कृती दल" (State Task Force) गठित करणे</u>:-

महाराष्ट्र राज्य ॲनिमिया मुक्त करण्याकरिता ॲनिमियांच्या कारणांचा सखोल अभ्यास, कार्यक्रमातील त्रूटी ओळखणे, कार्यक्रमाची व्याप्ती वाढवण्यासाठी तात्काळ धोरणात्मक कृती ठरविणे आणि स्थानिक पातळीवरील अंमल बजावणीवर काटेकोरपणे देखरेख ठेवणे तसेच इतर विभागाशी योग्य समन्वय ठेवणे या उद्देशाने **"ॲनिमिया मुक्त महाराष्ट्र- राज्य कृती दल" (State Task Force) खालील प्रमाणे** गठीत करण्यात येत आहे.

अ.क्र.	पदनाम	सदस्यत्वाचा प्रकार
१	अपर मुख्य सचिव/प्रधान सचिव/ सार्वजनिक आरोग्य विभाग,मंत्रालय, मुंबई.	**अध्यक्ष**
२	अपर मुख्य सचिव/प्रधान सचिव/सचिव, नगर विकास विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
३	अपर मुख्य सचिव/प्रधान सचिव/सचिव, ग्रामीण विकास विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
४	अपर मुख्य सचिव/प्रधान सचिव/सचिव, शालेय शिक्षण विकास विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
५	अपर मुख्य सचिव/प्रधान सचिव/सचिव, महिला व बाल विकास विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
७	अपर मुख्य सचिव/प्रधान सचिव/सचिव, पाणी पुरवठा व स्वच्छता विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
८	अपर मुख्य सचिव/प्रधान सचिव/सचिव, वैद्यकीय शिक्षण व औषधी द्रव्ये विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
९	अपर मुख्य सचिव/प्रधान सचिव/सचिव, आदिवासी विकास विभाग,मंत्रालय, मुंबई किंवा त्यांचे प्रतिनिधी.	सदस्य
१०	आयुक्त, आरोग्य सेवा तथा अभियान संचालक, राष्ट्रीय आरोग्य अभियान, महाराष्ट्र राज्य, मुंबई.	सदस्य
११	आयुक्त, शहरी आरोग्य सेवा तथा अभियान संचालक, राष्ट्रीय नागरी आरोग्य अभियान महाराष्ट्र राज्य, मुंबई.	सदस्य
१२	आयुक्त, वैद्यकीय शिक्षण व संशोधन, वैद्यकीय शिक्षण व संशोधन आयुक्तालय,	सदस्य

	मुंबई.	
१३	महासंचालक, माहिती व जनसंपर्क संचालनालय, मुंबई.	सदस्य
१४	संचालक-१, आरोग्य सेवा, आरोग्य सेवा आयुक्तालय, मुंबई.	सदस्य
१५	संचालक-२, आरोग्य सेवा, आरोग्य सेवा आयुक्तालय, पुणे.	सदस्य
१६	बालरोग विभाग प्रमुख, एम्स, नागपूर	सदस्य
१७	अध्यक्ष , एफओजीएसआय, एनएनएफ, आय.ए.पी. व आय. एम. ए., महाराष्ट्र राज्य.	सदस्य
१८	जागतिक आरोग्य संघटना, युनिसेफ, जपाईगो, व पाथ यांचे प्रतिनिधी.	सदस्य
१९	अतिरिक्त संचालक, आरोग्य सेवा, राज्य कुटुंब कल्याण कार्यालय, पुणे.	**सदस्य सचिव**

<u>राज्य कृती दलाची अनिवार्य कार्ये</u>:-

- ॲनिमिया कमी करण्यासाठी राज्यव्यापी उपाययोजनांची रणनीती आखणे, समन्वय साधणे आणि मूल्यमापन करणे यासाठी सातत्यपूर्ण तांत्रिक साहाय्य प्रदान करणे, तसेच नवीन किंवा सुधारित तांत्रिक मार्गदर्शक तत्त्वे, एसओपी (SOPs) आणि आयईसी (IEC) साहित्याची अधिकृतपणे शिफारस करणे.

- रक्त क्षय प्रतिबंध आणि नियंत्रणासाठी सर्वसमावेशक वार्षिक कृती आराखडा तयार करून त्याला मान्यता देणे.

- प्रत्यक्ष अंमलबजावणी मधील उणीवा व मर्यादा ओळखणे आणि कार्यक्रमाची व्याप्ती वाढवण्यासाठी स्थानिक पातळीवर सुधारणात्मक उपाय योजना करणे.

- राज्य कृती दलाची बैठक किमान ६ महिन्यातून एकदा घेण्यात यावी.

११. <u>प्रमुख निर्देशांक</u> :-

ॲनेमिया मुक्त महाराष्ट्र कार्यक्रमावर देखरेख ठेवणे आणि त्याच्या यशाचे मूल्यांकन करणे आणि कामगिरीचा आढावा घेण्यासाठी खालील निर्देशांकांचा वापर करण्यात यावा.

अ. क्र	**निर्देशांक**
१	६ ते ५९ महिने वयोगटातील बालकांपैकी लोह आणि फॉलिक ऍसिड (IFA) सिरपचे एका महिन्यात किमान ८ डोज (१ मिली) दिलेल्या बालकांची टक्के वारी
२	WIFS ज्युनियर अंतर्गत वय ५-९ वर्षे वयोगटातील एका महिन्यात किमान ४ लोह आणि फॉलिक ऍसिड (IFA) गोळ्या दिलेल्या बालकांची टक्के वारी (शाळेतील आणि शाळेबाह्यएकत्र करून).
३	WIFS अंतर्गत १०-१९ वयोगटातील एका महिन्यात किमान ४ लोह आणि फॉलिक ऍसिड (IFA)

	गोळ्या दिलेल्या किशोरवयीन यांची टक्केवारी (शाळेतील आणि शाळाबाह्य एकत्र करून).
४	६ -१९ वर्षे वयोगटातील शासकीय / अनुदानित शाळेतील एकूण विद्यार्थ्यांपैकी RBSK MHT/ANM/CHO यांनी रक्तक्षयाची तपासणी केलेल्या विद्यार्थ्यांची टक्केवारी
५	पात्र प्रसूतीपूर्व महिलांपैकी तीव्र व मध्यम रक्त क्षय असलेल्या महिलांची टक्केवारी.
६	प्रसूतीपूर्व महिलांपैकी तीव्र व मध्यम रक्त क्षय असलेल्या महिलांची पूर्ण उपचार केलेल्या महिलांची टक्केवारी.
७	प्रसूतीपूर्व महिलांपैकी तीव्र व मध्यम रक्त क्षय असलेल्या महिलांची सुधारणा झाल्याची टक्केवारी
८	पात्र गर्भवती महिलांपैकी १८० आयएफए गोळ्यांचा किमान कोर्स यशस्वीरित्या मिळाला त्यांची टक्केवारी.
९	एकूण स्तनदा मातांपैकी १८० आयएफए गोळ्यांचा संपूर्ण कोर्स यशस्वीरित्या मिळाला त्यांची टक्केवारी.
१०	एकूण गरोदर मातांपैकी Sickle Cell / Thalassemia करिता तपासणी केलेल्या मातांची टक्केवारी
११	एकूण गरोदर मातांपैकी तीव्र रक्तक्षयचे निदान झालेल्या मातांची टक्केवारी
१२	तीव्र रक्तक्षयचे निदान झालेल्या गरोदर मातांपैकी पूर्ण उपचार मिळून प्रसूतीच्या पूर्वी Hb चे प्रमाण ११ पेक्षा जास्त झालेल्या गरोदर मातांची टक्केवारी
१३	एकूण स्तनदा मातांपैकी तीव्र रक्तक्षयाचे निदान झालेल्या स्तनदा मातांची टक्केवारी
१४	तीव्र रक्तक्षयाचे निदान झालेल्या स्तनदा मातांपैकी पूर्ण उपचार मिळून Hb चे प्रमाण ११ पेक्षा जास्त झालेल्या स्तनदा मातांची टक्केवारी

१२. अधीक मार्गदर्शन, विविध विवरणपत्राचे नमूने, जनजागृतीबाबतचे साहित्य इ. करिता या शासन निर्णयासोबत उक्त वाचा क्र. १ व ३ येथील केंद्र शासन व महाराष्ट्र शासनामार्फत तयार करण्यात आलेल्या जानेवारी, २०२६ मधील मार्गदर्शक सुचना सोबत जोडण्यात येत आहेत.

१३. रक्तक्षय ग्रस्त रुग्णांना आहार विषयक सल्ला देताना वैद्यकीय अधिकाऱ्यांनी राज्याच्या भौगोलिक परिस्थितीनुसार स्थानिक स्तरावर उपलब्ध होणारा आणि वैविध्यपूर्ण आहाराबाबत केंद्र शासनाच्या मार्गदर्शक सुचनेतील प्रकरण ७ **"Eating Right and Diverse to Prevent Anemia**" मध्ये दिलेल्या सुचनानुसार सल्ला व समुपदेशन करावे.

१४. ॲनिमिया मुक्त भारत अभियान कार्यक्रमाच्या बळकटीकरणाकरीता **"ॲनिमिया मुक्त महाराष्ट्र"** या अभियानांतर्गत रक्त स्वास्थ संवर्धन या कार्यक्रमाकरिता येणारा खर्च हा NHM-PIP मधून त्या-त्या वर्षीच्या मंजूर अनुदानातून भागविण्यात यावा. तसेच आवश्यकतेनुसार औषध खरेदी लेखाशिर्ष क्रमांक २२१० के ०७९ (३१-सहायक अनुदाने(वेतनेतर)) (अनिवार्य) मधून त्या-त्या वर्षीच्या मंजूर अनुदानातून भागविण्यात यावा. त्याचप्रमाणे जनजागृती, जाहिरात व प्रसिध्दीबाबतचा खर्च आरोग्य विषयक प्रसिध्दी (कार्यक्रम) लेखाशिर्ष २२१०१०४४ (२६-जाहिराती व प्रसिध्दी) मधून त्या-त्या वर्षीच्या मंजूर अनुदानातून भागविण्यात यावा.

१५. ॲनिमिया मुक्त भारत अभियानासंदर्भात केंद्र शासनाच्या मार्गदर्शक सूचना, २०२६ शासन निर्णयासोबत **परिशिष्ट "अ"** राज्य समितीने तयार केलेला अभ्यास अहवाल, २०२६ **परिशिष्ट "ब"** येथे जोडण्यात आलेले आहे. तसेच उपचार कार्यपध्दती दर्शविणारे प्रपत्र १ ते ६ **परिशिष्ट "क"** येथे जोडण्यात आलेली आहे.

१६. सदर शासन निर्णय महाराष्ट्र शासनाच्या www.maharashtra.gov.in या संकेतस्थळावर उपलब्ध करण्यात आला असून त्याचा सांकेताक क्रमांक २०२६११०२१५३०२९१९१७ असा आहे. हा आदेश डिजीटल स्वाक्षरीने साक्षांकित करुन काढण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नांवाने,

URMILA VAIBHAV JOSHI

Digitally signed by URMILA VAIBHAV JOSHI
DN: c=IN, o=GOVERNMENT OF MAHARASHTRA, ou=RURAL DEVELOPMENT DEPARTMENT, 2.5.4.20=0A6CE46AEDB9ACEA34C72711D852D8E2E71E76603F9082EA9709649C6F45DC30, postalCode=400032, st=Maharashtra, serialNumber=713D6BDDB988B05B1CC072EBFD3A58E7E640EA20499573AAE08DC106AC632ADD, cn=URMILA VAIBHAV JOSHI
Date: 2026.11.02 16:55:55 +05'30'

(डॉ. उर्मिला जोशी)
उप सचिव, महाराष्ट्र शासन

प्रत,

१. मा. मुख्यमंत्री, महाराष्ट्र राज्य यांचे प्रधान सचिव, मंत्रालय, मुंबई.
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४. मा. विरोधी पक्ष नेता, विधानमंडळ सचिवालय, मुंबई
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११. आयुक्त, आरोग्य सेवा तथा अभियान संचालक, राष्ट्रीय आरोग्य अभियान, महाराष्ट्र राज्य, मुंबई.
१२. आयुक्त, शहरी आरोग्य सेवा तथा अभियान संचालक, राष्ट्रीय नागरी आरोग्य अभियान महाराष्ट्र राज्य, मुंबई.
१३. आयुक्त, एकात्मिक बाल विकास परियोजना, नवी मुंबई.
१४. आयुक्त, महिला व बाल विकास विभाग, महिला व बाल विकास आयुक्तालय, पुणे.
१५. आयुक्त, वैद्यकीय शिक्षण व संशोधन, वैद्यकीय शिक्षण व संशोधन आयुक्तालय, मुंबई.
१६. सर्व मुख्य कार्यकारी अधिकारी, जिल्हा परिषद.
१७. संचालक, आरोग्य सेवा, महाराष्ट्र राज्य, आरोग्य सेवा आयुक्तालय, मुंबई/पुणे.
१८. संचालक, शिक्षण विभाग (प्राथमिक व माध्यमिक), शिक्षण आयुक्तालय, पुणे.
१९. संचालक, राष्ट्रीय शहरी आरोग्य अभियान, आरोग्य सेवा आयुक्तालय, मुंबई.

२०. संचालक, वित्त व लेखा, राष्ट्रीय आरोग्य अभियान, आरोग्य सेवा आयुक्तालय, मुंबई.
२१. अतिरिक्त संचालक, आरोग्य सेवा, कुटुंब कल्याण, माता-बाल संगोपन व शालेय आरोग्य, पुणे.
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२३. उपसंचालक, आरोग्य सेवा, माहिती व जनसंपर्क कार्यालय, पुणे.
२४. सर्व जिल्हा शल्य चिकित्सक, जिल्हा रुग्णालय/सामान्य रुग्णालय/स्त्री रुग्णालय/संदर्भ रुग्णालय.
२५. सर्व जिल्हा आरोग्य अधिकारी, जिल्हा परिषद.
२६. सर्व वैद्यकीय अधिक्षक, शासकीय महाविद्यालय व रुग्णालये.
२७. राज्य कार्यक्रम व्यवस्थापक, राष्ट्रीय आरोग्य अभियान, आरोग्य सेवा आयुक्तालय, मुंबई.
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२९. विभाग प्रमुख, एम्स, नागपूर*
३०. धार्मिक व सामाजिक संघटनांचे प्रतिनिधी (NGO).*
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३२. अध्यक्ष , एफओजीएसआय, एनएनएफ, आय.ए.पी. व आय. एम. ए., महाराष्ट्र राज्य*.
३३. सर्व कार्यासन अधिकारी, सार्वजनिक आरोग्य विभाग, मंत्रालय, मुंबई.
३४. निवड नस्ती.

(*अतिरिक्त संचालक, आरोग्य सेवा, कुटुंब कल्याण, माता-बाल संगोपन व शालेय आरोग्य, पुणे यांचे मार्फत)

केंद्र शासनाच्या मार्गदर्शक सुचना

परिशिष्ट “अ”

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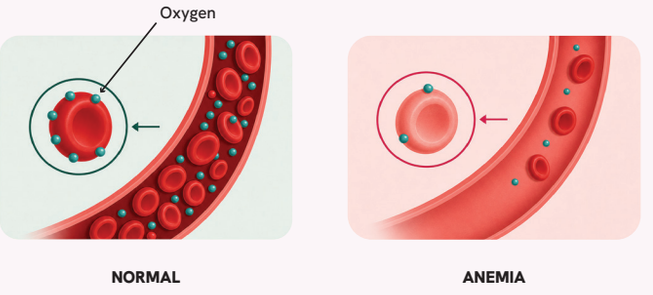
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1.1 Background

Anemia is a condition in which the number and size of red blood cells, or the hemoglobin (Hb) concentration falls below an established cut-off value, consequently impairing the capacity of the blood to transport oxygen around the body. It is categorized as mild, moderate and severe anemia based on the hemoglobin levels specified for different ages and sex. The manifestations of anemia are varied in severity, ranging from fatigue, weakness, dizziness and drowsiness to increased morbidity.



Oxygen molecules on RBC

As a global public health problem that affects all sections of society, particularly the vulnerable categories such as young children, menstruating adolescent girls and women, pregnant women and lactating mothers, it is an issue that requires due care in life. The latter two remain susceptible to the adverse outcomes of anemia while anemia among adolescent girls can fuel a vicious intergenerational cycle of poor maternal and child health. Childhood anemia contributes to poor health outcomes, suboptimal overall well-being, impaired cognitive development, and a repeated cycle of malnutrition.

Common Symptoms of Anemia



As per the WHO report on Global Prevalence of Anemia 2011, approximately 50% of the cases of anemia are considered to be due to iron deficiency, with variation among population groups and in different geographical areas, according to the local conditions. Causes of anemia also include other micronutrient deficiencies (e.g. folate, riboflavin, Vitamin A and Vitamin B12), acute and chronic infections (e.g. malaria, cancer, tuberculosis and HIV), and inherited or acquired disorders that affect hemoglobin synthesis, red blood cell production or red blood cell survival (e.g. hemoglobinopathies).

Impact of anemia across population groups:

Children
(0–5 years and School-age)



- Impairs growth and development
- Increases susceptibility to infections
- Affects overall well-being

Adolescents
(10-19 years)



- Impacts growth and development
- Affects school attendance and performance
- Increases risk of anemia during future pregnancy

Women of Reproductive Age & Lactating Mothers



- Causes fatigue and reduced work capacity
- Increases vulnerability to infections

Pregnant Women



- Increases risk of morbidity and pregnancy complications
- Associated with preterm birth and low birth weight babies
- Contributes to intergenerational malnutrition

1.2 Evolution of Anemia control programmes in India

2026
Anemia Mukt Bharat Abhiyaan

AMB Abhiyaan Launch with 7x7x7 Framework

2018
Anemia Mukt Bharat

Beneficiaries **were same**

Dosage amount decreased from 100 mg to 60mg elemental iron for adolescents, PW & LM

Tablets were colour coded and sugar coated to make them palatable

PW & LM: Prophylaxis increased from 100 days to 180 days

2013
National Iron Plus Initiative

Beneficiaries: 6–59 months children, 5–10 years, adolescents 10–19 years, PW, WRA

Dosage:

Children 6–59 months: Biweekly, 20 mg of elemental iron and 0.1 mg of folic acid

Children 5–10 years: Weekly, 45 mg of elemental iron and 0.4 mg of folic acid

Adolescent weekly blue tablet, WRA weekly. PW & LM 100 mg of elemental iron and 0.5 mg of folic acid

2012
Weekly Iron and Folic Acid Supplementation Programme

Beneficiaries: School going adolescents boys and girls 6–12th class & out of school adolescent girls

Weekly Blue tablet of 100 mg elemental iron and 0.5 mg folic acid, round the year

1991
National Nutritional Anemia Control Programme

Beneficiaries were same.

Dosage amount increased from 60 mg to 100 mg elemental iron

1970
National Nutritional Anemia Prophylaxis Programme

Beneficiaries: Children 1–5 years, PW, LM, female acceptor of terminal methods of family planning and IUDs

Daily dosage for 100 days

Adult women: 60 mg elemental iron and 0.5 mg folic acid

Children 1–5 years: 20 mg elemental iron and 0.1 mg folic acid

Anemia Mukt Bharat (2018)

Launched in 2018, Anemia Mukt Bharat is implemented to reduce prevalence of anemia in life cycle approach through the 6X6X6 strategy, as given below.

6 Beneficiaries

1. Children 6-59 months
2. Children 5-9 years
3. Adolescents 10-19 years
4. Pregnant women
5. Lactating mothers
6. Women in reproductive age (20-49 years)

6 Interventions

1. Prophylactic IFA supplementation
2. Deworming
3. Intensified year-round BCC campaign
4. Testing of anemia using point of care treatment
5. Mandatory provision of fortified food in public health programmes
6. Addressing non-nutritional causes of anemia

6 Institutional Mechanisms

1. Intra-ministerial coordination
2. National Centre of Excellence and Advanced Research on Anemia
3. Strengthening supply chain and logistics
4. National Anemia Mukt Bharat Unit
5. Convergence with other Ministries
6. Anemia Mukt Bharat dashboard

Anemia Mukt Bharat Abhiyaan (2026)

Anemia Mukt Bharat Abhiyaan will be implemented to reduce prevalence of anemia in life cycle approach through the 7X7X7 strategy, as given below.

7 Beneficiaries

1. Children 6-59 months
2. Children 5-9 years
3. Adolescents 10-19 years
4. Pregnant women
5. Lactating mothers
6. Women in reproductive age (20-49 years)

7th beneficiary:

7. **0-6 months LBW babies**

7 Interventions

1. Prophylactic IFA supplementation
2. Testing of anemia
3. Therapeutic management of anemia
4. Deworming and delayed cord clamping
5. Jan Bhagidari - communication strategy
6. Addressing non-nutritional causes of anemia

7th intervention:

7. **Eating Right – promotion of locally available iron rich food and diet diversification**

7 Institutional Mechanisms

1. Intra-ministerial coordination
2. National Centre of Excellence and Advanced Research on Anemia
3. National AMB Abhiyaan Unit
4. Strengthening supply chain and logistics
5. Convergence with other Ministries
6. Anemia Mukt Bharat Abhiyaan Portal

7th institutional mechanism:

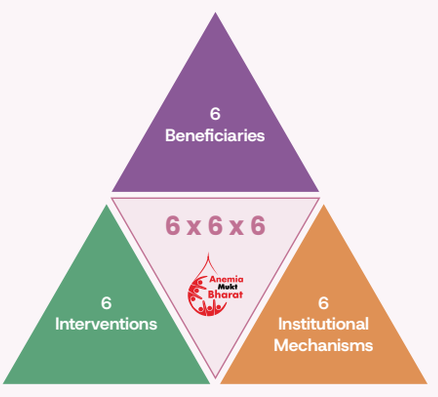
7. **Digital Framework for monitoring through T4 approach**

Over the past 50 years, the country has taken continuous progressive approaches to address the issue of high prevalence of anemia among women and children. The journey began in 1970 with the **National Nutritional Anemia Prophylaxis Programme (NNAPP),** which mainly focused on provision of iron-folic acid (IFA) tablets to pregnant and lactating mother.

In 1991, it became the **National Nutritional Anemia Control Programme (NNACP),** expanding its focus from prevention to treatment of anemia. The **Weekly Iron Folic Acid Supplementation (WIFS) programme** was launched in 2012 targeting adolescent population in schools and out of school adolescent girls. The **National Iron Plus Initiative (NIPI) was launched in 2013** as a complete lifecycle approach to tackle the burden by expanding its reach to six beneficiary groups: children (6–59 months), children (5–10 years), adolescents (10–19 years), pregnant women, lactating mothers and women of reproductive age with age-specific IFA supplementation, bi-annual deworming and standardized dosage protocols.

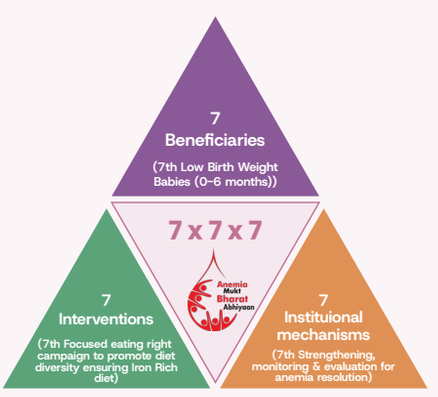
Shift from T3 (2018) to T4 (2026) framework

AMB



T3 => Test – Treat – Talk

AMB Abhiyaan



T4 => Test – Treat – Talk – Track

ANEMIA MUKT BHARAT ABHIYAAN

COMPONENTS

1. Prophylaxis to therapeutic management
2. Hb testing of target beneficiaries
3. Robust digital tracking
4. Segregate nutritional & non-nutritional anemia
5. Eating Right- Promote locally available iron rich foods
6. Whole of Government Approach
7. Jan Bhagidari for community participation

All components of AMB Abhiyaan will contribute to a sustained reduction in anemia prevalence, as well as improvements in the Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR)

Building on NIPI, **Anemia Mukt Bharat was launched in 2018** with a stronger focus on reducing anemia rates through **the 6x6x6** strategy: six target groups, six interventions (including

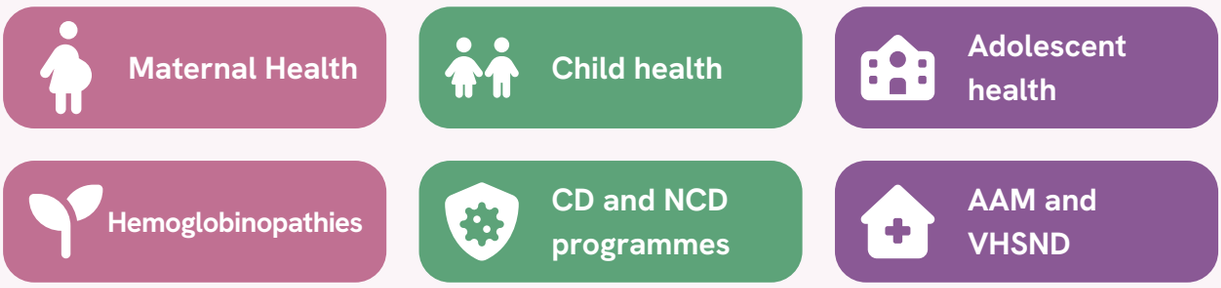
testing, treatment, behaviour change communication, and delayed cord clamping), and six institutional mechanisms. New elements such as new dosage and change in elemental iron, point-of-care hemoglobin testing, improved supply chain systems, scorecards and attention to non-nutritional anemia were added as programme components.

Based on expert consultations, learnings from programme implementation and State experiences, a revised framework of 7x7x7 has been developed as **Anemia Mukt Bharat Abhiyaan**. It moves away from the prophylactic supplementation approach to targeted therapeutic management as per category of anemia diagnosed, saturation of hemoglobin testing using DIH and emphasizing on healthy diet as a preventive measure for anemia and moving away from a supplementation-focused approach to comprehensive screening-led and a consequent outcome-focused management.

It includes in its ambit a diaspora of intervention such as integration of testing, counselling and therapeutic case-based management, dietary diversification, digitalization of data for supporting compliance till resolution and a communication strategy to counteract normalization of anemia. It reflects the organic development of India's anemia control strategies, which have been continuously influenced by extent of data, national surveys, evidence from studies and lessons learned from fieldwork, extending into a convergent approach. **Anemia Mukt Bharat Abhiyaan** has incorporated various components (existing and new) into a plenary framework for continuum of care.

1.3 Cross-Cutting Linkages with National Health Mission Programmes

Anemia is a cross-cutting public health issue that is closely linked with multiple programme components under the National Health Mission (NHM). Its causes and consequences span across the lifecycle, making anemia control an integral part of maternal, child, adolescent, nutrition, communicable disease, and primary health care programmes rather than a stand-alone intervention.



Addressing anemia remains pivotal for achieving and attaining healthy life, social and economic outcomes and has consequential positive impact on India's Sustainable Development Goal (SDG) and National Health Policy indicators.

Under RMNCAH+N, anemia prevention and management during pregnancy are embedded through Hb screening at every ANC contact points, identification of high-risk pregnancies, Iron–Folic Acid (IFA) supplementation, and treatment during antenatal and postnatal care. In child health programmes, anemia control is supported through IFA and Vitamin A supplementation, deworming, facility-based management of malnutrition and regular screening by the RBSK mobile health teams. The adolescent health platform addresses anemia through weekly IFA supplementation (WIFS), school and community outreach, deworming and nutrition counselling, helping break the intergenerational cycle of anemia.

Anemia control is also strongly linked with outcomes of Mothers Absolute Affection (MAA) Programme through components of dietary diversification and IYCF counselling.

Non-communicable and Communicable disease control programmes contribute to reduce anemia through addressing infection, worm infestation and chronic systemic diseases such as soil transmitted helminths infestation, malaria control, chronic kidney disease (CKD), diabetes, Tuberculosis, HIV, cancer etc. Under Ayushman Arogya Mandir (AAM), decentralized screening, early diagnosis, treatment, and follow-up at the primary care level helps address anemia early. Community platforms such as Village Health Sanitation and Nutrition days (VHSNDs) and frontline worker outreach strengthen last-mile delivery and adherence support.

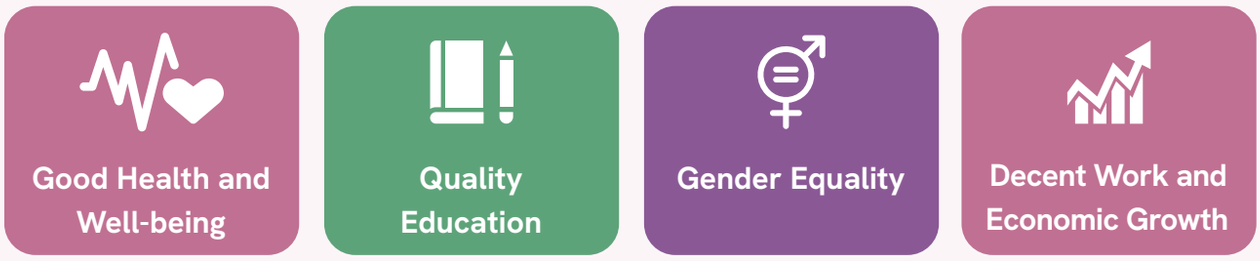
Thus, addressing anemia, a priority across NHM programmes includes focus on coordinated planning, shared delivery platforms, and integrated monitoring for effective outcomes.

1.4 Anemia Mukt Bharat Abhiyaan as a Vital Component of Sustainable Development Goals (SDGs)

Anemia control is closely aligned with the Sustainable Development Goals (SDGs) as it directly influences nutrition, health, education, gender equity and economic productivity. Reducing anemia addresses micronutrient deficiencies and improving overall nutritional status across vulnerable populations supporting SDG 3 Goal (Good Health and Well-being) by reducing maternal and child morbidity and mortality, improving pregnancy outcomes, and strengthening universal health coverage.

Anemia reduction also advances SDG 4 Goal (Quality Education), as improved iron status enhances cognitive development, school attendance and learning capacity among children and adolescents. Its focus on adolescent girls and women, supports SDG 5 Goal (Gender

Equality) by improving women's health, work capacity, and reproductive outcomes. Further, by enhancing physical productivity and reducing fatigue-related work loss, anemia control contributes to SDG 8 Goal (Decent Work and Economic Growth).



As anemia affects multiple sectors and life stages, its control serves as a high-impact, cross-sectoral strategy for accelerating progress toward SDG targets simultaneously.

1.5 Alignment with National Health Policy (NHP) 2017

Anemia Mukt Bharat Abhiyaan also furthers the goals of the National Health Policy (NHP) by strengthening preventive and promotive healthcare across the lifecycle. Effective screening, supplementation, and treatment of anemia contribute to reduction in **maternal mortality, under-five mortality, and low birth weight babies**, which are key NHP outcome targets. Addressing anemia among women, children, and adolescents improves overall nutritional status and reduces disease vulnerability.

Through delivery via primary care platforms such as AAM and community outreach, anemia interventions advance the NHP vision of **comprehensive primary health care and universal access to essential services** for anemia prevention and contributes to improving productivity and long-term health outcomes.

1.6 Rationale for Anemia Mukt Bharat Abhiyaan

The field level learning, scientific evidence and data analysis have been a continuous exercise in evaluating programme outcomes. Data from successive national surveys across age groups have shown a near plateau in anemia prevalence, underscoring the need for a critical evaluation into current implementation framework and recalibrating the extant strategies for an enhanced strategic framework.

Some of the areas which require increased focus to drive measurable reductions in anemia prevalence across all beneficiary groups are as below:

Low Birth Weight babies



Address age groups at risk of anemia such as Low Birth Weight (LBW) babies (0-6 months) for breaking the intergenerational cycle of anemia: Low birth weight babies born with low iron stores are at high risk of developing anemia within the first few months of life. To prevent the long-term burden of childhood anemia, it is essential to include LBW babies as seventh beneficiary group under AMB. **All and any anemia linked intervention for this category will be exclusively managed based on Paediatrician / specialist advice which remains essential and mandatory.**

Integrated beneficiary records



Different testing platforms across the beneficiaries: Hemoglobin (Hb) testing for pregnant women is routinely carried out during Antenatal Care (ANC) visits on VHSND, PMSMA visits and recorded in JANANI and PMSMA portal respectively giving us robust data for this group. Children upto 18 years are tested for anemia in schools and anganwadi centres by RBSK team, with screening/ testing data reported on RBSK portal. Women of Reproductive Age (WRA) and other beneficiaries are also tested for anemia during T3 anemia screening camps. Given that the use of different platforms and digital systems leads to fragmentation of data collection, maintaining integrated beneficiary-wise records is essential for accurate mapping and complete coverage.

Nutritional and Non-Nutritional anemia



Segregation of Nutritional anemia and Non-Nutritional anemia- Segregation into Nutritional and Non-nutritional anemia among non-responder cases will be undertaken at referred facilities through comprehensive root-cause analysis along with testing and assessment of underlying etiologies and linking of causative factors.

Case-based therapeutic management



Case-based Management approach with emphasis on therapeutic treatment: IFA prophylaxis with high compliance needs to be complemented with stronger emphasis on case-based therapeutic approach to treat anemia; addressing pertinent issues of non-compliance/ drop outs and therefore requires integration between testing, treatment, counselling on iron rich diet, tracking and follow up till resolution.

Priority cluster identification



Pre-requisite for Root Cause Analysis and Priority Cluster Identification: Recognizing multifactorial causes of anemia, a mechanism is required for identification of high priority clusters and deep dive into root cause analysis for anemia to enable linking with causative factors for facilitating case-based approach.

Digital tracking and alerts



Robust digital system for tracking anemia services is required with personalised alerts to beneficiaries for promoting compliance to IFA supplementation. A shift in policy from T3 (Test, Treat, Talk) approach to T4 approach (Test, Treat, Talk and Track) will be required

Targeted communication



Targeted communication strategies: This will be planned to reach all beneficiary age groups to transform mindset from passive acceptance of anemia to active ownership of managing anemia.

Whole-of-Government Approach



Convergent approach: Implementation of "Whole of Government approach" for implementation of complementary interventions with both intra-ministerial and inter-ministerial convergence at various levels of programme.

The new comprehensive framework of AMB Abhiyaan has combined both essential existing, newer targeted as well as complementary approaches for effective and sustained reduction in anemia across all beneficiary groups. This will address both nutritional and non-nutritional anemia comprehensively through case-based and gradual saturation approach.

The restructured AMB Abhiyaan consists of the following interventions:

2.1 Shift from existing 6X6X6 strategy to 7X7X7 strategy

The existing 6x6x6 strategy is expanded to a 7x7x7 framework under Anemia Mukt Bharat Abhiyaan to strengthen preventive, promotive, and outcome-oriented approaches across lifecycle for anemia reduction. The addition are the following:

7th Beneficiary Group



Inclusion of **0–6 months Low Birth Weight (LBW) babies** for timely anemia detection, risk mitigation and continuum of care from birth. Addressing anemia pre-emptively among LBW babies supports increase iron store and thereby contributes indirectly in reduction in **Infant Mortality Rate (IMR)** and improved early childhood outcomes.

7th Intervention



Introduction of the **"Eating Right" approach**, promoting conscious consumption of iron-rich and diversified diets in everyday habits to complement supplementation and enhance and sustain long-term dietary behaviour change.

7th Institutional Mechanism



Strengthened **Monitoring & Evaluation (M&E)** framework with a revised set of indicators to capture AMB Abhiyaan priorities, enabling end-to-end tracking of beneficiaries till anemia resolution and emphasizing preventive and promotive health outcomes.

This strategic shift reorients the programme from a supportive prophylactic supplementation model to a screening-led, targeted therapeutically managed, diet-integrated and digitally monitored continuum of care framework aimed at sustained anemia reduction.

2.2 Focus on Intensified Testing Coverage of Target Beneficiaries with Ease of Testing

Scaled up testing for anemia enables identification of beneficiaries as non-anemic or anemic and further classification of anemic cases into mild, moderate, or severe categories. This will be accompanied by case-based counselling and timely therapeutic management as per AMB Abhiyaan management protocols, thereby preventing complications, and improving health and quality of life.

With streamlining the access and reach for testing under Anemia Mukt Bharat Abhiyaan and digitalization of AMB services, once tested, repeated visits for anemia testing at facility or camps will be reduced, as testing records will be readily accessible on the AMB Abhiyaan portal. Such systems will help identify missed beneficiaries, reduce drop-outs, and improve continuum of care across all target beneficiary groups.



2.3 Source Correction Approach for Management of Anemia

Recognizing that anemia has far-reaching consequences across the life cycle-from infancy and adolescence to pregnancy and adulthood, it is critical to undertake a systematic root cause analysis to identify the underlying determinants in different population groups and geographies across high priority clusters. This should be followed by a structured source-correction approach under AMB Abhiyaan to address these specific causes directly, whether they relate to nutritional deficiencies, infections, dietary practices, social determinants, or compliance challenges.

The segregation of **nutritional anemia** (anemia due to deficiency of iron, folate, vitamin B12 and other micronutrient deficiencies) and **non-nutritional anemia** (anemia due to infections, genetic disorders, chronic diseases, and blood loss etc) is critical for effective management of anemia. Nutritional anemia is managed through dietary changes, counselling for consuming iron rich foods and therapeutic management of anemia, while non-nutritional anemia cases require treatment of the underlying conditions. A comprehensive strategy under Anemia Mukt Bharat Abhiyaan will combine both targeted and complementary approaches to address both nutritional causes and timely referral for non-nutritional causes.

Nutritional Anemia	Non-Nutritional Anemia
Caused due to deficiency of Iron, folate, vitamin B12 and other micronutrients.	Caused due to infections, genetic disorders, chronic diseases, and blood loss etc.
Managed through dietary changes and therapeutic management of underlying conditions.	Management of underlying conditions

2.4 Defined Strategies for Redressal/ Correction of Anemia in Vulnerable Groups

Based on the experiential learning, literature review and State initiatives, use of Inj FCM among the vulnerable groups (pregnant women, lactating mother) and improved quality IFA tablets among all 7 beneficiaries must be accompanied by measures for strengthening compliance. The provision of IFA salt and IV iron will be considered within budgetary stipulations and within the norms of Programme Implementation Plan (PIP) processes.

2.5 Implementation of Convergent Approach with other Complementary Interventions

AMB Abhiyaan advocates a 'Whole of Government Approach' for implementation of complementary interventions synergistically for resolution of anemia. This includes inter-ministerial convergence with Ministry of Women and Child Development, Ministry of Education and other line Ministries; intra-ministerial convergence within NHM programmes such as national sickle cell anemia elimination mission, Pre-pregnancy care, Maternal health,

Child health etc. The convergence will integrate efforts to reduce the Maternal Mortality Ratio and Infant Mortality Rate in a lifecycle approach. Further, inclusion of pre-pregnancy care among women of reproductive age (WRA) group under Anemia Mukt Bharat Abhiyaan framework is a critical intervention to address anemia in lifecycle approach, which indirectly addresses high burden of Infant and Maternal Mortality.

2.6 Case-based management with focus on compliance till resolution as a key intervention

Given the heterogeneous and multifactorial etiological factors for anemia in India, a standardized prophylactic IFA supplementation approach alone was insufficient to address non-nutritional cases of anemia and socio-cultural dimensions attached to it. Additionally, individual factors such as gastrointestinal side effects, palatability of IFA supplementation and perceived normalization of anemia may reduce compliance to IFA supplementation. This necessitated improved quality of oral IFA supplementation for better compliance to prophylaxis and positive outcomes of case-based management to effectively address the high burden of anemia. Moreover, in cases requiring rapid correction of anemia among severe/ moderately anemic pregnant and lactating mothers or non-compliant/non-responsive cases, intravenous iron (Iron Sucrose and Ferrous Carboxy-Maltose)[1] builds up iron stores and is found to be an effective intervention.

Integrated case-based management approach is critical to accelerating progress toward anemia reduction targets. The gradual shift from prophylactic IFA supplementation to targeted case-based management will help pave the way for a stronger and anemia free India.

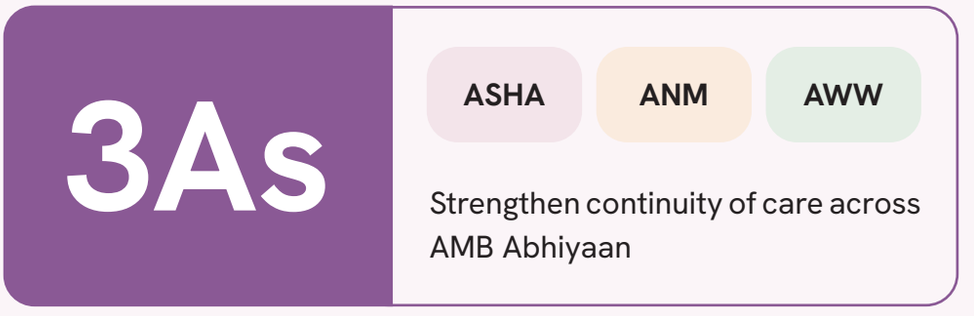
2.7 Integration of testing and counselling activities for efficient management

The revised AMB Abhiyaan emphasizes convergence of anemia testing and structured counselling to enhance programme efficiency, feasibility, and impact. By integrating point-of-care hemoglobin testing with immediate counselling on diet, IFA compliance, deworming, and follow-up care, the strategy translates screening into actionable health-seeking behaviour and therapeutic adherence.

This approach is further strengthened through coordinated action of the “3As” - ASHA, Anganwadi Worker (AWW), and ANM - who will work synergistically for early symptom

1 Operational guidelines for use of intravenous iron in pregnant women and lactating mothers

recognition, timely screening, therapeutic management, referral of severe/non responding cases, and sustained nutrition counselling support. Such integrated service delivery minimizes missed opportunities, improves case tracking, enhances compliance, and strengthens continuity of care across the life cycle under AMB Abhiyaan.



2.8 Dietary Diversification with Eating Right Approach and Promotion of Locally Available Iron Rich Foods on Everyday Basis

The iron-rich food diet consumption is emphasized under AMB Abhiyaan, addresses not only iron deficiency but also other essential nutrients required for hemoglobin synthesis, such as folate, vitamin B12 and vitamin C, which are naturally present in diverse diets. Everyday dietary diversification along with adoption of conscious consumption of iron rich diet with enhancers can significantly improve iron absorption and help prevent recurrent anemia once supplementation is discontinued. Treating and preventing anemia through food and healthy lifestyle instead of sole reliance on supplements, is a sustainable and life-course approach to improving anemia status.

2.9 Communication Strategy for Transformation of Mindset from Passive Acceptance and Normalization of Anemia to Active Ownership

This will build on promoting active participation from every section of Indian population to realize the importance of normal level of hemoglobin level by individuals, family and communities to bring about the change. The campaign under varied thematic framework e.g. **'I am Anemia free', " Sahi Hb ki matra, Achhi sehat ki hai paribhasha"** will change attitude as a call to action from normalization of anemia state to cognizance and self-awareness of maintaining appropriate hemoglobin level.

2.10 Robust Digital System for Tracking Anemia Services with Personalized Alerts to Beneficiaries for Promoting Compliance till Resolution

The entire process of AMB Management will be digitized from testing till resolution. The AMB Abhiyaan collates programmatic data for testing, management and follow up of targeted beneficiaries. The various platforms will provide beneficiary-wise data such as pregnant women anemia records will be mapped from JANANI portal, children's anemia testing records will be mapped from RBSK portal (school and anganwadi going children) and screening anemia alongside Immunization will be recorded in U-WIN portal and linked to AMB Abhiyaan portal where the treatment and follow-up at individual level will be maintained. Information regarding beneficiaries beyond the above mentioned groups will be recorded through the AMB Abhiyaan mobile application linked to the AMB Abhiyaan portal.

Breaking the siloed approach in anemia management requires transitioning from fragmented, manual record-keeping to **inter operable digital ecosystems** that enable data sharing across platforms allowing seamless tracking of hemoglobin levels, iron-folic acid (IFA) distribution, and patient follow-ups, reducing manual errors and improving treatment compliance, making the process of anemia management more efficient and feasible. Digitalization will lead to management and follow up of anemia cases at the click of a button.

Further, the digital interventions for testing and tracking will help in mapping and identification of missed cases/non responders/non compliant which, if left undiagnosed and untreated in timely manner can lead to criticalities of Maternal Mortality Ratio (MMR) and Infant Mortality Rate (IMR).

2.11 Ease of Access of Service through Convergence with Various Programmes under NHM

This incorporates strategies wherein anemia testing and data entry is integral to the existing programmatic interventions which mandate regular visits to public health facilities e.g. antenatal care visits for screening during pregnancy, immunization services, RBSK-4Ds check-ups in schools/ AWCs. Further opportunistic testing approach will enable scaling up of testing and counselling activities in addition to facilitating achievement of anemia related goals as envisaged in guidelines so framed.

2.12 Shift of policy from T3 approach (Test Treat Talk) towards T4 approach (Test Treat Talk Track)

Transitioning from prophylactic to therapeutic and compliance focused approach: Anemia Mukt Bharat Abhiyaan endeavours to strengthen the population cohort with sustained and sufficient Hb levels. T4 strategies will therefore contour the scope and shape of AMB Abhiyaan for expansion across the board for anemia management.



Therefore, the **Anemia Mukt Bharat Abhiyaan** provides a comprehensive framework that shifts from a blanket prophylactic approach to a screening-led, outcome-focussed management approach emphasizing early detection, therapeutic management, and systematic follow-up. This will be strengthened through the integration of the Eating Right approach, promotion of dietary diversification and digital interventions for improved monitoring and compliance. Promoting compliance till resolution will remain critical. Together, these measures aim to enhance programmatic uptake across all components of AMB Abhiyaan and contribute to a sustained reduction in anemia prevalence, as well as improvements in the Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR). With such strategy it is also endeavoured that there is a gradual shift to therapeutic treatment of anemia leading to a sustained anemia free status through dietary modification enabling healthy body and healthy mind.

Prophylactic iron supplementation is crucial to build iron stores and maintain optimal health. Iron is essential for producing hemoglobin, which transports oxygen throughout the body. A proactive approach helps to prevent iron deficiency in the body before it can progress to anemia. It is a key public health intervention under Anemia Mukt Bharat Abhiyaan. It supports provision of IFA supplements to all groups of beneficiaries irrespective of anemia status as detailed out below along with counselling on eating right habits and inclusion of iron rich foods in their daily diet, which has been further discussed in Chapter 7 in detail.

1. Children 6–59 months



Platforms	**Dose and regime**
Fortnightly home visits by ASHA for a month to demonstrate skill to mother/caregiver Then mother/care giver to continue giving prophylactic bi-weekly doses	Biweekly, 1 ml Iron and Folic Acid syrup (Each ml contains 20 mg elemental Iron + 100 mcg) IFA bottle (50 ml) with dropper

Additionally, ASHA will counsel mothers on the benefits of IFA syrup for their child, improving iron and folate content of the diets and the importance of sanitation and hygienic practices in order to prevent anemia and worm infestation in the child. This would help in confidence building of the mothers in providing IFA syrup to their child. ASHA will record doses given in the IFA compliance card attached with the Mother Child Protection card (MCP) card and teach mothers to mark the compliance after administering every dose. The data is compiled at facility level for entry into HMIS; with a shift to digital reporting under the Anemia Mukt Bharat Abhiyaan Portal.

In case of children with moderate or severe acute malnutrition (SAM/MAM), IFA supplementation may be continued after clinical evaluation as per SAM/MAM protocol.

2. Children 5–9 years



Platforms	Dose and regime
PM-POSHAN platform through teachers in Government and Government-aided schools After lunch break through teachers in private schools. Out-of-school children 5–9 years will be provided IFA tablets through ASHA during home visits/ at AWC	Weekly, one Pink WIFS-IFA tablet (Each sugar coated tablet contains 45mg elemental Iron + 400 mcg Folic Acid)

Reporting of the prophylactic doses provided to children in school and out of school will be collated by the Nodal WIFS teacher in schools and by the Anganwadi Worker (AWW) at the Anganwadi Center (AWC) level respectively. This has to be accompanied by counselling for compliance to IFA consumption along with inclusion of iron rich locally available foods and vitamin C to improve absorption and thereby prevent anemia. The data is compiled at Block level for entry into HMIS; with a shift to digital reporting under the Anemia Mukt Bharat Abhiyaan Portal.

3. Adolescents 10–19 years



Platforms	Dose and regime
Mid-day meal platform through teachers in Government and Government-aided schools After lunch break through teachers in private schools. Out-of-school children 10-19 years will be provided IFA tablets through ASHA during home visits/ at AWC	Weekly, one Blue WIFS-IFA tablet (Each sugar coated tablet contains 60 mg elemental Iron + 500 mcg Folic Acid)

Reporting of the prophylactic doses provided to children in school and out of school will be collated by the Nodal WIFS teacher in schools and by the Anganwadi Worker (AWW) at the Anganwadi Center (AWC) level respectively. This has to be accompanied by counselling

for compliance to IFA consumption along with inclusion of iron rich locally available foods and vitamin C to improve absorption and thereby prevent anemia. The data is compiled at Block level for entry into HMIS; with a shift to digital reporting under the Anemia Mukt Bharat Abhiyaan Portal.

4. Women of reproductive age (WRA)



Platforms

VHSNDs

ANM/HWF will reach out using the Eligible Couple Register (ECR).

Using Mission Parivar Vikas platform in eight states, to provide Nayi Pehal Kit for target group for women of reproductive age 20-24 years

State specific platforms as Colleges/ work places/campaigns

Dose and regime

Weekly, one Red-IFA tablet
(Each sugar coated tablet contains 60 mg elemental Iron + 500 mcg Folic Acid)

During VHSNDs the WRA will be counseled by ANM on the importance of compliance to IFA prophylactic supplementation to prevent anemia along with inclusion of iron rich locally available foods and vitamin C to improve absorption. Beneficiaries will be encouraged to undergo hemoglobin testing at the nearest health facility also. The data is entered by ANM at facility level into HMIS ; with a shift to digital reporting under the AMB Abhiyaan Portal.

If the woman is planning for pregnancy, she should be counselled to stop IFA supplementation and initiate Folic Acid supplementation. All women in the reproductive age group (20-49 years) are advised to have 400 mcg of Folic Acid tablets, daily during the period of pre-pregnancy up to the first trimester of the pregnancy, to reduce the incidence of neural tube defects in the foetus.

5. Pregnant women



Platforms

Ante Natal Clinic (ANC) contact points

VHSNDs

PMSMA and e-PMSMA

Dose and regime

Daily one Red-IFA tablet for 180 days starting from the second trimester of pregnancy.
(Each sugar coated tablet contains 60 mg elemental Iron + 500 mcg Folic Acid)

The pregnant women should be provided the Red-IFA tablets for one month at one time during their ANC visits. This has to be accompanied by counselling for compliance to IFA consumption by ASHA along with inclusion of iron rich locally available foods and vitamin C to improve absorption and thereby prevent anemia . ANM will enter the data of prophylactic doses on JANANI portal .

6. Lactating mother



Platforms

Delivery ward

PNC Clinic

FP Clinic

HBNCC visits by ASHA

VHSNDs

Immunization sessions

Dose and regime

Daily one Red-IFA tablet for 180 days starting from delivery upto 6 months post partum
(Each sugar coated tablet contains 60 mg elemental Iron + 500 mcg Folic Acid)

Lactating mother can be provided prophylactic IFA supplements on multiple platforms as mentioned above. This has to be accompanied by counselling for compliance to IFA consumption by ASHA along with counselling on inclusion of iron rich locally available foods and vitamin C to improve absorption and thereby prevent anemia. ANM will enter the data of prophylactic doses on JANANI portal.

7. LBW babies 0-6 months



Platforms	Dose and regime
SNCU NICU Paediatric Ward/PICU	As prescribed by the attending Pediatrician/ Specialist at the Health facility

3.1 Management of Side Effects during Oral Iron Prophylaxis

Oral iron supplementation (e.g., IFA tablets/syrup) is generally safe, but some individuals may experience mild side effects initially. Most gastrointestinal side effects as nausea, stomach cramps/discomfort and constipation are temporary and tend to fade over the first few weeks of consistent therapy. It is advisable not to discontinue iron supplementation in case of such mild discomfort. In many cases, these side effects diminish as the body gradually adapts to iron supplementation. If supplementation is interrupted and restarted later, the same discomforts may recur. Therefore, continued intake, along with appropriate counselling and supportive measures, is recommended to help the symptoms subside over time and the intended health benefits of iron supplementation are achieved.

Side Effects	Management
Nausea	Take the tablet after meals or at bedtime. Encourage adequate hydration.
Vomiting	Take iron after food; if persistent, assess for other causes and consider medical review and visit a doctor.
Abdominal discomfort/ cramps	Continue supplementation with food; reassure that symptoms often improve over time.
Constipation	Increase fluid intake, dietary fiber (fruits, vegetables, whole grains), and physical activity.
Diarrhea	Adequate hydration; continue supplementation unless severe.
Metallic taste	Reassure beneficiary that this is a known temporary discomfort, the person will get used to its taste if continues taking the pill and reassure that the minimal discomfort may be acceptable for better health outcomes

Side Effects	Management
Dark/black stools	Reassure that black discoloration of stools is a normal effect of iron and not harmful. It doesn't signify any harmful effects of the tablet in the body. It is completely normal. It is advisable to counsel mentioning
Teeth staining (with iron syrup)	Use a dropper/spoon where feasible; rinse mouth or brush teeth after administration.

3.2 Role of Counselling in effective management of side effects

- Inform beneficiaries in advance about possible side effects to improve adherence.
- Encourage continuation of supplementation despite mild side effects. In case of severe side effects such as severe vomiting, persistent abdominal pain, allergic reactions (rash, swelling, breathing difficulty), seek medical attention.
- Encourage experience-sharing with other beneficiaries, if possible. This can help reassure beneficiaries, build trust, normalize temporary discomforts, and improve adherence to iron supplementation. Health workers should emphasize that mild side effects are common, usually temporary, and tend to subside with continued use. Beneficiaries should be reached through home visits ,VHSNDs and at health facilities for counselling to continue with the IFA uptake with compliance.

3.3 Digital Tracking of Prophylactic Iron and Folic Acid Supplementation

To strengthen monitoring, improve adherence, and enable beneficiary-level follow-up under Anemia Mukt Bharat Abhiyaan, prophylactic Iron and Folic Acid (IFA) supplementation shall be tracked through the HMIS and displayed on the AMB Abhiyaan portal

The digital platform aims to facilitate real-time recording and monitoring of IFA distribution, consumption, counselling, follow-up visits, management of side effects, and referrals across all beneficiary groups covered under the programme.

Detailed information can be found in Chapter no.11

Note 1: Prophylaxis with iron should be withheld in case of acute illness (fever, diarrhoea, pneumonia, etc.), and in a known case of thalassemia major/history of repeated blood transfusion.

Note 2: Prophylaxis with IFA tablets/syrup will be gradually tapered with more emphasis being placed on testing followed by treatment till resolution along with inclusion of iron rich foods in the daily diet.

4.1 WHO Hemoglobin Cut Offs (2024)

As per the WHO Hemoglobin cut offs (2024), there is a modification in the hemoglobin cutoffs for defining anemia for two population groups, children 6–23 months of age and pregnant women in the second trimester, both being reduced by 0.5 g/dl from 11g/dl to 10.5g/dl, rest of the values remain the same as those of 2011.

Children aged 6 months to 5 years

Hb cut off	WHO 2011	WHO 2024	
Children Age	**6 to 59 months**	**6 to 23 months**	**24 to 59 months**
Non anemic	11.0g/dL or higher	**10.5g/dL or higher**	11.0 g/dL or higher
Mild	10.0-10.9g/dl	**9.5-10.4 g/dl**	10.0-10.9 g/dl
Moderate	7.0-9.9g/dl	**7.0-9.4 g/dl**	7.0-9.9 g/dl
Severe	< 7.0g/dl	**< 7.0 g/dl**	< 7.0 g/dl

Children aged 5-14 years

Hb cut off	WHO 2011 and WHO 2024	WHO 2011 and WHO 2024
Children Age	**5-11 years**	**12-14 years**
Non anemic	11.5 g/dL or higher	12.0 g/dL or higher
Mild	11.0-11.4 g/dl	11.0-11.9 g/dl
Moderate	8.0-10.9 g/dl	8.0-10.9 g/dl
Severe	< 8.0 g/dl	< 8.0 g/dl

Adult males

Hb cut off	WHO 2011	WHO 2024
Age	**15 years & above**	**15-65 years**
Non anemic	13.0 g/dL or higher	
Mild	11.0-12.9 g/dl	
Moderate	8.0-10.9 g/dl	
Severe	< 8.0 g/dl	

Adult females, non pregnant

Hb cut off	WHO 2011 and WHO 2024
Age	**15-65 years**
Non anemic	12.0 g/dL or higher
Mild	11.0-11.9 g/dl
Moderate	8.0-10.9 g/dl
Severe	< 8.0 g/dl

Adult females, pregnant

Hb cut off	WHO 2011	WHO 2024	
Age		**First trimester & Third trimester**	**Second trimester**
Non anemic	11.0 g/dL or higher	11.0 g/dL or higher	**10.5 g/dL or higher**
Mild	10.0-10.9g/dl	10.0-10.9g/dl	**9.5-10.4 g/dl**
Moderate	7.0-9.9g/dl	7.0-9.9g/dl	**7.0-9.4 g/dl**
Severe	< 7.0g/dl	< 7.0 g/dl	< 7.0 g/dl

4.2 Testing Of Hemoglobin for Detection of Anemia

Identifying anemia is the first crucial step in its management. Testing allows anemia to be categorized as mild, moderate, or severe, which helps guide timely and appropriate treatment.

Anemia develops when iron stores are depleted; hence treating anemia involves not just correction of anemia, but also supporting restoration of iron stores to prevent relapse once supplements discontinue. Hence, annual testing for anemia becomes very important. Many beneficiaries remain unaware that they are anemic, as common signs such as tiredness, fatigue, generalised weakness, and difficulty in concentration are often mild and easily ignored or attributed to daily stress or workload. As a result, anemia frequently goes undiagnosed until severe symptoms appear, as pale skin, shortness of breath, dizziness, or even chest pain, which then demand immediate medical attention.

Regular hemoglobin testing supports early detection, enabling prompt care and ultimately improving overall health and quality of life.

4.2.1 Methods of Testing for anemia

Anemia can be assessed using capillary, venous, or arterial blood sampling methods. Under Anemia Mukt Bharat Abhiyaan, capillary and venous blood samples are used for testing anemia in field settings and in health facilities (PHC and above) respectively.



NORMAL



ANEMIA

Venous blood testing is the gold standard for accurate measurement and confirmation of hemoglobin levels. Capillary testing involves a single prick to the finger (heel)[2] and is useful for rapid screening in community or field settings. Digital Invasive Hemoglobinometers have been used regularly under AMB.

4.2.2 Why Digital Invasive Hemoglobinometer (DIH) is used?

The Digital Invasive Hemoglobinometers (DIH) are point of care testing devices that can be used for estimation of hemoglobin near the beneficiary, outside the health facility, thereby making it more accessible and easy to use. Being light and easy to carry, DIH can be easily used for the purpose of screening for anemia in hard to reach areas amongst the vulnerable age groups for initiation of appropriate treatment as per the severity of anemia. Its portability and quick results enable early detection of anemia and support prompt clinical decision-making and timely initiation of appropriate treatment. The technical specifications for the DIH are available on NHM website[3].

Additionally, diagnostic services for confirmation of anemia are available at the facility level (PHC and above).



2: Heel testing is advised for infants on advise of treating physician/paediatrician

3: https://nhm.gov.in/index1.php?lang=1&level=4&sublinkid=1455&lid=804

Calibration and Quality Assurance of Digital Hemoglobinometers

Accurate Hb estimation is critical for appropriate screening, diagnosis, classification and management of anemia. Hence, all Digital Hemoglobinometers (DIH) should be regularly calibrated, maintained and checked for performance in accordance with the manufacturer's specifications and standard operating procedures.

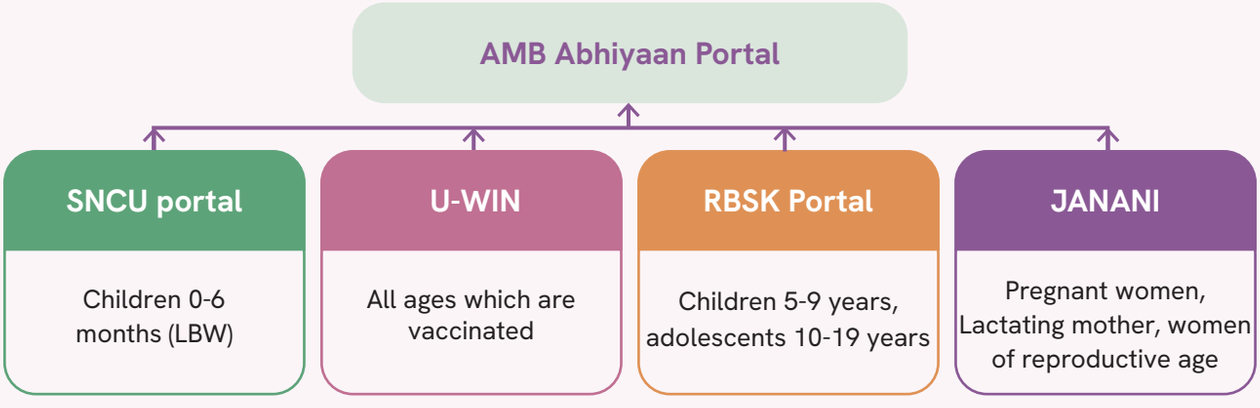
Routine quality assurance measures, including calibration checks, validation using control materials (where applicable), battery and device performance checks, and periodic preventive maintenance, should be undertaken at prescribed intervals. Health facilities should maintain records of calibration, servicing, repairs, and quality control activities.

Any device found to be producing inconsistent, inaccurate, or erratic readings should be immediately withdrawn from use and subjected to troubleshooting, recalibration, or replacement as per established protocols. Regular calibration and quality assurance help reliability of Hb measurements, minimize diagnostic errors and strengthen the quality of anemia screening and management services.

4.2.3 Hb Testing record keeping and analysis

Testing is of utmost importance as it will make beneficiaries aware of their hemoglobin status and need to address the anemia on time. All beneficiaries will be registered on a digital platform at the time of Hb testing as seen in table below.

Beneficiary-wise source of data sets:



All these portals will feed into the AMB Abhiyaan Portal and will enable the detailed data analysis in the AMB dashboard.

The saturation of testing of targeted beneficiaries gradually over a period of time will help in estimating the burden of severity of anemia of into mild, moderate and severe categories and support programme managers in monitoring and taking timely corrective action.

4.3 Treatment of Anemia

Once the beneficiaries are screened/ diagnosed anemic, they are placed on therapeutic management of anemia as per Anemia Mukt Bharat Abhiyaan guidelines, beneficiary wise therapeutic management protocols are placed in tables 1 to 7 at the end of the chapter.

4.3.1 Source correction approach for management of anemia

It is critical to undertake a systematic root cause analysis to identify the underlying determinants of anemia in cases of relapse/ non responders/ refractory[4] cases etc among the beneficiary groups.

The causes can be further assessed in depth in areas of high prevalence of anemia or across vulnerable populations. This should be followed by a structured source-correction approach under AMB Abhiyaan to address these specific causes directly, whether nutritional deficiencies, infections, dietary practices, social determinants, or compliance challenges.

The segregation of **nutritional anemia** (anemia due to deficiency of iron, folate, vitamin B12 and other micronutrient deficiencies) and **non-nutritional anemia** (anemia due to infections, genetic disorders, chronic diseases, and blood loss) is critical for effective management of anemia. The nutritional anemia is managed through therapeutic doses along with dietary changes and counselling for consuming iron rich foods, while non-nutritional causes require treatment of the underlying conditions through timely referral to higher centres.

4.3.2 Case-based management approach

An individualized, case-based management approach has been integrated with existing framework under Anemia Mukt Bharat Abhiyaan using digital interventions.

Case-based management of anemia comprises of individual assessment to investigate for the underlying causes of anemia; provide tailored treatment as per protocols, assess issues with compliance, follow-up based on individual clinical advice and address socio-cultural determinants of the anemia by counselling and debunking misconceptions.

This will strengthen correction of the underlying causes, treatment of infections, referral for specialized care, and/ or management of chronic conditions. Additionally, it will

4: relapse: Return of anemic state after a period of non-anemic state
Non-responder: Rise of Hb <1 g/dl after 1 month of treatment
Refractory: Anemia which is resistant /unresponsive to standard treatment

support regular reassessment of hemoglobin levels, and treatment adherence with timely modification of therapeutic strategies to enable resolution of anemia.

This will allow service providers to identify the non-responders, non-compliant cases, and help focus approaches to initiate the treatment and improve compliance till resolution. Case-based management with compliance until resolution is the key to reduction in anemia prevalence. Therapeutic management with IFA should be continued for 2 to 3 months after Hb level normalizes to rebuild iron stores.

4.3.3 Identification of vulnerable population for effective anemia management

Anemia is one of major contributing factors for maternal morbidity and mortality which makes pregnant women, lactating mother more vulnerable to the adverse outcomes of anemia during pregnancy and postnatal period. Similarly, anemia among adolescent girls perpetuates the intergenerational cycle of poor maternal and child health increasing the vulnerability to the adverse maternal outcomes. There is a strong need to focus on a pre-emptive approach through early identification and management of anemia among adolescent girls at the onset stage itself which will correct anemia before she enters the preconception period; thereby averting subsequent complications that arise due to anemia during pregnancy, especially severe anemia.

Correction of anemia during the preconception period among all women of reproductive age is an effective way to reduce the burden of anemia and its adverse effects, rather than correcting anemia during pregnancy, which offers a limited scope for intervention, especially in cases of severe anemia The testing records maintained on digital platforms will help line list vulnerable population and help plan for targeted testing and timely follow up.

4.4 Retesting Anemic Cases

The causes of anemia range from nutritional deficiencies and infections to inflammation, gynaecological and obstetric conditions, and genetic disorders. Accurate measurement of hemoglobin levels, adequate treatment and timely retesting are essential to monitor improvement following treatment. If no improvement or inadequate improvement is observed (< 1 g/dL per month of treatment inspite of good compliance) after completion of therapeutic IFA intake for desired period (varies across beneficiaries), the beneficiary should be referred to a higher facility, such as a First Referral Unit (FRU) or District Hospital (DH), for further investigations to differentiate between iron deficiency anemia, other nutritional deficiencies, and non-nutritional causes of anemia, for further investigations and appropriate treatment. The referral, treatment provided and follow-up will be managed in the AMB Abhiyaan Portal.

The cases not showing improvement in hemoglobin status during retesting, despite compliance to therapeutic IFA will be referred to higher facility for further investigations and appropriate treatment.

Therapeutic management of anemia with iron should be prescribed as per treating physician/ specialist in case of acute illness (fever, diarrhoea, pneumonia, etc.), and in known cases of Sickle cell disease/ thalassemia major/history of repeated blood transfusion

The frequency, platform for testing for anemia, and therapeutic management beneficiary-wise is detailed in the following tables 1-7.

Table 1

Pregnant Women	
Test protocol	
Periodicity	At every ANC contact (at least 4 times): ▶ 1st- within 12 weeks ▶ 2nd- 14-26 weeks ▶ 3rd- 28-34 weeks ▶ 4th- 36-40 weeks ▶ 8 times for all HRPs
Who will screen and platform for screening	ANM: VHSND/UHSND/ANC clinic SN/MO: PMSMA/e-PMSMA
Record keeping	▶ MCP Card ▶ JANANI portal ▶ AMB Abhiyaan Portal ▶ e-PMSMA portal ▶ U-WIN
Line listing of anemic pregnant women	ANM, ASHA
Therapeutic/ Treatment Protocol: Mild-Moderate anemia	
Iron formulation	IFA Red tablet (60 mg elemental iron and 500 mcg folic acid) Intravenous Iron –IV Iron Sucrose or IV Ferric Carboxy Maltose (FCM)
Treatment duration	**IFA tablet – 2 tablets daily for 1 month after Hb testing** ▶ If there is improvement, but target Hb not reached; continue the treatment with 2 tablets daily for 1 months ▶ If there is improvement, and target Hb reached; switch to prophylaxis dose (once daily) ▶ If no improvement, refer the Pregnant women to higher facility - FRU/DH for further investigation and management of anemia **Intravenous Iron treatment** For moderate anemia as advised by treating physician based on gestation period and clinical evaluation: IV Iron Sucrose – 5 doses IV FCM – 2 doses (Please refer to Operational guidelines - Intravenous Iron treatment for Pregnant women and lactating mothers)
Follow-up and monitoring for treatment compliance	▶ Monthly home visits by ASHA for treatment compliance ▶ VHSND
Record keeping	▶ JANANI Portal ▶ AMB Abhiyaan Portal ▶ e-PMSMA portal
Therapeutic/ Treatment Protocol : Severe anemia (Hb <7 gm/dl)	
Refer the Pregnant women to higher facility - FRU/DH for further investigation and management of anemia (IV iron /Blood transfusion). Follow up as per advice of treating specialist/gynaecologist.	

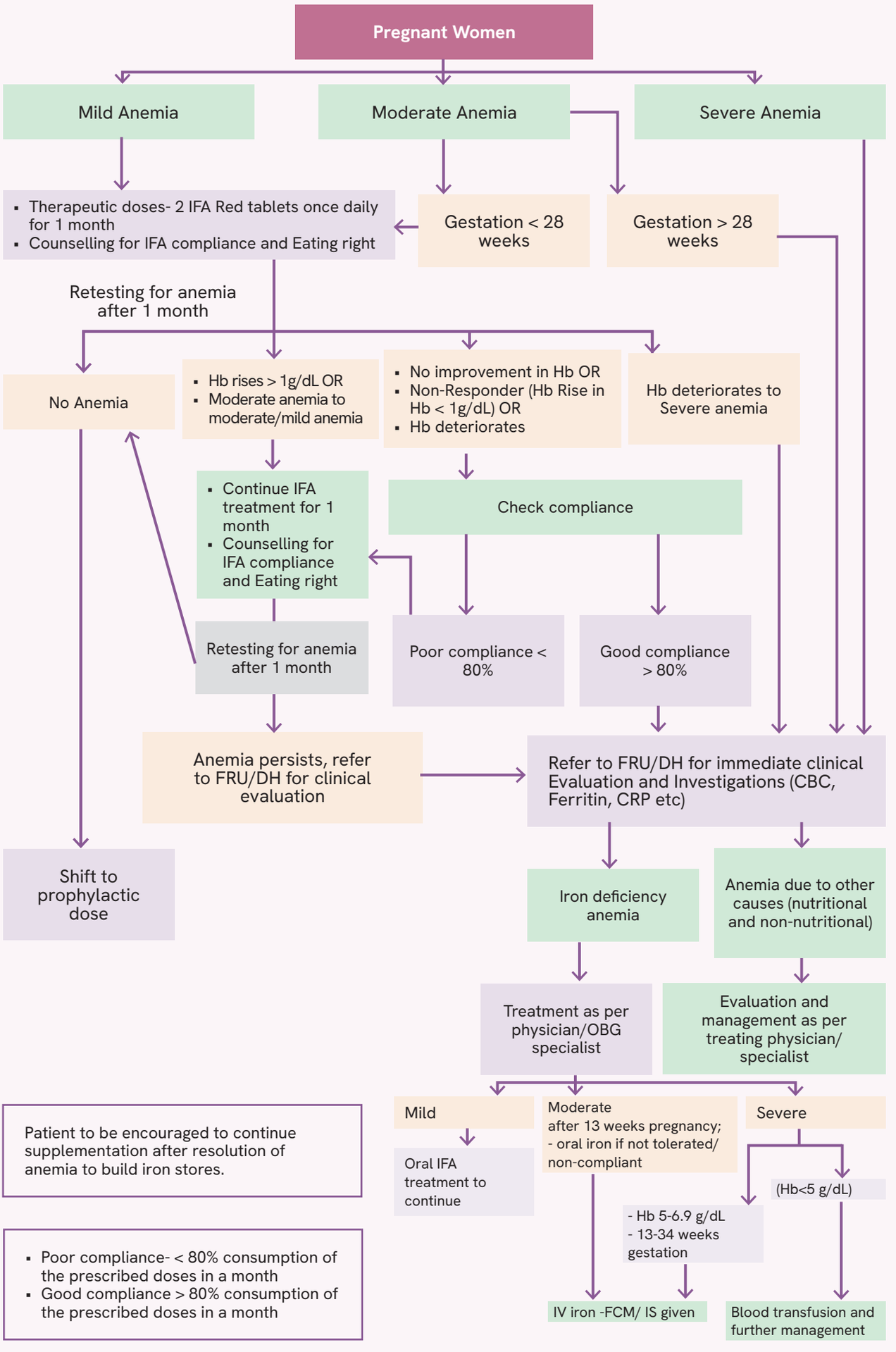

Pregnant Women
Mild Anemia
Moderate Anemia
Severe Anemia
▪ Therapeutic doses- 2 IFA Red tablets once daily for 1 month
▪ Counselling for IFA compliance and Eating right
Gestation < 28 weeks
Gestation > 28 weeks
Retesting for anemia after 1 month
No Anemia
▪ Hb rises > 1g/dL OR
▪ Moderate anemia to moderate/mild anemia
▪ No improvement in Hb OR
▪ Non-Responder (Hb Rise in Hb < 1g/dL) OR
▪ Hb deteriorates
Hb deteriorates to Severe anemia
▪ Continue IFA treatment for 1 month
▪ Counselling for IFA compliance and Eating right
Check compliance
Retesting for anemia after 1 month
Poor compliance < 80%
Good compliance > 80%
Anemia persists, refer to FRU/DH for clinical evaluation
Refer to FRU/DH for immediate clinical Evaluation and Investigations (CBC, Ferritin, CRP etc)
Shift to prophylactic dose
Iron deficiency anemia
Anemia due to other causes (nutritional and non-nutritional)
Treatment as per physician/OBG specialist
Evaluation and management as per treating physician/ specialist
Mild
Moderate
after 13 weeks pregnancy;
- oral iron if not tolerated/ non-compliant
Severe
(Hb<5 g/dL)
Oral IFA treatment to continue
- Hb 5-6.9 g/dL
- 13-34 weeks gestation
IV iron -FCM/ IS given
Blood transfusion and further management
Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.
▪ Poor compliance- < 80% consumption of the prescribed doses in a month
▪ Good compliance > 80% consumption of the prescribed doses in a month

Table 2:

Lactating Mother	
Test protocol	
Periodicity	Within six months of delivery
Who will screen and platform for screening	ANM: VHSND, at times of child's Immunization visits
Record keeping	JANANI portal within 6 weeks post partum AMB Abhiyaan Portal-6 weeks to 6 months post partum
Line listing of anemic women	ANM, ASHA
Treatment Protocol -Mild-Moderate anemia	
Iron formulations	IFA Red tablet (60 mg elemental iron and 500 mcg folic acid) Intravenous Iron –IV Iron Sucrose or IV Ferric Carboxy Maltose (FCM)
Treatment duration	**IFA tablet – 2 tablets daily for 3 month** ▶ If there is improvement, but target Hb not reached; continue treatment with 2 tablets daily for 3 months ▶ If there is improvement, and target Hb reached; switch to prophylaxis dose (once daily) ▶ If no improvement, refer the Lactating Mother to higher facility - FRU/DH for further investigation and management of anemia **Intravenous Iron treatment** For moderate anemia as advised by treating physician based investigation and clinical evaluation: IV Iron Sucrose – 5 doses IV FCM – 2 doses (Pl refer to Operational guidelines - Intravenous Iron treatment for Pregnant women and lactating mothers)
Retesting	▶ For severe anemia-After 1 month of treatment ▶ For moderate anemia- After 2 months of treatment ▶ For mild anemia- After 3 months of treatment
Follow-up and monitoring for treatment compliance	▶ Monthly home visits by ASHA to follow-up for treatment compliance ▶ HBNCC visits ▶ VHSND
Record keeping	▶ JANANI Portal ▶ AMB Abhiyaan Portal
Therapeutic/ Treatment Protocol : Severe anemia	
Refer the Lactating Mother to higher facility - FRU/DH for further investigation and management of anemia (IV iron /Blood transfusion) Follow up as per advise of treating specialist/gynaecologist	

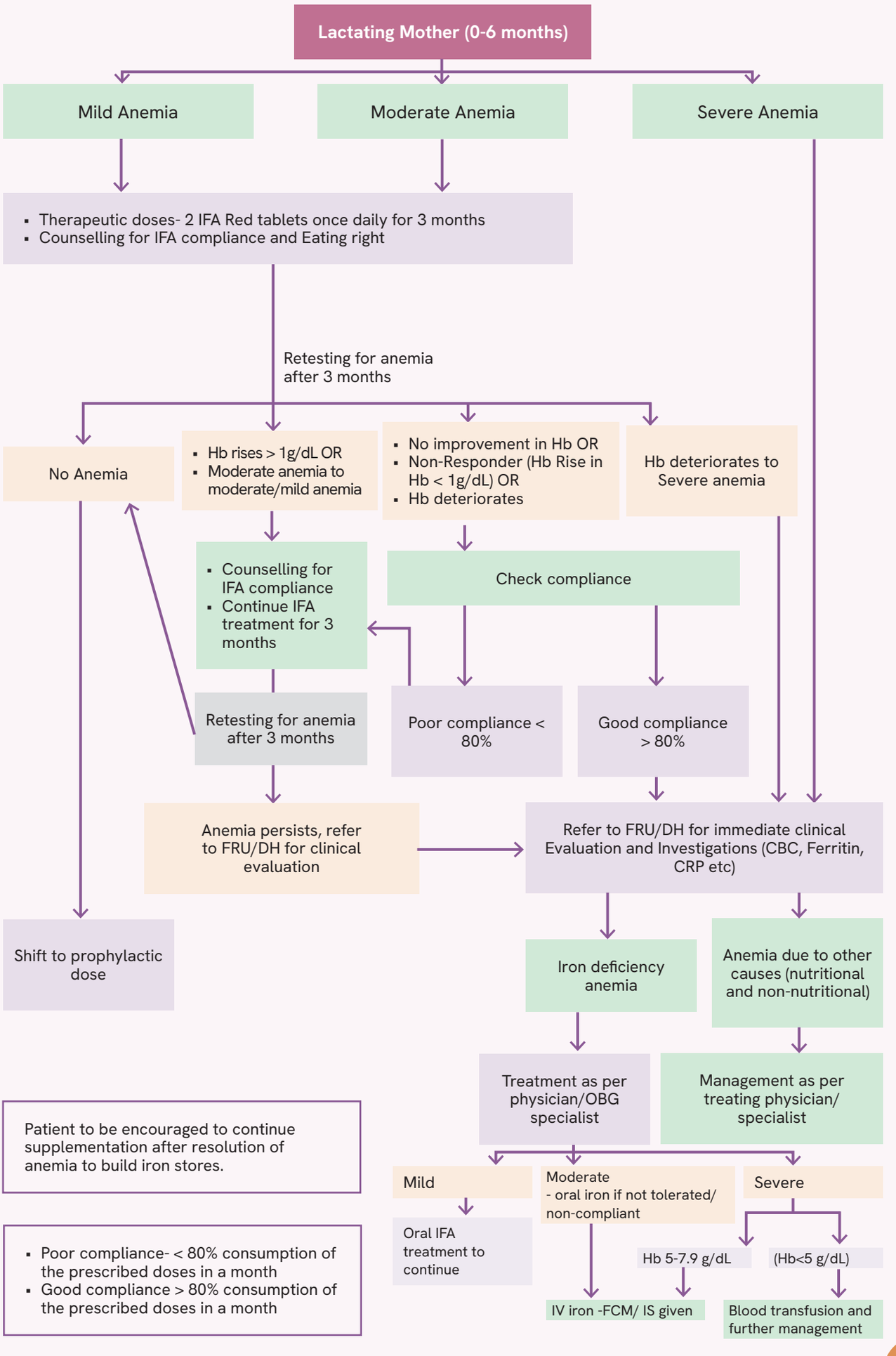
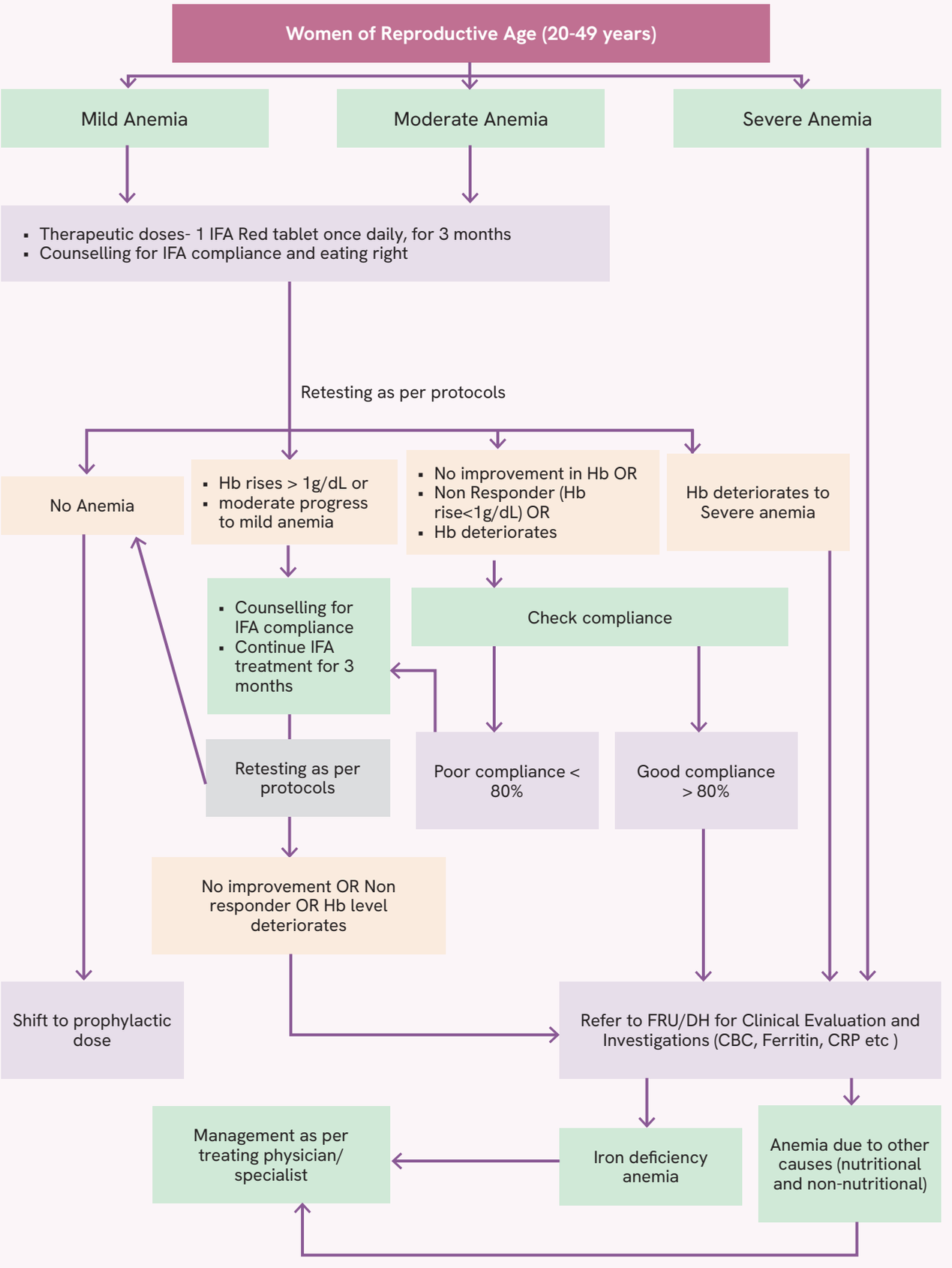

Lactating Mother (0-6 months)
Mild Anemia
Moderate Anemia
Severe Anemia
▪ Therapeutic doses- 2 IFA Red tablets once daily for 3 months
▪ Counselling for IFA compliance and Eating right
Retesting for anemia after 3 months
No Anemia
▪ Hb rises > 1g/dL OR
▪ Moderate anemia to moderate/mild anemia
▪ No improvement in Hb OR
▪ Non-Responder (Hb Rise in Hb < 1g/dL) OR
▪ Hb deteriorates
Hb deteriorates to Severe anemia
▪ Counselling for IFA compliance
▪ Continue IFA treatment for 3 months
Check compliance
Retesting for anemia after 3 months
Poor compliance < 80%
Good compliance > 80%
Anemia persists, refer to FRU/DH for clinical evaluation
Refer to FRU/DH for immediate clinical Evaluation and Investigations (CBC, Ferritin, CRP etc)
Shift to prophylactic dose
Iron deficiency anemia
Anemia due to other causes (nutritional and non-nutritional)
Treatment as per physician/OBG specialist
Management as per treating physician/ specialist
Mild
Moderate
- oral iron if not tolerated/ non-compliant
Severe
Oral IFA treatment to continue
Hb 5-7.9 g/dL
(Hb<5 g/dL)
IV iron -FCM/ IS given
Blood transfusion and further management
Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.
▪ Poor compliance- < 80% consumption of the prescribed doses in a month
▪ Good compliance > 80% consumption of the prescribed doses in a month

Table 3:

Women of Reproductive Age (20-49 years)	
Test protocol	
Periodicity	Annual
Who will screen and platform for screening	▶ CHO: at AAM- opportunistic screening and referrals ▶ MO: opportunistic screening and referrals ▶ T4 Camps/Health camps
Record keeping	AMB Abhiyaan Portal/ JANANI Portal
Line listing of severely anemic WRA	ANM, ASHA
Treatment Protocol	
Iron formulation	IFA Red (60 mg elemental iron and 500 mcg folic acid)
Treatment duration	1 IFA Red tablet daily for 3 months ▶ If there is improvement, but target Hb not reached; continue the same treatment for another 3 months ▶ If there is improvement, and target Hb reached; switch to prophylaxis dose (once a week) ▶ If no improvement, refer the WRA to higher facility - FRU/DH for further investigation and management of anemia
Retesting	▶ For severe anemia-After 1 month of treatment ▶ For moderate anemia- After 2 months of treatment ▶ For mild anemia- After 3 months of treatment
Follow-up and monitoring for treatment compliance	▶ ASHA will monitor every month for compliance ▶ Further, ASHA is given incentive for mobilizing WRA for testing, compliance and follow up under Anemia Mukt Bharat Abhiyaan.
Record keeping	AMB Abhiyaan Portal/ JANANI Portal
Therapeutic/ Treatment Protocol: Severe anemia	
Refer the WRA to higher facility - FRU/DH for further investigation and management of anemia Follow up as per advice of treating specialist/gynaecologist	

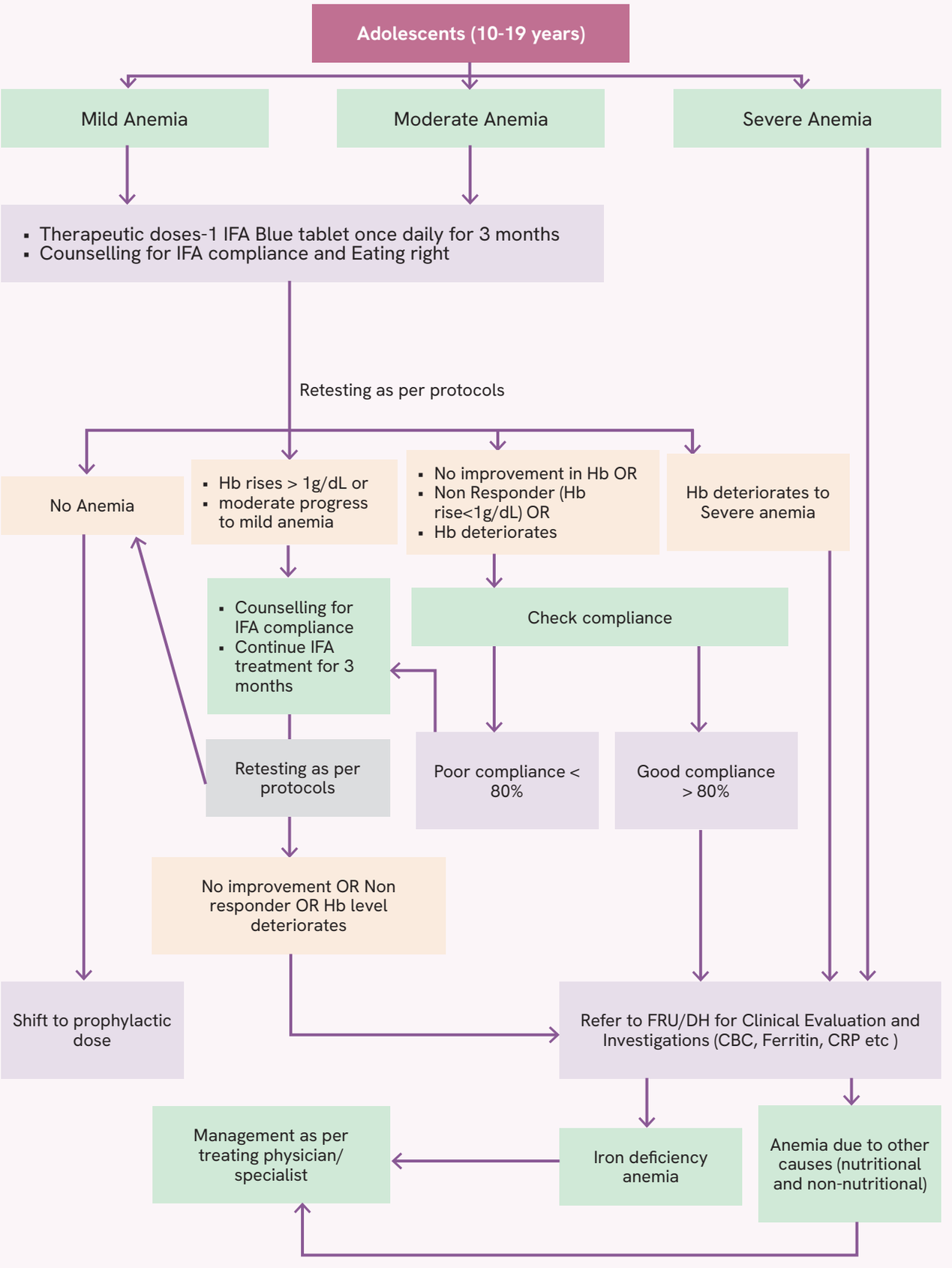


Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

Table 4:

Adolescents (10-19 years)	
Test Protocol	
Periodicity	Annual
Who will screen and platform for screening	RBSK MHT: In school and Out of school in AWC CHO /ANM: Opportunistic screening and referrals from schools/ community/AWC
Record keeping	▶ RBSK Portal ▶ AMB Abhiyaan Portal
Line listing of anemic children	RBSK MHT to share line list of anemic adolescents with HWAs, ANM and School Teachers Separate list of severe anemic Adolescents
Treatment Protocol for Anemic Children	
Iron formulation	IFA Blue (60 mg elemental iron and 500 mcg folic acid)
Treatment duration	1 IFA Blue tablet daily for 3 months ▶ If there is improvement, but target Hb not reached; continue the same treatment for another 3 months ▶ If there is improvement, and target Hb reached; switch to prophylaxis dose (once a week) ▶ If no improvement, refer the adolescent to higher facility - FRU/DH for further investigation and management of anemia
Retesting	▶ For severe anemia-After 1 month of treatment ▶ For moderate anemia- After 2 months of treatment ▶ For mild anemia- After 3 months of treatment
Follow-up and tracking for Treatment Compliance	▶ Class teacher/ Nodal teacher at school to orient parents during Parent Teacher Meeting (PTM) for compliance of treatment ▶ Parents to follow-up for retest after 90 days of therapeutic treatment at nearest AAM/health facility ▶ RBSK MHT to follow up child in coordination with nodal teachers/HWAs during next visit
Record Keeping	▶ RBSK Portal ▶ RBSK School Health Reports ▶ AMB Abhiyaan Portal
Therapeutic/ Treatment Protocol: Severe anemia	
Refer the adolescent to higher facility - FRU/DH for further investigation and management of anemia Follow up as per advise of treating specialist/physician	



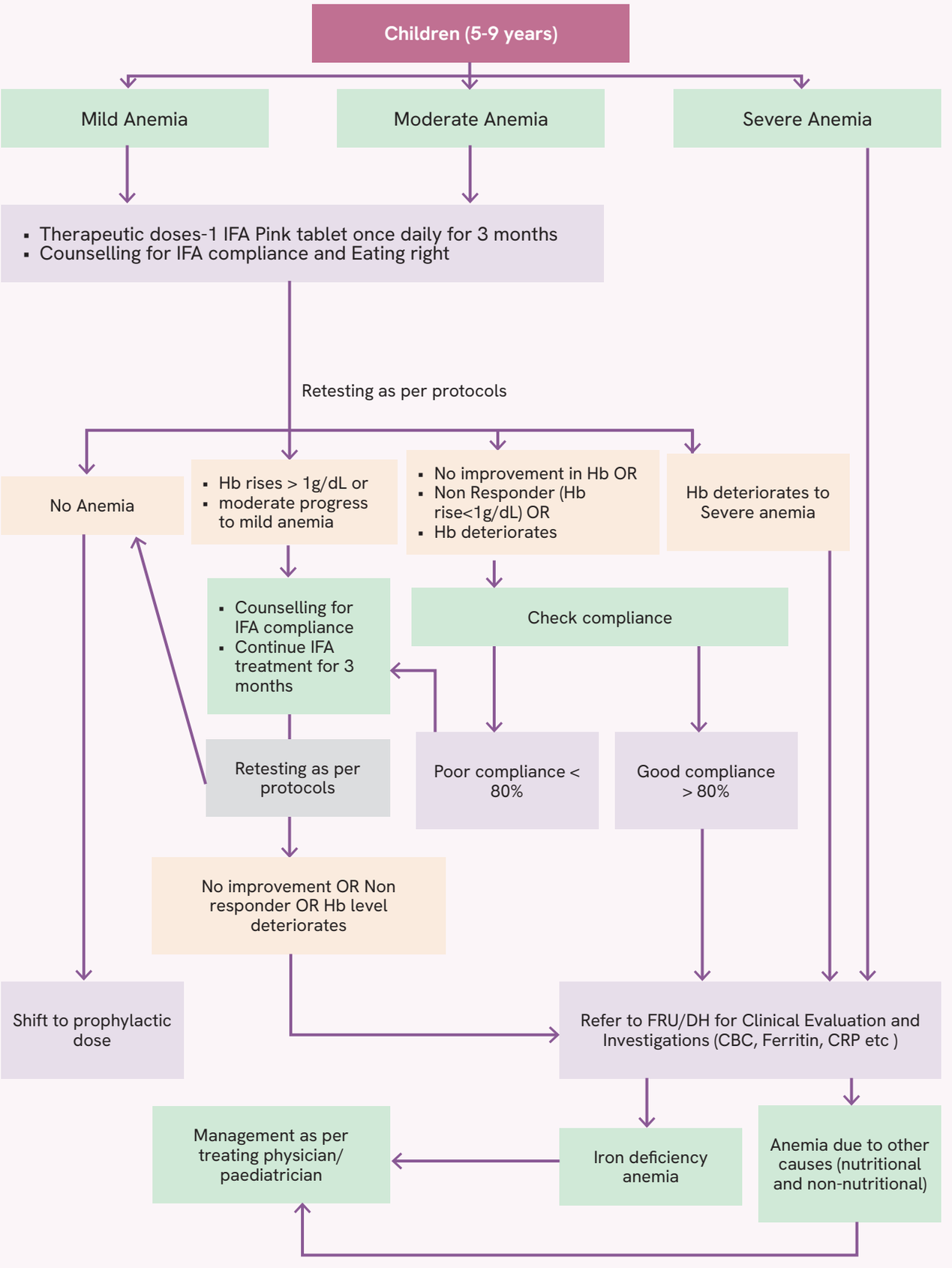
Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

Table 5:

Children (5-9 years)	
Test Protocol	
Periodicity	Annual
Who will screen and platform for screening	RBSK MHT : In school and Out of school in AWC CHO /ANM: Opportunistic screening and referrals from schools/ community/AWC
Record keeping	▶ RBSK Portal ▶ AMB Abhiyaan Portal ▶ U-WIN
Line listing of anemic children	RBSK MHT to share list with HWAs[5] , ANM and School Teachers Separate list of severe anemic children
Treatment Protocol	
Iron formulation	1 IFA -Pink tablet (45mg of elemental iron and 400mcg of Folic acid)
Treatment duration	1 IFA Pink tablet daily for 3 months ▶ If there is improvement, but target Hb not reached; continue the same treatment for another 3 months ▶ If there is improvement, and target Hb reached; switch to prophylaxis dose (once a week) ▶ If no improvement, refer the child to higher facility - FRU/DH for further investigation and management of anemia
Retesting	▶ For severe anemia-After 1 month of treatment ▶ For moderate anemia- After 2 months of treatment ▶ For mild anemia- After 3 months of treatment
Follow-up and monitoring for Treatment Compliance	▶ Class teacher/ Nodal teacher at school to orient parents during Parent Teacher Meeting (PTM) for compliance of treatment ▶ Parents to follow-up of child after 90 days at nearest AAM/health facility ▶ RBSK MHT to follow up child with coordination with nodal teachers/ HWAs
Record Keeping	
Records	▶ RBSK Portal ▶ AMB Abhiyaan Portal ▶ School Health Reports
Therapeutic/ Treatment Protocol: Severe anemia	
Refer the child to higher facility - FRU/DH for further investigation and management of anemia . Follow up as per advise of treating specialist/Paediatrician.	

5: Health and Wellness Ambassadors

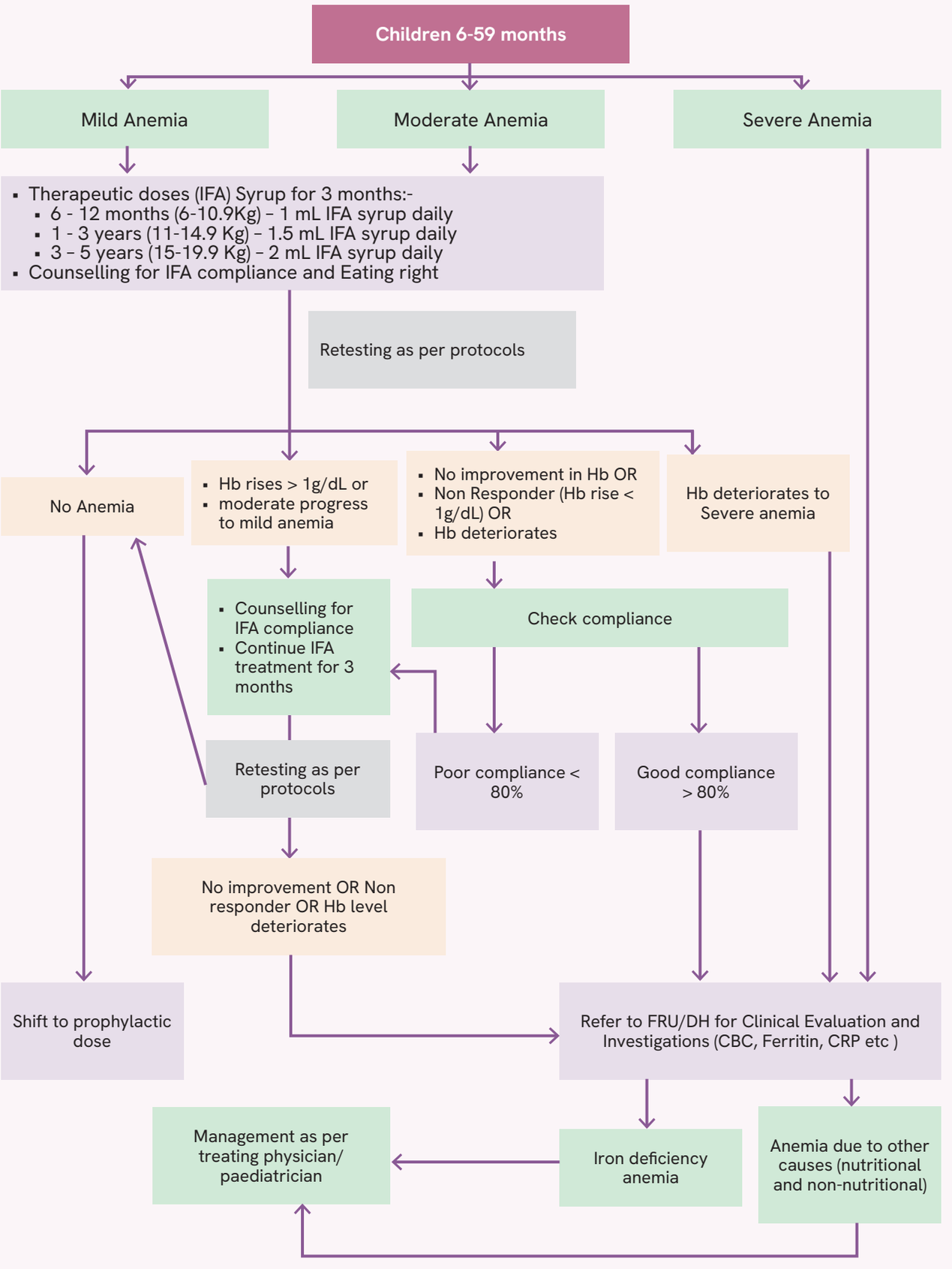


Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

Table 6:

Children 6-59 months	
Test Protocol	
Periodicity	Annual
Who will screen and platform for screening	▶ ANM: At VHSND/ T4 camps/AAM/ Immunization session sites (during MR-1, MR-2 vaccination; Vitamin A supplementation) ▶ RBSK MHT: at Anganwadi Centre ▶ SN/ MO/ CHO: Opportunistic screening of children visiting the OPD at health facility
Record keeping	▶ RBSK Portal ▶ AMB Abhiyaan Portal ▶ U-WIN
Line listing of anemic children	▶ RBSK MHT to share list with ANM, ASHA ▶ Compiled updated list of anemic children to be available with ANM/ASHA from all portals
Treatment Protocol	
Iron formulation	IFA syrup bottle (50ml) containing 20 mg of elemental iron and 100 mcg of folic acid per ml
Dosage	3 mg of elemental iron/kg/day for 3 months / as advised by treating paediatrician ▶ For 6–12 months (6–10.9 kg): 1 ml IFA syrup Once a day for 3 months ▶ For 1–3 years (11–14.9 kg): 1.5 ml IFA syrup Once a day for 3 months ▶ For children 3–5 years (15–19.9 kg): 2 ml IFA syrup Once a day for 3 months
Treatment duration	Daily for 3 months ▶ If there is improvement i.e >1g/dL increase in Hb level, after 1 month of therapeutic dose, but target Hb not reached; continue the same treatment for another 3 months ▶ If there is no improvement in Hb level (<1 gm/dl increase in Hb level) in following months and target Hb is not achieved after 3 months of treatment- Check for compliance and refer patient to higher facility for further clinical evaluation and management. ▶ If there is improvement, and target Hb reached; switch to prophylaxis dose (bi-weekly)
Retesting	▶ For severe anemia-After 1 month of treatment ▶ For moderate anemia- After 2 months of treatment ▶ For mild anemia- After 3 months of treatment
Follow-up and monitoring for Treatment Compliance	▶ ASHA will follow up through home visits ▶ HBNCC visits ▶ ASHA will mobilise all anemic cases for follow up testing after 3 months of treatment ▶ Counselling of mothers/caretakers by ASHA and ANM on reassurance of common side effects of the Iron supplementation ▶ ANM to report compliance on AMB Abhiyaan portal
Record Keeping	
Records	▶ RBSK Portal ▶ U-WIN ▶ AMB Abhiyaan Portal
Therapeutic/ Treatment Protocol: Severe anemia	
Refer the child to higher facility - FRU/DH for further investigation and management of anemia . Follow up as per advise of treating Paediatrician.	



Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

Table 7:

Children (0-6 months)-LBW	
Test protocol	
Periodicity	As directed by SNCU-in-charge/Paediatrician
Who will screen and platform for screening	Screening at SNCU/NICU/Paediatric ward as per advice of Physician/ Paediatrician
Record keeping	▶ SNCU records ▶ AMB Abhiyaan Portal ▶ U-WIN
Treatment Protocol	
Iron formulation	IFA drops
Dosage	As per advise of Paediatrician/ FBNC guidelines
Treatment duration and follow up	As directed by Paediatrician

Compliance:

1. If compliance is poor, < 80% consumption of the prescribed doses in a month Counsel beneficiary or mother/ caretaker of child and continue the treatment for next month.

2. If compliance is good, > 80% consumption of the prescribed doses in a month.

Anemia is a multifactorial public health issue that cannot be addressed through iron supplementation alone. Along with Iron-folic acid supplementation, a comprehensive strategy must include other allied interventions that complement supplementation. Deworming and Delayed cord clamping are proven effective interventions complementing IFA supplementation; details as below.

5.1 Deworming

Deworming is an essential component of Anemia Mukt Bharat Abhiyaan and should be implemented as a routine, convergent public health intervention among populations at risk. Intestinal helminth infections contribute directly to anemia by causing chronic intestinal blood loss, reducing iron and micronutrient absorption, suppressing appetite, and damaging gut lining, thereby worsening nutritional deficiencies. Regular deworming of preschool and school-age children, adolescents, pregnant women and women of reproductive age reduces parasite load, improves nutrient absorption, and enhances the effectiveness of iron-folic acid supplementation. For sustained impact, deworming must be combined with water, sanitation, and hygiene measures to prevent re-infection. Strengthened behaviour change communication will support long-term reduction in anemia prevalence.

Dose and regimen for all ages:

Children 1-2 year of age

Dose and regime	Platform
Biannual dose of 200 mg albendazole (1⁄2 tablet of 400 mg)	Anganwadi Centre

Children 2–19 years of age including out of school adolescent girls

Dose and regime	Platform
Biannual dose of 400 mg albendazole (1 tablet)	2-5 years and out of school children and adolescents: Anganwadi Centre 6-19 years school going children: School

Pregnant women

Dose and regime	Platform
One dose of 400 mg albendazole (1 tablet), after the first trimester, preferably during the second trimester	VHSND/ANC Clinic/ PMSMA/ ePMSMA

Women of reproductive age (non-pregnant, non-lactating) 20–49 years

Dose and regime	Platform
Biannual dose of 400 mg albendazole (1 tablet)	Anganwadi Centre

National Deworming Day:

To intensify efforts towards Soil transmitted Helminths (STH) control in India, the Ministry of Health and Family Welfare has been implementing the National Deworming Day. Under NDD, biannual mass deworming (albendazole tablet) for children and adolescents in the age groups between 1 and 19 years is carried out during the months of February and August every year. This is followed a week later by mop-up rounds to cover the left-out and missed children.

The objective of National Deworming Day is to deworm all preschool and school-age children (enrolled and non-enrolled) between the ages of 1-19 years through the platform of Anganwadi Centers and schools in order to improve their overall health, nutritional status, access to education and quality of life.

Key stakeholders for conducting National Deworming Day:

The Ministry of Health & Family Welfare, Government of India will be the nodal agency for providing all States/UTs with guidelines related to National Deworming Day[6] (NDD) implementation along with training material, IEC material for community mobilization and awareness generation, reporting formats , monitoring checklists and Adverse Event management protocols. The Departments of School Education & Literacy and Women and Child Development (MWCD) are key stakeholders for the National Deworming Day.

5.2 Delayed Cord Clamping

Delayed cord clamping, a recommended early-life intervention for anemia prevention is included as a standard delivery-room practice in all health facilities, and is promoted as a part of Anemia Mukt Bharat Abhiyaan. Delayed cord clamping, defined as clamping the umbilical cord at least 1–3 minutes after birth or after cessation of cord pulsations, which allows additional placental blood transfer to the newborn, resulting in higher neonatal hemoglobin levels and improved iron stores during the first months of life. This low-cost, high-impact practice reduces the risk of early childhood iron deficiency and anemia without requiring additional supplies or complex procedures.

Early cord clamping, which is generally carried out before 60 seconds after birth, is not preferred unless the newborn shows signs of asphyxia and needs immediate resuscitation.

All skilled birth attendants should be trained to practice delayed cord clamping during normal deliveries and caesarean sections as a part of essential newborn care. Compliance with delayed cord clamping protocols should be integrated into labor room quality assurance, staff training, and supportive supervision. It is beneficial in preventing iron deficiency for this crucial period till the initiation of prophylactic IFA supplementation doses.

6: www.nhm.gov.in

Delayed Cord Clamping

When?

1-3 minutes after birth
After cessation of cord pulses

Why?

Allows Placental blood transfer,
resulting in higher neonatal hemoglobin

Non-nutritional anemia results from conditions such as malaria, worm infestation, tuberculosis, chronic inflammation, hemoglobinopathies, and other medical disorders.

To achieve the goal of reducing the anemia prevalence, it is important to address the underlying conditions causing non-nutritional anemia. Screening and managing these underlying causes, will improve the programme outcomes, especially among the vulnerable sections through combined and reinforcing effects. Non responders to IFA treatment may be referred to be screened for hemoglobin disorders, acute/ chronic infections such as pneumonia, TB, HIV, and other chronic conditions at PHC/ CHC/DH, followed by timely referral, treatment and follow-up to resolve these underlying causes.

6.1 Hemoglobinopathies

Hemoglobinopathies are genetic disorders of hemoglobin broadly categorised as structural hemoglobin disorders or malformed hemoglobin. These disorders are among the major etiological factors contributing to the high prevalence of anemia worldwide. Being one of the most common inherited diseases with high prevalence in tribal parts, these disorders have substantial public health impact due to their intergenerational transmission and contribution to high morbidity.

In structural hemoglobin disorder, structural defects in hemoglobin may alter its stability and functions leading to clinical disorders like Sickle Cell Anemia, HbE and HbC, while thalassemia is genetically malformed hemoglobin. Sickle cell disease and thalassemia, the commonest hemoglobinopathies are discussed as below.

6.1.1 Sickle Cell Anemia

Sickle cell anemia is caused by the inheritance of the abnormal sickle hemoglobin (HbS) genes that create defective hemoglobin leading to elongated, crescent or sickle shaped red blood cells which is highly fragile leading to severe anemia. These sickled cells are rigid and sticky blocking the blood flow to internal organs causing severe health implications like pain, infections and organ damage. Its prevalence is disproportionately higher in the tribal population in which about 1 in 86 births have Sickle Cell Disease[7].

6.1.2 Thalassemia

Thalassemia is an inherited blood disorder that affects the production of hemoglobin leading to pale, small (microcytic hypochromic) red blood cells with shortened life span. Based on the part of hemoglobin affected, thalassemia is categorised into β and β-thalassaemia. Thalassemia Major (TM) and Thalassemia Intermedia (TI) types of β thalassemia result in severe anemia and constitute the major burden of disease. β-Thalassemia minor and β-thalassemia are mostly asymptomatic and lead to mild microcytic hypochromic anemia.

7: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2026348&reg=48&lang=2

6.1.3 Need of diagnosing hemoglobinopathies

Hemoglobinopathies associated with hemolytic or microcytic anemia are susceptible to misdiagnosed as iron deficiency anemia (IDA) and inappropriately treated with iron supplementation which may have significant adverse effects such as iron overload.

Iron overload is one of the most important complications of hemoglobinopathies. Treating hemoglobinopathies with iron supplements under AMB may potentially result in iron overload which may affect cardiac, liver, endocrine system and in skeletal issues. This necessitates safeguards to be put in place to rule out the presence of hemoglobinopathies in each case of anemia with proper medical and personal history, investigation and clinical assessment for accurate diagnosis, rational iron use, prevention of iron overload, and the long-term reduction of anemia prevalence.

Do not give empirical iron to a non-responder without first ruling out a hemoglobinopathy.

Anemia Mukt Bharat Abhiyaan emphasizes the recognition of hemoglobinopathies in susceptible patients. Health workers must be aware of these genetic conditions to distinguish nutritional anemia from hemoglobinopathies for referral to the higher centres for further management.

Government of India implements National Sickle Cell Anemia Elimination Mission to improve care of all Sickle Cell Disease patients for their better future and to lower the prevalence of the disease through multi-faced coordinated approach towards screening and awareness strategies. Under National Sickle Cell Anemia Elimination Mission, Government of India provides free screening and diagnostic services for Sickle Cell Disease at all level of health facilities. Government has published guidelines8 for prevention and control of hemoglobinopathies- thalassemia, sickle cell disease and other variant hemoglobin to address this significant public health challenge.

National Sickle Cell Anemia Elimination Mission

Improving care for Sickle Cell Disease care

- Multi-faceted coordinated approach
- Free screening and diagnostic services
- Published guidelines for prevention and control

2: https://sickle.nhm.gov.in/home/guidelines
https://www.nhm.gov.in/images/pdf/programmes/RBSK/Resource_Documents/Guidelines_on_Hemoglobinopathies_in%20India.pdf

6.2 Detection and Management of Acute and Chronic Diseases and Infections

Infectious diseases such as malaria, hepatitis, tuberculosis, HIV can alter the production and destruction of Red Blood Cells through diverse mechanism which leads to development or exacerbation of anemia. Further, certain chronic conditions such as chronic kidney diseases (CKD) may cause inflammation which lead to anemia through disruption of production and metabolism of the RBCs. Side effects of drugs given to manage these infections and chronic diseases may also contribute to the anemia incidence. If these factors remain undiagnosed and left untreated, they can lead to persistent anemia, reducing the effectiveness of anemia treatment, affecting overall health outcomes.

Correction of non-nutritional associated factors through early identification, prompt diagnosis, and effective management should be focused to effectively address the challenges in reducing the anemia prevalence. Strengthening referral linkages, supporting free drugs and diagnostics, and providing nutritional support during treatment further improve hemoglobin recovery and overall health outcomes. Several public health programmes implemented under the National Health Mission (NHM) address these associated factors through facility and community based interventions which include specific screening, diagnostic procedures and treatment as outlined below.

Malaria

It can be screened at community level and health facilities by rapid diagnostic tests (RDT) of all fever cases while confirmation is done at higher centres through blood microscopy. Treatment follows the administration of anti-malarial drugs under national drug policy. Drug Distribution Centres (DDCs) and Fever Treatment Depots (FTDs) are established at health facilities to provide easy accessibility to the community for full-course treatment, with emphasis on adherence and cure. Under National Health Mission, the Ministry of Health and Family Welfare implements **National Vector Borne Disease Control Programme (NVBDCP)9** which integrates surveillance, prevention, and case management strategies enabling timely management of malaria.

9: https://nhm.gov.in/index4.php?lang=1&level=0&linkid=279&lid=346

Tuberculosis

It is one of the most common infection diseases in which the host immune response and chronic inflammation along with nutritional deficiency predispose patients to iron deficiency anemia. **TB Mukt Bharat Abhiyaan (TBMBA)** provides free screening, diagnosis, and treatment, along with nutritional support to tuberculosis patient. Under **TBMBA**, Government of India provides free diagnostic services such as nucleic acid amplification tests (NAAT), sputum smear microscopy at Designated Microscopy Centers (DMCs) and for its early diagnosis along with prompt treatment under anti-tubercular drugs regimen[10].

Under the TBMBA, Ayushman Arogya Shivirs are being organized to provide a package of integrated health services, including hemoglobin (Hb) screening for early identification of anemia. The initiative facilitates timely detection, counselling, referral, and management of anemia, particularly among vulnerable populations.

Hepatitis

Viral Hepatitis is categorized as Hepatitis A, B, C, D and E based on causative viruses. The Ministry of Health and Family Welfare implements **National Viral Hepatitis Control Programme (NVHCP)** which creates awareness, prevention, early diagnosis, and free treatment services across all levels of care, reducing morbidity and complications that can contribute to anemia.

Under this programme, free screening and diagnosis services for Hepatitis are available at all public health facilities e.g. Hepatitis B surface antigen (HBsAg), serum bilirubin levels. Further, severity of liver disease is assessed at tertiary level through investigation like HBV DNA levels, liver enzymes, alanine aminotransferase (ALT), aspartate aminotransferase (AST), transient elastography (FibroScan) and Liver biopsy, if available.

Treatment for Hepatitis B and C is available at all levels of health care under the drug regimens outlined in National Guidelines for Diagnosis & Management of Viral Hepatitis[11]. Additionally, **Routine immunization** prevents vaccine-preventable diseases including hepatitis B, thereby reducing infection-related anemia risk among children.

10: https://tbcindia.mohfw.gov.in/guidelines/

11: https://nvhcp.mohfw.gov.in/common_libs/diagnosis-management-viral-hepatitis.pdf

HIV-AIDS

HIV infection precipitates anemia through chronic inflammatory response and as drug induced side-effects. **National AIDS Control Programme (NACP)**[12] works on prevention, testing, and treatment services to reduce HIV-related complications that may contribute to anemia. Government of India provides free HIV screening at all public health facilities and treatment through designated Anti-Retroviral Treatment (ART) centres. HIV screening is also an integral part of Ante-natal services for all pregnant women.

Chronic Kidney Diseases (CKD)

Anemia is the most common complication of CKD caused due to erythropoietin deficiency, chronic inflammatory response, bone marrow dysfunction and nutrition deficiency. Screening for anemia is crucial for each of the patient suffering from CKD along with further laboratory tests like complete blood count (CBC), serum ferritin, transferrin etc. to confirm the severity and to plan management accordingly. **Pradhan Mantri National Dialysis Programme** provides case-based management of chronic kidney diseases contributing to anemia.

Strengthened referral linkages with the above-mentioned interventions will facilitate correction of the associated factors of anemia. The Anemia Mukt Bharat Abhiyaan emphasizes integration with these programmes by intensifying awareness, screening, and treatment of non-nutritional causes of anemia attaining the goal of Anemia Mukt Bharat.

6.3 Water, Sanitation and Hygiene Practices (WASH)

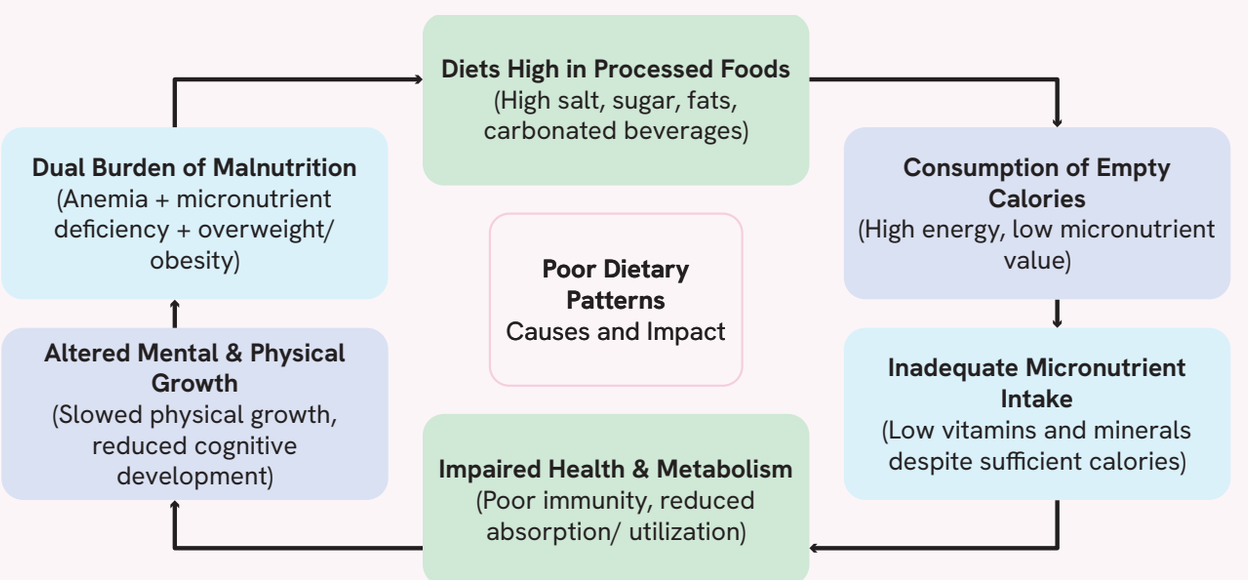
Water, sanitation and hygiene (WASH) practices are one of the key determinants for the health and nutrition outcomes. Poor WASH practices such as lack of availability of safe drinking water, open defecation and poor hand hygiene are responsible for most of the infectious diseases and STH infestations. Promoting the WASH practices at community and individual level is crucial to address high burden of iron deficiency, especially among the vulnerable sections of the society.

12: https://naco.gov.in/operationalguidelines

Healthy food forms the foundation of preventive healthcare and is an integral component of overall well-being. Both macronutrients (carbohydrates, proteins and fats) and micronutrients (vitamins and minerals) together form a healthy diet, in adequate quantities to meet the body's physiological requirements to support growth and development, tissue repair, maintenance of muscles and bones, immune function, and overall health throughout the course of life.

Nutrition plays a critical role in enabling individuals to achieve their full physical, cognitive and productive potential. The foundations of good health are laid even before birth. Adequate nutrition during adolescence, the preconception period and pregnancy is essential for healthy fetal growth and development. After birth, optimal breastfeeding practices provide infants with essential nutrients and protective factors that support growth, immunity and long-term health outcomes. As children grow, establishing healthy eating habits and consuming nutrient-rich foods become critical for physical growth, cognitive development and prevention of micronutrient deficiencies.

Inadequate dietary intake of iron-rich food and poor nutrient bioavailability in foods is a major contributor to the persistently high burden of anemia in India. **Eating Right** through conscious practices as dietary diversity, improved cooking practices to enhance iron bioavailability is therefore a critical pillar of Anemia Mukt Bharat Abhiyaan.



Continued Poor Dietary Pattern Reinforce the Cycle

Diets high in processed foods, calories, excessive salt sugar, and carbonated beverages provide empty calories i.e. high calories with minimal or no nutritional value. Such dietary patterns, when continued for a very long time, contribute and give rise to being overweight and obese and causes deficiencies in nutrients.

While iron deficiency is the most common cause of anemia, it can also result from deficiencies of folate, vitamin B12, vitamin A, vitamin C and other nutrients involved in red blood cell production and hemoglobin synthesis. Inadequate dietary intake, poor dietary diversity and low bioavailability of nutrients contribute significantly to the burden of anemia. As emphasized in the ICMR-NIN Dietary Guidelines for Indians (2024)[13], no single food contains all nutrients required by the body. Therefore, consumption of a diverse diet comprising multiple food groups is essential for nutrient adequacy. Promoting dietary diversity, healthy food choices, improved cooking practices and enhanced nutrient bioavailability forms an important pillar of the Anemia Mukt Bharat Abhiyaan.

Maintaining good health requires the regular consumption of a diverse diet in appropriate quantities, aligned with the body's needs. It is important to have macronutrients and micronutrients from a minimum of 5-6 food groups, with vegetables, fruits, green leafy vegetables, roots and tubers. As described in NIN, Dietary guidelines for Indians, there are 10 food groups and to achieve dietary diversity, it is essential to consume at least 5-6 food groups in the daily diet. Equally important are proper cooking practices, including cooking at appropriate temperatures, adherence to food and personal hygiene, and healthy lifestyle practices which comprise physical activity, sleep timings, water intake etc. Together, these factors help the individual in building a healthy lifestyle.

7.1 Healthy Food - Foundation for Anemia Prevention

Factors causing anemia may be nutritional or non-nutritional. The nutritional factors include deficiency of nutrients in diet, bioavailability of nutrients, while the non-nutritional includes infection, thalassemia, malaria, sickle cells etc. Lack of other nutrients beside iron that can cause anemia by affecting the formation of hemoglobin in the body are vitamin A, C and B12, Folic acid, thiamine and pyridoxine.

To overcome these deficiencies, the first line is to adopt corrective actions and healthy lifestyle practices. While Iron and Folic Acid supplementation is provided under the Anemia Mukt Bharat Abhiyaan, it is equally important to prioritize the consumption of nutritious, locally available foods within the household. Preparing balanced, home-cooked meals and regular intake of freshly cooked food can significantly improve dietary quality.

While supplementation can correct existing deficiencies, sustained inclusion of nutrient-dense diverse foods in daily diets is essential to rebuild and maintain physiological nutrient reserves, thereby reducing the risk of recurrent deficiencies once the supplementation is dropped.

India has a wide variety of iron-rich foods available across all states and regions, yet many of these are underutilized in daily diets. By making conscious changes in food choices, adopting

13: https://nin.res.in/dietaryguidelines/pdfjs/locale/DGI_2024.pdf

appropriate food combinations, and following proper cooking practices in measurable ways, individuals can meet their daily iron and other micronutrient requirements through diet alone. Such habits should be encouraged and sustained throughout the life course, from childhood to adulthood. Traditional food combinations such as pairing plant-based iron sources with vitamin C rich foods or combining cereals and pulses-can significantly improve nutrient absorption.

Are costly and trending 'Healthy Foods' better for iron than regular home foods?

Costly and trending "healthy foods" are not necessarily better sources of iron than regular home-based diets. The body is well adapted to traditional eating patterns, and shifting to fad diets without adequate scientific evidence is not advisable. Locally available and seasonal foods are often equally nutritious and more affordable.

A nutritionally adequate diet does not need to be expensive. Locally available foods such as jackfruit in Assam, ragi and millets in Karnataka, bajra in Rajasthan, often provide substantial nutritional value, including iron, when consumed appropriately.

Emphasis should be placed on sustainability, affordability, accessibility, and cultural suitability of foods by following proper cooking practices and combining foods wisely to enhance absorption and effectively meet daily iron requirements.

Whole foods provide adequate nutrients in combination and in forms that support better absorption and utilization by the body, especially when meals are planned with bioavailability in mind, such as pairing iron-rich foods with vitamin C-rich fruits and vegetables and using traditional practices like soaking, germination and fermentation.

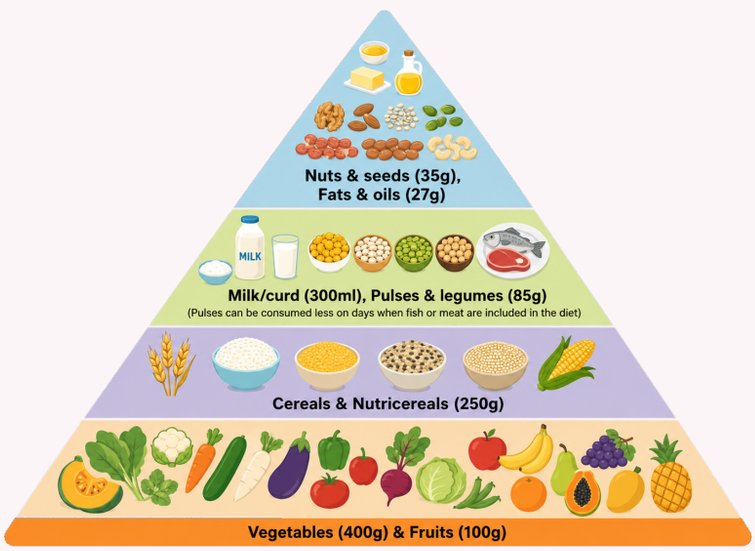
Evidence suggests that dietary diversification and improved food practices can significantly enhance iron absorption and help prevent recurrent anemia once supplementation is discontinued. Long-term anemia management across age groups depends on establishing healthy eating habits, improving diet quality, and regular consumption of locally available, nutrient-dense foods as part of everyday meals once the adequate hemoglobin level is reached and iron stores in the body replenished.

Dietary Diversity and Anemia

Anemia is often the result of multiple nutrient deficiencies rather than iron deficiency alone. A diverse diet provides adequate intake of iron, folate, vitamin B12, vitamin A, vitamin C, riboflavin and protein, all of which contribute to hemoglobin synthesis and red blood cell formation. Therefore, improving dietary diversity is one of the most sustainable food-based approaches for prevention and control of anemia.

7.2 Food Pyramid - The Principles of a Balanced Diet

The concept of Food pyramid clearly defines what to be eaten and how much to be eaten using an illustration. The pyramid is divided into four levels, representing different food items, cereals and legumes/beans at the base which means these are the food groups that should be eaten in sufficient quantity, vegetables and fruits on the second level meaning these should be eaten liberally, animal source foods and oils on the third level that are to be eaten moderately, and at the apex, highly processed foods high in sugar and fat to be eaten sparingly.



reference: ICMR-National Institute of Nutrition. Indian Council of Medical Research, Dietary guidelines for Indians, 2024

Following this while preparing meals and deciding what to eat will help the individuals in creating healthy dietary choices.

To simplify dietary recommendations for households, ICMR-NIN advocates the Healthy Plate approach. The plate should consist of approximately ½ portion of vegetables and fruits, ¼ of cereals and millets, and ¼ should include pulses, legumes, eggs, fish, meat or other protein-rich foods. Inclusion of milk or milk products, nuts and seeds as part of daily meals further improve nutrient adequacy and dietary quality. It is advisable to include seasonal and locally available food sources in daily meal preparation.

The inclusion of 'Various Food groups' approach offers a practical framework for regular intake of a broad spectrum of micronutrients through everyday foods, since no single

food provides all the micronutrients/antioxidants. For example, green foods, particularly green leafy vegetables, are rich sources of iron, folate, magnesium, and vitamin K, which are essential for hemoglobin synthesis, cellular growth, and bone health. Red-colored foods such as tomatoes, beetroots, and pomegranate contribute non-heme iron, vitamin C, and antioxidant compounds like lycopene, which enhance iron absorption and support immune function. Orange and yellow foods supply provitamin A carotenoids, vitamin C, and potassium, playing a critical role in linear growth, vision, and immune competence.



reference: ICMR-National Institute of Nutrition. Indian Council of Medical Research, Dietary guidelines for Indians, 2024

7.3 Role of Micronutrients in Anemia - Iron, Folate, Vitamin B12 and Vitamin C



Iron

Iron is an essential element for the synthesis of hemoglobin, the protein responsible for oxygen transport in blood. Insufficient iron intake or poor absorption reduces hemoglobin production, leading to iron deficiency anemia. Iron is crucial for the development of brain, in case of children, the brain is like fast-growing cities, making new connections daily and establishing thoroughfares. Appropriate levels of iron facilitate such development; conversely, iron deficiency negatively impacts the growth and maturation process of the brain leading to serious cognitive consequences. These are not peculiar to children; adults also suffer from cognitive impairment on account of inadequate supply of iron affecting memory and attention which are highly dependent on efficient transmission in the brain.



Folate

Folic acid is a vitamin essential for production of red cells. Its deficiency leads to megaloblastic anemia. Folic acid intake during pregnancy protects the fetus from developing certain congenital defects like neural tube defects and promotes gain in birth weight of infants. Folate deficiency results from poor dietary habits, malabsorption disorders, alcohol abuse and certain medications.



Vitamin B12

Vitamin B12 is critical for DNA synthesis and red blood cell formation. Deficiency of B12 leads to anemia even in the presence of adequate iron intake, with fatigue, weakness, and potentially irreversible neurological damage if left untreated. It can result from pernicious anemia, malabsorption disorder, GI surgery, certain diets and medications.



Vitamin C

Vitamin C plays a critical role in absorption or iron from food as it reduces ferric to ferrous iron due to its antioxidant properties and thereby supports absorption. Deficiency of Vitamin C results from poor dietary choices, malabsorption disorders and poor lifestyle choices as excessive alcohol/smoking.

Do these nutrients wash off when cooked?

The answer is yes; vitamins are often lost during washing of cut vegetables. Thus, one should always wash vegetables first in the running tap water and then cut it into desired pieces. It is not advisable to discard the excess water when using vegetables for soups.

Do not overcook or reheat the food multiple times, as it leads to loss of vitamins and nutrients.

7.4 Nutritional Sources of Nutrients that Play a Role in Anemia

Iron in the diet comes from **heme** sources (animal foods) which are more readily absorbed, and **non-heme** sources (plant foods) which are less bioavailable. A diversified diet combining both increases total iron intake and net absorption. The heme and non-heme foods cut across cereals, millets, pulses, green leafy vegetables, seeds and animal foods. Traditional millets such as **bajra and finger millet (ragi)** offer significant iron content and can be included in routine diets.

Folic Acid: Fruits and vegetables are our best sources of vitamins and minerals in the diet. The terminology 'Folic' means leaves in Latin, since its available in leafy vegetables abundantly. The rich sources are chicken, liver, beef, eggs, spinach, beetroot, fresh orange juice are also some of the good sources of folic acid.

Vitamin C is an essential nutrient found in fruits and vegetables. Citrus fruits like oranges, guava, amla and lemon are the richest sources of vitamin C as compared to other fruits.

Vitamin B12: is derived from foods from animal origin, including fish, meat, poultry, eggs, and dairy products. Plant foods do not naturally contain vitamin B12.

7.5 Enhancers and Inhibitors to Iron Absorption

Iron bioavailability refers to the **fraction of dietary iron that is absorbed and utilized**. Indian diets are predominantly cereal pulses based with high phytate and polyphenol content, which bind iron and reduce its absorption. Typical iron bioavailability from vegetarian diets ranges from **1–6%**; in contrast, animal-sourced heme iron has an absorption rate of **15-35%**.

The most potent enhancers include:

- **Vitamin C (ascorbic acid)** increases non-heme iron absorption several-fold when consumed in the same meal (e.g., citrus fruits, guava, amla). These foods should be eaten along with meals for better absorption of iron.
- **Animal protein and heme iron** - improve overall iron absorption.
- **Food processing methods** - fermentation (e.g., dosa, idli batter), germination, and soaking reduce phytates and enhance bioavailable iron in millets and legumes. Studies show fermentation and germination in millets can increase bioavailable iron by **3.4 times**[14] and 2.2 times respectively.

14: Anitha, S., Govindaraj, M., Kane-Potaka, J., et al. (2021). Millets Can Have a Major Impact on Improving Iron Status, Hemoglobin Level, and in Reducing Iron Deficiency Anemia-A Systematic Review and Meta-Analysis. Frontiers in Nutrition, 8, 725529. https://doi.org/10.3389/fnut.2021.72552

Dietary Inhibitors of Iron Absorption

Common inhibitors include:

- **Phytic acid** (found in whole grains, millets, legumes)
- **Polyphenols** (tea, coffee)

Phytates and polyphenols can reduce absorption markedly; consuming iron-rich meals with vitamin C foods counteracts these effects.

Cereals and Millets



Iron Rich Foods
Amaranth seed, black
Amaranth seed, pale brown
Quinoa
Bajra
Ragi

Folic Acid Rich Foods
Quinoa
Maize, tender, local
Maize, tender, sweet
Varagu
Jowar

Grain Legumes



Iron Rich Foods
Bengal gram, dal
Black gram dal
Cowpea
Horse gram
Moth bean

Folic Acid Rich Foods
Moth bean
Rajma- black, brown, red
Soya Bean- brown, white
Field Bean- brown, black and white
Cowpea- white, brown
Bengal gram, whole

Green Leafy Vegetables



Iron Rich Foods
Gogu leaves, red, green; Amaranth
Beet Greens
Fenugreek Leaves
Pumpkin leaves
Garden cress

Folic Acid Rich Foods
Parsley
Colocasia leaves, green
Agathi leaves
Spinach
Mustard leaves

Other Vegetables



Iron Rich Foods
Cluster beans
Onion, stalk
Field beans, broad

Folic Acid Rich Foods
Field beans, tender, lean
Drumstick
French beans, hybrid
Bitter gourd
Capsicum, yellow, red
Ladies finger

Fruits



Iron Rich Foods
Tamarind, pulp
Raisins, dried
Dates

Folic Acid Rich Foods
Mango, ripe, Variants
Papaya, ripe
Guava
Jackfruit, ripe
Dates

Roots and tubers



Iron Rich Foods
Lotus root
Yam, elephant and wild
Tapioca

Folic Acid Rich Foods
Beetroot
Lotus root
Radish
Tapioca
Carrot, orange

Nuts and oil seeds



Iron Rich Foods
Niger seeds, grey, black
Garden cress, seed
Gingelly seeds, white, brown
Jaggery

Folic Acid Rich Foods
Niger seeds, black
Gingelly seeds, white, black, brown
Mustard seeds
Linseeds
Safflower seeds

Poultry/ Animal Meat/ Marine



Iron Rich Foods
Chicken Liver
Goat, spleen
Goat, Lung
Sheep, spleen
Beef, spleen
Pork Spleen
Fish (variants)

Folic Acid Rich Foods
Egg (variants)
Chicken
Goat Liver
Beef liver
Pork Liver

8.1 Supporting Community Participation and Behaviour Change Communication

Effective communication planning and systematic implementation are critical pre-requisites for expanding outreach, strengthening service uptake, and accelerating sustained behaviour change in public health programmes. The component was an integral pillar of the initial Anemia Mukt Bharat Programme and continues to be strengthened under Anemia Mukt Bharat Abhiyaan, reinforcing the programme's emphasis on self-awareness, active ownership and collective action.

Under **Anemia Mukt Bharat Abhiyaan**, a strategic, multi-layered communication approach is particularly essential to address the deeply normalized perception of anemia across communities which reduces the perceived urgency for hemoglobin testing, iron-folic acid (IFA) consumption, dietary improvement, and timely treatment. Therefore, Anemia mukt Bharat Abhiyaan's communication strategy must go beyond information dissemination and focus on transforming mindsets-from passive acceptance of anemia as "normal" to active recognition that it is preventable, detectable, and treatable.

8.2 Understanding the Anemia Challenge: Transforming from Normalization to Self-Awareness and Action

In India, anemia is widely normalized due to its non-specific symptoms such as fatigue and weakness and is not perceived as a serious health threat. This leads to:

- Low risk perception
- Limited proactive health-seeking behaviour
- Acceptance of anemia as a part of life
- Negligence towards hemoglobin (Hb) testing
- Inadequate intake of iron-rich foods
- Suboptimal adherence to Iron and Folic Acid (IFA) supplementation

Such normalization perpetuates intergenerational cycles of poor health, reduced productivity, and unrealized potential, thereby creating barriers for achieving desired outcomes.

The **Communication strategy under Anemia Mukt Bharat Abhiyaan** aims to transform this mindset-from passive acceptance to active ownership-by creating a buzz around importance of anemia and need for generating self-awareness, building individual responsibility and fostering community-wide participation.

8.3 Communication Strategy Under Anemia Mukt Bharat Abhiyaan

A comprehensive multidimensional strategy is envisaged that underpins and emphasizes that the actual correction must begin and be sustained at the individual and family level to highlight the core theme of sustained behaviour change across communities. In order to address and sustain the behaviour change, use of core themes for promotive IEC and content related to addressing myths and misconceptions related to anemia is advocated under AMB Abhiyaan.

One of the tag lines for behaviour change embodied under this **Jan Bhagidari** is named **"Khoon ki paryapt matra, swasth jeevan ki hain paribhasha"** which represents achieving optimal hemoglobin levels for self and every family member and unlocking full physical and cognitive potential.

It represents:

- Plan for health
- A marker of pride and performance
- A symbol of responsible healthy families and communities

A step toward a healthier and more productive self-aware communities

Other thematic frameworks include **'I am Anemia free', 'varied colours on my plate'** which will change attitude as a Call to Action from normalization of anemic state to cognizance and mindful state of promoting screening of Hb value and self-awareness of maintaining appropriate hemoglobin level. These campaign position **anemia-free status as aspirational and socially desirable.**

8.4 Key Behavioural Nudges Under this Communication Strategy for Anemia

- Shift from ignorance to mindful consumption of iron-rich foods and proactive service utilization

- Creating a buzz around anemia through various activities highlighting the importance of knowing why anemia testing is important and promoting conscious eating of iron rich foods.
- Promoting oneself to regular Hb testing for the family and being aware of individual hemoglobin status.
- Encourage actionable mindful practices such as IFA compliance along with daily inclusion of 2–3 iron-rich foods with vitamin C for better absorption.
- Stop normalizing anemia and emphasizing to achieve 'I am Anemia Free' status and seeking timely testing and treatment .
- Appropriate IYCF practices.

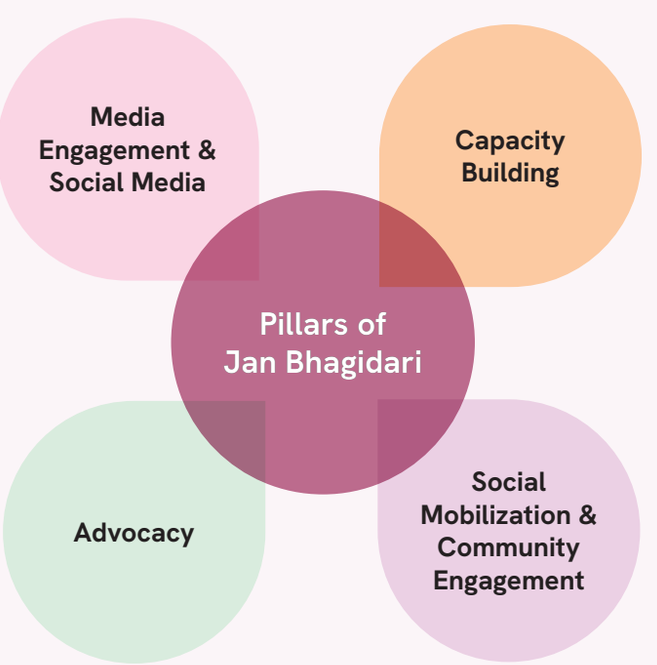
8.5 Behaviour Change Pathway

The campaign facilitates a progressive shift from awareness to sustained behavioural change through following stages:

- **Awareness** – Understanding anemia, Hb levels, and its impact
- **Initial Action** – Improved diet and uptake of IFA supplementation
- **Habit Formation** – Regular practice supported by family/community through repeated nudges
- **Sustained Behaviour** – Long-term adherence through continued engagement

8.6 Pillars of Jan Bhagidari

The Jan Bhagidari communication strategy for community mobilization aims to shift mindset from passive acceptance of anemia to active community ownership. The communication strategy for Anemia Mukt Bharat Abhiyaan will comprises of 4 key elements-



8.6.1 Advocacy

Advocacy campaigns through various stakeholders at National, State and

District level are required to promote awareness for effective implementation of AMB Abhiyaan. Stakeholders who may lead the advocacy campaign for creating communication strategies for Anemia Mukt Bharat Abhiyaan will include Panchayat Raj Institutions (PRIs), Civil Society Organisations (CSOs), Experts working in the anemia research, Front Line Workers and Members of society. Existing platforms such as Jan Arogya Samiti, VHSNC committee, Self-Help Groups (SHGs) and women's collectives, School Management Committees, Youth clubs and Nehru Yuva Kendra platforms, Poshan Pakhwada and other Religious and local community gatherings may be used to create momentum for Anemia Mukt Bharat Abhiyaan campaign.

Key Actions:

- Engage Political leaders and elected representatives at National, State, and Local levels to champion key messages of **Anemia Mukt Bharat Abhiyaan** and position anemia reduction as a priority.
- Development of advocacy package- FAQs, leaflets, factsheet, multimedia material, along with their language versions.
- Sharing communication materials and messages for efficient use by stakeholders.
- Leveraging national and state-owned media agencies for organizing advocacy activities.
- Organizing interviews and discussions with PRIs, doctors, experts and other credible voices.
- Garnering momentum for anemia by including anemia as a part of discussion during Talks/conferences/Panel discussion/Health Podcasts/Committee and review meeting involving various stakeholders such as Health Experts, local celebrities, public figures, influencers.
- Involving religious leaders/traditional healers to generate for creating awareness and influencing the community behaviour.
- State governments to strengthen interdepartmental coordination to support awareness generation.

8.6.2 Capacity Building of Key Stakeholders

Capacity building of all the stakeholders for effective communication aligned to AMB Abhiyaan should be done at various levels. States will be required to identify platforms and convergence mechanisms to reach the extensive network of PRIs, frontline workers, health care providers, community-based volunteers, influencers and stakeholders from other line departments. Resource materials for effective communication to target the resistant, hard to reach areas, tribal and vulnerable population should be developed in local languages.

8.6.3 Strengthening Mass Media, Social Media, Engaging International Media, Social Mobilization and Community Engagement

Mass media and social media play a critical role in creating awareness, generating an

enabling environment and influencing behaviour regarding prevention and treatment of anemia. It is particularly utilised to target the perceptions about normalizing anemia. Mass media and social media engagement will involve activities at the national, state, district levels and community levels considering local culture, customs and beliefs. It will target the lack of knowledge among the individual and family member empowering them to make conscious food choices especialy iron rich and vitamin C foods.

Key Actions:

A. Consistent National Branding

Launch and sustain the Jan Bhagidari campaign with unified branding of Anemia Mukt Bharat Abhiyaan, standardized IEC materials, and mass slogans developed at the national level to enhance awareness and strengthen community participation.

B. Promoting concept of Anemia-Free Identity through "I Am Anemia Mukt"

Roll out the "I am Anemia Mukt" campaign to build individual ownership and pride in being anemia-free. Encourage regular hemoglobin screening, increased consumption of iron-rich foods, and improved adherence to Iron and Folic Acid (IFA) supplementation.

C. Mass Media Engagement

Develop and disseminate TV and radio spots under the communication strategy framework to:

- Promote iron-rich dietary practices
- Improve compliance with IFA supplementation
- Raise awareness about the intergenerational consequences of anemia
- Inform communities about services available under the AMB Abhiyaan programme

D. **Digital and Social Media Strategy**

Create engaging, shareable content-including short videos, infographics, reels, and testimonials-for dissemination through social media platforms and other digital channels to all beneficiaries especially adolescents and urban populations.

E. Community and Peer Mobilization

Encourage peer-led discussions and community participation, particularly among adolescents, to leverage positive peer influence and normalize preventive behaviors.

F. Influencer and Celebrity Engagement

Engage local celebrities, public figures, influencers, and mascots to amplify messaging, enhance credibility, and promote iron-rich food consumption and IFA compliance; however

it is essential that these influencers/celebrities do not violate any government norms and that their messages must be scientifically sound in sync with the programme guidelines.

G. Myth-Busting Campaigns

Design mass media messages across print, television, and digital platforms to debunk common myths and misconceptions regarding anemia, IFA supplementation, and dietary practices.

H. Positive Storytelling and Testimonials

Document and disseminate positive stories of individuals successfully treated for anemia to counter the invisibility of the condition and reinforce the message that anemia is preventable and treatable.

I. Regional Media Leveraging

Utilize regional and local media outlets to support contextualized messaging tailored to local language and cultural needs.

J. Social Listening and Feedback Mechanisms

Use social listening tools and community feedback mechanisms to continuously adapt messaging based on emerging concerns, misconceptions, and local needs.

8.6.4 Social Mobilization and Community Engagement

Social mobilization will comprise actions on community engagement especially for testing and treatment drives and IFA consumption. It will respond to perceptions of communities and health service providers on the necessity of anemia testing and consumption of IFA as prophylaxis and for treatment of anemia.

The social mobilization plan will be contextualized to state and community requirements, and address state-specific variations and vulnerabilities such as urban-rural, tribal – nontribal, and hard to reach pockets. While social mobilization actions will reach public across all beneficiary groups, it will specifically focus on motivating the groups with high anemia prevalence and their family members through community consultations and inter-personal communication during house visits.

Key Stakeholders:

- Ministry of Health and Family Welfare
- Ministry of Information and Broadcasting
- Ministry of Women and Child Development

- Other Line-Ministries for amplifying content
- Social media managers of Development Partners

Key Actions:

Anemia Mukt Bharat Abhiyaan guidelines translated to local languages to support cohesive and correct information for all stakeholders

- Identifying existing official social media handles for the campaign and designing and relaying messages contextualized to local audience.
- Coordination between social media cell of social media managers from central and state governments and development partners.
- Establishment of a virtual content production cell/hub with filmmakers, designers, editors, writers etc. who will design and package content in multiple languages for use on various social media platforms (including PIB, My Gov etc.).
- Development of an audience targeting plan to push specific messages to specific predefined sets of audiences, for greater impact.
- Sharing stories, photos, videos, testimonials with the virtual content cell/hub for packaging and amplification.

9.1 Background and Rationale

Given the multifaceted and complex nature of Anemia which encompasses nutrition, sanitation, infection control, dietary practices, socio-economic conditions, comprehensive and coordinated efforts will be required to prevent, manage, and reduce its burden. This underscores that no single Ministry, Department, or sector can address anemia in isolation; rather, it necessitates sustained convergence and collaborative actions across health, nutrition, education, water and sanitation, rural development and tribal welfare departments to address its multifactorial etiology and determinants.

Anemia Mukt Bharat Abhiyaan addresses these challenges through institutionalized convergence mechanisms that establish shared responsibility, integrated planning, unified monitoring, and coordinated service delivery from national to community level. This chapter details out the convergence framework essential to achieving the goal of Anemia-Free India.

The framework operates on two critical components:

1. **Intra-ministerial coordination** strengthens seamless implementation of the "Test, Treat, Talk and Track" continuum across maternal health, child health, adolescent health, immunization, nutrition, disease control programmes, including Tuberculosis, vector borne diseases, NCD, NACO, hemoglobinopathies, NHSRC and Statistics Divisions.
2. **Inter-ministerial coordination** of Health with the sectors like Women and Child Development (WCD), Education, Jal Shakti, Rural Development, Tribal Affairs, Information and Broadcasting, Youth Affairs to address the multiple determinants of anemia through synchronized action.

9.2 Objectives of Strengthening Inter-Ministerial and Intra-Ministerial Coordination

Strengthening the Inter-Ministerial and Intra-Ministerial Coordination aim to achieve following strategic objectives:

- Role Delineation across Ministries and Departments defining their respective mandate and eliminating ambiguity.
- Integrated Planning at national, state, and district levels to allocate the resources cohesively and implement the interventions through convergent service delivery

platforms such as Anganwadi Centers, Schools, health facilities and community events.

- Integrated Monitoring and Review Mechanisms through joint field visits and review meetings, sharing data across dashboards for monitoring and coordinated course correction.
- Responsibility at National, State, District, and Block Levels for implementing the interventions and their outcomes, with tracking and review of shared indicators through multi-stakeholder platforms.
- Intensive Communication through multi-sectoral mobilization, implementing AMB Abhiyaan campaign through synchronized messaging, coordinated events, and multi-platform outreach.

9.3 Supportive framework for Inter-Ministerial Coordination

Many determinants of anemia fall within the mandate of a specific Ministry or Department. For delineation of the roles and support, it is necessary to establish broad institutional/ supportive framework as given below:

Key Roles	Supporting Ministry
▶ Screening of women, adolescents and children ▶ Case -based treatment with oral/IV iron; prophylactic IFA distribution ▶ Deworming (NDD); management of non-nutritional anemia at distt hospital and above level ▶ Counseling on compliance and nutrition (iron rich food) ▶ Digital tracking until anemia resolution	Ministry of Health & Family Welfare
▶ Supplementary nutrition through Anganwadi Centers ▶ Establishment and maintenance of Poshan Vatikas (kitchen gardens) ▶ Bi-annual deworming for out of school children ▶ Counseling on iron-rich foods and feeding practices ▶ Home visits for pregnant and lactating mother	Ministry of Women & Child Development (WCD)
▶ Weekly IFA distribution through schools (WIFS) ▶ Establishment of school kitchen gardens ▶ Promotion of Eating Right monthly calendar and nutrition education ▶ Quiz competitions on nutrition and anemia; ▶ WASH facilities in schools ▶ School-based deworming ▶ Training of School Health Wellness Ambassadors on anemia awareness	Ministry of Education (School Education & Literacy)

Key Roles	Supporting Ministry
▶ Implementation of WASH (Water, Sanitation, Hygiene) in rural and urban areas ▶ Provision of safe drinking water; construction and maintenance of toilets ▶ Provision of WASH facilities in schools, Anganwadi Centers, and health facilities	Ministry of Jal Shakti (Water & Sanitation)
▶ Nutrition-sensitive livelihoods through Self-Help Groups and rural development schemes ▶ Promotion of community kitchen gardens ▶ Training of PRI members on nutrition and anemia prevention ▶ Capacity building of SHG members for community mobilization ▶ Linking nutrition interventions with livelihood programmes	Ministry of Rural Development (NRLM/ SRLM)
▶ Targeted interventions to improve access and equity in tribal areas ▶ Screening for non-nutritional anemia including sickle cell disease ▶ Culturally appropriate IEC materials and community engagement ▶ Training of frontline workers in tribal contexts strengthening service delivery in hard-to-reach areas	Ministry of Tribal Affairs
▶ Nationwide media campaigns promoting thematic tag lines like I am anemia free etc ▶ Creation and dissemination of TV spots, radio programmes, and digital content on iron-rich foods, IFA compliance, and anemia screening ▶ Leveraging Doordarshan, All India Radio, and regional media for sustained messaging ▶ Coordination with state-level media agencies for the communication sharing	Ministry of Information & Broadcasting
▶ Mobilization of youth organizations (NSS, NYKS, Nehru Yuva Kendras) for anemia awareness campaigns; ▶ Training youth volunteers as anemia ambassadors ▶ Organizing youth-led communication activities ▶ Leveraging sports platforms for nutrition messaging; ▶ Peer-to-peer education on healthy eating and supplementation ▶ Engagement of youth influencers and college students in community outreach	Ministry of Youth Affairs & Sports

9.4 Intra-Ministerial/Intra-Departmental Coordination

Within the Ministry of Health & Family Welfare, anemia-related interventions are delivered through multiple technical divisions and programmes. Effective coordination among these divisions is essential to address anemia comprehensively, given its life-cycle dimensions and the wide range of contributing factors, including both nutritional and non-nutritional causes. Nutrition Division is nodal department for implementing AMB Abhiyaan which is supported by national programmes under Maternal health, Child health and Adolescent health divisions. In addition, the National Vector Borne Disease Control Programme (NVBDCP) Central TB division, NACO and the Hemoglobinopathies address key non-nutritional causes of anemia.

It is imperative to establish a structured and systematic internal coordination across these divisions to tackle the anemia burden in an integrated manner reducing the fragmented implementation, inconsistent messaging, duplication of interventions, monitoring and gaps in service delivery.

Key roles	Supporting Department
▶ Nodal Division for implementation, monitoring and course correction of the AMB Abhiyaan ▶ Prepare and share the technical and operational guidelines, protocols and communication material ▶ Bi-annual convergence meetings with line ministries and departments ▶ Regular supportive supervision visits to States/UTs	Nutrition Division, MoHFW
▶ Screen and Counsel of pregnant women and lactating mothers for anemia through ANC and PNC visits ▶ Management and follow up of anemic pregnant women, lactating mothers and women of reproductive age for pre-conception care ▶ Record data on JANANI portal	Maternal Health
▶ Screen all children coming for immunization ▶ Screen for anemia of all PW coming for Td vaccination ▶ Record data on U-WIN	Immunization
▶ Screen children for anemia through HBNCC visits ▶ Management of anemia and follow up of LBW babies ▶ Screen and record Hb testing data of school going and AWC children ▶ Referral of all anemic children for treatment and follow up ▶ Record on the RBSK Portal	Child Health
▶ WIFS supplementation to adolescents in and out of school ▶ Coordinate with RBSK for regular school-based screening for anemia ▶ Promote eat right strategy in schools through SHWP	Adolescent Health
▶ Screen, prevent and manage of Malaria and Filaria ▶ IEC/BCC strategies for prevention of Malaria	NVBDCP
▶ Address anemia in TB cases across age groups ▶ Appropriate referral and management	CTD
▶ Address anemia in chronic diseases incl CKD ▶ Appropriate referral and management	NCD
▶ Address anemia in PLHIV ▶ Appropriate referral and management	NACO
▶ Share the technical specification on Iron supplements ▶ Update newer salts/formulations	CDSCO/ IPC
▶ Maintain the HMIS, JANANI portal ▶ Integrate JANANI data with AMB Abhiyaan portal for digital tracking	Statistics Division

Key roles	Supporting Department
▶ Maintain the AMB Abhiyaan portal and the application ▶ Analytics and scorecards based on the real time data ▶ Plan for predictive AI use in the portal	NHSRC
▶ Awareness generation on Eating Right for including iron rich and Vitamin C rich food	FSSAI

9.4.1 Coordination Framework for AMB Abhiyaan

Cross-Sectoral convergence is crucial to address multifactorial nature of anemia and to reduce its burden achieving sustained impact. To operationalize coordination for AMB Abhiyaan, Committees at National, State and district level will be formed, bringing together all stakeholders and technical divisions to strengthen inter-sectoral coordination, integrated planning, implementation, regular review and provide strategic guidance to address challenges and gaps in implementation. These committees will be chaired by Mission Directors at National and State level and by District Collector at district level, having representation from line ministries and departments respectively.

The Convergence framework for AMB Abhiyaan is placed below. States and UTs will follow the similar structure to strengthen the coordination for effective implementation of AMB Abhiyaan.

Level of coordination	Composition of Committee	Supporting Roles
National level	▶ Additional Secretary & Mission Director (NHM) -Chairperson ▶ Joint Secretary RCH- Co-chair ▶ Deputy Commissioner -Nutrition Member Secretary ▶ Members- Programme representatives from Maternal Health, Child Health, Adolescent Health, CTD, NVBDCP, Statistics Division, NCD, NACO, CDSCO, NHSRC, FSSAI ▶ Line Ministries: Ministry of Women & Child Development, Ministry of Education, Ministry of Jal Shakti (Water & Sanitation), Ministry of Consumer Affairs, Food & Public Distribution, Ministry of Rural Development, Ministry of Tribal Affairs, Ministry of Information & Broadcasting, Ministry of Youth Affairs & Sports	▶ Annual/Bi-annual Review of programme implementation to States/UTs in implementation of AMB ▶ State-specific challenges and best practices ▶ Review of non-nutritional anemia-programmes and challenges ▶ Review of allocated budget and logistics

State level	▶ Chairperson- Additional Chief Secretary/ Principal Secretary/Secretary (H&FW) - ▶ Co-chair- Mission Director -NHM ▶ Convener- State Nodal Officer -AMB ▶ Members- Director Health Services and Public Health, State Nodal Officers for Maternal Health, Child Health, Adolescent Health, NTEP, NVBDCP, NHM, Statistic Division ▶ Members from line departments- Women & Child Development (ICDS), School Education and literacy, Jal Shakti (Water & Sanitation), Food & Public Distribution, State Rural Livelihood Mission, Tribal Development and Affairs, Youth Affairs & Sports	▶ Review of programme implementation, Capacity building, logistic and supply chain and Joint Supportive supervision ▶ Convergence with stakeholder departments ▶ Review and implementation IEC/ BCC strategies ▶ District-specific challenges and best practices ▶ Review of allocated budget and logistics as per plan ▶ State specific communication creatives ▶ Review of non-nutritional anemia-programme performance and challenges
District level	▶ Chairperson- District Collector/Magistrate ▶ Co-chair- Chief Executive Officer (Zila Parishad) ▶ Secretary- Chief Medical Officer/Civil Surgeon (H&FW) ▶ Convener- District Officer -AMB ▶ Members- Nodal Officer for Maternal Health, Child Health, Adolescent Health, NTEP, NVBDCP, NHM, Statistic Division ▶ Members from line departments- Women & Child Development (ICDS), School Education and literacy, Jal Shakti (Water & Sanitation), Food & Public Distribution, State Rural Livelihood Mission, Tribal Development and Affairs, Youth Affairs & Sports	▶ Review of allocated budget and logistics as per plan ▶ Universal screening status as against targets ▶ Biannual/ Annual/ ANC deworming planning and review ▶ Status of training of health providers and frontline workers ▶ Status of Training of stakeholders (JAS, School HWAs, PRI, Urban Bodies, SHGs etc) ▶ Review of performance -HMIS and U-WIN ▶ Review on IV-iron implementation and challenges and adverse events ▶ Communication creatives

9.5 Intra-Ministerial/ Inter-Ministerial Coordination

National and State/UT level committees will meet at least bi-annually to review the progress of AMB Abhiyaan identifying the intra and inter-sectoral challenges and bottlenecks to suggest corrective actions to strengthen the intervention. District level Committees would meet quarterly to review the implementation and to address the field level challenges encountered during the implementation. State/UTs should designate AMB nodal officers at State and District level who will be responsible for the implementation, capacity building, review of the intervention and intra-sectoral coordination at their respective level.

The coordination mechanisms outlined in this chapter translate the vision of an Anemia-Mukt Bharat Abhiyaan into actionable processes, clear and shared responsibilities, and coordinated service delivery.

Roles and responsibilities of different frontline workers as per the interventions are presented in the table below.

10.1 Role of Different Frontline Functionaries

Functionary	Role
ASHA	**For Test, Treat, Talk, Track:** ▶ Create line listing of beneficiaries of children 6-59 months, children 5 to 9 years, adolescents 10 to 19 years, WRA 20 to 49 years, Pregnant and Lactating Mother. (The family enumeration registry maintained by the ASHA may be leveraged for line listing) ▶ Mobilise beneficiaries using VHSND/UHSND/AAM Shivir to get annual testing- WRA 20 to 49 years, lactating mother, children (6-59 months), children 5 to 9 years and adolescents 10 to 19 years. ▶ Demonstrate to mothers and Supervise IFA syp doses in children (6-59 months) for the first week and then fortnightly. ▶ Educate mothers to fill IFA syp doses consumed in the MCP card. ▶ Perform home visits to check prophylactic and treatment compliance in children 6-59 months, children 5 to 9 years and adolescents 10 to 19 years, WRA 20 to 49 years, pregnant women and lactating mother. Additionally, arrange collaborative home visits with the CHO and ANM for severely anaemic pregnant women. ▶ Refer to AAM for testing and treatment for anemic beneficiaries. ▶ Counselling during home visits and using platforms like; VHSNC, MAS, JAS, VHSND/ UHSND and AAM Shivir of all beneficiaries for compliance and iron rich diet. Reassure in cases of mild side effects. ▶ Distribution of prophylactic IFA syp/tablets for children 6 to 59 months and WRA 20 to 49 years. ▶ Entry for counselling and compliance into AMB Abhiyaan App for beneficiary/ maintain records in ASHA diary and forward it for subsequent app updates.
ANM and CHO	**For Test, Treat, Talk, Track:** ▶ Perform annual testing and create line listing (taken out of CBAC) of anemic individuals for follow up: children, WRA 20 to 49 years, pregnant women, lactating mother. ▶ Testing of left-out beneficiaries of RBSK teams (5-19 years in and out of school); list shared by RBSK team. ▶ Conduct re-testing of anemic individuals as per protocols- children 6 to 59 months, children-adolescents 5-19 years, WRA 20 to 49 years, pregnant women, lactating mother and data entry for the same. ▶ Provide treatment doses to children 6 months to 59 months, children-adolescents 5-19 years, WRA 20 to 49 years, pregnant and lactating mother and data entry for the same. ▶ Check treatment compliance in all beneficiaries and data entry on AMB Abhiyaan App ▶ Counsel beneficiaries as per the category of anemia. ▶ Record referrals in AMB Abhiyaan App and record treatment received at referral institution. ▶ Follows up of refractory and missed cases through App generated due list

CHO	**Along with above duties, the CHO will also:** ▶ Manage stock position of the drugs and diagnostics under AMB ▶ Support outreach activities as T4 camps ▶ Refer and manage severe anemia cases and report on AMB Abhiyaan App
RBSK Team	**For Test, Treat, Talk, Track:** ▶ Perform bi-annual Hb testing in children 6-59 months in AWC, annual testing in schools for children 5 to 9 years, adolescents 10 to 18 years ▶ Line list of anemic individuals- children 6-59 months, children 5 to 9 years, adolescents 10 to 19 years will be available on AMB Abhiyaan portal.(linkages with RBSK 2.0 portal) ▶ Refer all anemic children to ANM/CHO for treatment, follow up and compliance ▶ Share Anemic children report with school teachers* and ANM for follow up and compliance (*The Health & Wellness Ambassadors at school would be provided the line list of the anemic children who then can follow up with the relevant health personnel). ▶ Entry of Hb data for all children in RBSK portal, which will be further linked with AMB Abhiyaan portal. ▶ Share list of left-out beneficiaries of RBSK visit at school for testing by ANM/CHO

11.1 Introduction: Closing the Loop on Anemia Management

The Anemia Mukt Bharat Abhiyaan adopts **digitally enabled, lifecycle-based approach** to anemia management, anchored in the principle of "closing the loop" which begins right from identification and testing to treatment and follow-up. Based on State learnings and experiences, the AMB Abhiyaan Portal uniquely integrates data flow of key digital platforms like U-WIN, JANANI, and RBSK, enabling a consolidated platform for data review and analysis. By enabling real-time monitoring, trend analysis, the dashboard supports data-driven decision-making, such as targeted interventions in underperforming districts etc. These efforts translate into efficient delivery of the 7x7x7 strategy across the TEST-TREAT-TALK-TRACK (T4).

11.2 Rationale

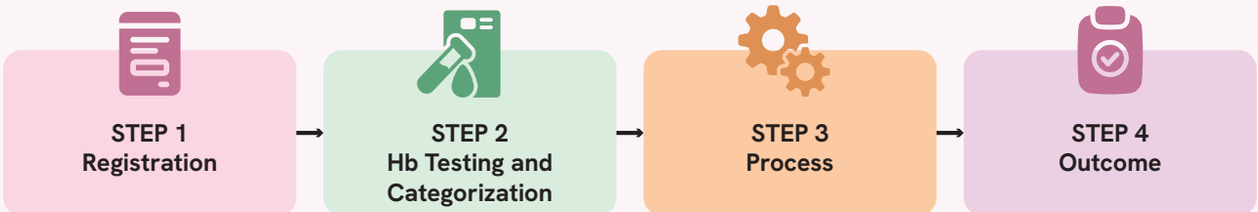
The core rationale of the Anemia Mukt Bharat Abhiyaan digital framework is to transform fragmented anemia interventions into a continuous, outcome-driven care pathway through name-based registration, protocol-linked workflows and proposed real-time monitoring.

Beginning with name-based registration of all beneficiaries, it strengthens coverage and unique identification, enabling personalized tracking across platforms like JANANI Portal, RBSK and U-WIN inclusive of all target population groups. It is endeavoured that the testing outcomes will be digitally monitored and linked to treatment/referral protocols, with automated SMS alerts for compliance, facilitating the T4 continuum (Test-Treat-Talk-Track).

1. Comprehensive Database	• Name-based registration of all beneficiaries • Saturation of coverage of testing of all registered benificiaries
2. Closing the loop	• Compliance through digital monitoring and review framework • Testing outcomes to be linked with treatment/referral protocols • Tracking anemia services with SMS alerts to beneficiaries for promoting compliance till resolution
3. Outcome	• Determining burden of anemia • Nutritional and non-nutrional anemia for targeted interventions • Supply chain management (DIH and IFA) • Identifaction of high priority areas

11.3 Core components of the Digital Ecosystem

The digital framework mirrors the operational flow of AMB Abhiyaan so that no beneficiary exits the system without an outcome. To achieve this the framework links services for user convenience. For instance, a mother bringing her infant for MR vaccination at 9 months can be tested for hemoglobin levels along with the testing of the infant in the same visit, their test data will be reported on AMB Abhiyaan Portal and U-WIN respectively. This integration benefits beneficiaries, frontline workers, and programme managers by creating coherence across programmes.



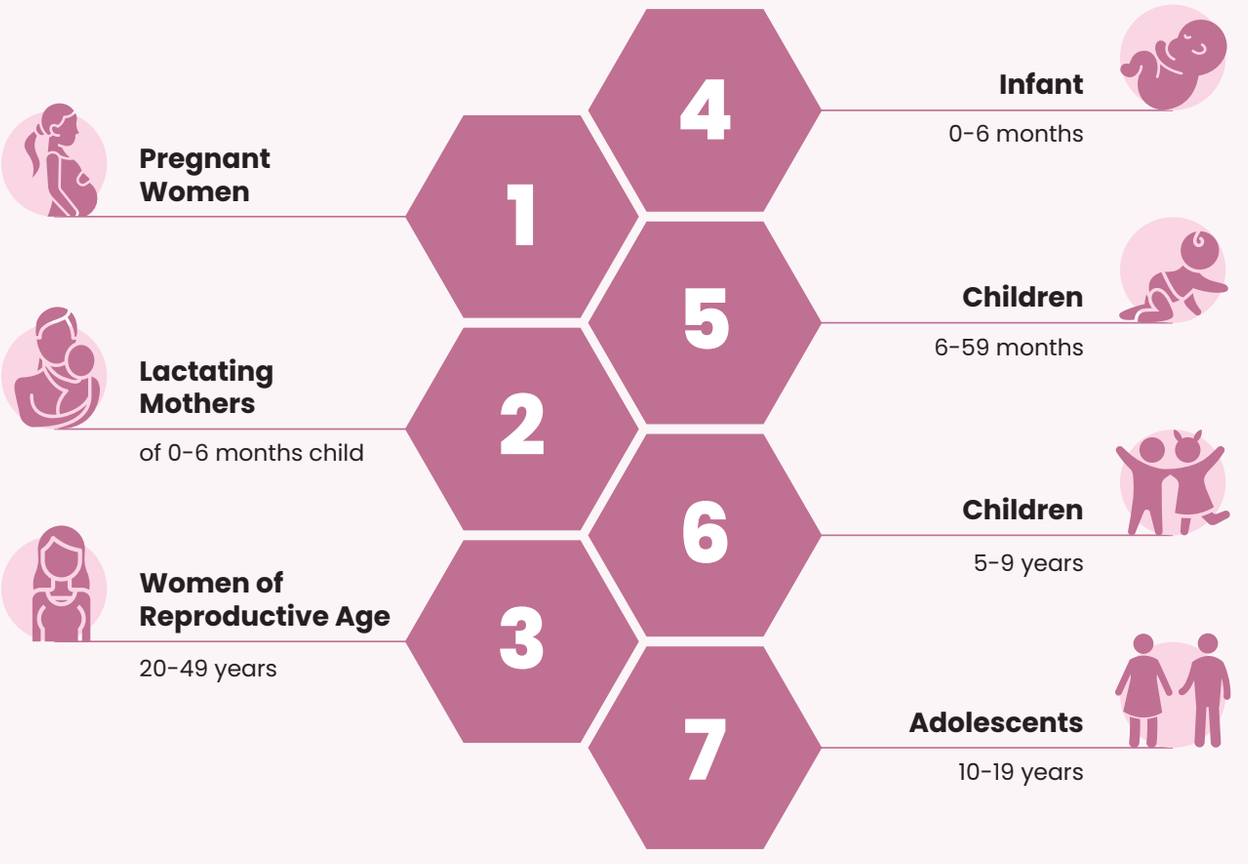
STEP I: Registration

- **Unique Beneficiary Identification enabling interoperability: ABHA**/Aadhaar ID provides for unique, name-based tracking of beneficiaries across age groups, from infants to women of reproductive age, preventing duplication across platforms (U-WIN, JANANI, RBSK portal). The system captures individuals across the entire life-cycle spectrum, from women of reproductive age, pregnant women, lactating mothers, infants, children, and adolescents, supporting comprehensive population coverage.
- **Registration**
  All beneficiaries are digitally registered across service delivery points:
  - Immunization sessions
  - VHSND
  - ANC/PNC visits
  - RBSK Mobile Health Teams
  - T4/ Outreach camps

STEP 2: Hemoglobin Testing & categorization

Details of platforms used for testing are placed in Chapter 4 "Testing and therapeutic management".

Clinically tested Hb values are captured digitally for the following 7 beneficiaries:



Beneficiary Categorization:

Anemia will be categorized as no anemia, mild, moderate and severe anemia based on the WHO Hb cut-offs (2024). This will be fed into the AMB Abhiyaan Portal for real-time monitoring for further capturing of treatment and management of the respective case.

STEP 3: Treatment, Referral, and Follow-up

- **Protocol-Linked Investigations and Treatment**: Treatment is undertaken based on anemia category as per algorithms detailed out in the Chapter no 4 earlier.
  - Prophylactic IFA supplementation for no anemia
  - Therapeutic IFA tablets for mild/moderate cases
  - IV iron (Iron Sucrose/FCM) for moderate and severly anemic pregnant women and lactating mothers
  - Referral of ALL severe anemic beneficiaries

- **Referral Mapping**: Non responders/non compliant/ all severe anemia cases are digitally mapped to appropriate health facilities for referral and further management purposes.
- **Follow-up: Re-testing and Continued Care**: The system prompts re-testing (1–3 months) based on severity, with auto reminders to frontline workers and beneficiaries both.

STEP 4 : Outcome

Based on the beneficiary type and Hb test results, individuals are classified into non-anemic, mild, moderate, or severe anemia categories, and this information feeds into the AMB Abhiyaan Portal for monitoring.

Outcomes are recorded as

1.	2.	3.	4.
Improvement in Hb levels (e.g., severe to moderate or moderate to mild)	Resolution of anemia	Non responders[1]	Non-nutritional anemia requiring further investigation (malaria, hemoglobinopathies, chronic illness) at referred facility

Under the AMB Abhiyaan, the focus expands to clinical management and outcome tracking for each beneficiary. Based on the anemia severity, beneficiaries undergo appropriate treatment guided by targeted interventions. A referral mechanism is mapped for moderate and severe cases requiring higher-level care. The system also mandates re-testing within 1-3 months of previous Hb test to track progress (based on severity of anemia). Outcomes are then recorded as either resolution of anemia (target Hb achieved) or need for further investigation and continued treatment. All data loops back into analytical dashboards and reports, enabling continuous programme monitoring, evidence-based decision-making, and policy refinement.

Overall, the flow represents a closed-loop, digital-first continuum of care, from identification and classification to referral, treatment, follow-up, and outcome measurement, so that no beneficiary is missed and enabling precise, data-driven anemia control.

11.4 AMB Abhiyaan Portal with Enhanced Robustness

This serves as the real-time dashboard, enabling routine monitoring and review at the national, state, and district levels. The Management Information System (MIS) emerging from the integration of JANANI, and RBSK with U-WIN, serves as a critical bridge to address data silos and implementation gaps in anemia management. Data analytics tools enable gap analysis such as low referral completion rates or drop-outs between testing and re-testing thereby, facilitating targeted interventions at sub-national levels.

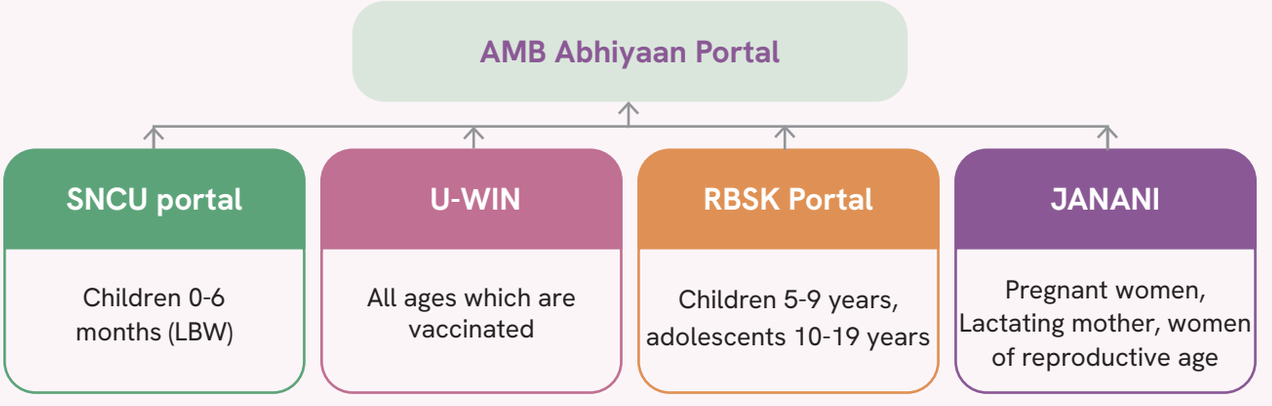
The beneficiary-wise source of data sets are as below:

Key Features

- Anemia data compilation from U-WIN, JANANI and RBSK and display
- State and district-wise visualization of pre-defined KPIs
- Age and category-specific anemia burden based on testing
- Treatment and follow-up status

Purpose

- Track saturation of registration and testing
- Monitor adherence to treatment and re-testing protocols
- Enable rapid identification of high anemia clusters/zones or population groups
- Support routine review meetings
- Service delivery gaps



11.5 Advanced Analytics and Decision Support

Predictive and Forecasting Capabilities: It is proposed that machine learning models on historical and current hemoglobin trends, treatment responses, and auxiliary indicators (e.g., regional hotspots from cluster analysis) will be leveraged to strengthen the programme implementation. These AI-driven projections will support proactive supply chain planning, early warning alerts for non-responding cases, and scenario modelling to optimize the 7x7x7 AMB Abhiyaan framework outcomes.

Key Features envisaged

- Pre-loaded, query-based analytics tools
- Correlation of input, process, output, and outcome indicators
- Cluster analysis to identify geographical hotspots of anemia
- Linkage of programme performance with service delivery gaps
- Planned AI-enabled tools for predictive insights and scenario analysis

Desirable deliverables

- Identify causative patterns (nutritional vs non-nutritional anemia)
- Assess protocol and treatment adherence
- Link service delivery with anemia outcomes for all beneficiaries

11.6 Analytical Indicators[16] for Review and Monitoring

Under AMB Abhiyaan following indicators are envisaged to be recorded for strengthening monitoring and review of programmatic interventions:

1. Testing Indicators

- Percentage of registered beneficiaries tested for Hb values, beneficiary-wise
- Testing coverage by the service delivery point, beneficiary-wise

2. Anemia Burden and Categorization

- Burden of anemia (overall, age and geography-wise)
- Distribution of mild/moderate/severe anemia by age and geography
- Identification of anemia hotspots (clusters) for targeted interventions by State/UT

3. Treatment and Referral Indicators

- Percentage of anemic beneficiaries initiated on treatment
- Percentage of severe anemia cases referred to Health Facilities
- Percentage of non responders cases referred to Health Facilities
- Percentage of all referred cases managed at the facility

16: Indicators mentioned are applicable to iron deficiency anemia

4. Follow-up and Re-testing

- Percentage of under treatment beneficiaries re-tested
- Drop-out rate from treatment

5. Outcome and Resolution Indicators

- Percentage of beneficiaries achieving anemia free status
- Conversion rates (severe → moderate, moderate → mild)
- Proportion of non-nutritional anemia cases detected

11.7 Supply Chain Optimization

AMB Abhiyaan emphasizes on uninterrupted availability of commodities for quality programme implementation. The following commodities IFA tablets/Syp, IV Iron (Iron Sucrose/FCM), DIH and consumables (lancet, cuvette/strips) stocks will be managed and analysed as per following:

- Real-time stock visibility
- Batch and expiry monitoring
- Automated indent generation
- Reduction in stock-outs and wastage

Each commodity will be tagged for Batch number, Expiry date, Stock level and Lead time.

The AMB Abhiyaan framework supports frontline workers, program managers, and policymakers to drive acceleration in anemia reduction, contributing to improved IMR, MMR, and long-term positive health outcomes.

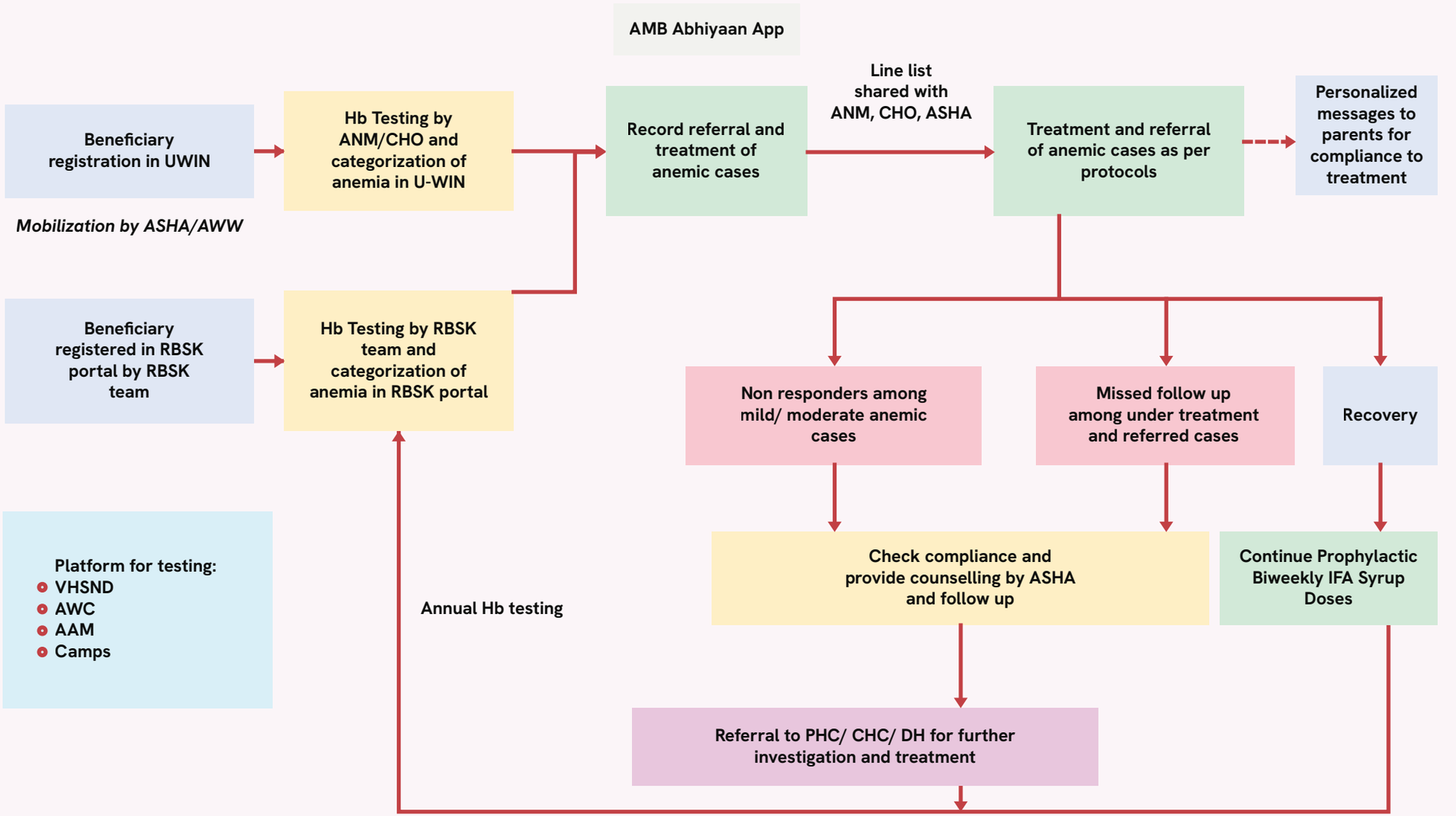
Compliance Framework

Compliance to IFA supplementation is the cornerstone of both prophylactic and therapeutic interventions for anemia prevention and management. Poor IFA compliance is one of the major contributing factors to persistent anemia. Hence, it is crucial to monitor compliance among the beneficiaries, especially among vulnerable groups, to achieve the desired outcomes of IFA supplementation.

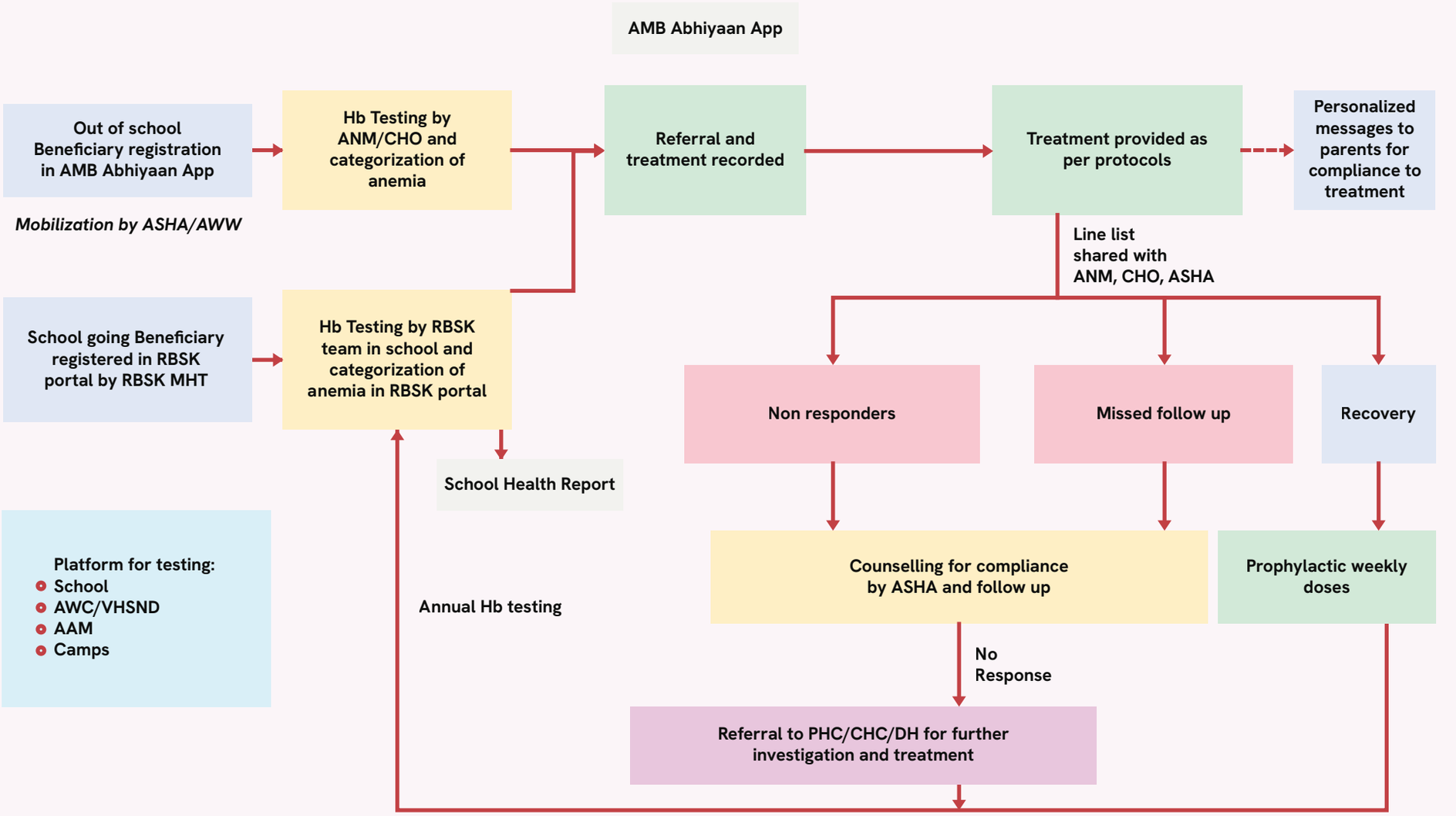
Under AMB Abhiyaan, a comprehensive approach for strengthening compliance is to be implemented which includes individual as well as community level interventions. At individual level, personalised counselling of beneficiaries by health workers on the immediate as well as long term benefits of IFA supplementation will be the key strategy to address the compliance for IFA supplementation. Additionally, case-based management approach along with reassurance about the common and transient side effects such as dark stools, nausea, or mild gastrointestinal discomfort will play crucial role for adherence to the prescribed IFA doses. The digitalization of AMB Abhiyaan services will reinforce strategies to enhance compliance through personalized alerts to anemic individual regarding IFA doses, Hb status and follow up so that prescribed course of therapy can be completed.

To improve compliance at community level, Jan Bhagidari, an intensified communication strategy, will be implemented to create mass awareness through convergence with supporting departments and ministries aims to enhance self-awareness, improve health-seeking behaviour, and encourage adherence to IFA supplementation. The strategy targets the prevalent perception of normalising anemia, considering it as trivial health condition, by educating communities about the wide array of benefits of being anemia free. The robust framework for facilitating the IFA compliance across the beneficiaries is given as below.

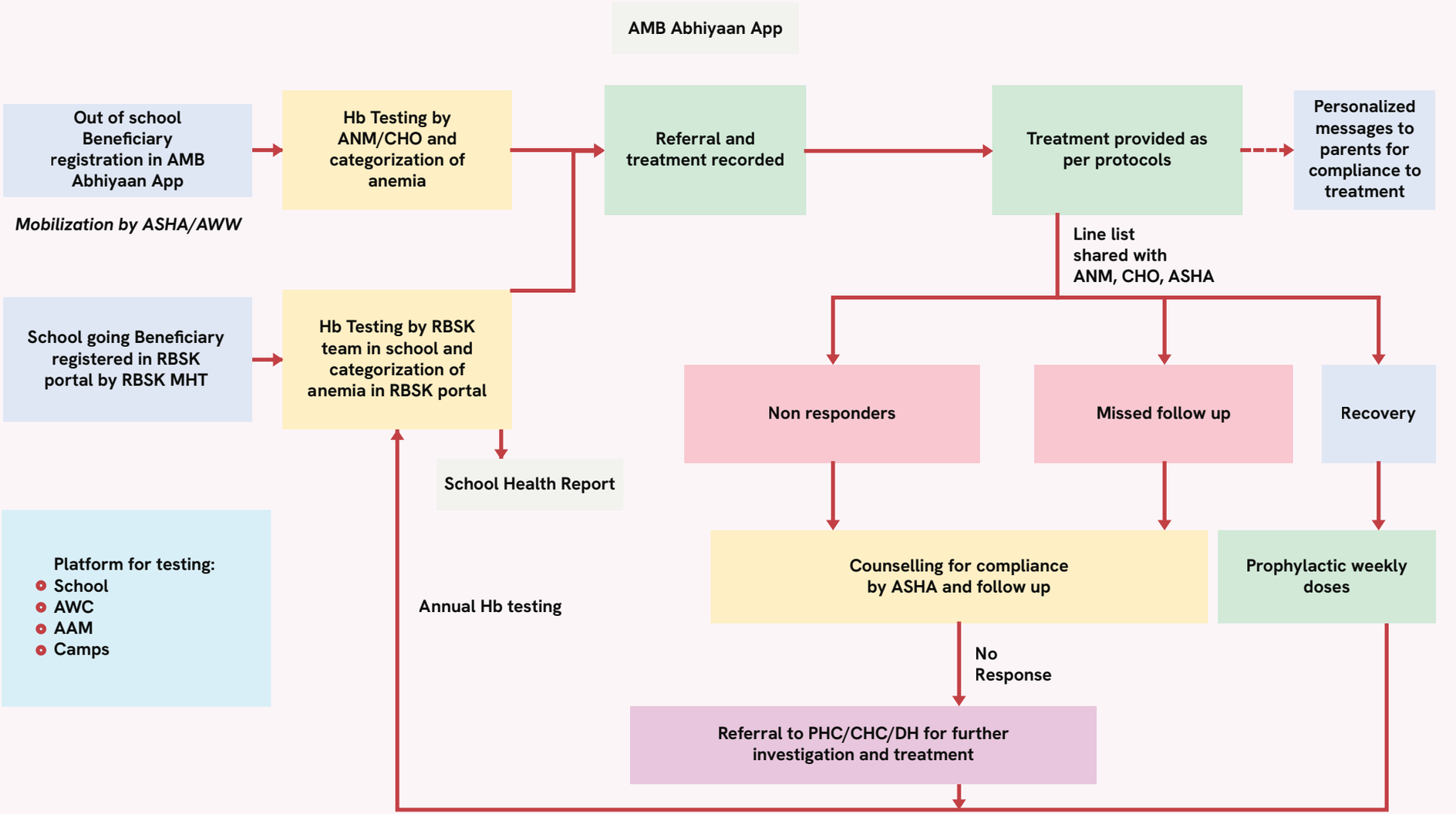
Compliance Framework for 6-59 Months

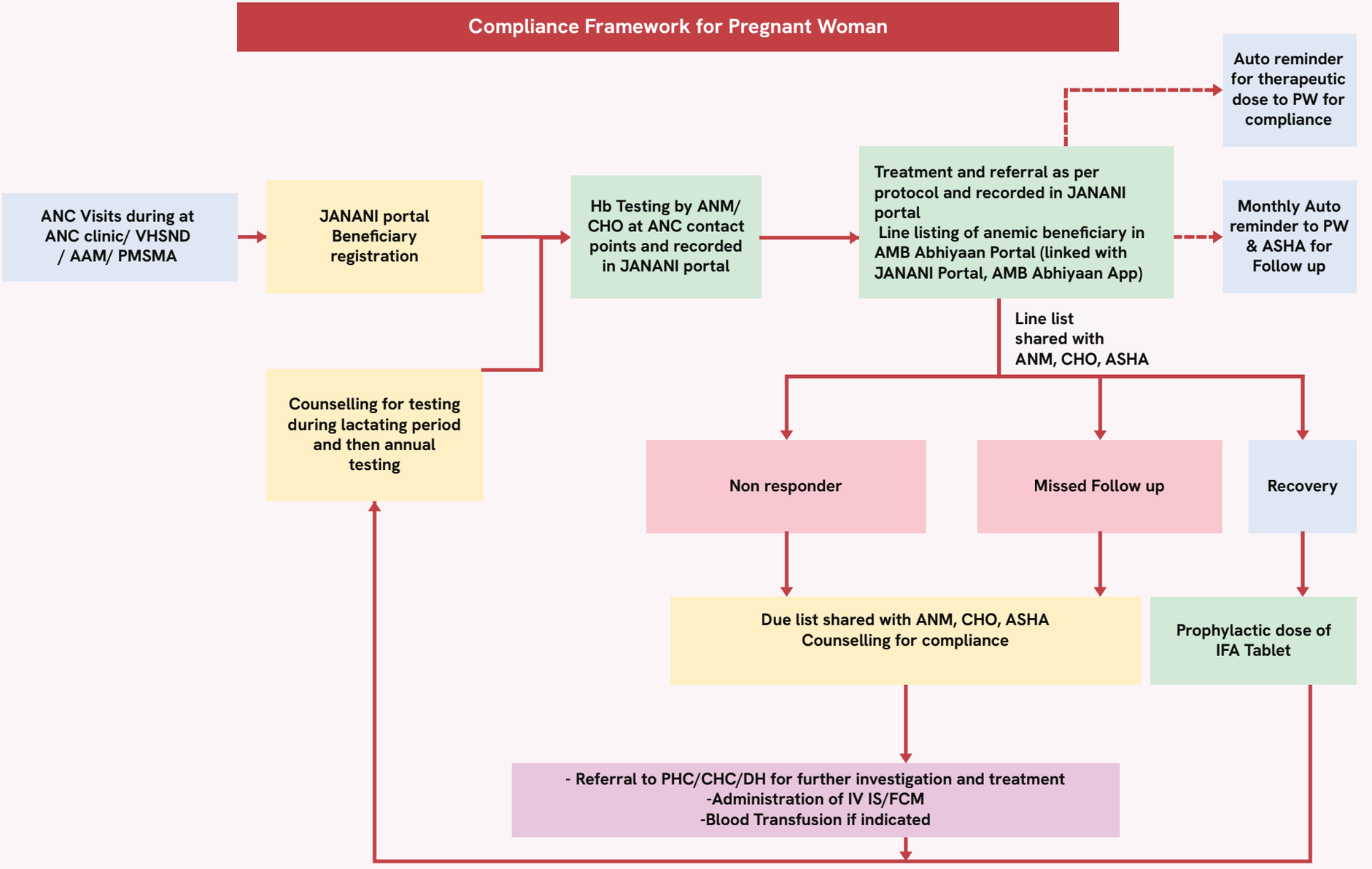


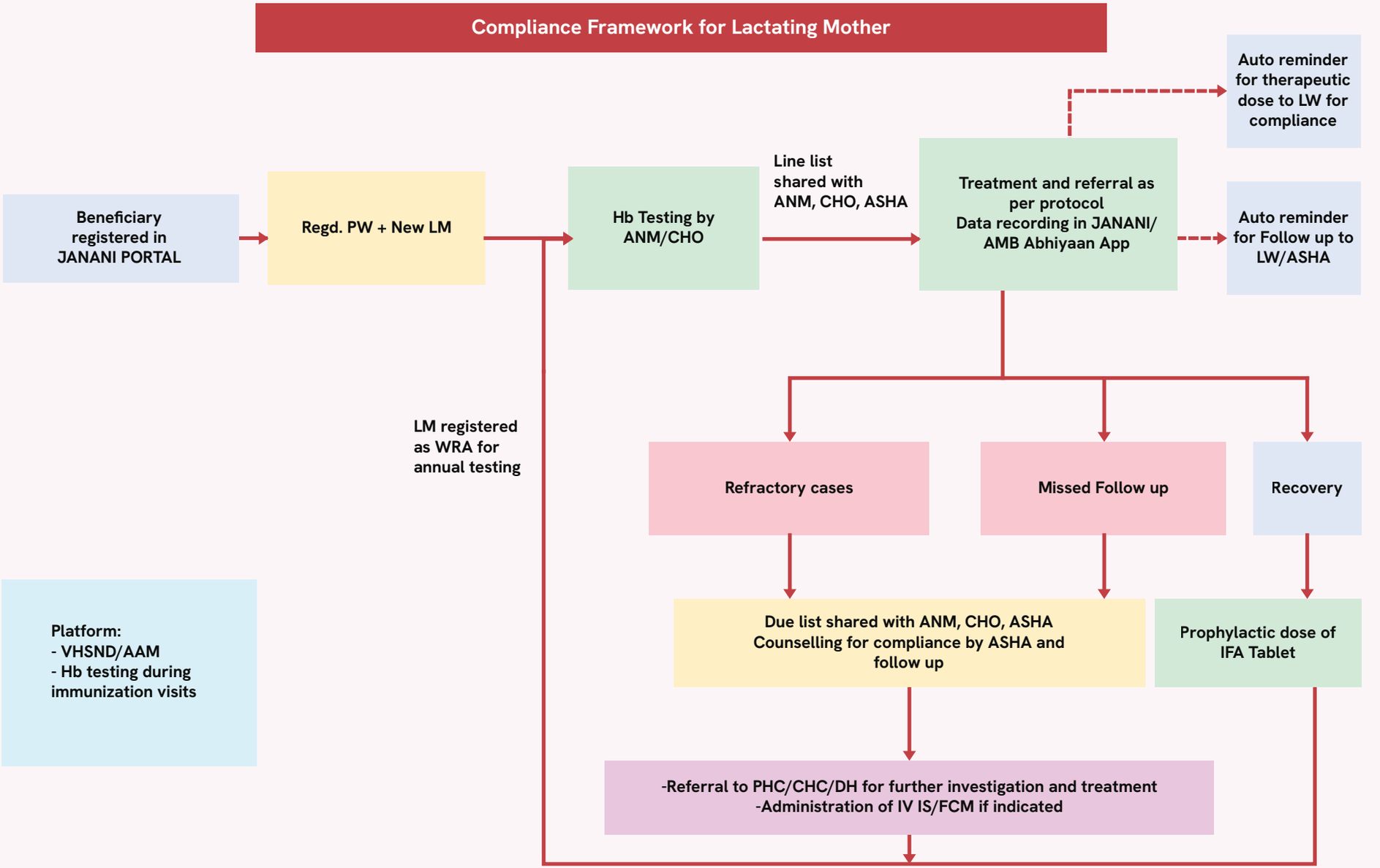
Compliance Framework for 5-9 Years



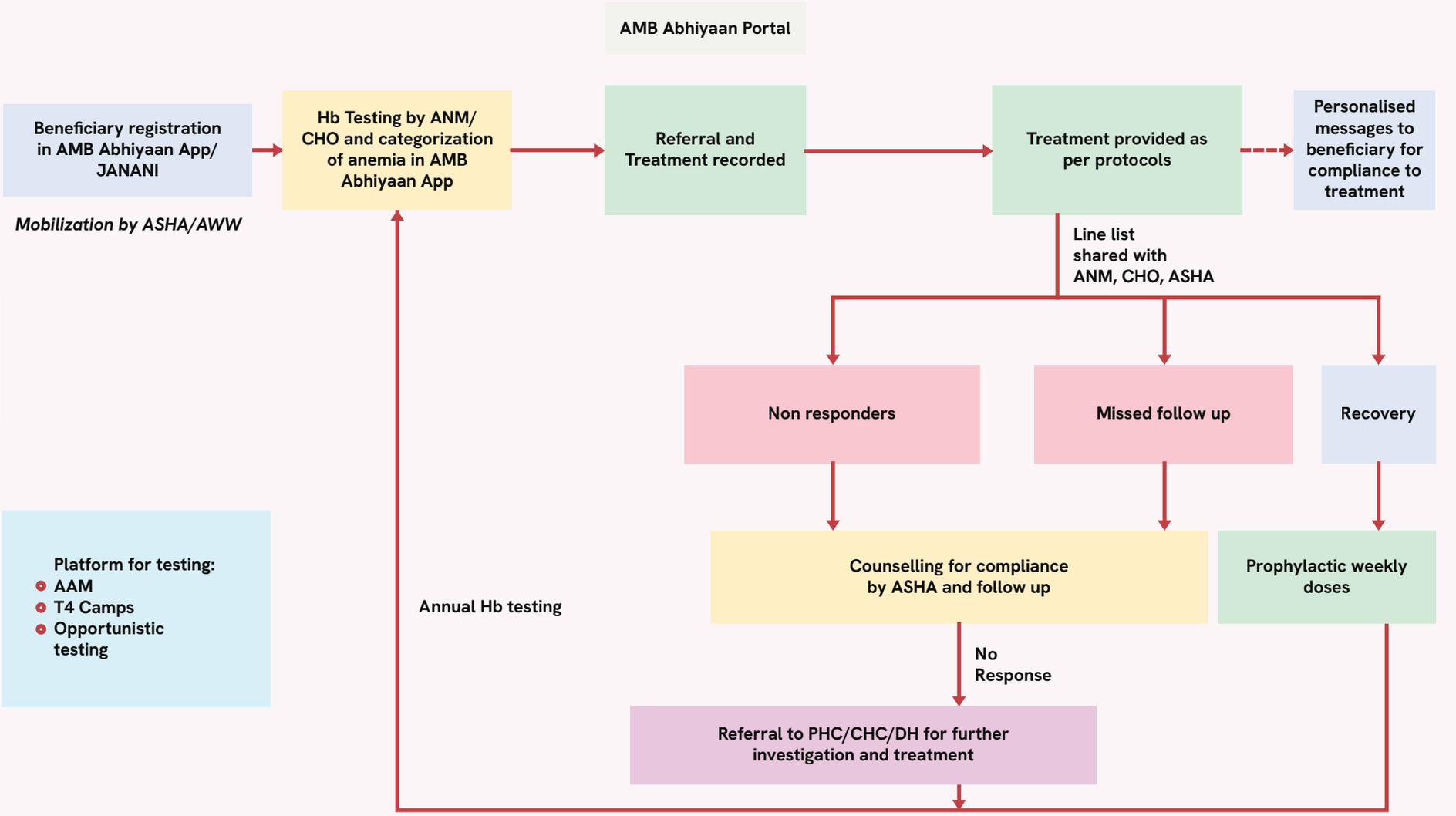
Compliance Framework for Adolescent 10-19 Years




Compliance Framework for Pregnant Woman
ANC Visits during at ANC clinic/ VHSND / AAM/ PMSMA
JANANI portal Beneficiary registration
Hb Testing by ANM/ CHO at ANC contact points and recorded in JANANI portal
Treatment and referral as per protocol and recorded in JANANI portal
Line listing of anemic beneficiary in AMB Abhiyaan Portal (linked with JANANI Portal, AMB Abhiyaan App)
Auto reminder for therapeutic dose to PW for compliance
Monthly Auto reminder to PW & ASHA for Follow up
Line list shared with ANM, CHO, ASHA
Counselling for testing during lactating period and then annual testing
Non responder
Missed Follow up
Recovery
Due list shared with ANM, CHO, ASHA
Counselling for compliance
Prophylactic dose of IFA Tablet
- Referral to PHC/CHC/DH for further investigation and treatment
-Administration of IV IS/FCM
-Blood Transfusion if indicated


Compliance Framework for Lactating Mother
Beneficiary registered in JANANI PORTAL
Regd. PW + New LM
Hb Testing by ANM/CHO
Line list shared with ANM, CHO, ASHA
Treatment and referral as per protocol
Data recording in JANANI/ AMB Abhiyaan App
Auto reminder for therapeutic dose to LW for compliance
Auto reminder for Follow up to LW/ASHA
LM registered as WRA for annual testing
Refractory cases
Missed Follow up
Recovery
Due list shared with ANM, CHO, ASHA
Counselling for compliance by ASHA and follow up
Prophylactic dose of IFA Tablet
-Referral to PHC/CHC/DH for further investigation and treatment
-Administration of IV IS/FCM if indicated
Platform:
- VHSND/AAM
- Hb testing during immunization visits

Compliance Framework for WRA (20-49 Years)



Abbreviations

AAM	Ayushman Arogya Mandir
AMB	Anemia Mukt Bharat
ANC	Antenatal Care
AWC	Anganwadi Centre
AWW	Anganwadi Workers
CDSCO	Central Drug Standard Control Organization
CKD	Chronic Kidney Disease
CSO	Civil Society Organizations
CTD	Central TB Division
DDCs	Drug Distribution Centres
DH	District Hospital
DIH	Digital Invasive Hemoglobinometer
DMC	Designated Microscopy Centers
ECR	Eligible Couple Register
FCM	Ferric Carboxy Maltose
FP	Family Planning
FRU	First Referral Unit
FSSAI	Food Safety and Standards Authority of India
FTDs	Fever Treatment Depots
Hb	Hemoglobin
HBNCC	Home-based Newborn and Child Care
HMIS	Health Management Information System
ICMR	Indian Council of Medical Research
IDA	Iron Deficiency Anemia
IFA	Iron Folic Acid
IMR	Infant Mortality Rate
IPC	Indian Pharmacopoeia Commission
IV IS	Intravenous Iron Sucrose
JANANI	Journey of Antenatal, Natal and Neonatal Integrated Care
LBW	Low Birth Weight
M&E	Monitoring and Evaluation
MAA	Mothers Absolute Affection
MAM	Moderate Acute Malnutrition
MCP	Mother Child Protection Card
MHT	Mobile Health Team
MMR	Maternal Mortality Ratio
MIB	Ministry of Information and Broadcasting
MR	Measles Rubella
NAAT	Nucleic Acid Amplification Tests
NACO	National AIDS Control Organization
NCD	Non Communicable Diseases
NDD	National Deworming Day
NHM	National Health Mission
NHP	National Health Policy

NHSRC	National Health Systems Resource Centre
NICU	Neonatal Intensive Care Unit
NIN	National Institute of Nutrition
NIPI	National Iron Plus Initiative
NNACP	National Nutritional Anemia Control Programme
NNAPP	National Nutritional Anemia Prophylaxis Programme
NRLM	National Rural Livelihood Mission
NSS	National Service Scheme
NTEP	National Tuberculosis Elimination Programme
NVBDCP	National Vector Borne Disease Control Programme
NVHCP	National Viral Hepatitis Control Programme
NYKS	Nehru Yuva Kendra Sangathan
PICU	Pediatric Intensive Care Unit
PMSMA	Pradhan Mantri Surakshit Matritva Abhiyan
E-PMSMA	Extended Pradhan Mantri Surakshit Matritva Abhiyan
PNC	Postnatal Care
PRI	Panchayati Raj Institutions
PTM	Parent Teacher Meeting
RBSK	Rashtriya Bal Swasthya Karyakram
SAM	Severe Acute Malnutrition
SDG	Sustainable Development Goals
SHG	Self-Help Groups
SNCU	Special Newborn Care Units
STH	Soil Transmitted Helminths
Td	Tetanus Diphtheria Vaccine
T3	Test, Treat, Talk
T4	Test, Treat, Talk and Track
TI	Thalassemia Intermedia
TM	Thalassemia Major
U-WIN	Universal Immunization WIN
VHSND	Village Health Sanitation And Nutrition Days
WASH	Water, Sanitation and Hygiene
WCD	Women and Child Development
WHO	World Health Organization
WIFS	Weekly IFA Supplementation
WRA	Women of Reproductive Age

राज्य शासनाच्या मार्गदर्शक सुचना

परिशिष्ट “ब”

Rakta-Swasthya Samwardhan

Operational Framework for Strengthening of
Anemia Mukta Bharat Implementation in Maharashtra

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Maharashtra Anemia Mukt Bharat (AMB) Operational Framework

Maharashtra's state-specific adaptations to the national Anemia Mukt Bharat (AMB) strategy aim to address implementation gaps, accelerate anemia reduction across age groups, and improve service delivery mechanisms.

1. Strategic Inclusions Beyond National Guidelines

- Infants <6 Months: As per FBNC 2024 guidelines all low birthweight babies iron suppliments should be initiated at 2 weeks of age continued till 1 year of age.
- Every LBW /preterm baby to be examined by the pediatrician and after exam with Pediatrician for LBW / preterm to be initiated with treatment.

2. Revised Treatment Protocols

- Higher Dosage: Children/adolescents receive 6 mg/kg/day for mild/moderate anemia.
- Multiple Micronutrients recommended for adolescents, WRA, preconception beneficiaries, and pregnant women with severe anemia.
- Third Trimester Transfusion: PW with Hb <7 g/dl treated with packed cells/whole blood.
- Monthly Compliance Checks: More frequent follow-up (monthly) by ASHAs and ANMs.
- List of high risk newborn for anemia to be given to ASHAs after discharge by health facilities, ASHA to monitor treatment for these newborn babies during HBNC visit
- In case of treatment - if no improvement - other causes to be investigated

3. Quarterly T4 (Test-Treat-Track-Talk) Camps

- Held during POSHAN Pakhwada, Pre-Monsoon, POSHAN Mah, and National Newborn Week.
- Includes Hb testing, immediate IFA distribution, and dietary counselling.
- Innovations include RED Buddy champions, selfie booths, and school-based awareness events.

4. Public-Private and Institutional Partnerships

- Private School Integration: IFA distribution, anemia screening, and inclusion in state microplans.
- Partnerships with IMA, IAP, Rotary, Red Cross: For training, logistics, and co-hosting T4 events.

5. Addressing Non-Nutritional Causes

- Hemoglobinopathies and thalassemia: Screening in tribal areas; premarital counselling for at-risk couples.
- Fluorosis: District-specific action with water safety, SBCC, and NPPCF alignment.
- Malaria: Joint screening during VHNSD/T4; intensified IRS and mosquito net promotion.
- Heavy menstrual bleeding in pubertal and reproductive age group

6. Monitoring, Diagnostics, and Incentives

- Invasive Digital Hemoglobinometers: Preferred tool with SOPs for quality assurance.
- Family Health Cards: Updated biannually with line-listing and follow-up records of serial hemoglobin levels.
- Menstrual calendar for puberty and reproductive age group.

7. Institutional Strengthening Measures

- Review Mechanisms: AMB integrated into monthly ASHA, PHC, and block meetings.
- AMB Corners: Designated areas at health facilities for screening, treatment, and counselling.

8. Communication advocacy plan:

- To run an innovative campaign called "Red Buddies" to create awareness on anemia and it's prevention amongst adolescents.
- IFA to be given only after meal only
- Iron tablets should be kept away from toddlers
- IFA supplementation to be given in schools on fix day – Every Monday
- IFA Syrup supplementation to be given on every Monday and Thursday

Rakta-Swasthya Samwardhan is a comprehensive initiative designed to expedite the reduction of anemia in the state of Maharashtra. By intensifying the focus on the existing anemia reduction program, this initiative aims to implement tailored strategies for fortifying Anemia Mukt Bharat in Maharashtra. Addressing the intergenerational nature of anemia, the program is crucial for correcting deficiencies in women of reproductive age, ensuring a decline in anemia rates in children, fostering concentration in childhood and adolescence, and ultimately enhancing productivity and the health of future generations. The guideline seeks to fortify implementation through a comprehensive life cycle approach, with the goal of reducing anemia prevalence in reproductive-age women, adolescents, and children. In order to combat anemia a multisectoral Liasioning is vital wherein the role of every department is defined, not limiting to Health but involving education, ICDS, rural development, tribal department.

1.1 Rational for Accelerating Anemia Reduction in Maharashtra

Anemia possesses a multifaceted etiology with various contributing factors. Approximately 50% of anemia cases are attributed to iron deficiency anemia, while other direct causes include micronutrient deficiencies (vitamin B12, folic acid), recurrent infections, inflammation, and inherited blood disorders like thalassemia and sickle cell anemia. These direct causes are further amplified by immediate and underlying risk factors such as food insecurity, inadequate diets, limited access to health and nutrition services, and challenges in water sanitation hygiene. These challenges are influenced by factors such as low educational attainment, poverty, conflict, cultural norms, behaviors, and health policies. Thus, anemia is intertwined with five other global nutrition targets—stunting, low birth weight, childhood overweight, exclusive breastfeeding, and wasting. Focusing on controlling anemia in women of childbearing age is crucial to preventing low birth weight, perinatal and maternal mortality, and diminishing the prevalence of diseases later in life.

According to the National Family Health Survey 5 (NFHS-5), 2019-20, anemia prevalence across all ages is extremely high in India, the prevalence of anemia in India among women of reproductive age is 57%, while in adolescents, it is even higher at 60%. In Maharashtra, the overall prevalence is slightly lower, with 54% in women of reproductive age and 57% in adolescents. However, specific tribal and Marathwada districts show elevated rates, some district reaching 67% prevalence for both reproductive age women and adolescents. Seventeen out of thirty-six districts have anemia percentages exceeding the state average in both reproductive age women and adolescents. Though, the rates of Anemia in Maharashtra are lesser to the country average but show a significant increase from NHFS 4 to NHFS 5.

Table 1: Prevalence of Anemia in different age groups in Maharashtra

Age group	NFHS-4 2015-16	NFHS-5 2019-20	District with highest Prevalence (%)	District with lowest Prevalence (%)
Children 6–59 months (Hb<11 g/dl)	53.8%	68.9%	Jalgaon (85.2)	Sindhudurg (55.6)
Adolescent girls (15-19 yrs.)	-	57.2%	Nandurbar (63.1)	Ratnagiri (33.7)
Adolescent boys (15-19 yrs.)	-	27.9%		
Non-pregnant women age 15-49 (WRA) (Hb <12.0 g/dl)	47.9%	54.5%	Gadchiroli (67.1)	Sindhudurg (41.3)
Pregnant women (Hb<11 g/dl)	49.3%	45.7%	Nashik (73.4)	Satara (28.8)
Men age 15-49 years who are anaemic (Hb <13.0 g/dl)	17.6%	21.9%		

The persistent high prevalence of anemia in both children (68.9%) and women (54.2%) indicates that there are gaps and challenges in the existing strategies to prevent and control anemia in Maharashtra. Many of these issues relate to the shortcomings like low coverage of interventions due to several factors, among which the low awareness and perception of need at all levels and inadequate delivery mechanisms are particularly important. Public Health Department and National Health Mission (NHM) Government of Maharashtra reviewed the implementation of AMB Program strategies through consultative process with aim to understand the gaps in existing interventions to prevent and control anemia. As result of the field monitoring and findings from the national level rapid assessment undertaken in 15 States (Feb- April 2023) by INCLEN and PATH, the Public Health Department, Govt. of Maharashtra, recognized the need for evidence based, coordinated and convergent approach to implement AMB program in the state. The purpose of this document is to provide insights and guidance on strategies and interventions outlined in AMB Operational guideline by MoHFW GOI. It was developed through a series of state level consultations convened by the Public Health

Table 2: PERFORMANCE GAPS in existing interventions to prevent and control anemia:

Health System	Health Service Provider	Client / Target group related
Anemia control among children, adolescent age group and Women of reproductive age group.	Capacity building need for Health service providers.	Late and infrequent use of ANC and PNC services by pregnant and breastfeeding women.
Gaps in parasitic disease control, dietary improvement, and food fortification.	Requirement of improved councelling skills formothers, adolescent girls on the importance of IFA and other interventions to prevent anemia and how to manage side-effects, and to monitor compliance with IFA supplementation.	Low awareness of the risks of anemia and perception of the need for taking IFA supplements and other interventions to prevent anemia.
Women in Eligible couples are less focused.	Low frequency of contact between health service providers and beneficiaries (adolescents particularly).	Side-effects of supplements, including a fear of having a big baby and difficult delivery.
Regularities of Logistics Supply	Irregular hemoglobin examination of children and adolescents and breastfeeding women.	Women refuse to take IFA supplements due to the taste and smell of uncoated IFA supplements.
Need for improved coordination for Anemia control amongst Health, education and ICDS.		Unaware of menstrual cycle pattern and menstrual hygiene
		Lack of maintenance of menstrual cycle calendar in pubertal and reproductive age group to rule out menorrhagia leading to anemia

Department GoM with collaboration and support from UNICEF to (i) review the situation of anemia in Maharashtra and existing approaches and interventions for its prevention and control; (ii) establish objectives and strategies for the prevention and control of anemia; and (iii) develop a broad plan of action for strengthening the implementation of the National AMB Strategy.

The state consultations included participants from Public Health Department, NHM, professional medical organizations and research institutes, Professional Associations– IAP, FOGSI, Development agencies and National/ state CSO/NGO partners. The draft document was revised based on the feedback from the participants, circulated to technical experts for final comment, and finalized.

2. Strategic Framework of Anemia Mukta Maharashtra

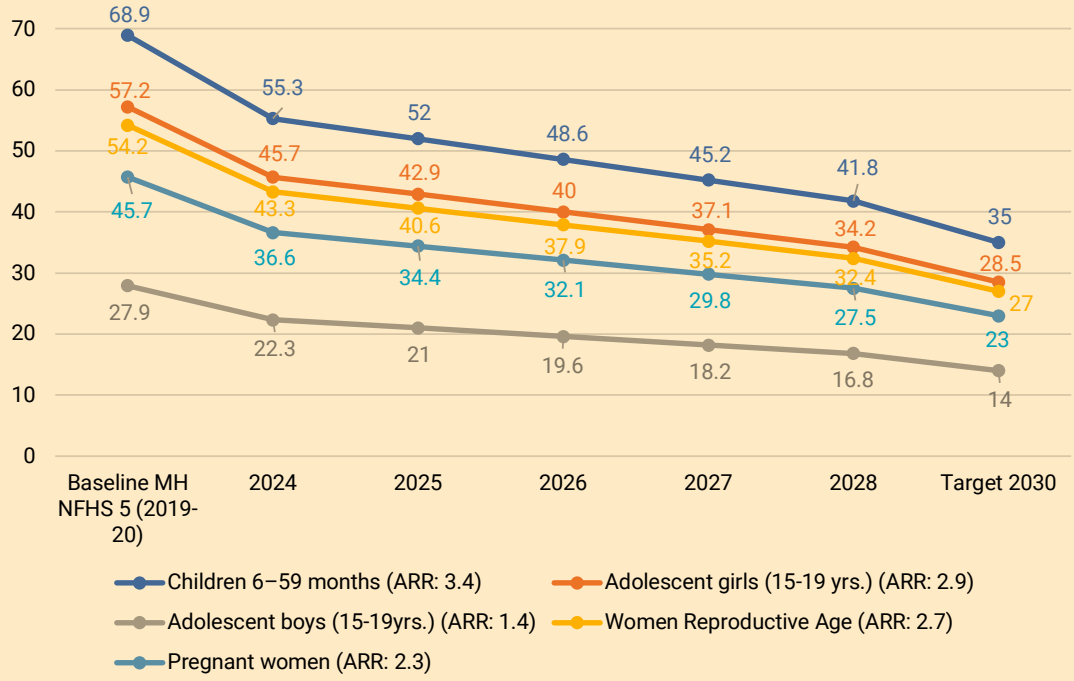
Goal

- The goal of the Rakta Swasthya Samwardhan strategy is to expedite the reduction and halve the prevalence of anemia in all the age groups by 2030.

Objectives:

- To reduce the prevalence of anemia by 50% in each age group using life-cycle approach by 2030.
- To customize the package of interventions in AMB in state specific context and strengthen the implementation.
- To do a year around behavior change campaigning - Anemia Mukt Maharashtra to increase screening, diet diversity and enhance treatment protocols.

Table 3: Proposed Targets for anemia reduction taking NFHS 5 (2020) as baseline & 50% reduction by 2030.



**Required Annual rate of reduction = Baseline – Target/ 10*
MOV: The progress against the annual target will be verified based on HMIS reports and as when NHFS survey results are available.

Targeted beneficiary under AMB:

According to the AMB Guidelines by MoHFW GOI, Interventions to prevent and control anemia are prioritized to the six high risk groups at greatest risk of anemia and its consequences. In addition to above 6 groups, Govt. of Maharashtra proposed inclusion of Infants < 6 months in the anemia reduction strategy framework and focused newly married women listed for Preconception Care (PCC) under Vatsalya*.

**As part of the state strategy to prevent maternal, child mortality and morbidity "Vatsalya" programme is envisaged to provide the package of promotive, preventive, and curative services by addressing the existing gaps in continuum of care.*

The Anemia Mukt Bharat strategy has been designed to reduce prevalence of anemia by 3 percentage points per year among children, adolescents, and women in the reproductive age group (15–49 years), between the year 2018 and 2022. Unfortunately, the targets were not achieved. Thus, need for renewed focus with accelerated efforts identified by the Public Health Department Govt. of Maharashtra.

3. Intervention

3.1 Screening/Testing, Prophylactic Iron Folic Acid (IFA) Supplementation, Therapeutic Management and Deworming

Why Infants < 6 months of age to be included?

WHO guidelines exempt infants less than 6 months of age mainly on the basis that ID is not a major problem in this age group for physiological reasons and under the assumption that young infants are protected from ID through breastfeeding. 8 However, this assumption is based on the observation that during the first months of life, enough iron is available in the breast milk produced by mothers with adequate iron stores themselves.

Young infants are protected from ID if the mother had adequate iron stores during pregnancy; the baby born full-term, with normal birthweight; there was delayed umbilical cord clamping; and sufficient iron was provided from exclusive breastfeeding. 8 Unfortunately, it is rare for all of these conditions to be met and therefore, most infants are at risk of ID during their first 6 months of life10,11 and is often neglected. Maharashtra has 45.7% PW who are anemic (Source: NFHS 5), 5% of babies born premature (Source: HMIS), 14 % babies born LBW (Source: HMIS) and only 71% children getting Exclusive Breastfeeding (Source: NFHS 5) and 25.6% of under five children wasted. Although Its presence in healthy infant of less than 6 months of age is largely debated, there is evidence that normal birthweight full-term infants may present anemia prevalence as high as 80% at 3–6 months of age and as high as 90% at 6–9 months of age. Thus, this age group is separately considered under while formulating strategies.

Experts recommended inclusion of 0-6 months in the screening, prevention, and management of anemia with special focus & follow up of infants which are VLBW/LBW, SNCU/NICU/NRC/NBSU discharged children. Following interventions from Anemia Mukt Bharat strategy will be focused for children < 6 months of Age:



Table 4: Screening, Prophylaxis and Management of Anemia in Infants < 6 months.

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **Infant 0-6 months**	Evaluate all at risk newborns/infants < 6 months for anemia. Delayed cord clamping. Iron supplements as drops. Improving Maternal Iron status	• VHNSD/ UHNSD • DEIC, PNC Ward, ANC OPD and ANC Ward • HBNC/HBYC • SNCU • Pediatric OPD
Operational plan based on AMB guidelines for effectively implementation of Interventions		
How		
Screening at birth: A complete blood count is the most common initial diagnostic test used to evaluate for anemia, and it allows for differentiating microcytic, normocytic, and macrocytic anemia based on the mean corpuscular volume. Screening of SNCU babies for aneamia of prematuarity - screening of 4-6 weeks and repeat once in 2 weeks (Hb/HCT & peripheral smear) and Electrophoresis / HPLC after 72 hours. All at risk newborns to be screened at PNC ward/SNCUs and screened for Hb, MCV and electrophoresis for ruling out hemoglobinopathies (dry blood smear). Clinical screening by ASHA during HBNC/HBYC home visits for at risk infants. **Reinforcement of delayed umbilical cord clamping:** Promotion and monitoring of delayed clamping of the umbilical cord for at least 3 minutes (or until cord pulsations cease) for newborns across all health facilities will be carried out for improving the infant's iron reserves up to 6 months after birth. Simultaneously, all birth attendants should ensure early initiation of breastfeeding within 1 hour of birth. **Iron supplements as drops/syrup:** FBNC 2024 guidelines recommends that along with exclusive breastfeeding low birthweight babies should receive iron supplimentation 2-3 mg/kg/day at 2 weeks of age continued till 1 year of age. All low birth weight / preterm babies should be examined by Pediatrician before starting iron supplementation **Improving maternal iron status** has been proposed as an intervention to reduce the risk of anemia in infants.		

Table 5: Screening, Prophylaxis and Management of Anemia in Children 6-59 months

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **Children 6-59 Months**	Sensitization of PRI/SHG/MAS AMB Micro-plan for village/SC/PHC Clinical screening by "Ask for Symptoms, look for signs" method. (Annexure 4) Screening with Invasive Digital haemoglobinometers of the clinically suspected children. Prophylaxis/treatment protocol based on Hb level. Recording in IFA Compliance card of MCP card Biannual deworming (Tab Albendazole)	• VHNSD/ UHSND • Home visits by ASHA under HBNC and HBYC • T4 camps • RBSK • DEIC
Operational plan based on AMB guidelines for effectively implementation of Interventions		
How		

• Sensitization meetings for PRI and SHGs/MAS to create awareness of program.
• AMB Micro-plan – A supplementary micro-plan for AMB to be to be established at SC level through involvement of ANM, ASHA, AWW, Ayush MO (CHO) and PRI (Sarpanch) members of villages. Microplans should also include a plan for T4 camp.
  ○ Existing RI/VHNSD/UHND Micro-plans to be updated with plan for AMB based on number of VHNSD /UHND sessions, total target of beneficiaries for clinical screening/testing based on annual head count survey (HCS) by Health/ICDS.
  ○ ASHA/ ANM/ AWW will generate village wise due list for AMB annually in the month of April after HCS which will be updated monthly by ASHA worker.
  ○ Special plans to be endorsed for high-risk areas (Tribal pocket with high prevalence of anemia, Urban slums, vulnerable communities etc.)		

- A need-based communication plan to be developed at Health SC level by ANM to address Hb testing, IFA supplementation hesitancy challenge etc.
- PHC Medical officer and THO will focus on strengthening supervision activities, rationalized work distribution, additional HR and other logistic requirements for T4 camps.

State Specific Recommendations:

- **Haemoglobin is 7–10.9 g/dl (mild and moderate anemia)-** Therapeutic dose to be increased from 3mg of iron/kg/day to 6 mg of iron/kg/day.
- **If Haemoglobin is <7 g/dl (severe anemia)** Child is to be referred to district hospital or First referral unit where pediatrician is available. Pediatric opinion is mandatory in case of severe anemic child.
- RBSK team to submit the line-list of anaemic children to Medical Officer i/c PHC after biannual screening of AWCs and annual screening in schools for further follow-up and organizing T4 Camps with help of ANM/ASHA/AWW/ School authorities.
- **SOP of screening to be issued for Healthcare workers (Clue card/Flyer) using clinical signs & symptoms.** All districts to prioritize the capacity building of ASHA on the clinical screening of Anemia, preparation of line-listing and follow-up at VHNSC for testing.
- Anemia Mukta Bharat performance review will be integral part (fixed agenda) of all the ASHA meetings and PHC/ Block/district level reviews.

Table 6: Screening, Prophylaxis and Management of Anemia in Children 5-9 Years and 10-19 Year adolescents.

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **School Children 5-9 years**	Bottom-up planning School level micro-plan for AMB Screening by Nodal teacher.(See annexure 5) Prophylaxis/ therapeutic management Nutrition counselling for anemic children in presence of parents during PTM Follow up and filling of compliance card Biannual Deworming (Tab Albendazole)	• School • SHWP • RBSK • T4 camp

Operational plan based on AMB guidelines for effectively implementation of Interventions

How

- Districts will follow bottom-up approach during planning.
- School level micro-plan for AMB: A planning meeting will be organized by ANM/CHO at Health Subcenter or THO at Block level with participation of all school nodal officers/ SHWA, CHO, ANM, MPW, ASHA, AWW, PRI member for developing micro-plan. (See annexure 9,10 and 11)
  - A micro-plan will be prepared taking into consideration the number of schools and student strength, no of children and adolescents to be tested per visit etc.
  - Accountability for mobilization of student lies with the class teachers.
  - The due list will be generated using school enrollment register/class attendance register and it will be updated at the beginning of the academic year.
  - Micro-plan will be prepared by the ANM/CHO at Health subcenter considering the due list with support from schoolteachers/ SHWA and ASHA/AWW.
  - The micro-plan will be shared with block, and district for smooth implementation, proper Monitoirng and supportive supervision.
  - Micro-plan formats attached in annexure no. 7.

Screening: RBSK team will screen in school and out of school children for anemia annually. All children with clinical sign and symptoms will be referred to VHNSC/SC/PHC for Hb estimation. In addition, Clinical screening by Nodal Teachers: Nodal Teachers/School health Ambassadors to identify and list Anaemic Girls/boys by doing monthly screening on fixed day using "Ask for Symptoms, look for signs" method. (See annexure 5)

Prophylaxis: School children 5–9 years will be provided weekly IFA (Pink) tablet in schools using spot feeding approach of IFA after the mid-day meal through teachers in Government aided schools and after lunch break in private schools. Class teacher of student will fill the compliance card after consumption of weekly prophylactic dose. Nodal Teachers will review the records with the class teacher monthly. Out of school children between 5-9 years will be provided IFA tab through AWW.

Therapeutic Treatment: For identified children of class 1-5, one IFA pink tablet (45 mg elemental iron + 400 mcg of FA) will be provided daily for two months under direct supervision of class teacher at school. Tablet to be taken one hour after mid-day meal. On school holidays the tab will be handed over for consumption at home. Compliance to be recorded in register using standard format. (Annexure 1D). After two months of daily supplementation the child will undergo haemoglobin testing. If haemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic IFA dose. If Hb level improves but not in normal range child will be continued on therapeutic dose for another two months. All cases of Severe anemia referred urgently to DH/FRU.

Nutrition counselling of children and parents (during PTM) by Nodal teachers for causes of anemia, how to prevent anemia, need for IFA supplementation, locally available iron rich foods, iron inhibitors and non-nutritional causes of anemia etc.

Follow up: Class teacher/ Nodal teacher at school to orient parents during Parent Teacher Meeting (PTM) for compliance of treatment. Parents to ensure follow-up of child after 30 days and 60 days at nearest VHNSC/SC/health facility. Follow-up by ANM/LHV/MPW of designated area, as feasible. Class teacher of student will fill the compliance card after consumption of therapeutic dose every day.

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **School going Adolescent (10-19 yrs.) in government / government-aided schools.**	School level micro-plan for AMB. Quarterly clinical screening by Nodal teachers and Annual screening by RBSK team in school premises. Nutrition counselling for anemic children in presence of parents during PTM.Prophylaxis/ therapeutic management. Follow up and filling of compliance card. Coordination with Education department at State/district Biannual Deworming and Maintain menstrual calendar to rule out pubertal menorrhagia	• School • SHWP • RBSK • T4 camp

Operational plan based on AMB guidelines for effectively implementation of Interventions

How

School level micro-plan for AMB: same as for children 5-9 years. **Micro-plan formats attached as (Annexure 9,10 & 12).** T4 camp to be organized with support of ANM/MO in HSC/PHC.

Screening: Annual screening in school premises by RSBK teams using Invasive digital haemoglobinometers. After the RBSK team screening of adolescents, a line list of identified anemic adolescents prepared by RBSK teams will be shared with Nodal teacher/class teacher, so that the school can inform the parents as well as the nearby Sub-Centre/ Primary Health Centre/Health and Wellness Centre for treatment (T4 camp), follow-up and dietary counselling.

In addition, for school going adolescents (class 6 to 12) quarterly clinical screening by Nodal Teachers: Nodal Teachers/School health Ambassadors to identify Anaemic Girls/boys by doing monthly screening on fixed day using "Ask for Symptoms, look for signs" method (See annexure 6).

Prophylaxis: School going Adolescents studying in class 6 to 8 will be provided **weekly IFA (Blue)** tablet in schools one hour after the mid-day meal by class teachers in Government aided schools and after lunch break in private schools. For children studying in class 9-12 tablets on Monday (or fixed day in a week) Compliance to be recorded by class teacher in register. Class teacher of student will fill the compliance card after consumption of weekly prophylactic dose. Nodal Teachers will review the records with the class teacher monthly.

Therapeutic Treatment: For anaemic adolescent children two IFA blue tablet (60 mg elemental iron + 500 mcg of FA) will be provided daily for three months under direct supervision of class teacher at school. For children in class 6-8 tablet to be taken one hour after mid-day meal and for class 9-12 after meal. On school holidays the tab will be handed over for consumption at home. Compliance to be recorded in register using **standard format**. After three months of daily supplementation the child will undergo haemoglobin testing. If Hb level improves but not in normal range child will be continued on therapeutic dose for another three months.

Management of severe anemia in adolescents 10–19 years is to be done by the medical officer at FRU/DH based on investigation and subsequent diagnosis.

Nutrition counselling of children and parents (during PTM) by Nodal teachers for causes of anemia, how to prevent anemia, need for IFA supplementation, locally available iron rich foods, iron inhibitors and non-nutritional causes of anemia etc. After three months of daily supplementation the girl will undergo haemoglobin testing at VHNSD/UHNSD with hep of ASHA/ANM. If Hb level improves but not in normal range therapeutic dose will be continued for another three months.

Follow up: Line listing of all anaemic cases to be maintained in the school register for Iron Folic Acid supplementation and given to the ANM/LHV/MPW of designated area. Follow-up by ANM/LHV/MPW of designated area during VHNSD. Parents to ensure follow-up of adolescent after 45 days to 90 days at the nearest sub-centre/ health facility. If haemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic.

IFA dose. AWW will provide follow up card and maintain line list and provide counselling.

Coordination with Education department at State/district level to issue a circular with guidelines for screening of anemia in private schools.

State Specific Recommendations:

- **Haemoglobin is 8–11.4 g/dl (mild and moderate anemia)** – Therapeutic dose to be increased from 3mg of iron/kg/day to 6 mg of iron/kg/day.
- **If Haemoglobin is <8 g/dl (severe anemia)** Child is to be referred to district hospital or First referral unit where pediatrician is available. Pediatric opinion is mandatory in case of severe anemic child.
- Use of Inj. FCM (Ferrous Carboxy Maltose) in case of moderate to severe anemia in adolescents (Hb < 8gm/dl), WRA planning pregnancy (Hb < 8gm/dl) along with pregnant and lactating women because of better tolerance and compliance.
- Developing guidelines for collaboration and convergence with Private school associations at district/block level to establishing Implementation plan for AMB in private schools.

Table 8: Screening, Prophylaxis and Management of Anemia in Out of School 10-19 Year adolescent girls.

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **Out of school Adolescent (10-19 Years) girls**	Updating VHNSD/UHNSD Microplans for AMB components. Clinical screening by ANM. Prophylaxis/ therapeutic management. Nutrition counselling for anemic girls by ASHA/AWW/ ANM Follow up and filling of compliance card by AWW. Menstrual Cycle pattern & Menstrual Calendar	• AWC • VHNSD • UHNSD • RKSK • T4 camp
Operational plan based on AMB guidelines for effectively implementation of Interventions		
How		
VHNSD/UHNSD/RKSK microplans to be updated for AMB for out of school adolescent girls by ANM/CHO/Mos. (See annexure 13) **Out of school adolescent girls** (10-19 yrs.) to be registered by ASHA/AWW/ANM during VHNSD/UHNSD session. ASHA will mobilize all out of school adolescent girls to VHNSD/UHNSD session and get screened clinically by ANM and tested for Hb level using Invasive digital hemoglobinometer. Hb testing results to be communicated to girls/ caregivers by ASHA/ANM and records maintained in register by ASHA/ANM. **Prophylaxis:** Out-of-school adolescent girls 10–19 years will be provided IFA (Blue) tablets at Anganwadi centres. Weekly once (Saturday) one tablet blue colour (60 mg Elemental iron+500 mcg FA) to be administered in AWC under supervision of AWW. Compliance card and registers to be filled and maintained by AWW. **Therapeutic dose:** The AWW will hand over 60 tab to OOS adolescent girls who is anaemic with information to caregiver. Monitoring will be done by ASHA and AWW.		

Table 9: Screening, Prophylaxis and Management of Anemia in Pregnant women and Lactating women/Post partum women.

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **Pregnant Women**	Screening with Invasive digital haemoglobinometers of all PW. Prophylaxis/treatment protocol based on Hb level. Recording in IFA Compliance card of MCP card Deworming preferably in Second trimester Multivitamin supplementation Nutritional counselling Screening for Non nutritional causes of anemia.	• VHNSD • UHND • PMSMA • ANC Clinics • ANC Ward
Operational plan based on AMB guidelines for effectively implementation of Interventions		
How		
• Pregnant women will be provided services under the strategy through antenatal care contacts (ANC clinics/VHND/ PMSMA), receipt of IFA and Folic Acid tablets, screening and point-of-care treatment of anemia, and screening and prevention of malaria. • All pregnant women will be tested for haemoglobin estimation at VHSND/UHSND sessions. For this ASHA/AWW will mobilize them. PMSMA is another platform where pregnant women can be tested during ANC visit. ANM at VHNSD session and OBGY specialist at PMSMA session will also assess the PW for any non-nutritional causes of anemia.		

- Depending on the Hb level prophylaxis/treatment protocol will be followed.
- **Prophylactic Dose:** PW will be provided with prophylactic dose of 30 IFA red tablets or MMS tablets by ANM monthly in VHNSD/ UHNSD and PMSMA sessions. She will consume one tablet daily one hour after meal for 180 days after first trimester.
- **Therapeutic Dose:** For PW with Hb level less than 10.9 gm/dl therapeutic regime will be followed as per protocol and given 60 IFA red tablets from ANM in VHNSD/UHNSD or PMSMA session. Two tablets daily to be consumed one hour after meal.
- ANM will fill up the MCP card including identified cause of anemia and treatment /prophylaxis protocol for drug consumption.
- Deworming- one dose of 400 mg of albendazole (1 tab) after first trimester preferably during the second trimester will be given to PW during VHNSD/UHNSD/PMSMA session.
- Triple A (ANM/ASHA/AWW) will maintain line list of all PWs in village. They will counsel the PW for causes and consequences of anemia, need for IFA supplementation, locally available iron rich food, enhancer and inhibitors for iron absorption, non-nutritional causes of anemia and their management using flip book.

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
Lactating Women/ Post Partum Women 	Clinical screening by ASHA during HBNC/HBYC visits. Screening with Invasive digital haemoglobinometers of all LW. Prophylaxis/treatment protocol based on Hb level. Recording in IFA Compliance card of MCP card Deworming Multivitamin supplementation Nutritional counselling Screening for Non nutritional causes of anemia.	• VHNSD • UHNSD • PNC ward • PNC Home Visits by ANM/ ASHA under HBNC/E PMSMA

Operational plan based on AMB guidelines for effectively implementation of Interventions

How

- All lactating/post partum women will be tested using Invasive digital haemoglobinometer by ANM/CHO for Hb estimation at VHNSD/UHNSD when they bring their children for immunization. ASHA/AWW will mobilize them for testing and counselling at TESTING point. Also, Clinical screening of Anemia by ASHAs using "Ask for Symptoms, look for signs" method during 7th & 42nd Day visit under HBNC and 3rd & 6th month home visit under HBYC program.
- ANM/ASHA will maintain the register (Register format to be developed)
- Prophylactic Dose: Lactating mother will be provided with prophylactic dose of 30 IFA red tablets by ANM monthly in VHNSD/UHNSD sessions. She will consume one tablet daily one hour after meal for 180 days after after delivery.
- Therapeutic Dose: For lactating mother with Hb level less than 10.9 gm/dl therapeutic regime will be followed as per protocol and given 60 IFA red tablets from ANM in VHNSD/UHNSD. Two tablets daily to be consumed one hour after meal.
- ANM will fill up the MCP card including identified cause of anemia and treatment /prophylaxis protocol for drug consumption.
- Calcium supplementation

State Specific Recommendations:

- **Use of Inj. FCM (Ferrous Carboxy Maltose)** is recommended for use in case of severe anemia in adolescents (Hb < 8gm/dl) , WRA planning pregnancy (Hb < 8gm/dl) & pregnant women (Hb 5-6.9 gm/dl) because of better tolerance and compliance (as only 1 or 2 sittings are required) as compared to Inj. Iron Sucrose (requires 4-5 sittings and there is a loss to follow-up). **Therapeutic dose of FCM** – Inj. FCM can be given as 15 mg/kg IV over 20 minutes in two doses separated by at least 7 days/one week. The total iron dose is calculated by Ganzoni Formula i.e., **Total Iron dose (mg iron) =Body weight(kg) x (target-actual Hb) (g/dl) x 2.4 + 500 (iron for iron stores (mg iron))* *Iron stores; body weight <35 kg=15 mg/kg body weight>35 kg=500 mg.** The max dose of FCM is 1000 mg in single sitting for pregnant women and 1500 mg for non-pregnant women.

- Frequency of follow-up for compliance of treatment by health provider (ASHA/ANM) during the contact to be reduced from 2 months to 1 month.
- Severe anemia in 36 weeks pregnant women to be treated with Packed cell/Whole blood for improving obstetric outcomes.
- Family Health Card/Folder to be maintained and updated biannually by ASHA at community level.
- Implementation of Ask for Symptoms and Look for signs method of clinical screening at all levels under AMB.
- Procurement and supply of Invasive digital hemoglobinometers at all VHNSD Sessions/HSC and PHCs.
- Technical SOPs for the establishment of designated AMB Screening corner at all Health facilities

Table 11: Screening, Prophylaxis and Management of Anemia in Women of Reproductive Age (WRA).

Target Beneficiary	Tasks	Service Delivery Platform
Whom	**What**	**Where**
 **Women of reproductive age (WRA)**	Invasive screening with digital haemoglobinometers of suspected WRA. Prophylaxis/treatment protocol based on Hb level. Recording in IFA Compliance card of MCP card Deworming FA supplementation during preconception period. Nutritional counselling Screening for Non nutritional causes of anemia.	• VHNSD • UHNSD • ASHA Home visits • Health Facility – eg Gynec OPD or any health facility contact as an opportunity

Operational plan based on AMB guidelines for effectively implementation of Interventions

How

- WRA includes women who are not pregnant, not lactating and in the age group of 20-49 years.
- Provision of MMS or IFA tablets, Folic Acid tablets and deworming (albendazole) for WRA interventions will be integrated through immunization day/ VHNSD/ UHNSD platforms.
- Under Vatsalya program, ASHA to prepare the Linelisting of newlyweds and married women 20-49 yrs. of age and mobilize the women to attend the VHNSDs where they will be counselled by the ANM on importance of IFA supplementation and deworming to prevent anemia.
- Screening at the nearest facility (including screening for non-nutritional causes of anemia) if any sign or symptoms observed and if diagnosed with anemia then treated as per protocol. If Hb is found to be normal, weekly IFA or MMS supplementation will be provided. Yearly WRA will be provided with 52 tablets for 52 weeks. ASHA to ensure that WRA in her village collects 15 tablets quarterly during VHNSD/UHNSD session from ANM after showing the empty strip of consumed IFA tablets.
- If WRA is found anemic after Hb testing, ANM will start therapeutic treatment by two Red IFA tablet (60 mg elemental iron + 500 mcg FA) daily for three months. Anemic WRA will be provided with 60 tablets for three consecutive months after showing empty strips during VHNSD/UHNSD sessions to ANM. ASHA will monitor the consumption through home visits. After daily supplementation of IFA tablet for three months, hemoglobin testing is repeated. If Hb improves but does not achieve normal range dose repeated for another three months.
- If, the woman is planning for pregnancy ensure anemia is corrected, she will be counselled by ANM to stop IFA supplementation and initiate Folic Acid supplementation (5 mg daily) during preconception period and continued upto three months of pregnancy to reduce the neural tube defects in fetus.
- Also, WRA 20-49 years, who are not pregnant or non-lactating will be provided biannual deworming (albendazole 400 mg tab) during NDD.

Table 12: Summary of State Specific recommendations for strengthening the AMB implementations.

Immediate/ short term recommendations
• Incorporate the review of AMB in agenda for State taskforce meeting for Adolescent Health/RBSK/RKSK.
• Anemia Mukta Bharat performance review will be integral part (fixed agenda) of all the ASHA meetings and PHC/ Block/district level reviews.
• Developing guidelines for collaboration and convergence with Private school associations at district/block level to establishing Implementation plan for AMB in private schools.
• RBSK team to submit the line-list of anaemic children to Medical Officer i/c PHC after biannual screening of AWCs and annual screening in schools for further follow-up and organizing T4 Camps with help of ANM/ASHA/AWW/ School authorities.
• SOP of screening to be issued for Healthcare workers (Clue card/Flyer) using clinical signs & symptoms. All districts to prioritize the capacity building of ASHA on the clinical screening of Anemia, preparation of line-listing and follow-up at VHNSC for testing.
• Implementation of Ask for Symptoms and Look for signs method of clinical screening at all levels under AMB.
• Invasive Digital Haemoglobinometer using microcuvettes is recommended for field diagnosis of anemia in cases screened by clinical signs. Current non-invasive methods of Hemoglobin testing are not as accurate as the invasive and hence not recommended.
• Technical SOPs for the establishment of designated AMB Screening corner at all Health facilities
• Protocol for the screening, diagnosis and treatment of anemia to be prepared and displayed in the OPD area of Medical Officer at all health facilities.
• Dedicated day on the month to be earmarked for organization of the T4 camps at facility level across the State.
• Differential diagnosis of Anemia - Lab tests such as thalassemia, electrophoresis, coagulation profile to be added to the lab profile if menorrhagia symptoms are present in girls. If Electrophoresis is not available, CBC profile, peripheral blood reticulocyte count is advised. Rule out Vitamin B12, Folate, Protein deficiency.
• Facility level laboratory test profile with gatekeepers to be developed for the testing of anemia differential diagnosis.
• Thalassemia- Naked Eye Single Tube Red cell Osmotic Fragility Test in a single tube with a saline concentration of 0.36%. Can be done on finger -prick sample as screening test for selecting samples for Hb HPLC for detection of Thalassemia Trait. Complete Blood Counts are obtained by an automated Blood Cell Counter. Used for determination of Hb level and for RBC parameters (RBC, MCV, MCH, MCHC and RDW) for evaluation of type of anemia. MCV and MCH are the most important indices in diagnosis of thalassemia.
• Sickle Cell Anemia: For screening of SCA: Solubility test for (for HbS) + Invasive Digital Hemoglobinometers for identification of mild and moderate anemia
• For confirmation: GoI-approved electrophoresis based Point of Care test or High-Performance Liquid Chromatography as one-step confirmatory test based on the availability is recommended.
Long Term Recommendations
• Ensuring the IFA preparation that is palatable for children (eg. Ferrous ascorbate).
• Use of Inj. FCM (Ferrous Carboxy Maltose) in case of moderate to severe anemia in adolescents (Hb < 8gm/dl), WRA planning pregnancy (Hb < 8gm/dl) along with pregnant and lactating women because of better tolerance and compliance.
• Use of MMS for adolescent girls, during preconception period and pregnant women is recommended.
• Family Health Card/Folder to be maintained and updated biannually by ASHA at community level.
• Rashtriya Bal Swasthya Karyakram (RBSK) mobile teams & ANMs to be equipped with Invasive digital haemoglobinometers for screening of anemia. The device is to be used for diagnosis in cases showing clinical signs. Procurement and supply of Invasive digital hemoglobinometers at all VHNSD Sessions/HSC and PHCs. State to initiate procurement of Invasive Digital Haemoglobinometers or issue guidance for decentralized procurement to districts & municipal corporations.
• Training on use of Invasive Digital Haemoglobinometer and its calibration.
• Facility assessment for the implementation of National guidelines for prevention and control of haemoglobinopathies (2018) & National Programme for prevention and management of sickle cell anemia.
• Exploring the feasibility of investigations through existing MoU (HLL) for lab diagnostics at health facilities
• Targeted Population screening for carriers of hemoglobinopathies to be followed in case of Sickle cell anemia-predominant areas (tribal belt),

T4 TEST TREAT TRACK TALK Camp:

The AMB program proposed innovative ideas to tackle the high burden of anemia in the country. Test, Treat, Track and Talk Anemia camp (T4 anemia camps) is one such innovative strategy focusing on demand generation, active community participation, and partnerships and calls for active engagement of various stakeholders towards anemia control efforts.

T4 camp will be a day long activity, held at a fixed site for fixed time duration and will cater to an average of 500 beneficiaries. Beneficiaries can be of all groups or a specific group such as pregnant women, adolescents etc. depending on the site of camp.

WHAT is T4 camp:

As the name implies, the T4 camp strategy is a campaign conducted at the platforms with a high potential of reaching a wide range of beneficiaries. The beneficiaries attending the camp will be,

- **Tested** for anemia using digital hemoglobinometers. The point-of-care test (POCT) will be performed using digital hemoglobinometers in the T4 camps. The digital hemoglobinometers are the recommended POCT for the estimation of hemoglobin under the AMB program.
- **Treated** with iron-folic acid (IFA) tablets for those found to be anemic and
- **Track** the identified anemic children/ women to ensure IFA consumption.
- Delivered a **Talk** on a diet rich in iron and vitamin C

HOW to organize the T4 camp:

Annual Plan for T4 camps: District nodal officer will organize a planning cum sensitization meeting with district/block nodal officers from the department of WCD, Education, PRI and development agencies.

District/block/PHC planning calender to be prepared detailing out the dates/venue/time and beneficiary details of the camp.

Directives to be sent to FLWs to inform the communities about the upcoming T4 camp.

T4 camps can be organized in schools, colleges, Health Facilities or other prominent places/institutions. School/colleges/ Non health institutions will coordinate with nearest PHC MO/RH/SDH Medical superintendent for technical support and disposal of BMW.

WHERE/Who can organize the T4 camps:

- School,
- Professional associations such as Rotary, Red Cross and the Indian Academy of Pediatrics, Indian Medical Association (IMA) can also organize the T4 camps in private schools where government access limited or even at their own premises.
- Community Based Events (CBEs)/VHSNDs/ UHSNDs
- Health Facilities- HWC/PHC/RH/SDH/WH/DH on quarterly basis and can be integrated with PMSMA day.

Target beneficiaries:

- Children aged 6-59 months.
- Children aged 5-9 years.
- Adolescent aged 10-19 years
- Pregnant and Lactating Women
- Women of reproductive age (20-49 years)

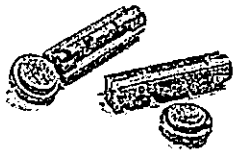
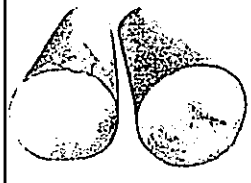
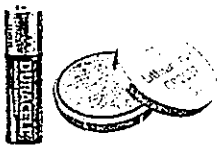
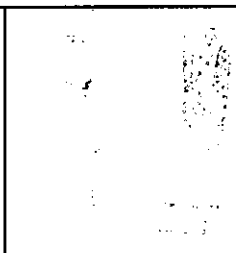
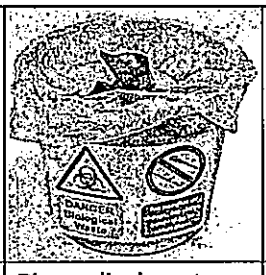
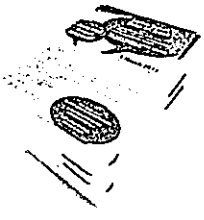
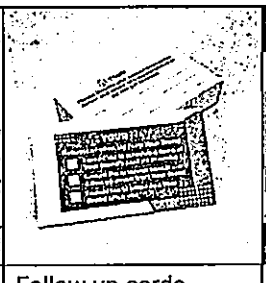
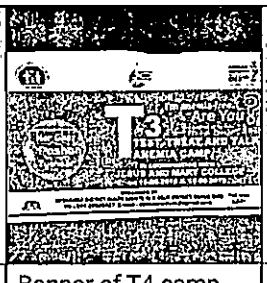
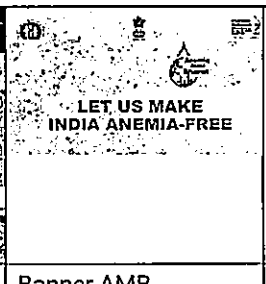
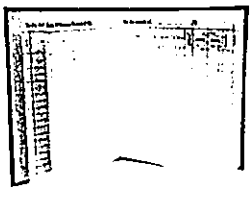
Human Resource required

- Medical officer of RH/SDH/PHC
- CHO of HWC
- ANM/MPW
- AYUSH Medical officer
- Lab technician
- ICDS supervisor
- ASHA/AWW
- Volunteers

Table 13: Estimated Budget for one T4 Camp

Essentials	Cost estimate (Lump sum)
Digital hemoglobin meters (invasive) along with microcuvettes/strips and lancets (600) and related supplies	Supply from nearby Health Facility (HWC/PHC/RH/SDH)
Miscellaneous and logistics (Venue set up, IEC and counselling material and Banner)	Rs. 5000/-
Total Budget	**Rs. 5000**

Table 14: Essential Components of T4 Kit bag for one camp (500 participants)

				
Digital Hemoglobinometer	Strips	Lancets	Alcohol swabs	Spirit (if alcohol swab is not available)
2/3	600	600	600	500 ml
				
Cotton	Batteries (AA size or coin batteries)	2 gloves (non-sterile)	Bio medical waste disposal	IEC material (poster/ pamphlet)
1 Big cotton roll	AA-4, Coin 4	20 pairs	One Puncture proof container, BW disposal bags	Dietary counselling material/ flip book
				
IFA syrup and tablets (pink, blue and red)	Follow up cards	Banner of T4 camp	Banner AMB	Register
As per estimated requirement and 2 strips/syrup bottles for display	600	One	Two nos.	One

3.2.a. T4 Camp at School/colleges:

A day-long camp during school hours (preferably 8.30 a.m. to 1 p.m.) will be held in the premises (auditorium, hall, meeting rooms, etc.) of government and government-aided schools and colleges. The WIFS nodal teacher of the school will be coordinating all these activities. Setting-up of the camp must be ensured one day (preferably) prior of holding the camp.

Each camp will be manned by 4–5 people including one medical doctor/resident doctor/intern, one ANM and two nutritionists/ dieticians. Responsibility for local arrangements and logistics support for T4 camp lies with School/college authorities.

Activities to be carried out a day before the T4 camp:

Following activities should be carried out on the day prior to the camp by the PHC medical officer or ANM:

- Inspection of the venue finalized for the camp.
- Finalize the arrangements with school authority/ principal regarding local logistics and volunteer support.
- Inspect the venue and make sure that basic facilities like easy accessibility/ space/ shelter/ electricity connections are in place.
- Check if all the equipment for the camp has arrived and been stored safely.
- Check if IFA tablets have been procured and secured at the venue.
- Cross check on availability of other essential support materials like tables/ chairs/ pedestal fans/ dust bins for conducting the camp smoothly.
- Check if all the IEC materials (posters/ pamphlet) have been printed in required numbers and delivered at the venue.
- Check if transport arrangements for key personnel manning the booths have been made.
- Cross check if the banners have been printed, delivered and mounted at the venue.

Activities to be carried out by the PHC medical officer or ANM on the day of T4 camp:

- Ensuring camp personnel arrive one hour prior to holding of the camp.
- Check that the display materials have been positioned as planned.
- Pretest the T4 kit bag for functionality.
- Oversee the placement of testing machines, treatment counters and counselling corner at the venue.
- Check if transport is available at the venue for any emergency.
- Be present at the venue or keep in regular touch with booth personnel for any emergency situation.
- Ensure maintenance of proper records of the tests being undertaken at the camp site.
- Class teachers will accompany their respective class children during the Hemoglobin testing (TEST), initiation of treatment (TREAT) of identified anemic children, counselling (TALK) on iron, protein, vitamin C rich and fortified foods, do's and don'ts to improve hemoglobin level during the camp.
- Medical officer will give the prescription slip for children diagnosed with anemia to the respective class teachers. Cases identified as severely anemic should be referred to the nearest government health facility for further treatment by the medical officer.
- ANM/CHO will use the dietary counselling materials provided in the T4 kit bag and provide one-to-one counselling.
- To improve footfalls, attractive selfie booths should be set up where people with normal Hb levels can be photographed holding placards displaying messages.
- IEC: The IFA tablets display to be arranged by ANM to generate awareness on the availability of treatment option at the nearest health facility.
- RED Buddy at T4 Camps

Activities to be carried out after T4 camp:

- Secure the T4 kit bag and dispatch it to the concerned authority at the designated health facility (block and district level).
- In case of rented logistics materials at the camp, ensure that the concerned authority has been intimated and materials are returned.
- School to organize a parent–teacher meeting immediately (preferably in the same week) after the T4 camps.
- During the meeting, parents must be informed on iron deficiency.
- Teachers will hand over the prescription slips to the parents and guide them for further follow-up in the referred health centres.
- Pictures and short videos from the camp should be uploaded on social media platforms (Twitter/Facebook) and also on POSHAN Abhiyaan

3.2.b. T4 Camp during CBE/VHNDS/ UHNDs

As part of POSHAN Mah and otherwise a lot of community-based events are being organized regularly by health and WCD (ICDS) functionaries. T4 camps can be organized during CBEs.

As part of Rakta Swasthya Samwardhan strategy PHD Govt. of Maharashtra suggest that all the districts with high prevalence of anemia should organize at least quarterly T4 camps in high prevalence blocks/PHCs areas. Following events 1. POSHAN Pakhwada (March), 2. PRE-Monsoon (June), 3. POSHAN Mah/Breast feeding Week (Aug-September), 4. National Newborn Week (November) are suggested to organize the T4 camps at HWCs/PHC/RH/SDH/DH/WH/Community level.

3.3 Addressing Non-Nutritional Causes of Anemia:

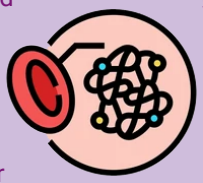
AMB guidelines integrates screening and treatment of non-nutritional causes of anemia with special focus on malaria, hemoglobinopathies and fluorosis.

Malaria: Intensify the malaria prevention and control activities in endemic districts. Integrate the testing of malaria and anemia. The beneficiaries in all target age groups who report recent fever and being screened for anemia will also be tested for malaria as per NVBDCP guidelines to ascertain the co-occurrence of malaria. Similarly, patients tested for malaria will also be tested for anemia with increased outreach. All screenings at VHNSD/UHNSD/PMSMA/ Schools T4 camps will provide screening for malaria as per NVBDCP guidelines. The treatment protocol for management of anemia in malaria-endemic regions will be the same for children and adolescents. For treating malaria in pregnant women, the protocol issued by NVBDCP will be followed including Artemisinin Combination Therapy (ACT) for treatment of P. falciparum malaria as per drug policy of NVBDCP for treatment of malaria.



Indoor Residual Spray (IRS) before and after the monsoon season will be carried out with the appropriate insecticides in school premises and residential areas as per the malaria burden as decided by NVBDCP. All schools' classrooms should have mosquito nets installed on windows. Counselling for anemia treatment should also include preventive measures for malaria. Anemia IEC/ BCC should include Malaria prevention measures like use of LLIN.

Hemoglobinopathies/Thalassemia: Integration of comprehensive prevention, screening, and management of hemoglobinopathies/Thalassemia at existing service delivery platforms. Activities during adolescent health days to engage and aware adolescent. Quiz and competitions in schools. Screening for hemoglobinopathies/Thalassemia should be integrated with ANC services during first trimester of pregnancy in all endemic districts (Nandurbar, Gadchiroli, Amravati and other tribal blocks.) Women with severe anemia should be referred to higher center and screened, if found positive husband should be tested for carrier status. If couple is found positive, then couple should be referred for prenatal diagnosis before 20 weeks of pregnancy.

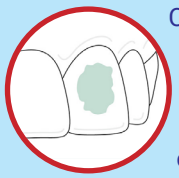


Vatsalya Program Guidelines in Maharashtra recommend establishing pre-marital and pre-conception screening facilities in the local community, backed by genetic counselling services. These counselling sessions will educate the carriers about the risks of having biological children. During pre-marital counselling, partners are informed about how SCA may affect their unborn child.

Treatment of anemia using parental iron administration is contraindicated in hemoglobinopathies and thalassemia.

Folic acid and B12 prophylaxis to be ensured.

Fluorosis: High fluoride concentration in food and water leads to destruction of gastrointestinal mucosa, thus reducing the nutrient absorption, including iron and folic acid. Addressing anemia due to fluorosis will need sustained communication, behaviour change and a combined approach of safe drinking water along with nutritional improvements.



Identification of fluoride affected areas: Nanded, Chandrapur, Latur, Washim, Yavatmal, Beed and Nagpur.

Activities for anemia control due to fluorosis under National program for prevention and control of Fluorosis (NPPCF).

Capacity building of MO PHC, ASHA, ANM, AWWs in these districts for carrying out IEC, SBCC.

Other non nutritional causes like Tuberculosis, HIV infection, Chronic Kidney Disease, Wilson's Disease to be looked into.

Should also consider for

- Chronic blood loss in the form of menorrhagia in pubertal and reproductive age group
- Focus on menstrual cycle pattern and menstrual calendar to rule out puberty menorrhagia and abnormal uterine bleeding with use of Pictoral Blood Assessment chart.

3.4 Communication Advocacy and Partnership Interventions:

Intesified behaviour change communication:

The various behaviour change communication activities of the strategy will address four key behaviours:

1. Compliance to Iron Folic Acid supplements and deworming
2. Appropriate Infant and Young Child Feeding (IYCF) with emphasis on adequate and age-appropriate complementary foods for children 6 months and above
3. Increase intake of iron-rich, protein-rich and vitamin C-rich foods through dietary diversify cation/quantity/ frequency and food fortification
4. Promoting practice of delayed cord clamping (by at least 3 minutes or until cord pulsations cease) in all health facility deliveries followed by early initiation of breastfeeding within 1 hour of birth.

INTERVENTIONS:

UNICEF to support for Advocacy and Communication and contribute to advocating for policy-level change/ improved implementation for four global advocacy priorities, undertaking advocacy campaigns with children, adolescents, and youth. The purpose is to disseminate and amplify the voices of the people and create awareness around anemia.

Objectives:

1. To increase awareness about the causes, symptoms, and consequences of anemia
2. To encourage individuals to undergo regular screenings for anemia to identify and address early.
3. To urge people to adopt healthy lifestyles, including a balanced diet rich in iron, vitamin C and other

Table 15: Advocacy communication Interventions for different target groups under AMB

Target Group	WHAT/WHY	HOW
Children 0-59 months and 5-9 Years 	The rise in the incidence of anemia among children is due to the following factors: • Limited orientation of mothers on the results of anemia and IFA supplementation. • Lack of willingness to take medicines, taste issue, nausea, vomiting, constipation are deterrents. • Improper dietary habits, junk food availability surrounding the schools. • Lack of clarity if Albendazoles should be given, 3As unclear about which age group should receive pink and blue tablets, • Coverage- Private, play school, nurseries missed out, Children between 5-6 years missed out as AWC is till 5years and school starts at 6 years. The task at hand is to clearly communicate about how children can reach their full potential when they are anemia free. Also sharing that Iron tablets intake can cause temporary conditions of constipation, nausea etc. however they should not dissuade the intake. Clear guidelines on deworming and specification about which colour tablet is for which age group.	• Use the existing AMB posters at various public places. Develop new creatives focusing on aspiration of parents for their children to excel and reach their true potential. • Mass Media: TVC, Radio (interviews of ASHA. ANM, Doctors, Mothers), Print (leading newspaper, Success stories, Doctor's interview) • Mid media -Interactive media - IEC vans for AV screening, community radio, Visibility and help desk at blood donation camps, health center AV screening. • Local celebrity message videos, food vloggers, WhatsApp groups led by schools with parents, ASHA workers. • Getting Red Buddies to meet and interact with mothers to document positive stories about children who have excellent cognitive and motor skills as the mother had taken the right steps to beat anemia. • Positive stories about children who have excellent cognitive and motor skills.

Target Group	WHAT/WHY	HOW
Adolescents 10-19 Years 	The number of adolescents with anemia is rampantly increasing due to limited awareness about how anemia results in compromised growth, decreased cognitive functions, depressed immune functions and increase in risk of negative outcome in pregnancy. The task at hand is to promote anemia awareness and prevention among youth, focusing on the positive aspects of living an anemia-free life which can be motivating. **Vibrant energy:** Being anemia free can result in increased energy levels and reduce fatigue, allowing one to fully participate in the activities they enjoy without feeling tired or sluggish. **Enhanced cognitive function:** Adequate iron levels support cognitive functions and concentration, helping one to excel in academics, work and other pursuits that require mental clarity. **Improved physical performance:** Proper iron levels support muscle function and endurance allowing one to participate in sports, exercise, or any other physical activities	Create a positive disposition with youth by inspiring them to be the mascots of good health and living life to the fullest by defeating anemia. • Red Buddies holding anemia awareness camps- NYK/NSS • Red Buddies linking anemia awareness during Blood donation drive. • Red Buddies organizing sports/ dance/ marathon events- schools and colleges. • Red buddies Quiz, Talks, Debate, Elocution contests – schools, colleges, TED talks • Red Buddies social media contests- Challenges through Reels, Red scarf challenges, Healthy plate challenges. • Red Buddies interviewing Health experts, Food bloggers, chefs. • Red buddies being interviewed on media. • Red buddies Recognition and celebration event (annually at the end of the year) • Mass Media: TVC, Radio (interviews of ASHA. ANM, Doctors, Mothers), Print (leading newspaper, Success stories, Doctor's interview • Mid media- Interactive media, outdoor and social media to be used widely. • The School Health Wellness Ambassadors can also be red buddies in the schools and spread the messages on anemia. • Introduce Pictorial Bleeding Assessment Chart for menstrual blood loss.
Pregnant Women, Lactating Women and WRA 	Raising awareness about anemia among women of reproductive age, pregnant women and lactating mother is crucial due to the significant impact that anemia can have on maternal and child health. • The task at hand is to foster mindset and behavioral change by promoting healthy behavior practices and improving health outcomes. • Tailor communication messages that will resonate with the target group by reinstating that anemia which is characterized by low red blood cell count can affect both the would be mother/ mother and the developing fetus or infant. • Anemia in pregnancy can lead to fatigue, weakness, shortness of breath and an increased risk of infections. • Anemia also increases the risks of complications such as preterm birth, low birth weight that can have long term health consequence. It can also cause maternal mortality. • Anemia can also lead to inadequate oxygen supply to the fetus, affecting the fetal growth and development.	Use the existing AMB posters at various public places. Develop new creatives focusing on how by necessary and timely actions to beat anemia can prevent adverse reproductive outcomes. • **Mass Media:** TVC, Radio (interviews of ASHA. ANM, Doctors, Mothers), Print (leading newspaper, Success stories, Doctor's interview • **Mid media:** Interactive media - IEC vans for AV screening, community radio, Visibility and help desk at blood donation camps, health centre AV screening • **Mid media:** Outdoor media, Bus stands, railway stations, metro stations (visibility + announcements), Social media/ Digital media • Local celebrity message videos, food vloggers, WhatApp groups led by schools with parents, ASHA workers. • Maternal morbidity and mortality due to post partum hemorrhage.

Linking Anemia with Child Marriage for media coverage:

Experts' opinion pieces about how Anemia obstructs career growth and physical growth.

Doctor's advice in youth columns/pages, four-five specific foods "must" be included in everyday meal to avoid anemia. Recipes for healthy food and snacks. Social media influencers can be Red Buddies to promote the measures preventing anemia.

Linking Midday meal scheme with Anemia awareness.

Service providers/ Political parties: Alliances with Panchayat members, MLAs etc focusing on conversa tions around anemia identification and prevention measures in their respective areas of jurisdiction. Anganwadi and ASHA talking about how they are proud to be a Red Buddy creating awareness among people about anemia and urging them to act on it.

Sports ministry: Red Buddies interviewing the Ministers of Youth affairs and Sports on the Anemia Mukt Bharat strategy, its goals, impact etc.

Sports groups: Partnering with gyms/ sports clubs. Strenuous and vigorous exercise as seen in the case of athletes has shown a reduction in hemoglobin counts, causing an anemic state. This is thought to affect perfor mance, and every athlete must undergo tests to ascer tain the quantity of hemoglobin before they compete. Anemia awareness camps / talk sessions can be conducted by the Red Buddies talking to people about Anemia and leaving fliers at the gym. Posters can also be put up at strategic places that would be visible to people every day when they walk into the gyms/sports club.

Other partnerships:

Gynecologists/OBGY Specialists: During pregnancy, women have an elevated risk of postpartum hemor-rhage and giving birth to low-birthweight, premature or stillborn babies. In turn, these babies are more likely to grow stunted, perpetuating the cycle of malnutrition. Renowned gynecologists/OBGY from districts videos talking about the same that can be shared on social media and WhatsApp.

Corporate Houses: Iron deficiency or low levels of iron in a person reduces physical work capacity and decreases the ability to think, reason or understand. Have corporates to hold sessions to create awareness among employees. Red Buddies can hold wellness sessions in their respective workplaces through games, quiz, memory games.

Maharashtra Police: Awareness workshops for the women staff of MH police, Sports groups, Domestic staff.

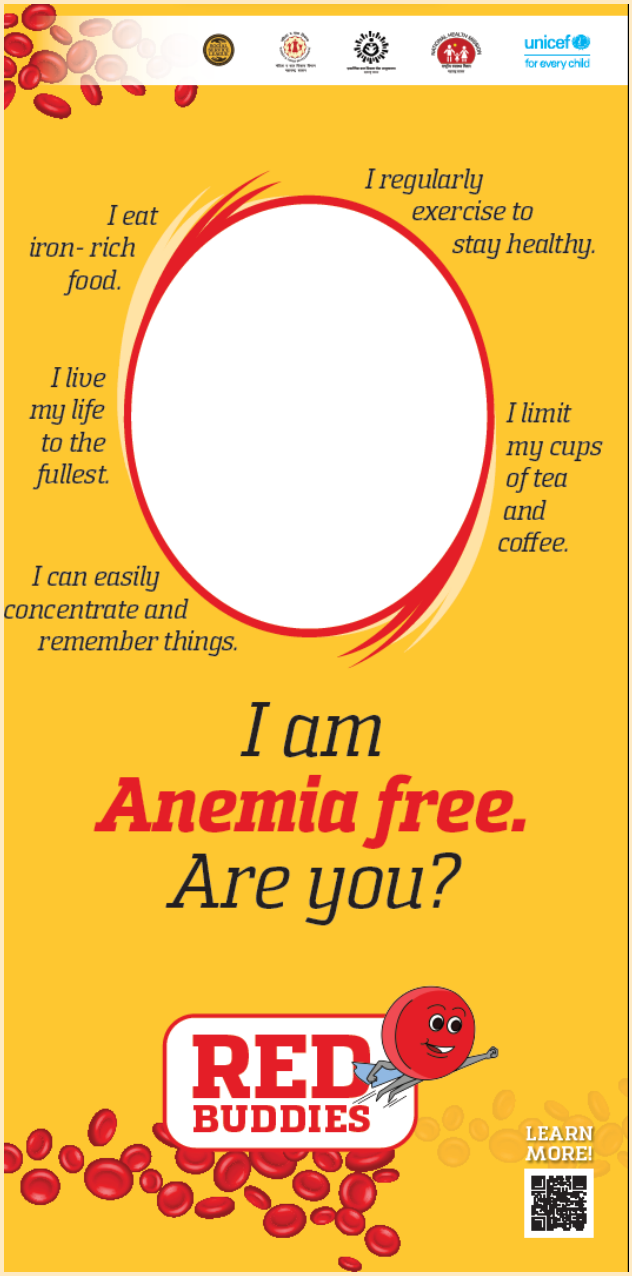


RED BUDDIES campaign

UNICEF Communication Advocacy and Partnership section has initiated a RED Buddies campaign to create awareness about Anemia Mukta Bharat strategy among the youth using online and offline platforms.

Red buddies are youth ambassadors that will create awareness among peers and community using innovative approaches to appeal youths e.g., Red Buddies can use a red scarf / handkerchief as innovatively as they can. They can share a pic on social media along with one tip that they are following to prevent anemia and maintain a steady level of red blood cells. Other activities carried out by RED BUDDIES are

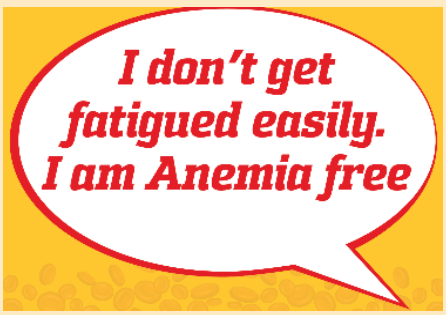
- **Red Buddies anemia camps:** The youth groups (Red Buddies) organise camps to share awareness about anemia, symptoms, need to get one tested and advice on treatment and nutrition.
- **Red Buddies interviewing Food bloggers and food chefs'** youthgroups interview/ have talk shows with home chefs and Food bloggers who can share sharing recipes/ food tips that would address anemia.
- **Red Buddies interviewing Doctors:** Red buddies interview doctors on myths and facts on anemia, symptoms, and ways to prevents it.
- **Red Buddies' Testimonials and posts**
- **Flash mobs of Red Buddies/ skits/ dance**
- **Anemia checking drive in NSS Camps**
- **Red Buddies Ted Talk:** Red buddies talk about anemia on TED and other such platforms



Selfie Fame

Pop Cards









Volunteer Cap



Red Buddies Badges



Posters





4. Supply Chain Management

4.1 Forecasting

- As per AMB guidelines, the following calculations are to be used for estimating the Iron Folic Acid tablet/syrup supply requirements:

Table 16: Estimating the Iron Folic Acid tablets/syrup supply requirements.

Age Group	Calculation	Rationale
Children 0-6 months		
	Estimated IFA syrup drop bottles required (of 15 ml containing 20mg per ml iron)= 10*Number of newborn with birth weight less than 1.5 kg (about 3% of total live births)+addiitional 10% as a buffer stock	About 3% children are born with birth weight below 1.5 kg. As per dosage given in FBNC guidelines, newborn below 1.5 kg is to be given 2-3mg/kg iron per day till 1 year of age. So for a year approx. 150 ml will be required. Considering 15ml bottle of IFA syrup containing 20mg/ml iron, total 10 bottles will be required for each newborn having birth wt less than 1.5 kg
Children 6-59 months		
Prophylactic	Estimated Iron Folic Acid syrup bottle (of 50 ml each) supply= 2 X (80% of children 6–59 months) + additional 10% as buffer stock*	As per NFHS-5, prevalence of anemia for the age group is 69% for Maharashtra. As per revised dosage proposed by state technical committee, 6 mg/kg/day IFA syrup for 2 months will be required i.e., approx. 3 ml/day for 8 weeks (168 ml) & biweekly prophylactic dose of 1 ml for remaining 44 weeks (88 ml). Thus, total 268 ml i.e., Approx 5 bottles required for the anemic child
Therapeutic	Estimated Iron Folic Acid syrup bottle (of 50 ml each) supply= 5 x (70% of Number of children 6–59 months) + additional 10% as buffer stock*	
Children 5–9 years		
	In-school Estimated Iron Folic Acid tablet supply = (80% of number of children aged 5–9 years registered in schools x 52 tablets) +(20% of number of children aged 5–10 years registered in schools x 156 tablets) + (52 tablets/teacher/year) + additional 10% as buffer stock* **Out-of-school** Estimated Iron Folic Acid tablet supply = (80% of number of children aged 5–10 years registered with ICDS x 52 tablets) + (20% of number of children aged 5–10 years registered with ICDS x 156 tablets) + (52 tablets/year for each AWW) + 52 tablets/ year for ASHA) + additional 10% as buffer stock*	As per CNNS, prevalence of anemia for the age group is 21.5% for Maharashtra. As per revised dosage proposed by state technical committee, 6 mg/kg/day IFA for 2 months will be required i.e., approx. 2 pink tablets a day for 8 weeks (112 tablets) & prophylactic dose of Weekly 1 pink tablet for remaining 44 weeks (44 tablets). Thus, total 156 tablets required in case of the anemic child
Adolescents 10-19 years		
	In-school Estimated Iron Folic Acid tablet supply = (80% of children aged 10-19 years (Both girls and boys) x 52 tablets) + (30% of children aged 10-19 years (Both girls and boys) x 208 tablets) + (52 tablets/per teacher/year) + additional 10 % as buffer stock* **Out-of-school adolescent girls** Estimated Iron Folic Acid tablet supply = (70% of number of adolescent girls registered with ICDS x 52 tablets) + (30% of number of adolescent girls registered with ICDS x 208 tablets) + (52 tablets/ year for each AWW) + 52 tablets/year for ASHA) + additional 10% as buffer stock*	As per CNNS, prevalence of anemia for the age group is 28.3% for Maharashtra. Thus, 30% of the adolescents will require daily 2 tablets for 12 weeks (3 months) and weekly prophylactic dose for remaining 40 weeks. Thus, total 208 tablets will be required in case of anemic adolescent.

Age Group	Calculation	Rationale
Pregnant and lactating women		
	Estimated Iron Folic Acid tablet supply = (half number of PW as per HMIS x 180 tablets) + (half number of PW as per HMIS X 360 tablets) + (number of live birth as per HMIS x 180 tablets) + additional 10% as buffer stock* **Estimated Inj Sucrose/ FCM supply = 10 x 5ml vials of Inj Sucrose/ 1 vial of 20ml FCM (1000 mg of elemental iron) x number of moderate to severely anemic mothers**	Considering, all pregnant women requiring 180 IFA tablet (1 tablet daily) and 50% pregnant women as anemic in India requiring 360 IFA tablets (2 IFA tablets daily) during pregnancy. **5-10% of the total pregnant women will require Inj. FCM/Sucrose.**
Newlywed women in Women in Reproductive Age group (WRA)		
	Estimated Iron Folic Acid-Red tablet supply = (number of eligible couples registered/ 20-24 age group women x 52 tablets) + additional 10% as buffer stock	
Albendazole supply estimation calculations		
Children 1–19 years	Estimation number of albendazole tablets (400mg) for one deworming round: (1 x number of children in the age group 1–19 enrolled/registered in government and government-aided schools + (1 x number of children in the age group 1–19 years and out-of-school children in Anganwadi centres) + (1 x number of children in the age group 1–19 years enrolled in private schools) ** + additional 10% as buffer stock * **In states where NDD is also being implemented in private schools	
Pregnant women	Estimated number of albendazole tablets (400 mg) = (1X number of estimated pregnancies as per HMIS) + additional 10% as buffer stock*	
Women in reproductive age group (non-pregnant non-lactating)	Estimation number of albendazole tablets (400mg) for one deworming round = (1X number of eligible couples registered / WRA) + additional 10% as buffer stock	
* An additional 10% of total requirement is to be added for wastage and spoilage		

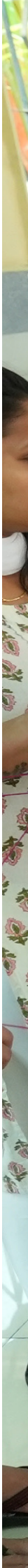
- Calculation of demand should be done from down below at SC level first and then at PHC and compiled at district level for DHO side. Similarly, Calculation of demand should be done from RH, SDH, DH/WH/GH, Medical College and Corporations and compiled at District level for CS side. Taluka Health Officers to ensure necessary stock availability and collate the requirements from ASHA, AWW, SC and PHC at block level, validate the requirement before sharing with District level. Similarly, District AMB Nodal Officer should validate the requirements based on last 3 years utilization patterns and stock at hand before sharing with State.
- Drug demand for special drives like Vitamin A supplementation + Deworming rounds should have been considered in demand calculation.
- MO/MS + pharmacist/senior pharmacist meetings should be called for calculation of demand by DHO & CS as per guidelines.

4.2 Identing

- In logistics cycle, placing orders (indenting) is a routine activity.
- The person or institution placing the order determines the quantity to be ordered based on their consumption and stock on hand which is called a pull or requisition system.

Table 17: e-Aushadhi – recommended minimum frequency of indenting using pull system.

Institutional level	Frequency	Quantity of indent
District	2 times a year	Six months quantity
DH/WH	2 times a year	Six month quantity
SDH/RH	12 times a year	One-month quantity
PHC	12 times a year	One-month quantity
SC/HWC	12 times a year	One-month quantity



5. Inter-departmental coordination

- State Committee for Adolescent Health (SCAH)/ State Executive Committee for POSHAN Abhiyaan should be used for the inter-departmental coordination at State level with ACS Health as Chairperson and State Nodal Officer for AMB/Additional Director SFWB as member secretary.
- Quarterly SCAH/SECPA meetings should be organized for:
  - Effective convergence among various departments.
  - Identify bottlenecks and resolve implementation issues.
  - Review the progress against Monitoring framework under AMB.
  - Analyze current situation, Demand generation, Programme management, Supportive Supervisions structures in AMB.
  - Harmonize POSHAN Abhiyaan with AMB
- Similarly, divisional, district and block level inter-departmental convergence platforms are to be leveraged with representative from Health department as member secretary.
- State Task Force Committee for AMB should be constituted on the polio model to critically review the status, identify programmatic gaps, decide strategic actions to improve the coverage and monitor the implementation of these actions. Representation of Subject Experts from all relevant departments of Govt of Maharashtra, faculties from medical colleges, Academia (AIIMS Nagpur), Professional bodies (IAP, FOGSI, IMA, NNF), PHI, SHSRC, State IEC Bureau, UNICEF and other developmental partners and NGOs to be ensured. The STFC should:
  - Provide technical support to strategize and plan, coordinate implementation, and monitor and evaluate interventions for reduction of anemia and recommend new/modified strategies (technical guidelines, SOPs and IEC material) for anemia prevention and control.
  - Develop annual plan of action for anemia prevention and control.
  - Monitor the implementation of the plan of action and progress towards the objectives and targets of the state.
  - Meet quarterly to review programme performance through a detailed review of administrative and monitoring data, microplanning, training status of frontline workers, and drug supply logistics management, with a special focus on high priority areas.
  - Identify operational constraints and ensure corrective operational steps to improve coverage.
  - Provide any other technical assistance required for effective implementation.

Table 18: Areas of support from departments.

Areas of support from departments		
Sr No	**Department**	**Expected areas of support**
1	Women and Child Development 	• Designate a nodal officer for AMB implementation. • Prepare due list for beneficiaries and share the number of out of school children / adolescents to PHD. • Ensure timely indenting, availability of adequate supplies of drugs and maintain buffer stock at service delivery point. • Maintain compliance card for beneficiaries and ensure reporting, monitoring and supportive supervision of programme. • Help in the organization of quarterly Adolescent health and wellness days for T4 camps to cover out of school children/adolescents. • Line listing of the identified anemic cases and ensure IFA supplementation as well as follow-up. • Ensure referral of severe anaemic and those resistant to treatment cases to nearest CHC/SDH/DH for further investigation and treatment.
2	Medical Education & Drug department 	• Designate a nodal officer for AMB implementation. • Identify a medical college to serve as State Centre of Excellence and Advance Research for Anemia Control (SCEAR-A) to help in trainings, monitoring and act as the apex reference laboratory for anemia screening and diagnosis. • Designate technical experts for the State technical committees and support operations research and evidence generation activities • Management of severely anemic cases with complication
3	School Education and Sports Department - Primary Education and Secondary education & higher secondary 	• Designate a nodal officer for AMB implementation. • Prepare due list for beneficiaries and share the number of in school children / adolescents to PHD. • Identify Two Nodal teachers, preferably one male and one female, in every school designated as “Health and Wellness Ambassadors” under SHWP who will also liaising for AMB programme. Share the list of the nodal teachers with PHD for orientation and liaison with local health staff. • Ensure timely indenting, availability of adequate supplies of drugs and maintain buffer stock at service delivery point. • Maintain compliance card for beneficiaries and ensure reporting, monitoring and supportive supervision of programme. • Support for arranging T4 sessions at schools. • Line listing of the identified anemic cases and ensure IFA supplementation as well as follow-up. • Ensure referral of severe anaemic and those resistant to treatment cases to nearest CHC/SDH/DH for further investigation and treatment.’ • Create awareness (through Red buddies campaign) among children about causes and consequences of Nutritional & Non-Nutritional anemia, Dietary diversity, Do’s and Don’ts of anemia everyday
4	Rural Development and Panchayat Raj Department 	• Designate a nodal officer for AMB implementation. • Awareness on Nutritional, Non-nutritional anemia, dietary diversity, Do’s and Don’ts of anemia. • Ensure Hygiene and Sanitation of the Panchayat. • Ensure availability of safe drinking water and use of toilet by every family of the panchayat. • Review of anemia situation of the Panchayat regularly and discuss with line department for solving the issues, if any. • Facilitate in organizing T4 camp and mobilization of beneficiary to the camps. • Facilitate in developing Nutri-garden in every household. • Linkage with G RAM G Scheme for testing of women in reproductive age group

Areas of support from departments		
Sr No	**Department**	**Expected areas of support**
5	Urban Development Department 	• Designate a nodal officer for AMB implementation. • Prepare due list for beneficiaries and share the number of children /adolescents in municipal schools to PHD. • Ensure timely indenting, availability of adequate supplies of drugs and maintain buffer stock at service delivery point. • Maintain compliance card for beneficiaries and ensure reporting, monitoring and supportive supervision of programme. • Support for arranging T4 sessions at schools. • Line listing of the identified anemic cases and ensure IFA supplementation as well as follow-up. • Ensure referral of severe anaemic and those resistant to treatment cases to nearest CHC/SDH/DH for further investigation and treatment. • Create awareness (through Red buddies campaign) among children about causes and consequences of Nutritional & Non-Nutritional anemia, Dietary diversity, Do's and Don'ts of anemia everyday • Identifying and encouraging involvement of local CSOs • Regular review by the District/City Task Force for AMB in urban areas
6	Tribal Development Department 	• Designate a nodal officer for AMB implementation. • Prepare due list for beneficiaries and share the number of children /adolescents in ashram schools to PHD. • Ensure timely indenting, availability of adequate supplies of drugs and maintain buffer stock at service delivery point. • Maintain compliance card for beneficiaries and ensure reporting, monitoring and supportive supervision of programme. • Support for arranging T4 sessions at schools. • Line listing of the identified anemic cases and ensure IFA supplementation as well as follow-up. • Ensure referral of severe anaemic and those resistant to treatment cases to nearest CHC/SDH/DH for further investigation and treatment. • Create awareness (through Red buddies campaign) among children about causes and consequences of Nutritional & Non-Nutritional anemia, Dietary diversity, Do's and Don'ts of anemia everyday
7	Minority development 	• Designate a nodal officer for AMB implementation. • Prepare due list for beneficiaries and share the number of children /adolescents in schools/residential school to PHD. • Ensure timely indenting, availability of adequate supplies of drugs and maintain buffer stock at service delivery point. • Maintain compliance card for beneficiaries and ensure reporting, monitoring and supportive supervision of programme. • Support for arranging T4 sessions at schools. • Line listing of the identified anemic cases and ensure IFA supplementation as well as follow-up. • Ensure referral of severe anaemic and those resistant to treatment cases to nearest CHC/SDH/DH for further investigation and treatment. • Create awareness (through Red buddies campaign) among children about causes and consequences of Nutritional & Non-Nutritional anemia, Dietary diversity, Do's and Don'ts of anemia everyday
8	Water supply and Sanitation 	• Awareness on Nutritional, Non-nutritional anemia, dietary diversity, Do's and Don'ts of anemia through Swachhta Mitra. • Ensure Hygiene and Sanitation of the Gram Panchayat under SBM. • Ensure availability of safe drinking water (Har Ghar Jal) and use of toilet for every household. • Awareness on MHM through IPC activities for adolescent girls

Areas of support from departments		
Sr No	**Department**	**Expected areas of support**
9	Social Justice and Special Assistance Department 	• Designate a nodal officer for AMB implementation. • Prepare due list for beneficiaries and share the number of children /adolescents in residential establishments to PHD. • Ensure timely indenting, availability of adequate supplies of drugs and maintain buffer stock at service delivery point. • Maintain compliance card for beneficiaries and ensure reporting, monitoring and supportive supervision of programme. • Support for arranging T4 sessions at residential establishments. • Line listing of the identified anemic cases and ensure IFA supplementation as well as follow-up. • Ensure referral of severe anaemic and those resistant to treatment cases to nearest CHC/SDH/DH for further investigation and treatment. • Create awareness (through red buddies' campaign) among children about causes and consequences of Nutritional & Non-Nutritional anemia, Dietary diversity, Do's and Don'ts of anemia every day. • Identifying and encouraging involvement of local NGOs

- Similarly, Anemia prevention and control activities should be coordinated and monitored at various levels:

Table 19: Coordination and Monitoring at different levels

Coordination Meeting level	Frequency	Stakeholders
VHNSD/UHSND level	As per session (At least once a month)	ANM, ASHAs, AWW, CHO/ Bharari Patak Medical Officer, Nodal Teacher
HWC/SC level	Fortnightly or on 2nd and 3rd Saturday	CHO/Bharari Patak Medical Officer, ANMs, ASHAs/ ASHA facilitator, AWWs and School teachers
PHC level	Monthly by 10th of every month	PHC MO with CHO/ Bharari Patak Medical Officer, ANMs, ASHA facilitator, ASHAs, Mukhya Sevika, AWW, Education Extension Officer/ Headmaster
Block level	Quarterly – Before District Coordination meeting	THO, CDPO, Block Education Officer, MO, CHO/ Bharari Patak MO, BCM, Mukhya Sevika, Education Extension Officers
District/ Corporation level	Quarterly - Before Divisional Coordination meeting	CEO ZP/ Municipal Commissioner with department heads
Divisional level	Quarterly	Divisional Commissioner with department heads

6. Reporting, Monitoring and Review mechanism

Integrated monitoring framework will be developed for all concerned departments and evaluation plan will be developed to provide a standardized framework on how needed information should be collected, processed, analysed, interpreted, shared, and used. All organizations/ stakeholders working in the field of anemia prevention and control should follow the same monitoring and evaluation plan to ensure comparability.

6.1 Reporting

- Reporting of all activities should be done in the HMIS portal under AMB programme. (Refer Annexure for list of data items to be filled)
- For 6-59 months children ASHA to keep a linelist in ASHA diary, AMB compliance cards should be maintained for consumption of IFA junior / WIFS Blue by school teacher (in school)/AWW (out of school).
- Monthly reports for IFA prophylactic dose consumption to be submitted by schools to BEO. Taluka Health Officer to collect reports from BEO for data entry into HMIS.
- For out of school children and adolescents, anganwadi worker to submit monthly reports to ANM in her area for entry into HMIS.
- Data regarding anemia cases identified and treated is to be filled in HMIS at facility level where services are given.

Table 20: Age Group wise reporting formats (See annexure 16)

Sr. No	Age Group	Reporting format
1.	6 - 59 months	1,2
2.	5 - 9 Years	3,4,5
3.	10 -19 Years	6,7,8
4.	Women in reproductive age group	9.10

6.2 Monitoring

- Regular monitoring of the program implementation at all levels, review of adequacy of IFA tablets/ syrup stock, Training, IEC material, and timely reporting should be done at district/ corporation level by DRCHO, RMO (OR) & RCH Officer.
- RBSK team/CHO/MO will be responsible for the monitoring of the AMB programme implementation in schools & AWCs.
- Monitoring formats in Annexure should be used for the same.

6.3 Nodal Monitoring & Evaluation

•State Health Systems Resource Centre (SHSRC) should support State Nodal Officer AMB in the technical assistance, capacity building, monitoring and supervision of the programme. Data analysis of the HMIS indicators, AMB dashboard Indicators and monitoring reports should be done on monthly & quarterly basis.

•State Centre of Excellence and Advance Research for Anemia Control (SCEAR-A) will be established at medical college which will support the health department in the training, monitoring and will act as the apex reference laboratory for anemia screening and diagnosis.

6.4 Performance Ranking and appreciation

•Based on national AMB Dashboard, awards can be given to better performing districts at State level functions annually.

Key Performance Indicators

•Percentage of children 6-59 months provided 8-10 doses (1ml) of Iron and Folic Acid (IFA) syrup (Biweekly) [HMIS indicator 5.1.2]

•Percentage of children covered under WIFS JUNIOR (5-9 years) provided 4-5 iron and folic acid (IFA) tablets (In schools + out of school) [HMIS indicator 5.1.3a + 5.1.3b]

•Percentage of adolescents (10-19 years) provided 4 Iron and Folic Acid (IFA) tablets in schools. [HMIS indicator 12.2.1a + 12.2.1b]

•Percentage of eligible pregnant women who received at least 180 IFA tablets. [HMIS indicator 1.2.4]

•Percentage of mothers provided full course of 180 IFA tablets after delivery. [HMIS indicator 6.3]

•Number of Pregnant women with severe anemia corrected for anemia

6.5 Monitoring Indicator Framework

Table 21: HMIS Monthly Data Item Wise Report for Maharashtra State

Data Item Code	Data Item Name	Sub Data Item
1.2.4	Number of PW provided full course 180 Iron Folic Acid (IFA) tablets	
1.2.6	Number of PW given one Albendazole tablet after 1st trimester	
1.4.1	Number of PW tested for Haemoglobin (Hb) 4 or more than 4 times for respective ANCs	
1.4.2	Number of PW having Hb level<11(7.1 to 10.9 g/dl) (Out of total tested cases)	
1.4.3	Number of PW having Hb level<=7 g/dl (Out of total tested cases)	
1.4.4	Number of PW treated for severe anemia (Hb<=7g/dl) (Out of total tested cases)	
5.1.1	Number of women of reproductive age (WRA) 20-49 years (non-pregnant, non-lactating), provided 4 Red Iron and folic acid (IFA) tablets in a month	
5.1.2	Number of children (6-59 months old) provided 8-10 doses (1ml) of IFA syrup (Biweekly)	
5.1.3.a	Number of out of school children (5 -9 years) given 4-5 IFA Pink tablets at AWC	
5.1.3.b	Number of in-school children (5 - 9 years) provided 4-5 IFA Pink tablets in schools	
5.2.1.a	Number of in-school children (5 - 9 years) having aneamia (Hb 8.1-11.4 g/dl)	
5.2.1.b	Number of in-school adolescent girls (10 - 19 years) having aneamia (Hb 8.1-11.4 g/dl)	
5.2.1.c	Number of out of school adolescent girls (10-19 years) having anemia (Hb 8.1-11.9 g/dl)	
5.2.1.d.i	Number of boys 10-11 years having anemia (Hb 8.1-11.4 g/dl)	
5.2.1.d.ii	Number of boys 12-14 years having anemia (Hb 8.1-11.9 g/dl)	

Data Item Code	Data Item Name	Sub Data Item
5.2.1.d.iii	Number of boys 15-19 years having anemia (Hb 8.1-12.9 g/dl)	
5.2.1.f	Number of women of reproductive age (non-pregnant, non-lactating) (20-49 years) having anemia (Hb 8.1-11.9 g/dl)	
5.2.2.c	Number of out of school adolescent girls (10-19 years) having severe anemia (Hb <8 g/dl)	
5.2.2.d	Number of in-school adolescent boys (10-19 years) having severe anemia (Hb <8 g/dl)	
5.2.2.e	Number of lactating mothers (of 0-6 months old child) having severe anemia ((Hb <8 g/dl)	
5.2.2.f	Number of women of reproductive age (non-pregnant, non-lactating) (20-49 years) having severe anemia (Hb <8 g/dl)	
5.2.3.a	Number of anaemic in-school Children (5-9 years) put on treatment	
5.2.3.b	Number of anaemic in-school adolescent girls (10-19 years) put on treatment	
5.2.3.c	Number of anaemic out of school adolescent girls (10-19 years) put on treatment	
5.2.3.d	Number of anaemic in-school adolescent boys (10-19 years) put on treatment	
5.2.3.e	Number of anaemic lactating mothers (of 0-6 months old child) put on treatment	
5.2.3.f	Number of anaemic women of reproductive age (non-pregnant, non-lactating) (20-49 years) put on treatment	
5.2.4.a	Number of lactating mothers (of 0-6 months old child) diagnosed with severe anemia and put on treatment	
6.3	Number of mothers provided full course of 180 IFA tablets after delivery	
12.2.1.a	Number of Girls (6th -12th class) provided 4/5 IFA tablets in schools	
12.2.1.b	Number of Boys (6th -12th class) provided 4/5 IFA tablets in schools	
12.2.2.a	Number of Girls (6th -12th class) provided albendazole in schools	
12.2.2.b	Number of Boys (6th -12th class) provided albendazole in schools	
12.2.3	Number of out of school adolescent girls (10-19 years) provided 4/5 IFA tablets at AWC	
12.2.4	Number of out of school adolescent girls (10-19 years) provided albendazole tablet at AWC	
19.6	IFA tablets (Red)	1. Balance From Previous Month
		2. Stocks Received
		3. Unusable Stock
		4. Stock Distributed
		5. Total Stock
19.7	IFA - Blue (Adolescent 10-19 yrs)	1. Balance From Previous Month
		2. Stocks Received
		3. Unusable Stock
		4. Stock Distributed
		5. Total Stock
19.8	IFA- Pink (Junior 5-9 yrs)	1. Balance From Previous Month
		2. Stocks Received
		3. Unusable Stock
		4. Stock Distributed
		5. Total Stock
19.9	IFA Syrup (Paediatric)	1. Balance From Previous Month
		2. Stocks Received
		3. Unusable Stock
		4. Stock Distributed
		5. Total Stock

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Annexure 1: Anemia Prevalence: District wise data by NHFS 5

SN	District	Children 6-59 months (Hb <11.0 g/dl)	Non-pregnant women 15-49 years (Hb <12.0 g/dl)	Pregnant women 15-49 years (Hb <11.0 g/dl)	Men age 15-49 years who are anaemic (<13.0 g/dl)
		NFHS-5	NFHS-5	NFHS-5	NFHS-4
1	Ahmednagar	64.5	50.5	44	17.3
2	Akola	77.5	53.2	39.2	20
3	Amravati	74.4	53.6	43.3	19.4
4	Aurangabad	64.5	52.6	48.2	17.5
5	Bhandara	72.2	65.4	64.7	28
6	Beed	61	51	*	9.9
7	Buldhana	79.4	58.5	*	8.6
8	Chandrapur	76.6	55.9	*	15.9
9	Dhule	72.2	60.8	70.6	23.9
10	Gadchiroli	76.6	67.7	39.3	31.9
11	Gondia	78	60.9	43.6	28.8
12	Hingoli	72.5	51.5	53.3	13.4
13	Jalgaon	85.2	65.3	63.8	28.2
14	Jalna	68.3	58.7	47.3	11.4
15	Kolhapur	66.4	50.1	48.9	20.8
16	Latur	59.5	50.7	51	12.8
17	Mumbai Sub	65.6	49.7	*	12.8
18	Mumbai	72.8	46.9	19.9	23
19	Nagpur	70.5	54	*	19.1
20	Nanded	76.1	57.5	52.9	15.5

SN	District	Children 6-59 months (Hb <11.0 g/dl)	Non-pregnant women 15-49 years (Hb <12.0 g/dl)	Pregnant women 15-49 years (Hb <11.0 g/dl)	Men age 15-49 years who are anaemic (<13.0 g/dl)
		NFHS-5	NFHS-5	NFHS-5	NFHS-4
21	Nandurbar	79.3	64.1	68.2	33.6
22	Nashik	67.3	55.4	73.4	16.4
23	Osmanabad	67.4	49.3	44.4	15
24	Palghar	70.3	57.2	48.5	*
25	Parbhani	75.4	59.4	48	15.9
26	Pune	58.7	53.2	*	17.4
27	Raigad	67	53.8	65.7	13.3
28	Ratnagiri	69.4	43.4	*	20.6
29	Sangli	62.7	47.6	42.3	19.5
30	Satara	68.9	50.2	28.8	16.6
31	Sindhudurg	55.6	41.3	*	18.2
32	Solapur	70.9	55.5	34.1	14.9
33	Thane	67.9	58.8	*	17.1
34	Wardha	71.4	60.7	36.5	24.8
35	Washim	70.4	57	33.8	20.3
36	Yavatmal	75.2	58.5	53.7	21.2

Annexure 2: Prophylactic dose and regime for IFA supplementation

Age	Dose	Regime
Children 6–59 months	1 ml of IFA syrup containing 20mg of elemental iron and 100mcg of folic acid	Biweekly, 50ml bottle Auto-dispenser. Deworming for children 12 months and above.
Children 5-9 years	45mg elemental iron and 400mcg of folic acid (IFA PINK Tablet)	Weekly one tablet throughout the period 5-9 years. Biannual deworming
Adolescents 10-19 years	60mg elemental iron and 500mcg of folic acid (IFA BLUE Tablet)	Weekly one tablet throughout the period 10-19 years. Biannual deworming
Women of reproductive age (WRA)	60mg elemental iron and 500mcg of folic acid (IFA RED Tablet)	Weekly one tablet throughout the reproductive period
Pregnant women and Lactating women	60mg elemental iron and 500mcg of folic acid (IFA RED Tablet)	1 tablet daily for 180 days starting from forth month of pregnancy continued throughout pregnancy (min 180 days) to be continued for 180 days post-partum.

Annexure 3: Age group wise Therapeutic Management of Anemia

Anemia management protocol for children	
Target group A: Children 6–59 months	
If Haemoglobin is 7–10.9 g/dl (mild and moderate anemia)	
First level of treatment (at all levels of care)	6 mg of iron/kg/day for 2 months • For children 6–12 months (6–10.9 kg): 2 ml IFA syrup, once a day • For children 1–3 years (11–14.9 kg): 3 ml IFA syrup, once a day • For children 3–5 years (15–19.9 kg): 4 ml IFA syrup, once a day Line listing for all anemic children to be maintained by the ANM/ ASHA/ AWW
If Haemoglobin is <7 g/dl (severe anemia)	
Treatment	• Refer urgently to District Hospital/First Referral Unit • Management of severe anemia in children of 6–59 months is to be done by the medical officer at the First Referral Unit/District Hospital based on investigation
Follow-up	• Every month by ANM at VHND • Hb estimation after 2 months for completing 2 months of treatment to document Hb>= 11g/dl • Monitoring by ASHA for compliance of IFA syrup every 14 days for a period of 2 months If hemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic IFA dose
If no improvement after first level of treatment	In case the child has not responded to the treatment of anemia with daily dose of iron for 2 months, refer the child to the FRU/DH medical officer/pediatrician/physician for further investigation

Target group B: Children 5–9 years	
If Hemoglobin is 8–11.4 g/dl (mild and moderate anemia)	
treatment (at all levels of care)	• 6 mg of iron/kg/day for 2 months • Line listing of all anemic cases to be maintained in the school • Register for Iron Folic Acid supplementation and given to the ANM/LHV/Multiple Purpose Health Worker for designated area
Follow-up	• Class teacher/ Nodal teacher at school to orient parents during • Parent Teacher Meeting (PTM) for compliance of treatment • Parents to ensure follow-up of child after 30 days and 60 days at nearest SC/health facility • Follow-up by ANM/LHV/MPW of designated area, as feasible. • Hb estimation after completing 2 months of treatment to document Hb>=11.5 g/dl • If haemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic • IFA dose
If Hemoglobin is <8 g/dl (severe anemia)	
Treatment	• Refer urgently to District Hospital/First Referral Unit • Management of severe anemia in children of 5–9 years is to be done by the medical officer at the First Referral Unit/District Hospital based on investigation

Anemia management protocol for adolescents	
Mild and Moderate Anemia	
First level of treatment (at all levels of care)	Two IFA tablets (each with 60 mg elemental iron and 500 mcg folic acid), once daily, for 3 months, orally after meals
Follow-up	Line listing of all anemic cases to be maintained in the school register for Iron Folic Acid supplementation and given to the ANM/LHV/MPHW of designated area • Follow-up by ANM/LHV/MPHW of designated area, as feasible for the state • Parents to ensure follow-up of adolescent after 45 days to 90 days at the nearest sub-center/ health facility • If hemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic IFA dose
If Hemoglobin is <8 g/dl (severe anemia)	
First dose of treatment	Management of severe anemia in adolescents 10–19 years is to be done by the medical officer at FRU/DH based on investigation and subsequent diagnosis. Use of Inj. FCM (Ferrous Carboxy Maltose) in case of moderate to severe anemia in adolescents (Hb < 8gm/dl).
Anemia management protocol for pregnant women	
If Hemoglobin is 10–10.9 g/dl (mild anemia)	
First level of treatment (at all levels of care)	• Two tablets of Iron and Folic Acid tablet (60 mg elemental Iron and 500 mcg Folic Acid) daily, orally given by the health provider during the ANC contact • Parental iron (IV Iron Sucrose or Ferric Carboxy Maltose (FCM) may be considered as the fi rst line of management in pregnant women who are detected to be anemic late in pregnancy or in whom compliance is likely to be low (high chance of lost to follow-up)
Follow-up	• Every 2 months for compliance of treatment by health provider during the contact • If haemoglobin levels have come up to normal level, discontinue the treatment and continue with the prophylactic IFA dose
If Hemoglobin is 7–9.9 g/dl (moderate anemia)	
First level of treatment (at all levels of care)	Two tablets of Iron and Folic Acid tablet (60 mg elemental Iron and 500 mcg Folic Acid) daily, orally given by the health. provider during the ANC contact • Parental iron (IV Iron Sucrose or FCM) may be considered as the first line of management in pregnant women who are detected to be anemic late in pregnancy or in whom compliance. is likely to be low (high chance of lost to follow-up)

Follow-up	• Every 2 months for compliance of treatment by health provider at regular ANC clinics/ PMSMA/VHND platform. • The contact is to be utilized by the health provider to also conduct hemoglobin estimation of the anemic cases every. month. If hemoglobin levels have come up to normal level, discontinue the treatment and continue with the prophylactic IFA dose.
If Hemoglobin is 5.0–6.9 g/dl (severe anemia)	
First level of treatment	Management of severe anemia in pregnant women will be done by the medical officer at PHC/ CHC/FRU/DH The treatment will be done using IV Iron Sucrose/Ferric Carboxy Maltose (FCM) by the medical officer. *Immediate hospitalization recommended in the third trimester of pregnancy at a health facility where round-the-clock specialist care is available
For severely anemic pregnant women with hemoglobin less than 5 g/dl, immediate hospitalization irrespective of period of gestation where round-the-clock specialist care is available. This is to be done till normal level of hemoglobin is achieved	

If no response to Iron Treatment in Pediatric age group then check for following things:

- Poor Compliance
- Incorrect dose
- Malabsorption of administered iron
- Blood loss
- Infection or inflammatory disorder
- Concurrent vitamin B12 or folate deficiency
- Diagnosis other than iron deficiency
  - o Thalassemias
  - o Hemoglobins C and E disorders
  - o Anemia of Chronic Disease
  - o Lead Poisoning
  - o Sickle thalassemias, hemoglobin SC disease

Laboratory Studies Differentiating the Most Common Microcytic Anemias

Sr No.	STUDY	IRON DE-FICIENCY ANEMIA	α OR THALASSEMIA β	ANEMIA OR CHRONIC DISEASE
1	Hemoglobin	Decreased	Decreased	Decreased
2	MCV	Decreased	Decreased	Normal - Decreased
3	RDW	Increased	Normal or minimally Increased	Normal - Increased
4	RBC	Decreased	Normal Increased	Normal - Decreased
5	Serum Ferritin	Decreased	Normal	Increased
6	Total Fe binding capacity	Increased	Normal	Decreased
7	Transferrin Saturation	Decreased	Normal	Decreased
8	FEP	Increased	Normal	Increased
9	Trasnferrin receptor	Increased	Normal	Increased
10	Reticulocyte hemoglobin concentration	Decreased	Normal	Decreased

Source - Nelson Textbook of Pediatrics Edition 20

Annexure 4: "Ask for Symptoms – Look For Sign" for Children upto 5 Years

- Extreme fatigue and weakness disproportionate to activities
- Irritability
- Pallor of skin, lips, and conjunctiva—assessed on palmar surfaces and nail beds
- Cold extremities
- Feeding difficulties and rapid fatigue during feeds
- Pica—compulsive consumption of non-food substances (soil, chalk, ice, paper)
- Reduced appetite and early satiety
- Sore or swollen tongue (glossitis)
- Shortness of breath, particularly during feeding or minimal exertion
- Developmental delays and failure to thrive
- Poor sleep quality and restlessness
- Headaches and dizziness
- Swelling of feet, Edema
- Vague joint and bone pain specially in sickle cell
- Abdominal or chest pain
- Facial changes in thalassemia with depressed nose bridge and prominent cheek bones

Severe Anemia Red Flags

- Blue-tinged sclera (whites of eyes appearing pale blue)
- Brittle, spoon-shaped nails (koilonychia)
- Splenomegaly and hepatomegaly
- Heart failure manifestations with tachypnea, distended neck veins, and wheezing

Annexure 5: "Ask for Symptoms – Look For Sign" to be used for Children aged 5 - 9 Years

Objective Clinical Signs

- Pallor of mucous membranes and nail beds
- Angular cheilitis (sores at corners of mouth)
- Glossitis and oral mucosal changes
- Tachycardia
- Vague joint and bone pain specially in sickle cell
- Abdominal or chest pain
- Facial changes in thalassemia with depressed nose bridge and prominent cheek bones

Cognitive and Academic Deterioration

- Difficulty concentrating and maintaining attention span in classroom
- Decline in scholastic performance and memory retention
- Daydreaming and appearing "lost in thought" during periods
- Reduced cognitive function affecting problem-solving abilities

Physical Performance

- Exercise intolerance with decreased stamina in physical activities
- Shortness of breath with minimal exertion relative to peers
- Rapid heartbeat (palpitations) during routine activities
- Frequent complaints of headaches
- Cold hands and feet

Behavioral and Psychosocial Manifestations

- Persistent irritability and mood changes
- Lack of interest in play and recreational activities
- Chronic fatigue despite adequate sleep duration
- Poor appetite

Growth and Developmental Concerns Persistent irritability and mood changes

- Stunted Growth
- Delayed achievement of developmental milestones in severe anemia
- Poor sleep affecting daytime functioning

Annexure 6: "Ask for Symptoms – Look For Sign" to be used for 10-19 years age group

Symptoms

- Dizziness
- Unusually rapid heartbeat (tachycardia) during routine activities and exercise
- Shortness of breath with exertion
- Frequent headaches
- Generalized weakness and persistent fatigue

Cognitive and Academic Impact

- Significant decline in scholastic performance
- Loss of concentration and difficulty maintaining focus during study
- Memory impairment affecting learning retention

Reproductive and Gender-Specific Manifestations

- Females: Heavy menstrual bleeding (menorrhagia) as both cause and exacerbating factor
- Females: Irregular menstrual cycles and dysmenorrhea
- Males: Reduced exercise capacity

Nutritional and Behavioral Indicators

- Craving for non-food substances (pica: mud, clay, ice)
- Loss of appetite and irregular meal
- Soreness of mouth with angular cracks (cheilitis)
- Cold intolerance

Psychosocial and Functional Limitations

- Lack of interest in studies and extracurricular activities
- Decreased participation in sports and physical education
- Mood disturbances including irritability and depressive symptoms
- Sleep disturbances and non-restorative sleep
- **Severe Anemia Warning Signs**
- Syncope (fainting episodes)
- Jaundice, dark urine, and splenomegaly
- Signs of underlying chronic disease (fever, weight loss, lymphadenopathy)

Annexure 7: Subcenter microplan template for Drug and Logistics at Village / VHSND / UHSND level

Annexure 7 - Subcenter microplan template for Drug and Logistics at Village/VHSND/UHSND level											
Name of Subcenter -											
Name of PHC -											
Name of Block -											
SN	Name of Village	Total Beneficiaries					IFA Drugs and Logistics Required				
		6-59 months	Out of school adolescent girls	Est. WRA women	Est. Pregnant women	Est. Lactating Women	IFA Syp bottles req.	Total IFA Blue req.	Total IFA Red required	Total Tab Albendazole Req.	Total Strips / Microcuvette req.
1											
2											
	Total										

Annexure 8: Register for Therapeutic Dose for Children 6 months - 59 months

Annexure 8 - Register for Therapeutic Dose for Children 6 months - 59 months												
Name of Subcenter -												
Name of PHC -												
Name of Block -												
SN	Name of Child	Sex	Age (in months)	Date of Hb Tested	Hb Level	Treatment / Referred	Details of Treatment		Date of Followup Hb Tested	Hb Level	Whether Referred	Remark
							Date of first IFA dose given	Date of second IFA dose given				

Annexure 9: Subcenter microplan template for Primary and Secondary School Level Planning

Annexure 9 - Subcenter microplan template for Primary and Secondary School Level Planning														
Name of Subcenter -														
Name of PHC -														
Name of Block -														
SN	Name of School	Type of School (Govt/Pvt/ Aided)	Total Students enrolled	Students enrolloed in 1to 5th Class			Students enrolled in 6th to 10th Class			Children identified with Sickle Cell and Thalassemia	Total Eligible Students for IFA Supplementation	Total IFA required		Total Albendazole Required
				Male	Female	Total	Male	Female	Total			IFA Pink	IFA Blue	

Annexure 10: Register for Prophylactic Dose for Primary School Students (5 to 9 Years) - Classroom Level

Annexure 10 - Register for Prophylactic Dose for Primary School Students (5 to 9 Years) - Classroom Level															
SN	Name of Student	Sex	Month -					Total Doses taken in month	Month -					Total Doses taken in month
			1st week	2nd week	3rd week	4th week	5th week		1st week	2nd week	3rd week	4th week	5th week	

Annexure 11: Register for Therapeutic Treatment for Primary School Students (5 to 9 Years)

Annexure 11 - Register for Therapeutic Treatment for Primary School Students (5 to 9 Years)													
Name of School -				Name of Teacher -									
Class -													
SN	Name of Student	Sex	Class	Date of Hb Tested	Hb Level	Treatment / Referred	Date of Treatment Started	Total Tablets Given		Date of Followup Hb Tested	Hb Level	Whether Referred	Remark
								First Month	Second Month				

Annexure 12: Register for Therapeutic Treatment for Secondary School Students (10 to 19 Years)

Annexure 12 - Register for Therapeutic Treatment for Secondary School Students (10 to 19 Years)														
Name of School -					Name of Teacher -									
Class -														
SN	Name of Student	Sex	Class	Date of Hb Tested	Hb Level	Treatment / Referred	Date of Treatment Started	Total Tablets Given			Date of Followup Hb Tested	Hb Level	Whether Referred	Remark
								First Month	Second Month	Third Month				

Annexure 13: Register for Therapeutic Treatment for Out of School Adolescent Girls (10 to 19 Years)

Annexure 13 - Register for Therapeutic Treatment for Out of School Adolescent Girls (10 to 19 Years)													
Name of Village -						Name of AWW -							
AWC -						Name of PHC -							
SN	Name of Girl	Age	Date of Hb Tested	Hb Level	Treatment / Referred	Date of Treatment Started	Total Tablets Given			Date of Followup Hb Tested	Hb Level	Whether Referred	Remark
							First Month	Second Month	Third Month				

Annexure 14: Register for Prophylactic dose and Therapeutic Treatment for WRA Women (20-49 Years)

Annexure 14 - Register for Prophylactic dose and Therapeutic Treatment for WRA Women (20-49 Years)																						
Name of Village -														Name of ASHA -								
Name of SC -														Name of PHC -								
SN	Name of Woman (WRA)	Age	Monthwise number of IFA Red Tablets given												HB Testing		Treatment Done			Follow Up	
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Date of Hb Testing	HB Level	First month (wirte date and total tablets given)	Second Month (wirte date and total tablets given)	Thrid Month (wirte date and total tablets given)	Hb Level after treatment	Remark

Annexure 15 : Rakta Swasthya Samwardhan School Monitoring Checklist touring Checklist

Rakta Swasthya Samwardhan School Monitoring Checklist					
A. Basic information					
Name of Monitor		Designation		Organization	
District/ Corporation		Block/Urban		Village	
Govt. Health facility nearest		School Name		Date of visit	

B. Programme implementation			
1	Whether Nodal Teacher present at school	Yes	No
2	Whether sufficient number of compliance cards are present? [Total number of students*1.1]	Yes	No
3	Whether sufficient number of IFA tablets available at the school? [(Total number of teacher+students)*4]	Yes	No
4	Whether teachers (apart from nodal teachers) have adequate knowledge regarding the doses of IFA Tablets?	Yes	No
5	Whether the teachers and students take the tablet under direct observation after food consumption?	Yes	No
6	Whether the compliance cards being filled properly for all the students?	Yes	No
7	Whether the monthly consumption records are being collated in the AMB register?		
8	Whether the monthly consumption records are being shared on regular basis with Health department?	Yes	No
9	Whether all students have received bi-annual albendazole doses?	Yes	No
C. Discussion with Nodal Teachers (Check adequacy of knowledge - reorient if required)			
1	Have you received any orientation training about Anemia Mukt Bharat?	Yes	No
2	Do you know the causes of anemia?	Yes	No
3	Do you know the signs/symptoms of anemia?	Yes	No
4	Do you know the consequences of anemia	Yes	No
5	Do you know the benefits of IFA supplementation	Yes	No
6	Do you know the Do's" and "Don'ts" in anemia?	Yes	No
7	Do you know the dietary sources of Iron?	Yes	No
8	If you suspect a student have anemia, where will you refer them?	Yes	No
9	Do you know what to do if any student develops minor side-effects or feel unwell after taking the IFA tablets?	Yes	No
D. Overall Observations			

Anemia Mukt Bharat AWC Monitoring Checklist

A. Basic information

Name of Monitor		Designation		Organization	
District/ Corporation		Block/Urban		Village	
Govt. Health facility nearest		AWC Name		Date of visit	

B. Programme implementation

1	Whether sufficient number of IFA (Pink) tablets available at the AWC? [Total number of out of school children 5-9 years*4*1.1]	Yes	No
2	Whether sufficient number of IFA (Blue) tablets available at the AWC? [(Total number of out of school adolescent girls 10-19 years+ AWW)*4*1.1]	Yes	No
3	Whether sufficient number of compliance cards are present? [Total number of registered out of school (children 5-6 years + adolescent girls 10-19 years)*1.1	Yes	No
4	Whether the AWW ensure that the dose is taken under direct observation after food consumption?	Yes	No
5	Whether the compliance cards being filled properly for all the eligible beneficiaries?	Yes	No
6	Whether the monthly consumption records are being collated in the AMB register?	Yes	No
7	Whether the monthly consumption records are being shared on regular basis with Health department?	Yes	No
8	Whether eligible beneficiaries have received bi-annual albendazole doses?	Yes	No

C. Discussion with Anganwadi workers (Check adequacy of knowledge - reorient if required)

1	Have you received any orientation training about Anemia Mukt Bharat?	Yes	No
2	Do you know the causes of anemia?	Yes	No
3	Do you know the signs/symptoms of anemia?	Yes	No
4	Do you know the consequences of anemia	Yes	No
5	Do you know the benefits of IFA supplementation	Yes	No
6	Do you know the Do's" and "Don'ts" in anemia?	Yes	No
7	Do you know the dietary sources of Iron?	Yes	No
8	Do you know what to do if any student develops minor side-effects or feel unwell after taking the IFA tablets?	Yes	No

D. Overall Observations

Annexure 16 : Reporting Formats

Reporting Format 1: For 0-59 months Children

Monthly Report for ASHA (For Rural/ Urban ASHA)

Name of District:_____ Block / Corporation: _____

PHC / UPHC: _____ Subcenter: _____

Name of ASHA: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total children in 6 to 59 months age			
No. of children consumed IFA syrup dose (8 or more doses)			
No. of Children with mild to moderate (7-10 gm %) anemia			
No. of children given treatment for mild to moderate anemia			
No. of Children with severe Anemia referred (<7 gm %)			
Stock of IFA syrup			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of ASHA: _____

Sign of ASHA Coordinator: _____

Sign of ANM: _____

Reporting Format 2: For 0-59 months Children

Subcenter / Health Post level Monthly Report

Name of District:_____ Block / Corporation: _____

PHC / UPHC: _____ Name of SC: _____

Name of ANM: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total children in 6 to 59 months age			
No. of children consumed IFA syrup dose (8 or more doses)			
No. of Children with mild to moderate (7-10 gm %) anemia			
No. of children given treatment for mild to moderate anemia			
No. of Children with severe Anemia referred (<7 gm %)			
Stock of IFA syrup			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of ANM: _____

Reporting Format 3 : 5 to 9 years

Monthly Report of 1st to 4th Standard Class Room Level

Name of District: / Corporation_____ Block: _____

Village/City: _____

Name of School: _____ Standard: _____ Division: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total no. of Students in 1st to 4th Standard / Class			
No. of Students consumed IFA Pink dose dose (Minimum 4 or more doses)			
No. of Students with mild to moderate anemia			
No. of anemic students given treatment for mild to moderate Anemia			
No. of anemic students with severe Anemia referred			
Stock of IFA Tablet			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of Class Teacher: _____

Reporting Format 4 : 5 to 9 years

Monthly Report of 1st to 4th Standard School Level

Name of District: / Corporation_____ Block: _____

Village/City: _____

Name of School: _____ Standard: _____ Division: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total no. of Students in 1st to 4th Standard / Class			
No. of Students consumed IFA Pink dose dose (Minimum 4 or more doses)			
No. of Students with mild to moderate anemia			
No. of anemic students given treatment for mild to moderate Anemia			
No. of anemic students with severe Anemia referred			
Stock of IFA Tablet			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of Nodal Teacher 1: _____

Sign of Nodal Teacher 2: _____

Sign of Principal: _____

Reporting Format 5 : 5 to 9 years

Monthly Report of Out of School Children for Anganwadi Sevika

Name of District / Corporation_____ Block: _____

Name of Anganwadi/Village/City: _____ Anganwadi Number: _____

Name of Anganwadi Sevika: _____ ICDS Project: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total Out of Schools Children of 5 to 9 years age			
No. of Children consumed IFA Pink dose dose (Minimum 4 or more doses)			
No. of Children with Mild to moderate			
moderate Anemia			
No. of Children with severe Anemia referred			
Stock of IFA Tablet			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of Class Teacher: _____

Reporting Format 6 : 10 to 19 years

Monthly Report of 5th to 12th Standard Class Room Level

Name of District: / Corporation_____ Block: _____

Name of School: _____ Standard: _____ Division: _____

Name of Class Teacher: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total No. of Students in the Class			
No. of Students consumed IFA Blue dose (Minimum 4 or more doses)			
No. of Students with Mild to moderate anemia			
No. of Students given treatment for mild to moderate anemia			
No. of Students with severe Anemia referred			
Stock of IFA Tablet			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of Class Teacher: _____

Reporting Format 7 : 10 to 19 years

Monthly Report of 5th to 12th Standard School Level

Name of District / Corporation: _____ Block: _____

Name of School: _____ Village/City: _____

Name of Nodal Teacher / Principal: _____ ICDS Project: _____

Reporting Month & Year : _____

Indicator	Boys	Girls	Total
Total No. of Students in the Class			
No. of Students consumed IFA Blue dose (Minimum 4 or more doses)			
No. of Students with Mild to moderate anemia			
No. of Students given treatment for mild to moderate anemia			
No. of Students with severe Anemia referred			
Stock of IFA Tablet			
Available Stock at the beginning of the month			
Remaining stock at the end of the month			
Required stock for next month			
Remark (if)...			

Sign of Nodal Teacher 1: _____

Sign of Nodal Teacher 2: _____

Sign of Principal: _____

Reporting Format 8 : 10 to 19 years

Monthly Report of Out of School Adolescent Girls for Anganwadi Sevika

Name of District: / Corporation_____ Block: _____

Name of Anganwadi / Village/ City: _____ Anganwadi Number: _____

Name of Anganwadi Sevika: _____ ICDS Project: _____

Reporting Month & Year : _____

Indicator	Total
Total No. of Out of Schools Girls of 10 to 19 years	
No. of Girls consumed IFA Blue dose (Minimum 4 or more doses)	
No. of Girls with mild to moderate anemia	
No. of Girls given treatment for Mild to moderate Anemia	
No. of Girls with severe Anemia referred	
Stock of IFA Tablet	
Available Stock at the beginning of the month	
Remaining stock at the end of the month	
Required stock for next month	
Remark (if)...	

Sign of Class Teacher: _____

Reporting Format 9 : For Women in Reproductive Age (WRA)

Monthly Report for ASHA (For Rural/ Urban ASHA)

Name of District: _____ Block/Corporation: _____

PHC / UPHC: _____ Subcenter: _____

Name of ASHA: _____

Reporting Month & Year : _____

Indicator	Total
Total WRA in village	
No. of WRA women consumed IFA tablet dose (minimum 4 or more doses)	
No. of WRA women with mild to moderate anemia	
No. of WRA women given treatment for mild to moderate anemia	
No. of WRA women with severe Anemia referred	
Stock of IFA Tablet	
Available Stock at the beginning of the month	
Remaining stock at the end of the month	
Required stock for next month	
Remark (if)...	

Sign of ASHA: _____

Sign of ASHA Coordinator: _____

Sign of ANM: _____

Reporting Format 10 : For Women in Reproductive Age (WRA)

Subcenter / Health Post level Monthly Report

Name of District: _____ Block/Corporation: _____

PHC / UPHC: _____ Subcenter: _____

Name of ASHA: _____

Reporting Month & Year : _____

Indicator	Total
Total WRA in village	
No. of WRA women consumed IFA tablet dose (minimum 4 or more doses)	
No. of WRA women with mild to moderate anemia	
No. of WRA women given treatment for mild to moderate anemia	
No. of WRA women with severe Anemia referred	
Stock of IFA Tablet	
Available Stock at the beginning of the month	
Remaining stock at the end of the month	
Required stock for next month	
Remark (if)...	

Sign of ANM: _____

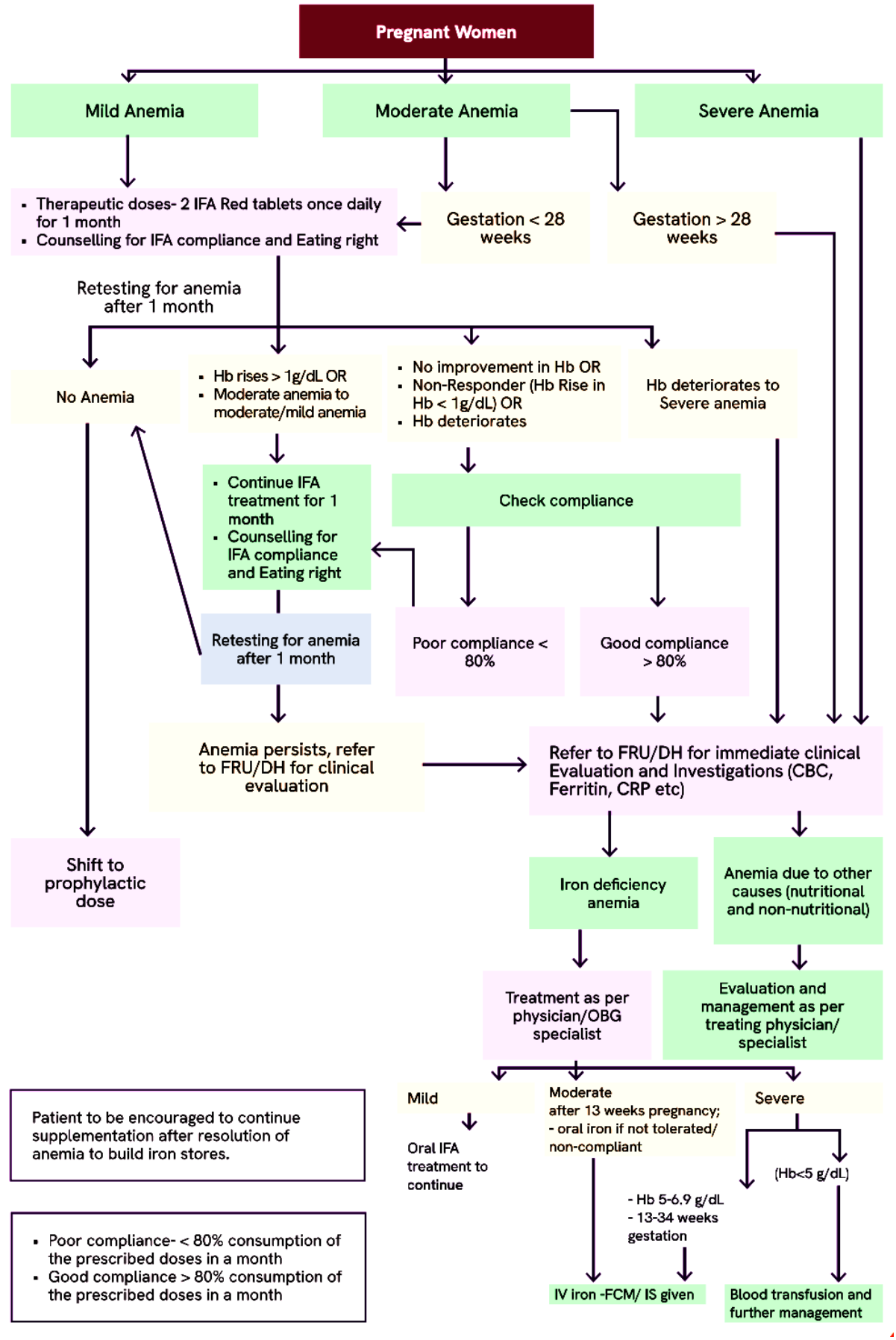
Acronyms

ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BEO	Block Education Officer
CHC	Community Health Centre
CDPO	Child Development Project Officer
DALY	Disability Adjusted Life Years
DH	District Hospital
DIET	District Institute for Education and Training
FBNC	Facility Based Newborn Care
FCM	Ferric Carboxy Maltose
FRU	First Referral Unit
Hb	Haemoglobin
HMIS	Health Management Information System
ICDS	Integrated Child Development Services
IDA	Iron Deficiency Anemia
IFA	Iron Folic Acid
ITBN	Insecticide Treated Bed Nets
IV	Intra Venous
LBW	Low Birth Weight
MAA	Mothers' Absolute Affection
MO	Medical Officer
MHRD	Ministry of Human Resource and Development
MoHFW	Ministry of Health and Family Welfare
MPV	Mission Parivar Vikas
MWCD	Ministry of Women and Child Development
NCEAR-A	National Centre of Excellence and Advanced Research on Anemia
NCERT	National Council of Educational Research and Training
NDD	National Deworming Day
NIPCCD	National Institute of Public Cooperation and Child Development
NHFS	National Family Health Survey
NHM	National Health Mission
NHSRC	National Health Systems Resource Centre
NRLM	National Rural Livelihood Mission
NVBDCP	National Vector Borne Disease Control Programme
PHC	Primary Health Centre
POSHAN Abhiyaan	PM's Overarching Scheme for Holistic Nourishment Abhiyaan
PHN	Public Health Nurse
PMSMA	Pradhan Mantri Surakshit Matritva Abhiyaan
PNC	Post Natal Care
PW	Pregnant Woman
RBC	Red Blood Count
RBSK	Rashtriya Bal Swasthya Karyakram
RKSK	Rashtriya Kishor Swasthya Karyakram
SAM	Severe Acute Malnutrition
SRLM	State Rural Livelihood Mission
SIHFW	State Institute of Health and Family Welfare
VHND	Village Health and Nutrition Day
VHSNC	Village Health Sanitation and Nutrition Committee
WIFS	Weekly Iron Folic Acid Supplementation
WRA	Women in Reproductive Age

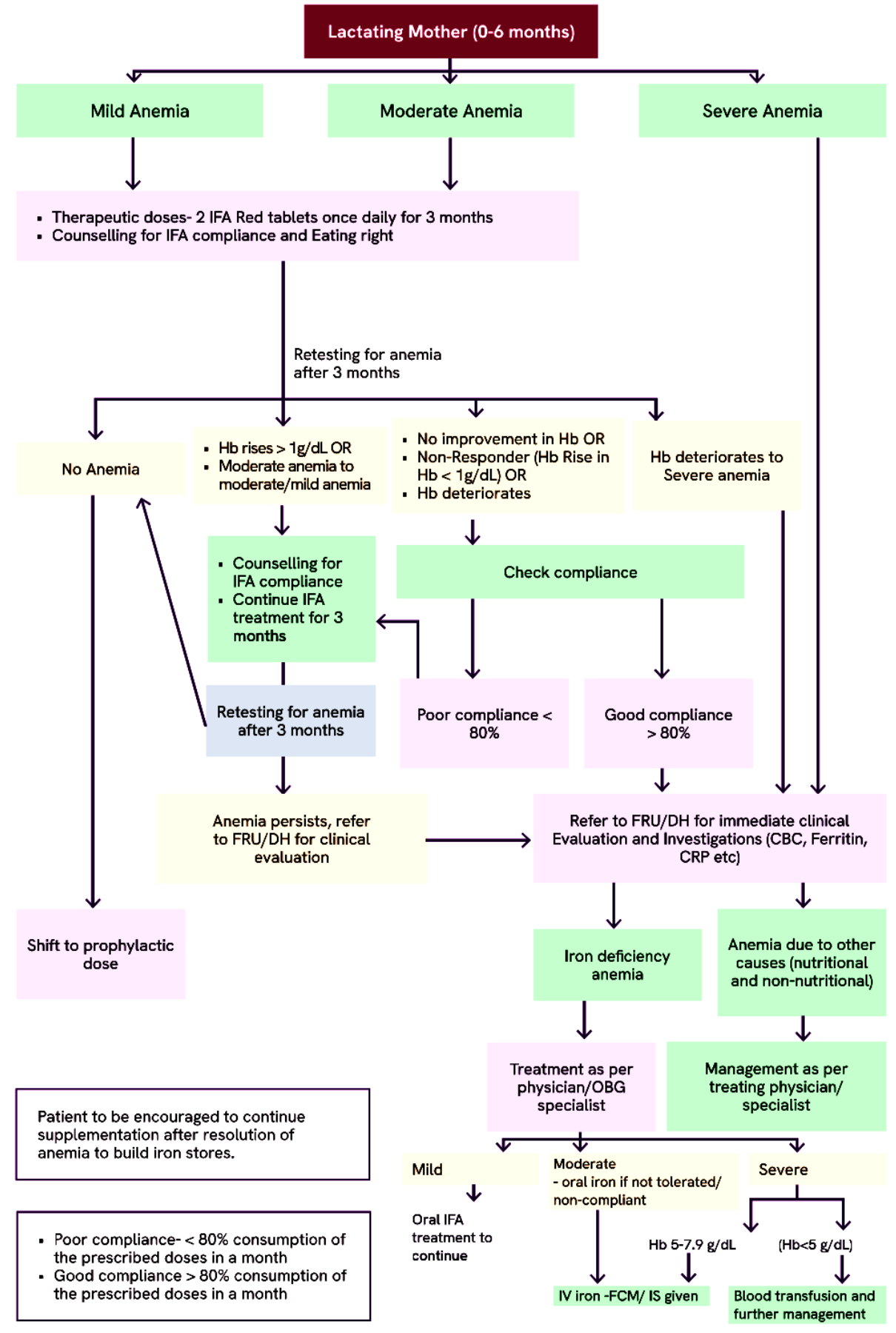
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प्रपत्र क्र. १ ते ६

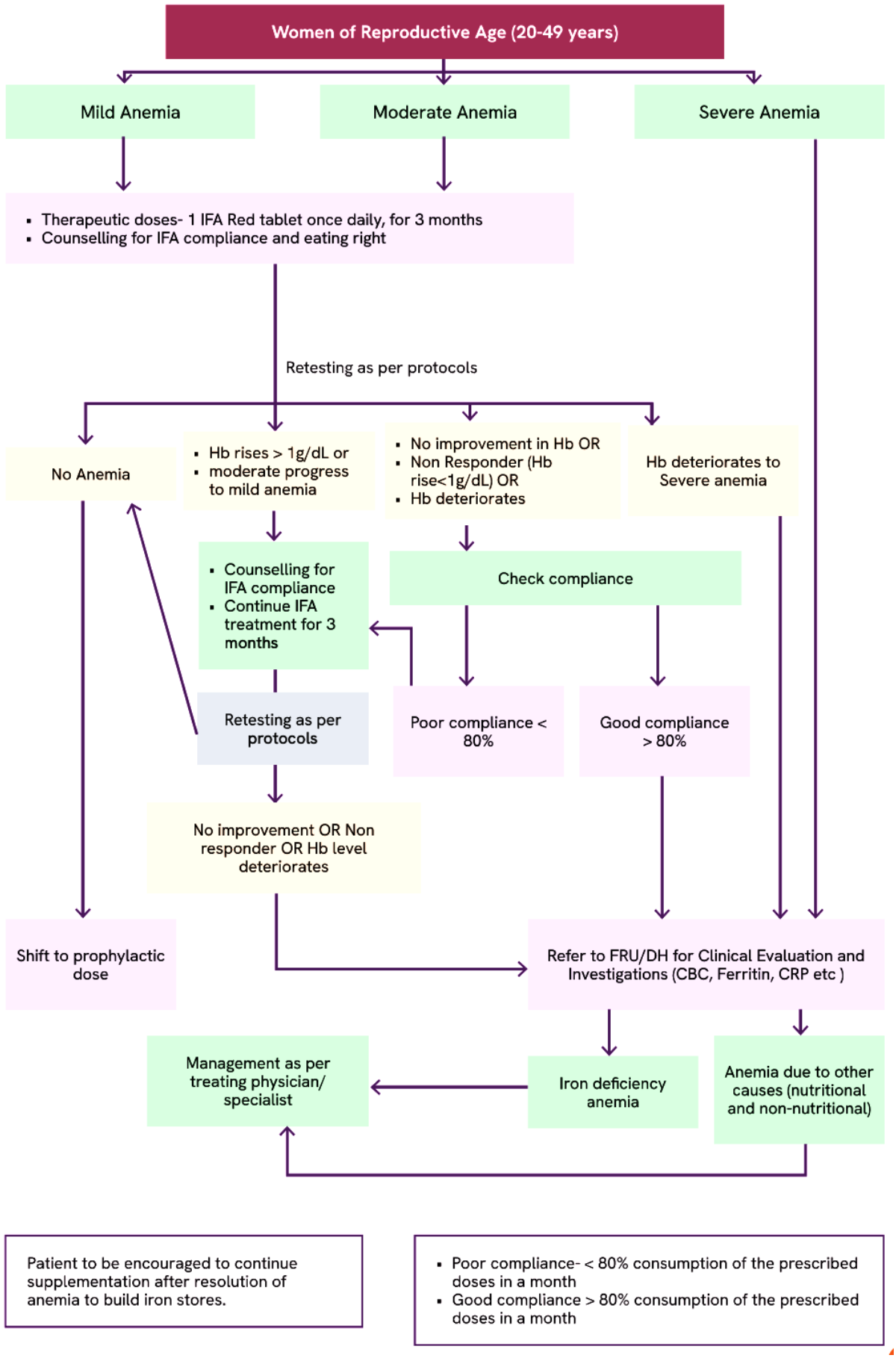
प्रपत्र १ - Test and Treatment Protocol for Pregnant Women



प्रपत्र २ Test and Treatment Protocol for Lactating Mother



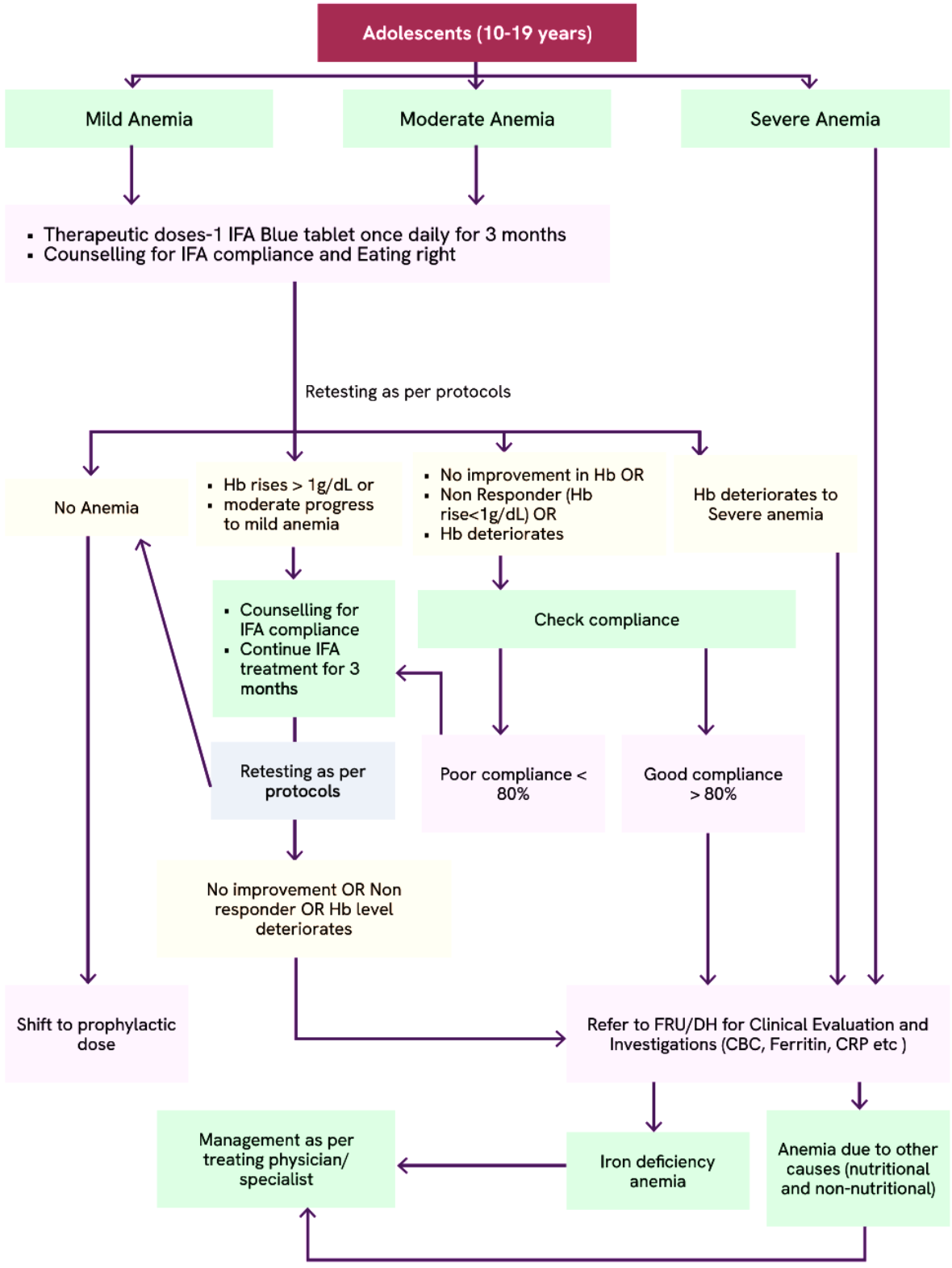
प्रपत्र ३ Test and Treatment Protocol for Women of Reproductive Age (20-49 Years)



Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

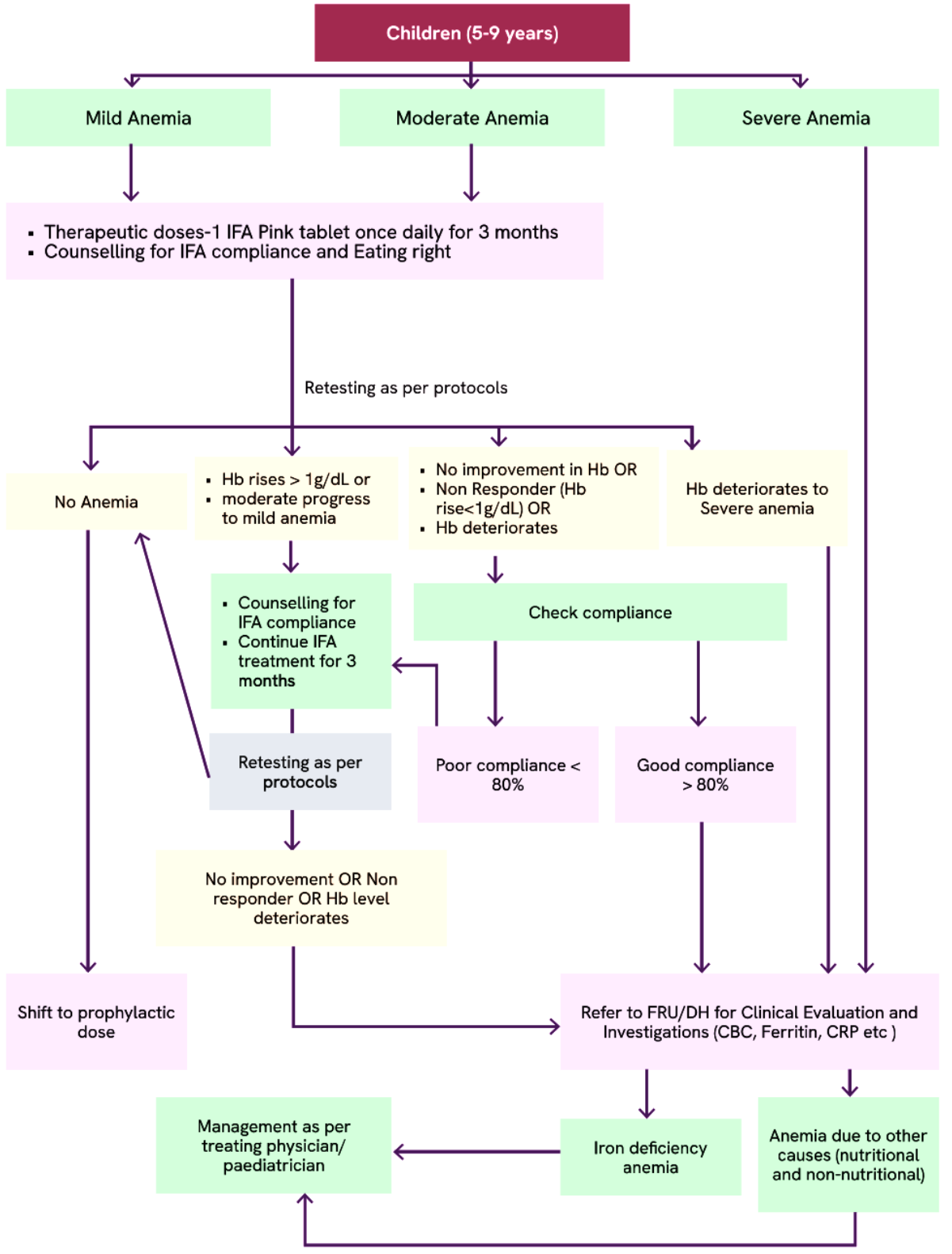
प्रपत्र ४ - Test and Treatment Protocol for Adolescents (10 – 19 years)



Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

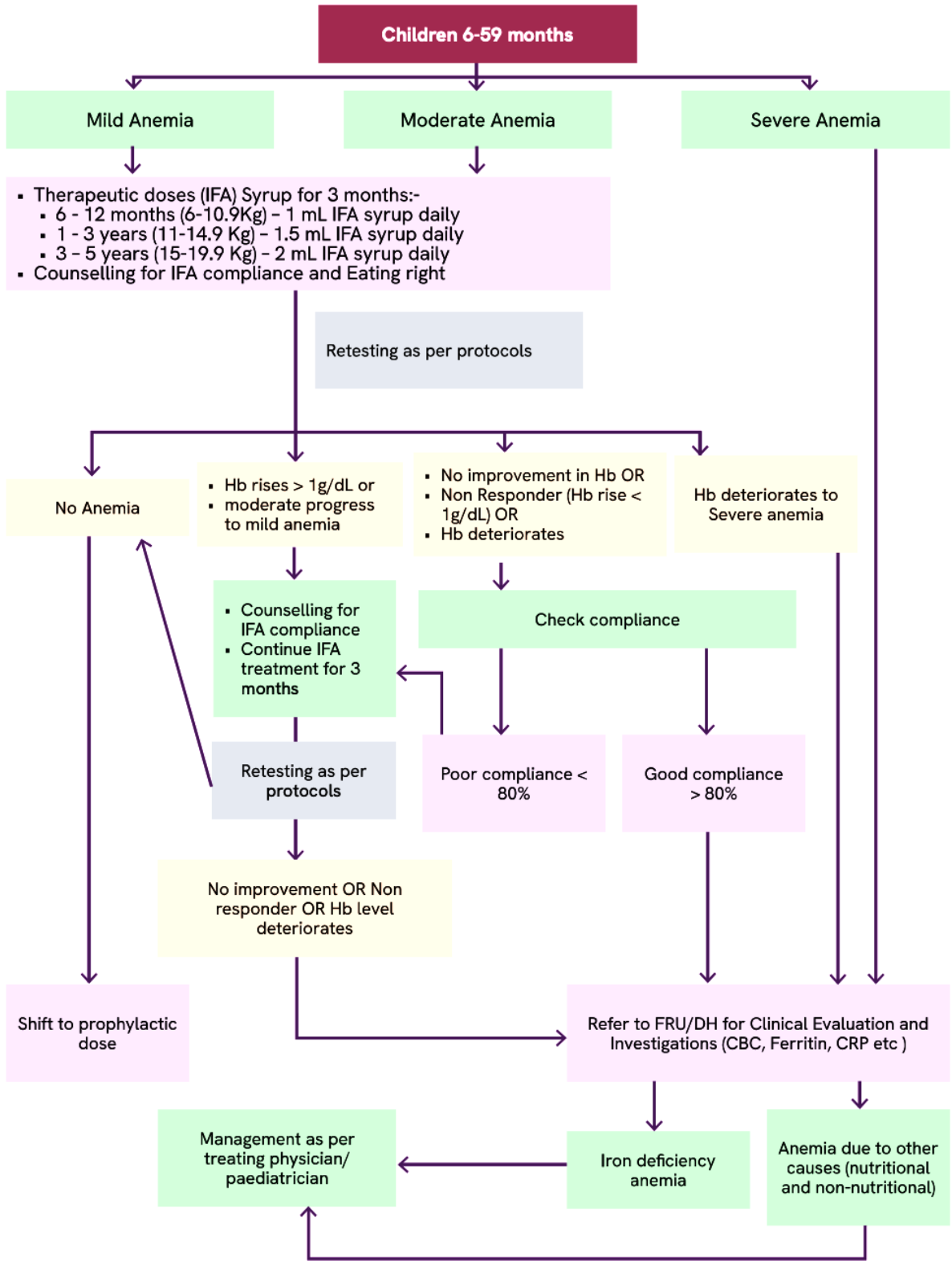
प्रपत्र ५ - Test and Treatment Protocol for Children (5– 9 years)



Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

प्रपत्र ६ - Test and Treatment Protocol for Children (6– 59 months)



Patient to be encouraged to continue supplementation after resolution of anemia to build iron stores.

- Poor compliance- < 80% consumption of the prescribed doses in a month
- Good compliance > 80% consumption of the prescribed doses in a month

***Therapeutic dose is 3 mg/kg/day. Doses may be increased from 3 mg/kg/day to 6 mg/kg/day based on the examination and advised of Pediatrician**