



Strengthening Maternal Anaemia Management in Uttar Pradesh

Introducing Ferric Carboxymaltose (FCM) into the Public Health System



ABBREVIATIONS

AMB	Anaemia Mukh Bharat
CHC	Community Health Centre
CMO	Chief Medical Officer
DWH	District Women's Hospital
DGFV	Director General – Family Welfare
DGM&HS	Directorate General and Medical Health Services
EDL	Essential Drug List
FCM	Ferric Carboxymaltose
FRU	First Referral Unit
GSVM	Ganesh Shankar Vidyarthi Memorial Medical College
IDA	Iron Deficiency Anaemia
IFA	Iron and Folic Acid
KGMU	King George's Medical University
MAMC	Maternal Anaemia Management Centre
MIDH	Minimally Invasive Digital Haemoglobin
NHM	National Health Mission
MOIC	Medical Officer In-Charge
NFHS	National Family Health Survey
PSH	Principal Secretary Health
QA	Quality Assurance
RRTC	Regional Resource Training Centre
SRTT	Screen–Refer–Track–Treat
UP	Uttar Pradesh
UP TSU	Uttar Pradesh Technical Support Unit
UPMSCL	Uttar Pradesh Medical Supply Corporation Limited

BACKGROUND

Affecting nearly 40% of pregnant women globally, Iron Deficiency Anaemia (IDA) remains a major contributor to maternal morbidity.¹ In India, the challenge is particularly acute, and Uttar Pradesh bears a disproportionately high burden of anaemia among pregnant women.² Moderate to severe anaemia in pregnancy significantly raises the risk of adverse maternal and neonatal outcomes – including preterm birth, low birth weight, postpartum haemorrhage, and maternal mortality.³

Oral Iron and Folic Acid (IFA) supplementation remains the cornerstone of anaemia prevention and management during pregnancy, and its availability has been ensured through antenatal care platforms and community distribution mechanisms. However, translating availability into consistent consumption remains a challenge. Evidence from the National Family Health Survey (NFHS) - 5 indicates that the effective coverage of IFA supplementation during pregnancy remains low, with only about 12 percent of pregnant women in India consuming the recommended number of tablets.⁴ Other factors, such as poor palatability, gastrointestinal side effects, and inconsistent adherence, contribute to gaps between distribution and actual intake⁵, particularly in later stages of pregnancy when rapid correction of anaemia is required.

Intravenous iron therapy – primarily iron sucrose – has played an important complementary role in managing moderate and severe anaemia. However, due to the limited permissible dose per infusion (typically around 200 mg), treatment often requires multiple facility visits to complete the required iron dose.⁶ Repeated visits can pose logistical challenges for pregnant women and may affect treatment completion. These operational considerations have highlighted the need for treatment options that can deliver higher iron doses in fewer visits while maintaining safety and effectiveness.⁷



Why Ferric Carboxymaltose?

Ferric Carboxymaltose (FCM) is a non-dextran intravenous iron formulation that can deliver up to 1000 mg of elemental iron in a single infusion lasting approximately 15-20 minutes. FCM has been shown to increase haemoglobin and ferritin levels more rapidly than oral iron or iron sucrose.⁸ Its high structural stability also allows large doses to be administered with minimal risk of severe hypersensitivity reactions.⁹

For the public health system, this single-dose drug is transformative. A woman who would otherwise require three to five visits for iron sucrose infusions can complete her treatment in one visit. These characteristics make FCM particularly valuable for pregnant women in the second and third trimesters, and for postpartum women who require rapid management of anaemia to improve recovery and maternal wellbeing.¹⁰

The Ministry of Health and Family Welfare recognised this potential and, in February 2024, issued a national guidance note recommending intravenous iron formulations, including FCM, for pregnant women from the second trimester onwards¹¹, reinforcing the Anaemia Mukht Bharat (AMB) guidelines of 2018.¹²

However, despite its clinical advantages and its recommendation in the AMB 2018 Guidelines, its inclusion in various states' Essential Drug List (EDL) and procurement systems varies across India. Some states, such as Rajasthan and Andhra Pradesh, have initiated procurement and distribution of FCM; others continue to rely primarily on iron sucrose. In certain settings, its use is currently concentrated in higher-level facilities such as medical colleges and district hospitals. Jharkhand is yet to include FCM in its EDL. In Tamil Nadu, FCM is categorised under speciality drugs, which may influence its prioritisation within procurement processes.¹³

Recognising these systemic bottlenecks and the urgent need for a standardised rollout, the Uttar Pradesh Technical Support Unit (UP TSU) has partnered with the State Government to operationalise these guidelines. By focusing on streamlining procurement and developing clear clinical protocols, UP TSU is working to ensure that the clinical potential of FCM translates into a scalable public health reality across the state's healthcare tiers.



Community-to-Facility Maternal Anaemia Management

The introduction and scale-up of FCM in Uttar Pradesh is anchored within the Screen–Refer–Track–Treat (SRTT) programme, implemented by the Uttar Pradesh Technical Support Unit (UP TSU). This programme is currently being implemented in five districts of the state – Fatehpur, Hardoi, Jalaun, Raebareli, and Sitapur. It aims to strengthen the implementation of the AMB strategy by improving the continuum of maternal anaemia care. Through a community-to-facility maternal anaemia management approach, the programme focuses on strengthening health system readiness for screening, referral, treatment, and tracking of moderate and severe anaemia among pregnant and lactating women. At the community level, frontline workers use Minimally Invasive Digital Haemoglobin (MIDH) devices for early identification of anaemic women. Pregnant women diagnosed with moderate (intolerance or non-adherence to oral iron) or severe anaemia are referred to health facilities, where diagnosis is confirmed by haemoglobin auto-analysers and appropriate treatment is provided at Maternal Anaemia Management Centres (MAMCs).

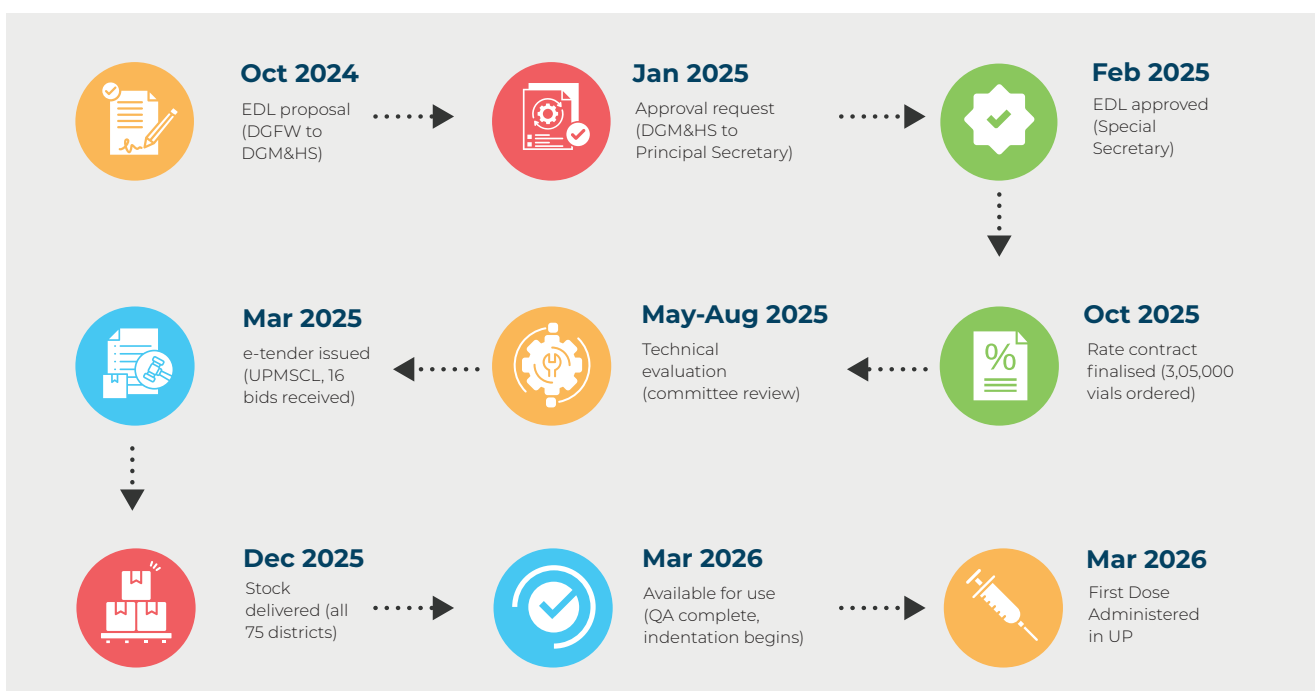
Within this framework, strengthening facility-based treatment for moderate and severe anaemia remains a key priority. Recognising the operational limitations associated with conventional iron therapy – IV iron sucrose - the SRTT programme prioritised the scale-up of FCM as a more effective option for rapid anaemia management. The programme, therefore, supported policy advocacy, procurement processes, and health system preparedness for introducing FCM within the public health system of Uttar Pradesh.



At the community level, frontline workers use Minimally Invasive Digital Haemoglobin (MIDH) devices for early identification of anaemic women

Building the Policy and Procurement Foundation

In Uttar Pradesh, translating FCM’s clinical potential into a relevant outcome required deliberate navigation of administrative and procurement systems. The process began with the UP TSU, in coordination with the Department of Health and Family Welfare and the National Health Mission (NHM), following the Government of India’s issuance of FCM guidelines for the treatment of moderate and severe anaemia in pregnant women.



Initially, a proposal for FCM's inclusion in the state EDL was submitted by the Director General – Family Welfare (DGFW) to the Directorate General and Medical Health Services (DGM&HS) in October 2024. This was followed in January 2025 by a request to the Principal Secretary – Health (PSH) for formal approval. The Special Secretary granted approval for inclusion in EDL in February 2025.

The Uttar Pradesh Medical Supply Corporation Limited (UPMSCL) initiated an e-tender in March 2025 based on the annual demand projections from DGM&HS. The technical evaluation was conducted through a series of committee meetings and regulatory verifications from May to August 2025. A rate contract was finalised in October 2025, a Letter of Interest was issued, and purchase orders were placed for approximately 3,05,000 vials for distribution across all 75 districts of the state, including a focused allocation of 3,000 vials each to five anaemia programme intervention districts: Fatehpur, Hardoi, Jalaun, Sitapur, and Raebareli. Stocks were delivered to the districts in December 2025 and, following quality assurance procedures, were made available for indentation from district warehouses in early March 2026.

Provider Preparedness and Facility Readiness

With drug availability secured, attention turned to training medical staff for safe administration of FCM and managing anaemia in pregnant women. As this is a new intervention in the state, a phased implementation strategy has been undertaken for the rollout and administration of FCM. It shall be initiated at District Women Hospitals (DWHs) and First Referral Unit - Community Health Centres (FRU-CHCs) through MAMCs across the state.

Training in each district was planned to ensure consistent coverage of medical staff without disrupting service delivery. Micro-plans were designed so that each batch included both medical officers and staff nurses from the



First FCM Training held in Raebareli, Uttar Pradesh

same facility, with staggered participation of nurses to minimise gaps in care. Across the five intervention districts, 19 one-day on-site training batches were planned to cover approximately 357 medical officers and staff nurses posted at DWHs and FRU-CHCs.

Training materials were developed collaboratively by the UP TSU State team and clinical experts from King George's Medical University (KGMU) and Ganesh Shankar Vidyarthi Memorial (GSVM) Medical College. The training focused on an overview of anaemia, the clinical administration of FCM documentation protocols, adverse event reporting, and review mechanisms. These trainings are conducted through the Regional Resource Training Centre (RRTC), with faculty from KGMU, Lucknow, and GSVM, Kanpur, and support from the UP TSU State Team.

The first training was held on 23 February 2026 in Raebareli and was inaugurated by the Director General – Training in the presence of the Chief Medical Officer (CMO). Subsequent batches have been scheduled across intervention districts through May 2026.

प्रश्नक: शिक्षण निदेशक, राष्ट्रीय स्वास्थ्य मिशन, उत्तर प्रदेश, लखनऊ।
सेवा में: समस्त मुख्य चिकित्साधिकारी (सीतापुर, हरदोई, रायबरेली, फतेहपुर एवं जालौन के अतिरिक्त), उत्तर प्रदेश, लखनऊ।

दिनांक: 16.03.2026 को अपर मुख्य सचिव, चिकित्सा स्वास्थ्य एवं परिवार कल्याण, उपप्रभु शासन की अध्यक्षता में एनएचआरए एवं एनएचएमआरए को कम किये जाने हेतु राज्य स्तरीय टास्क फोर्स समिति की आयोजित बैठक में प्राप्त निर्देशों के क्रम में चुपपीटीएसएचएच के सहयोग से समस्त प्रथम सन्वर्धन इकाईयों में तैनात चिकित्सा अधिकारियों एवं स्टाफ नर्सों का निम्न तालिकानुसार एफसीएमएच के प्रयोग सम्बन्धी ऑनलाइन अभिमुखीकरण कराया जाना है:-

Batch	Date of Training	Time of Training	Name of Division	Total Expected Participants	#SN	#MO
1	08-04-2026	12 AM- 2:00 PM	Aligarh & Ayodhya	1003	541	462
2	08-04-2026	3:00 PM- 5:00 PM	Azamgarh, Bareilly & Basti	1030	531	499
3	09-04-2026	12 AM- 2:00 PM	Jhansi, Deopatan & Gorkhaur	1061	479	582
4	09-04-2026	3:00 PM- 5:00 PM	Chitrkoot & Kanpur	975	491	484
5	10-04-2026	12 AM- 2:00 PM	Agra & Varnansi	1068	559	509
6	10-04-2026	3:00 PM- 5:00 PM	Lucknow & Mirzapur	1040	419	621
7	13-04-2026	12 AM- 2:00 PM	Meerut & Saharanpur	1038	516	522
8	13-04-2026	3:00 PM- 5:00 PM	Moradabad & Prayagraj	854	395	459

अतः आपको निर्देशित किया जाता है कि अपने जनपद के चिकित्सा अधिकारियों एवं स्टाफ नर्सों को निर्धारित तिथि एवं समय पर शत-प्रतिशत प्रतिभाग किये जाने हेतु सम्बन्धित

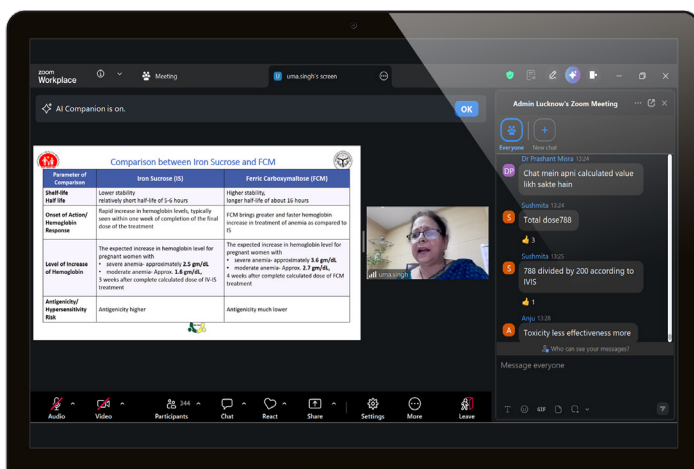
Letter Issued for conducting Online FCM Training

To further support facility-level implementation, clinical reference posters have been placed at FRU facilities, and CMOs have issued guidance letters on indentation, administration, and documentation. Pharmacists and labour room staff have also been oriented on stock management aligned with existing iron sucrose registers.



Online Training on FCM Administration

Building on the experience from the five intervention districts, the Directorate of Maternal Health has initiated plans for statewide capacity building, to be led by UP TSU. A two-hour online orientation on FCM administration is being organised for medical officers and staff nurses at FRUs across the remaining 70 districts of Uttar Pradesh. Medical Officers and Staff Nurses of FRUs shall be trained across 18 divisions in eight batches. Training sessions were scheduled between 8 and 13 April 2026, with two sessions on each training day. This has substantially expanded the state's preparedness for facility-based management of maternal anaemia.



Online Training on FCM Administration with active hands-on-practice



First Administration of FCM in the State



Administration of First FCM Dose

Facility-level rollout has been anchored through MAMCs established within DWHs and FRU-CHCs. The first administration of FCM under the programme was conducted on National Anaemia Day, 21 March 2026, at CHC Unchahar in Raebareli district, in the presence of Medical Officer In-Charge (MOIC).

Jalaun district launched FCM administration at its DWH on 9 April 2026, in the presence of the district health official and the UP TSU State Team. The event included an awareness session on maternal anaemia, its consequences, management approaches, especially the role of FCM. A total of 10 beneficiaries received FCM doses, and Poshan kits were distributed to each of them. Vitals were recorded before, during, and after the infusion following the protocol, and no adverse events were reported.



FCM Inaugural Event at Jalaun



FCM Administration at DWH, Jalaun, Uttar Pradesh



“Ferric Carboxymaltose (FCM) is capable of bringing notable improvement in haemoglobin levels in a single dose. This will help in reducing anemia-related complications in pregnant women. I am fully confident that this initiative will play an important role in controlling the problem of maternal anemia in Jalaun district and in promoting safe motherhood”.

– Chief Medical Officer, Jalaun, Jhansi, Uttar Pradesh.

Way Forward

The rollout of FCM is part of a broader effort to strengthen facility-based management of moderate and severe anaemia among pregnant and lactating women. As the intervention continues to be implemented, its success will depend on several factors, including service providers' confidence in prescribing FCM when clinically indicated, beneficiaries' acceptance of the therapy, and facilities' ability to safely administer and monitor the infusion. Regular follow-up to assess improvements in haemoglobin levels, along with systematic reporting and management of any adverse events, will be essential to ensure the safe and effective use of the drug. The learnings from this initiative have the potential to inform future scale-up efforts and contribute to strengthening a more timely and effective approach to maternal anaemia management in Uttar Pradesh.



“Attending the FCM training was a valuable learning experience. The facilitators explained each step clearly, from screening and indications for IV iron therapy to administration, and post-infusion monitoring.”

– Medical Officer, Community Health Centre, Unchahar, Raebareli, Uttar Pradesh

“The FCM training was interactive and very useful, especially the role plays and dose calculation exercises. It improved my understanding and increased my confidence in providing correct treatment and managing anemia cases effectively.”

– Medical Officer, District Women’s Hospital, Raebareli, Uttar Pradesh



Snapshots from FCM Training Sessions



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Uttar Pradesh Technical Support Unit

Established in October 2013, the Uttar Pradesh Technical Support Unit (UP TSU) was formed under a Memorandum of Understanding between the Government of Uttar Pradesh (GoUP) and the Bill & Melinda Gates Foundation (now Gates Foundation). UP TSU supports the GoUP in improving the efficiency and effectiveness of its reproductive, maternal, neonatal, child, and adolescent health (RMNCH+A) programmes. Its operations now span all 75 districts and 820 blocks across Uttar Pradesh.

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