Survey Report

Perception Mapping of Indian Physicians on Role of Oral Iron in Different Patient Profiles with Iron Deficiency Anemia

Version No.: 1.1

The study was conducted according to the approved protocol and in compliance with the protocol, Good Clinical Practice (GCP), and other applicable local regulatory requirements.

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1. INTRODUCTION

Iron deficiency anemia (IDA) remains a significant public health concern globally, with a particularly high prevalence in developing countries like India [1]. As the most common nutritional deficiency worldwide, IDA affects various population groups, including pregnant women, postpartum mothers, adolescents, and individuals with chronic conditions such as chronic kidney disease (CKD) and inflammatory bowel disease (IBD) [2].

According to an estimate by the World Health Organization (WHO), approximately 29.9% of women of reproductive age (15–49 years), or over half a billion women, were affected by anemia in 2019, with the majority of cases attributed to iron deficiency [3]. This high prevalence underscores the critical need for effective management strategies and highlights the importance of understanding physicians' perceptions and practices regarding IDA treatment.

Oral iron supplementation has long been the first-line treatment for IDA due to its accessibility, cost-effectiveness, and generally favorable safety profile [4]. However, the choice between oral and intravenous (IV) iron therapy depends on various factors, including the severity of anemia, the underlying cause, patient tolerability, and adherence to treatment [5].

Recent advancements in oral iron formulations, such as ferric maltol, have shown promise in improving tolerability and adherence compared to traditional ferrous salts [6]. These developments necessitate a reevaluation of current practices and perceptions among healthcare providers.

The appropriate dosing of elemental iron has also been a subject of debate, with some studies suggesting that lower doses may be as effective as higher doses while minimizing side effects [7]. This has implications for patient compliance and the overall success of IDA treatment.

Furthermore, the role of multivitamin and multimineral supplementation in conjunction with iron therapy remains a topic of interest, particularly in specific patient populations such as pregnant women and adolescents [8].

Given the complexity of IDA management and the evolving landscape of treatment options, it is crucial to understand the current perceptions and practices of Indian physicians regarding oral iron therapy. This survey study aims to map these perceptions across various aspects of IDA management, including patient profiling, diagnostic approaches, treatment preferences, and expected outcomes.

By gaining insights into the decision-making processes of Indian physicians, this study seeks to identify potential areas for improvement in IDA management, guide future research directions, and inform evidence-based guidelines tailored to the Indian healthcare context.

2. RATIONALE OF THE STUDY

The management of IDA in India has presented a complex challenge due to its high prevalence across diverse patient populations and the evolving landscape of treatment options. While oral iron supplementation remained a cornerstone of IDA treatment, the emergence of new formulations, ongoing debates about optimal dosing, and the increasing use of intravenous iron therapy created a dynamic environment for clinical decision-making. In this context, understanding the perceptions, practices, and preferences of Indian physicians regarding oral iron therapy was crucial for several reasons.

Firstly, the survey study aimed to bridge the gap between established guidelines and real-world clinical practices in India. By mapping physicians' approaches to patient profiling, diagnostic procedures, and treatment selection, the study identified potential discrepancies between recommended practices and actual implementation. This information proved vital for tailoring educational initiatives, refining clinical guidelines, and ultimately improving the quality of care for patients with IDA. Moreover, insights into the factors influencing physicians' choices between oral and intravenous iron therapy, as well as their preferences for specific oral iron formulations, informed strategies to optimize resource allocation and enhance treatment outcomes.

Secondly, the survey addressed critical questions surrounding the nuances of oral iron therapy, such as dosing strategies, the use of adjunct supplements, and approaches to managing treatment challenges like gastrointestinal side effects. By elucidating physicians' perspectives on these issues, the study contributed to the development of more effective and patient-centered treatment protocols. Additionally, understanding the perceived barriers to successful oral iron therapy and the frequency of switching to intravenous iron helped identify areas for improvement in patient education, follow-up care, and the development of more tolerable oral iron formulations. Ultimately, this comprehensive mapping of physician perceptions and practices provided a foundation

for evidence-based improvements in IDA management, potentially leading to better patient compliance, more efficient use of healthcare resources, and improved health outcomes for the millions of individuals affected by IDA in India.

3. OBJECTIVES

The primary objective of this study was to evaluate Indian physicians' perceptions, experiences, and prescribing patterns regarding the role of oral iron in managing different patient profiles with IDA.

4. METHODS

This study was a cross-sectional, questionnaire-based survey conducted to evaluate the perceptions, practices, and clinical experiences of Indian physicians in managing IDA with oral iron therapies. A representative sample of physicians, including general practitioners, obstetricians, gynecologists, and specialists who regularly treated patients with anemia, was invited to participate. The structured 13-question survey focused on various aspects of IDA management, such as common patient profiles, laboratory tests before intravenous (IV) iron therapy, treatment choices (oral vs. IV), iron dosages, and the impact of anemia severity on treatment decisions. It also explored the use of Ferric maltol, frequency of switching from oral to IV iron, and expected clinical outcomes like GI tolerability and Hb rise.

The survey was distributed electronically to eligible physicians across India, ensuring a broad and diverse sample to minimize selection bias. Data were collected, securely stored, and analyzed using descriptive and inferential statistics to identify key trends and associations. The study adhered to ethical principles, with informed consent obtained from participants, and responses anonymized to ensure confidentiality. Ethical approval was sought from an Independent Ethics Committee. The target sample size was 100 physicians to ensure a meaningful statistical analysis, and the study aimed to provide valuable insights into current practices and inform future treatment strategies for IDA in India.

5. RESULTS

A total of 84 HCPs participated in the survey. Below is the summary of the responses.

[1] What are the two most common patient profiles of Iron Deficiency anemia visiting to your clinic?

a. Pregnancy related anemia

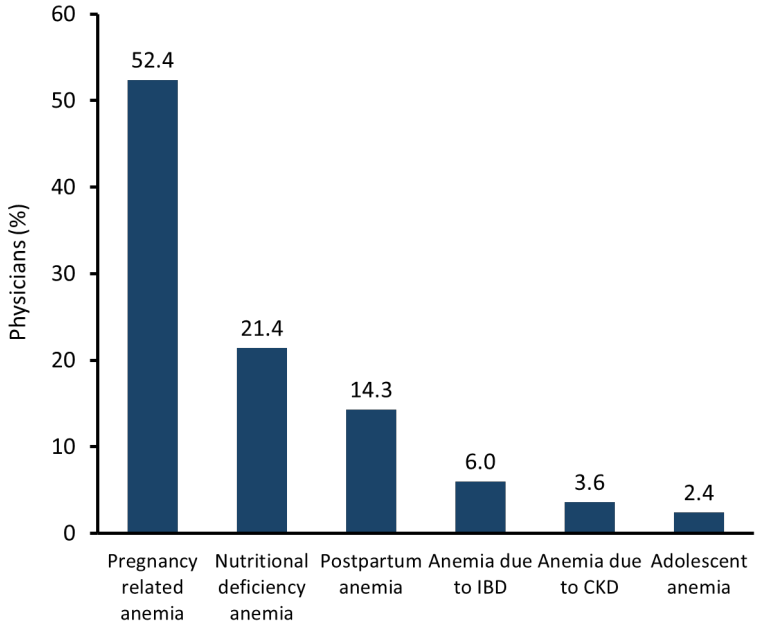
b. Postpartum anemia

c. Adolescent anemia

d. Anemia due to CKD

e. Anemia due to IBD

f. Nutritional deficiency anemia



- Majority (52.4%) of physicians reported pregnancy-related anemia as the most common patient profile for iron deficiency anemia in their clinics.
- Approximately 21.4% of physicians identified nutritional deficiency anemia as the second most common patient profile for IDA.
- About 14.3% of physicians saw postpartum anemia as a frequent patient profile in their clinics.
- Other less common profiles include anemia due to CKD (3.6%), anemia due to IBD (6%), and adolescent anemia (2.4%).

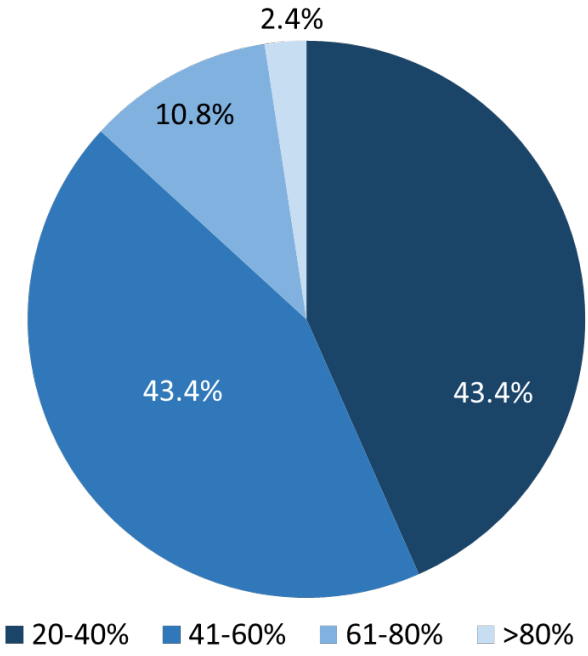
[2] In your clinical practice, what % of non-pregnant patients present with IDA?

a. 20-40%

b. 41-60%

c. 61-80%

d. >80%



- Approximately 43.4% of physicians reported that 20-40% of their non-pregnant patients present with IDA.
- This suggests that a significant portion of non-pregnant patients in their practice are diagnosed with IDA
- Another 43.4% of physicians indicated that 41-60% of their non-pregnant patients are diagnosed with IDA.
- This represents a larger proportion of patients, suggesting that a notable number of non-pregnant individuals in these practices are affected by IDA.
- Approximately 11% of physicians observed that 61-80% of their non-pregnant patients have IDA.
- About 2.4% of physicians reported that more than 80% of their non-pregnant patients present with IDA.

[3] What are the recommended laboratory tests prior to initiation of IV Iron Therapy & monitoring?

a. Complete Blood Count (CBC)

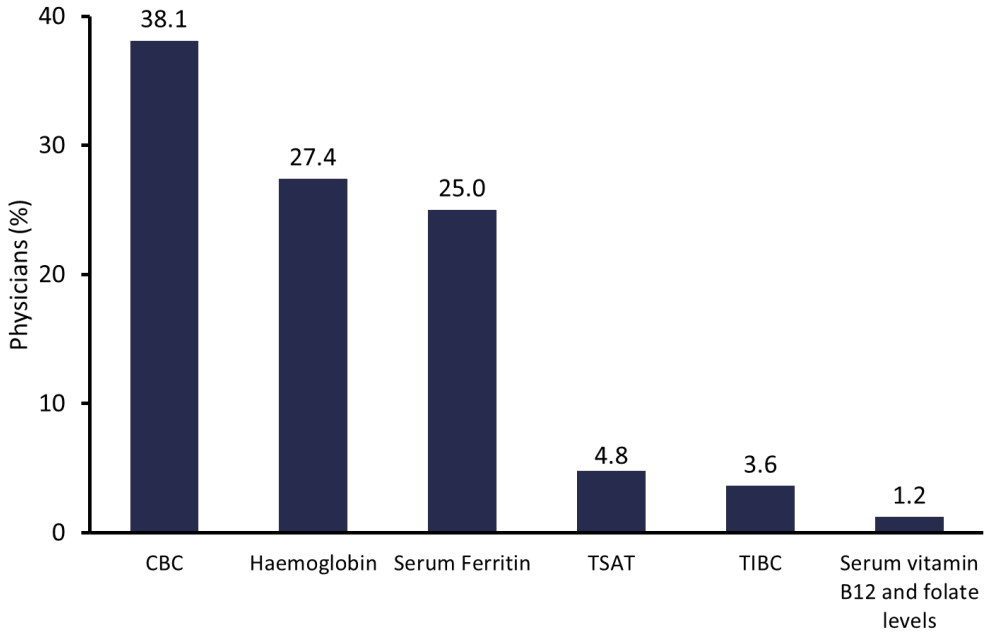
b. Haemoglobin (Hb)

c. Serum Ferritin

d. Total Iron Binding Capacity (TIBC)

e. Transferrin Saturation (TSAT)

f. Serum vitamin B12 and folate levels



- Around 38% of physicians recommended a CBC as a key test prior to the initiation of IV iron therapy, highlighting its importance in assessing overall blood health and identifying any underlying anemia or blood cell abnormalities.
- Approximately 27% of physicians suggested measuring Hemoglobin levels, which is a standard and essential test for evaluating the severity of anemia and guiding appropriate treatment strategies.
- Around 25% of physicians recommended serum ferritin testing, as it is a crucial marker for determining the body's iron stores and is important in assessing iron deficiency anemia.
- About 4.8% of physicians recommended testing for TSAT, an important test that helps assess the availability of iron in the body and indicates iron deficiency when values are low.

[4] In which of the patient profiles do you prefer oral iron over IV iron?

a. Pregnancy related anemia

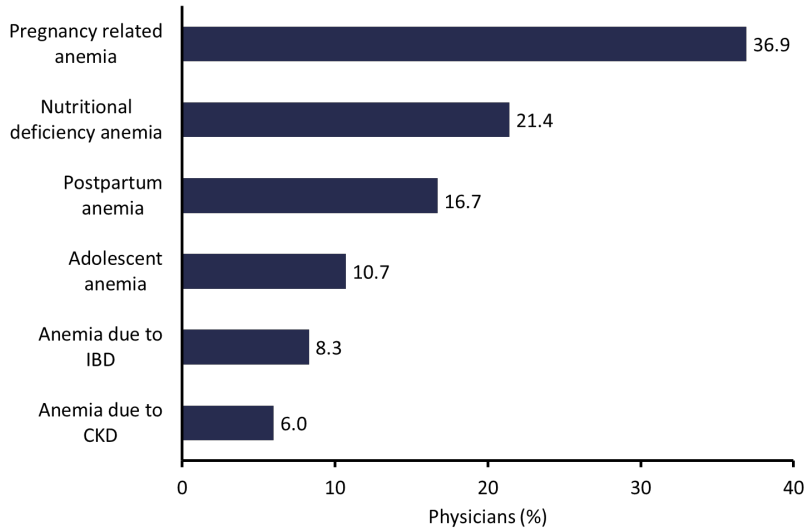
b. Postpartum anemia

c. Adolescent anemia

d. Anemia due to CKD

e. Anemia due to IBD

f. Nutritional deficiency anemia

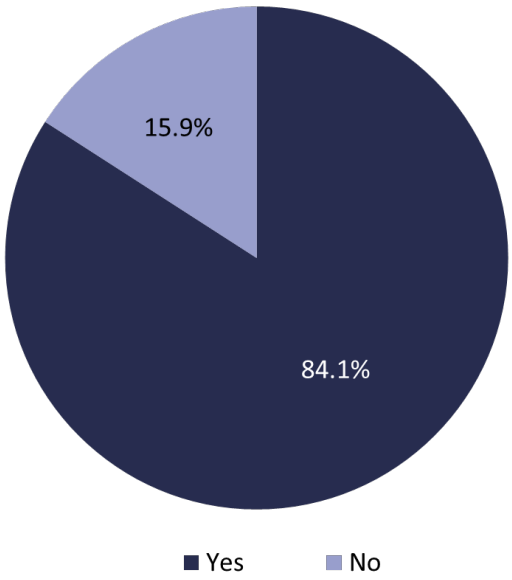


- Around 40% of physicians preferred oral iron for managing anemia in pregnant patients, likely due to the well-established use of oral iron and its safety profile during pregnancy.
- A significant proportion of physicians (21.4%) favored oral iron for treating anemia caused by nutritional deficiencies, as it is commonly linked to dietary factors and oral supplementation is an effective and cost-efficient approach.
- About 16.7% of physicians preferred oral iron for postpartum anemia, likely due to its ease of administration and the fact that most postpartum patients do not require the rapid correction that IV iron offers.
- Approximately 10.7% of physicians chose oral iron for adolescent patients, who often have mild to moderate iron deficiency and can typically tolerate oral supplementation.
- Around 8.3% of physicians preferred oral iron for anemia associated with IBD, though this is less common due to potential malabsorption issues in these patients.

[5] In IDA, is it necessary that every patient (non-pregnant, mild anemic pregnant) would require high dose elemental oral iron (60mg)? Or can it be managed with low dose elemental oral iron (30mg)?

a. Yes

b. No

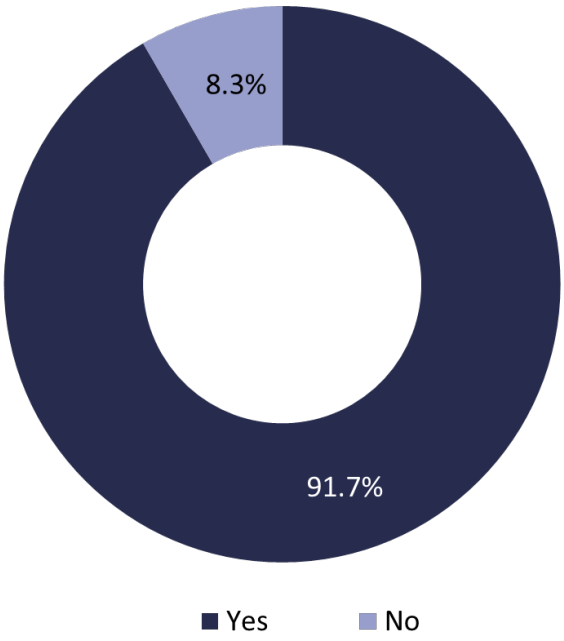


- Majority (84.1%) of physicians believed that every patient with IDA, including non-pregnant and mildly anemic pregnant patients, would require high-dose elemental oral iron (60mg) for effective treatment.
- This suggests that these physicians consider the higher dose necessary to replenish iron stores and achieve optimal therapeutic outcomes in a reasonable time frame, particularly in individuals with significant iron deficiency.
- About 15.9% of physicians disagree, indicating that they believe some patients could be managed effectively with a lower dose of elemental oral iron (30mg).
- This could reflect a more conservative or personalized treatment strategy, where the severity of the anemia and individual patient factors (such as tolerance to iron) guide the dose of iron therapy.

[6] Does the treatment with oral iron differ based on severity of anemia like mild, moderate and severe anemia?

a. Yes

b. No

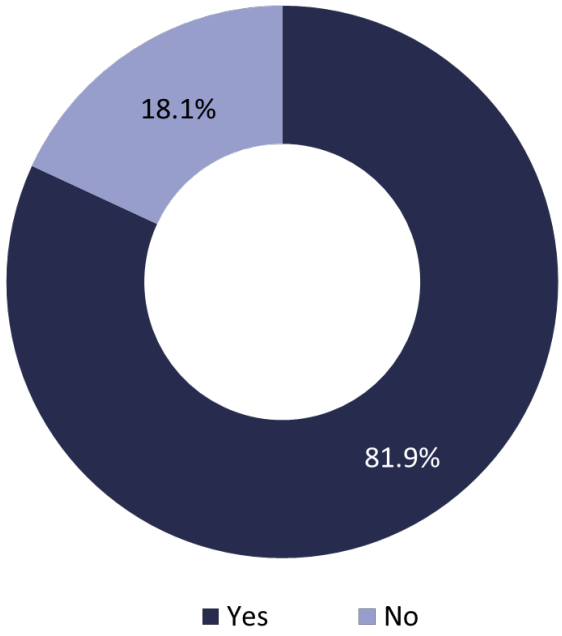


- Approximately 92% of physicians believed that the treatment with oral iron does indeed differ based on the severity of anemia, such as mild, moderate, and severe anemia.
- This indicates that higher doses or more aggressive management strategies being employed for more severe forms of IDA.
- About 8.3% of physicians do not considered the severity of anemia to impact the approach to oral iron treatment.
- This may favor a more standardized treatment plan regardless of the anemia's severity, possibly emphasizing consistency in care or other clinical considerations outside of severity.

[7] According to you, does every patient require Multivitamin multimineral (Vit C, D, B9, B12) in non- pregnant, pregnant, adolescent?

c. Yes

d. No



- Approximately 81.9% of physicians believed that every patient (non-pregnant, pregnant, adolescent) requires multivitamins and multiminerals (including Vitamin C, D, B9, and B12) as part of their treatment.
- This reflects a strong consensus among physicians that supplementing these essential vitamins and minerals is crucial for optimizing treatment outcomes and addressing potential nutrient deficiencies alongside iron supplementation.
- Around 18.1% of physicians do not considered multivitamins and multiminerals necessary for all patients in these categories.
- This may view iron supplementation as sufficient for managing IDA in certain patients or may have alternative strategies for addressing potential deficiencies in vitamins and minerals.

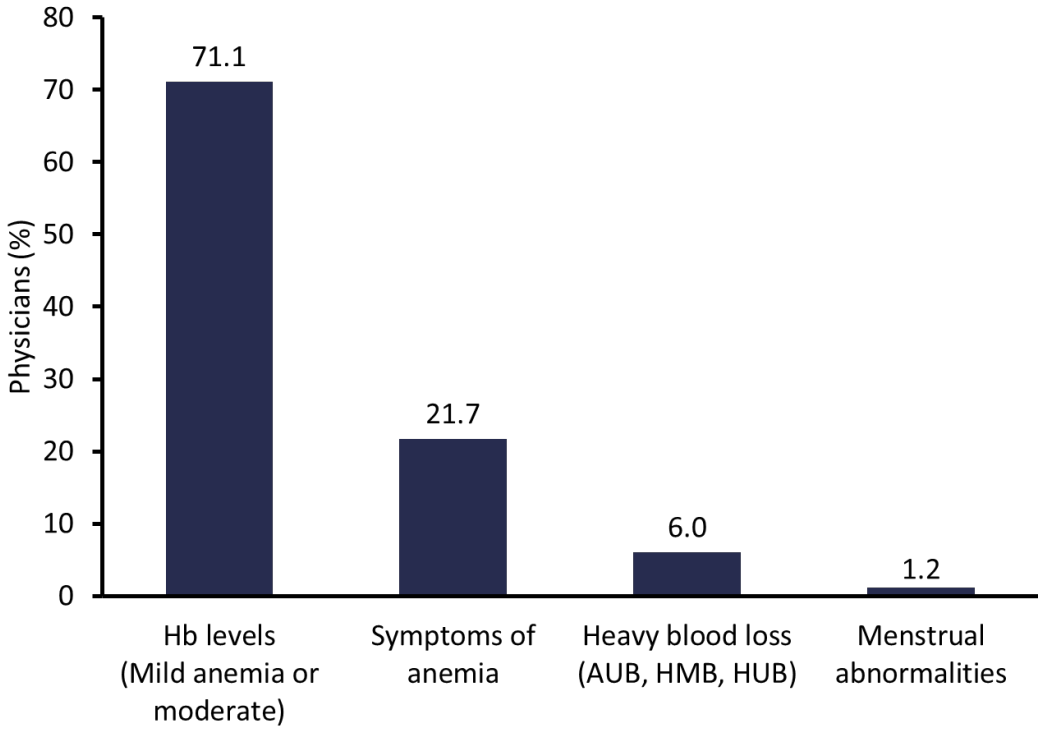
[8] What are the selection criteria for you to decide before prescribing 30 mg elemental oral iron?

a. Hb levels (mild anemia or moderate)

b. Symptoms of anemia

c. Menstrual abnormalities

d. Heavy blood loss (AUB, HMB, HUB)



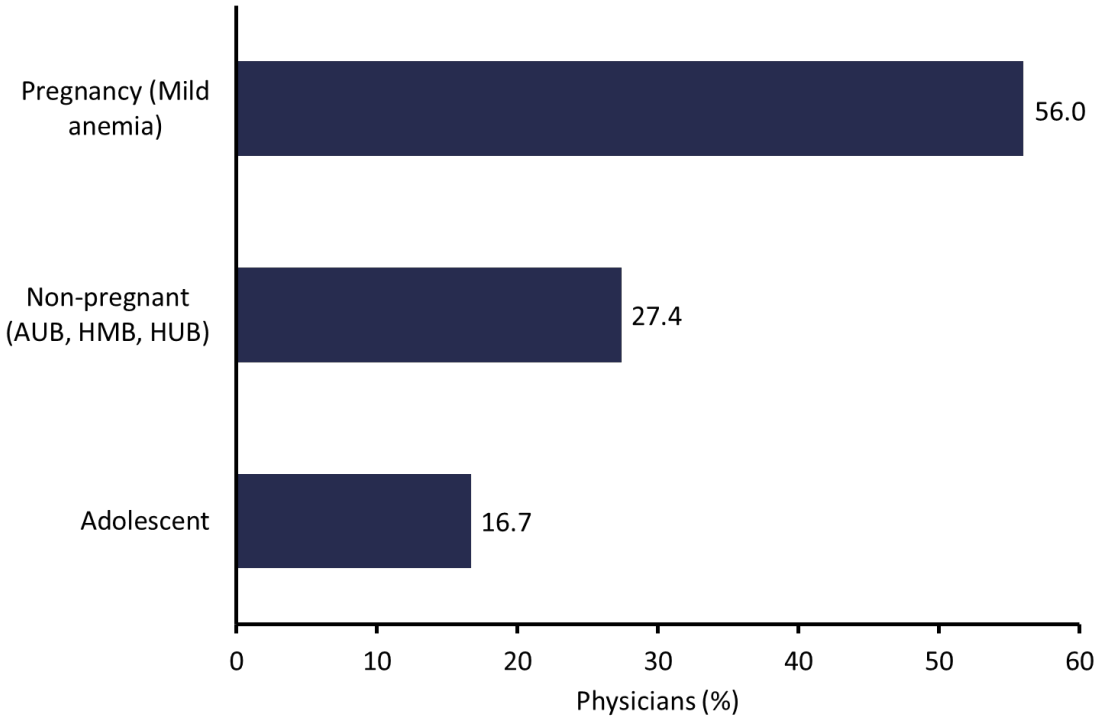
- Majority (71.1%) of physicians base their decision to prescribe 30 mg elemental oral iron primarily on Hb levels, particularly for mild to moderate anemia.
- Around 21.7% of physicians considered the symptoms of anemia as an important factor when selecting this oral iron therapy.
- Approximately 6% of physicians chose this formulation for patients experiencing heavy blood loss, such as abnormal uterine bleeding (AUB), heavy menstrual bleeding (HMB), or other forms of uterine bleeding (HUB).
- About 1.2% of physicians considered menstrual abnormalities as a primary criterion for prescribing 30 mg elemental oral iron.

[9] Ferric maltol, 30mg elemental iron, new oral iron with better tolerability than other ferrous salts due to unique MoA, can be preferred in which group of patients?

a. Pregnancy (Mild anemia)

b. Non-pregnant (AUB, HMB, HUB)

c. Adolescent



- Majority (56%) of physicians preferred ferric maltol (30mg elemental iron) for pregnant women with mild anemia due to its better tolerability compared to other ferrous salts.
- Around 27% of physicians preferred this formulation for non-pregnant patients dealing with conditions like AUB, HMB, or HUB.
- Approximately 17% of physicians considered ferric maltol suitable for adolescent patients, likely due to its improved gastrointestinal tolerability, which is a key concern in this age group.

[10] How many % of patients switch from oral to IV iron therapy?

a. 1-10%

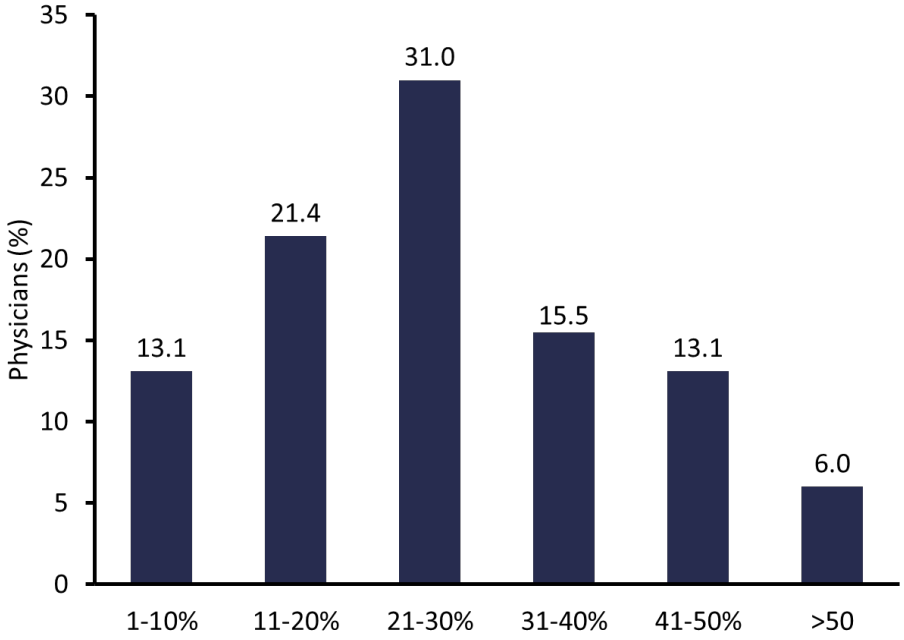
b. 11-20%

c. 21-30%

d. 31-40%

e. 41-50%

f. >50%



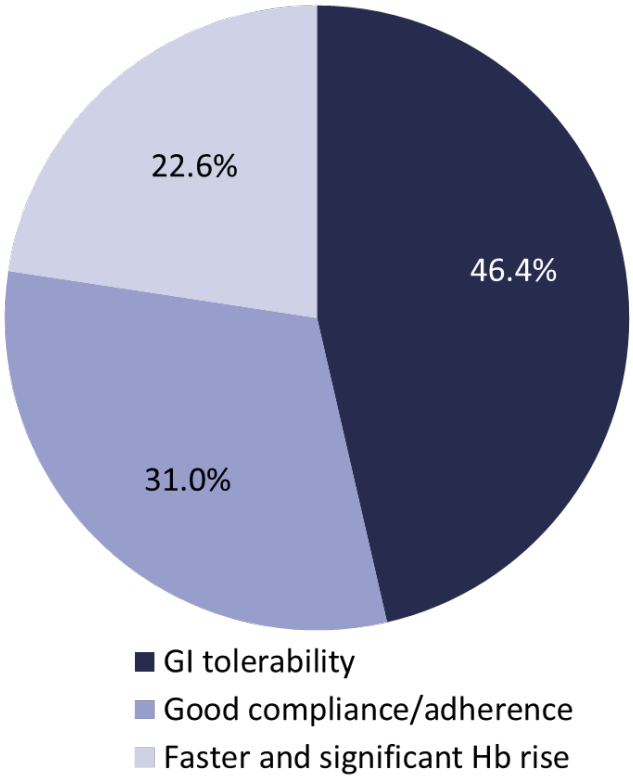
- Approximately 31% of physicians reported that 21-30% of their patients switch from oral to IV iron therapy.
- Around 21% of physicians observed that 11-20% of their patients make the switch.
- According to 15.5% of physicians 31-40% of patients required a switch from oral to IV iron therapy.
- Only 13.1% of physicians reported that 1-10% of their patients switch to IV iron therapy.
- Another 13.1% of physicians stated that 41-50% of their patients switch from oral to IV iron therapy.
- About 6% of physicians mentioned that more than 50% of their patients require IV iron therapy after initially being prescribed oral iron.

[11] Which are the desirable clinical outcome you would expect while prescribing oral iron salts in pregnant women?

a. Gastrointestinal (GI) tolerability

b. Faster and significant Hb rise

c. Good compliance/adherence



- Approximately 46.4% of physicians reported that GI tolerability as the most desirable clinical outcome when prescribing oral iron salts to pregnant women,
- This highlights the importance of minimizing gastrointestinal side effects to improve patient adherence.
- Around 31% of physicians considered good compliance/adherence as a key outcome, recognizing that ensuring patients continue their iron supplementation regimen is crucial for effective treatment.
- Approximately 22.6% of physicians expected a faster and significant Hb rise, indicating the importance of achieving a quick and measurable improvement in anemia for pregnant women.

[12] Which is the most commonly preferred oral iron preparation in your clinical practice?

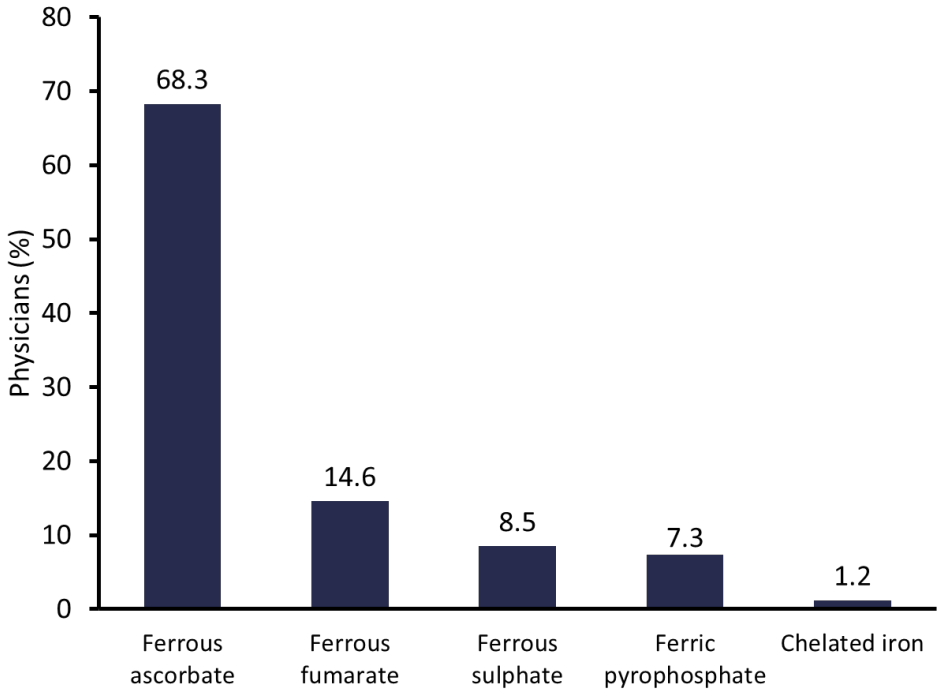
a. Ferrous fumarate

b. Ferrous sulphate

c. Ferric pyrophosphate

d. Ferrous ascorbate

e. Chelated iron



- The majority (68.3%) of physicians preferred ferrous ascorbate as their first choice for oral iron therapy in clinical practice.
- This formulation is favored for its efficacy and better gastrointestinal tolerance.
- Around 15% of physicians select ferrous fumarate, which is commonly used and offers a good balance between cost and effectiveness, although it may cause more gastrointestinal side effects in some patients.
- Approximately 8.5% of physicians preferred ferrous sulphate, a standard oral iron supplement, though its use may be limited by gastrointestinal discomfort, which could impact patient adherence.

[13] In your clinical practice, how long do the patient continue the oral iron therapy?

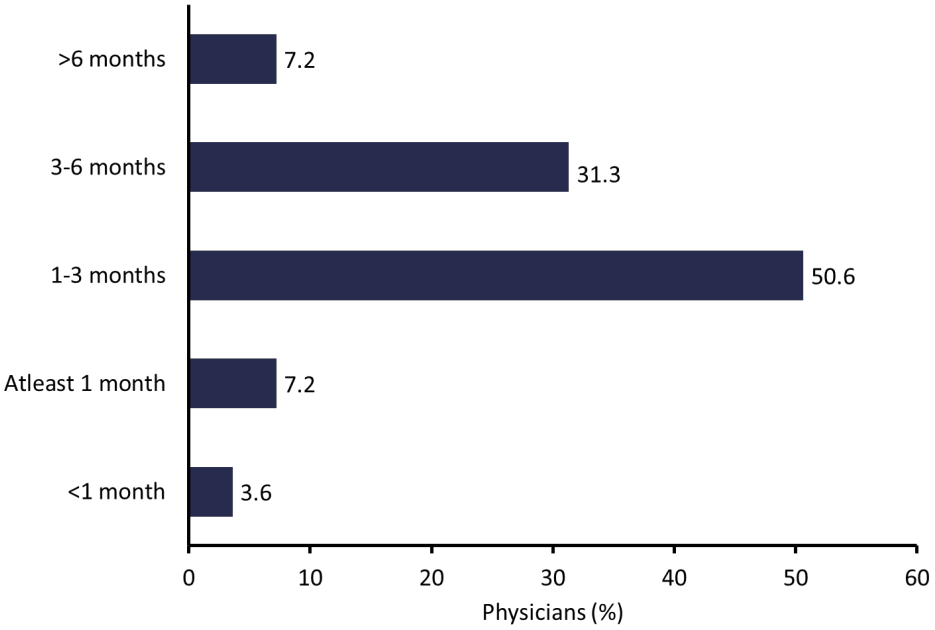
a. <1 month

b. Atleast 1 month

c. 1-3 months

d. 3-6 months

e. >6 months



- The majority (50.6%) of physicians suggested that patients typically continue oral iron therapy for 1 to 3 months.
- A significant portion (31.3%) of physicians reported that oral iron therapy generally lasts for 3 to 6 months.
- About 7.2% of physicians indicated that at least 1 month of therapy is sufficient for their patients.
- Another 7.2% of physicians reported that oral iron therapy typically continues for more than 6 months.
- About 4% of physicians suggested that oral iron therapy typically lasts less than 1 month, which may be applicable to cases where iron levels are only mildly deficient and a shorter duration of treatment suffices to restore normal iron levels.

6. SUMMARY

The survey findings reveal key insights into the management of IDA in clinical practice. The majority of physicians (52.4%) identified pregnancy-related anemia as the most common patient profile, followed by nutritional deficiency anemia (21.4%). Postpartum anemia (14.3%) and anemia due to conditions like CKD and IBD were less prevalent. Regarding non-pregnant patients, 43.4% of physicians reported that 20-40% of their patients presented with IDA, while another 43.4% observed a prevalence of 41-60%. When initiating IV iron therapy, the most commonly recommended laboratory tests were CBC (38%), hemoglobin (27%), and serum ferritin (25%). In terms of treatment preference, about 40% of physicians favored oral iron for pregnancy-related anemia, with 21.4% preferring it for nutritional deficiency anemia. Oral iron was less commonly used for conditions like CKD or IBD, where intravenous iron may be more appropriate.

Regarding dosing, 84.1% of physicians believed that high-dose elemental oral iron (60mg) was necessary for all patients with IDA, while 15.9% thought lower doses (30mg) could be effective. The majority (91.7%) agreed that the treatment approach varies based on the severity of anemia, with more aggressive treatment strategies employed for severe cases. Multivitamin and multimineral supplementation, including vitamins C, D, B9, and B12, was recommended by 81.9% of physicians for all patient categories (Non-pregnant, pregnant, and adolescent). Ferric maltol, a newer oral iron formulation with better tolerability, was most commonly preferred for pregnant women with mild anemia (56%).

The most desirable outcomes when prescribing oral iron in pregnancy were gastrointestinal (GI) tolerability (46.4%), followed by good compliance/adherence (31%) and faster Hb rise (22.6%). Ferrous ascorbate emerged as the most commonly preferred oral iron preparation (68.3%), due to its efficacy and better gastrointestinal tolerance. The majority of physicians (50.6%) recommended continuing oral iron therapy for 1-3 months, with 31.3% suggesting a 3-6month duration.

7. DISCUSSION

The findings from this survey shed light on the current practices and perceptions of Indian physicians regarding the management of IDA, particularly with regard to oral iron therapy. IDA continues to be a prevalent health issue across diverse patient populations in India, and the results highlight a broad variation in how physicians approach its treatment. The survey reveals that pregnancy-related anemia is the most common form of IDA seen in clinical practice (52.4%), followed by nutritional deficiency anemia (21.4%). These findings align with global trends, where women of reproductive age are particularly susceptible to iron deficiency, exacerbated by nutritional gaps and increased iron demands during pregnancy.

The high prevalence of IDA among non-pregnant patients (20-60%, as reported by 86.8% of physicians) further underscores the widespread nature of this condition, suggesting that iron deficiency is a significant concern even outside of pregnancy. Interestingly, the most common laboratory tests recommended prior to initiating IV iron therapy were the CBC, Hb, and serum ferritin. These are critical for assessing the degree of anemia and identifying iron deficiency specifically, reflecting physicians' adherence to evidence-based practices for confirming the need for intravenous supplementation.

In terms of treatment preferences, the majority of physicians favored oral iron for pregnancy-related anemia (40%) and nutritional deficiency anemia (21.4%), which aligns with its low cost, accessibility, and safety profile for these conditions. However, there was a clear indication that oral iron is not as frequently preferred for conditions like CKD or IBD, where intravenous iron is often considered more effective due to potential malabsorption issues and the more urgent need for iron replenishment.

A notable finding was the consensus among physicians (84.1%) that high-dose elemental oral iron (60mg) is necessary for effective treatment, particularly for patients with moderate to severe anemia. This preference underscores a broader belief that more aggressive iron supplementation is essential to restore iron stores efficiently, though 15.9% of physicians indicated that lower doses (30mg) could suffice for mild

cases, suggesting a more individualized approach based on the patient's severity of anemia and tolerance to iron.

The survey also revealed that the treatment approach for IDA varies with the severity of anemia, with 92% of physicians stating that more severe anemia requires more intensive treatment. This finding is consistent with clinical guidelines, which recommend higher doses or more aggressive management for moderate to severe anemia. In addition to iron therapy, a significant majority (81.9%) of physicians agreed that multivitamin and multimineral supplementation (Including vitamins C, D, B9, and B12) is crucial for optimizing treatment outcomes and addressing concurrent deficiencies, particularly in pregnant women and adolescents. This highlights a growing recognition of the multifaceted nature of IDA and the importance of comprehensive nutritional support.

Ferric maltol, a newer formulation with improved tolerability, was preferred by 56% of physicians for pregnant women with mild anemia, indicating a shift toward better-tolerated iron supplements that may improve patient compliance and minimize gastrointestinal side effects. The preference for Ferric maltol in non-pregnant women with heavy uterine bleeding (27%) also points to its role in managing conditions that may require frequent or long-term iron supplementation.

An interesting aspect of the survey was the frequency of switching from oral to IV iron therapy. Over 30% of physicians observed that 21-30% of their patients required a switch, with some reporting that up to 50% of patients eventually need IV iron. This suggests that a considerable number of patients experience insufficient response to oral iron or may encounter intolerable side effects, thus necessitating a more potent and rapid iron replenishment method.

Regarding the desirable outcomes when prescribing oral iron, GI tolerability emerged as the most important factor for pregnant women (46.4%), followed by good compliance/adherence (31%) and faster Hb rise (22.6%). These priorities reflect the challenges of maintaining patient adherence to iron supplementation, particularly in pregnant women who may already experience gastrointestinal discomfort due to pregnancy-related changes. Additionally, the preferred oral iron preparation was

ferrous ascorbate (68.3%), valued for its efficacy and better gastrointestinal tolerability compared to other forms like ferrous sulphate or ferrous fumarate.

Finally, the duration of oral iron therapy varied, with most physicians recommending 1-3 months (50.6%) or 3-6 months (31.3%). This suggests that a prolonged treatment course is often necessary to fully restore iron stores, especially in more severe cases of anemia. However, a small percentage of physicians indicated shorter treatment periods, likely for patients with milder iron deficiency.

Overall, these findings provide valuable insights into the current landscape of IDA management in India. While oral iron remains the first-line treatment for many patients, the increasing use of intravenous iron, especially in cases of severe anemia or conditions like CKD and IBD, reflects evolving practices in the field. The survey also highlights the importance of addressing treatment tolerability, personalized dosing, and supplementary therapies to improve patient outcomes. These insights can inform future guidelines, enhance clinical education, and optimize treatment strategies for IDA in India.

8. CLINICAL RECOMMENDATIONS

Based on the findings from the survey, oral iron therapy remains the cornerstone treatment for IDA in most patient groups, including pregnant women, those with nutritional deficiencies, and postpartum patients. The high prevalence of IDA in these populations underscores the importance of effective, accessible, and safe treatment options. Oral iron is preferred because it is cost-effective, easy to administer, and generally well-tolerated, making it suitable for long-term management of mild to moderate IDA. However, it is crucial for physicians to be aware of the varying patient needs and circumstances when choosing the most appropriate formulation and dosage of iron.

In particular, Ferric Maltol, which provides 30 mg of elemental iron per dose, has emerged as an important option, especially for pregnant women with mild anemia. The formulation’s superior GI tolerability compared to traditional ferrous salts makes it an attractive choice, given that GI side effects, such as nausea, constipation, and abdominal discomfort, are the most common reasons for non-adherence to oral iron

therapy. Therefore, Ferric Maltol should be considered for patients who have experienced poor tolerance to standard iron salts or those who require a more easily tolerated form of oral iron, such as pregnant women, individuals with AUB, or other gynecological conditions like HMB and uterine fibroids.

The survey results indicated that the majority of physicians still prefer higher doses of elemental iron (60 mg) for most patients with IDA, reflecting the belief that more substantial iron replenishment is necessary to restore adequate iron stores in a timely manner. However, it is important to recognize that lower doses (30 mg) can be just as effective for mild to moderate cases of anemia and may be sufficient to improve iron levels without causing undue GI discomfort. Physicians should adopt a patient-centered approach when determining the optimal dose of elemental iron, considering factors such as the severity of anemia, patient tolerance, and adherence potential. In mild anemia, a lower dose may be effective and can reduce the incidence of side effects, improving patient compliance.

Furthermore, the importance of co-supplementing iron with multivitamins and minerals, particularly Vitamin C, D, and B9 (folate), cannot be overstated. These nutrients play an essential role in enhancing iron absorption and supporting overall health during treatment. As the survey demonstrated, a significant number of physicians consider multivitamins to be necessary for all IDA patients, which suggests that the incorporation of these supplements into treatment protocols should be routinely considered to optimize therapeutic outcomes and address any potential concurrent nutrient deficiencies. It is particularly important in pregnant women and adolescents, who may have higher demands for these micronutrients due to physiological changes and growth needs.

Given the significant number of patients who switch from oral iron to IV iron therapy—up to 40% in some practices physicians should focus on improving patient education regarding oral iron adherence and address the common reasons for non-compliance, such as gastrointestinal discomfort. Education efforts should emphasize the importance of completing the full course of oral iron, the potential for side effects to diminish over time, and the long-term benefits of iron replenishment in preventing complications like fatigue, cognitive impairment, and poor pregnancy outcomes. It is also crucial for clinicians to regularly monitor treatment progress and adjust therapy

as necessary. Monitoring should include regular testing of Hb, CBC, and serum ferritin levels to assess the patient's response to treatment and determine when the transition to IV iron may be warranted.

The duration of oral iron therapy should be tailored to the severity of anemia, with most patients requiring 1 to 3 months of treatment to replenish iron stores adequately. However, for patients with more severe anemia, longer courses of treatment may be necessary to achieve full recovery. Physicians should also closely monitor for any signs of iron overload, particularly in patients who receive long-term or high-dose iron therapy. Additionally, for patients who fail to respond to oral iron, a switch to IV iron should be considered, particularly if there are concerns about malabsorption, severe side effects, or inadequate response to oral formulations.

9. CONSULTING OPINION

The survey highlights that pregnancy-related anemia is the most common patient profile encountered by physicians, followed by nutritional deficiency anemia. This aligns with the epidemiological data showing high prevalence rates of IDA in pregnant women and individuals with poor nutritional intake. Given these high numbers, it is imperative that strategies to prevent and manage IDA are incorporated into maternal health and public health programs.

The significant proportion of non-pregnant patients presenting with IDA (43.4% reporting 41-60%) further emphasizes the burden of iron deficiency in the general population. This trend underscores the need for broader awareness campaigns to detect and address IDA early in the general population, with particular focus on at-risk groups such as women of reproductive age, adolescents, and individuals with chronic diseases.

The survey findings show that oral iron remains the preferred first-line treatment for IDA in most patient profiles, especially in pregnancy-related anemia and nutritional deficiency anemia. However, the frequent transition from oral to IV iron therapy (with up to 40% of patients switching) is noteworthy. The high rate of transition indicates that many patients either experience intolerance to oral iron or fail to achieve the desired therapeutic outcomes with oral supplementation alone. This highlights the

importance of better management of gastrointestinal side effects, which are the most common reason for switching therapies. Improving adherence to oral iron therapy, through patient education and tailored treatment regimens, remains a key priority.

The introduction of Ferric Maltol, with 30 mg elemental iron, as an oral alternative with superior gastrointestinal tolerability is an important development in the management of IDA. The survey results indicate that Ferric Maltol is particularly favored for pregnant women with mild anemia, where minimizing GI side effects is a significant concern. This formulation's preference by over half of the surveyed physicians suggests a positive reception for Ferric Maltol in clinical practice. Its use in non-pregnant women with conditions like AUB, HMB, or other uterine bleeding disorders is also notable. Given that many patients with such conditions are prone to non-adherence to oral iron due to gastrointestinal side effects, Ferric Maltol presents an excellent alternative to improve patient compliance and clinical outcomes.

The survey data indicate that the majority of physicians prescribe oral iron for 1 to 3 months, which is consistent with the typical duration needed to correct mild to moderate iron deficiency anemia. However, the extended use of oral iron for up to 6 months in certain patients suggests that some individuals may require longer durations for full iron repletion or to address ongoing sources of blood loss (such as in cases of heavy menstruation or chronic gastrointestinal bleeding). Clinicians should be vigilant in monitoring progress and adjusting the duration of treatment based on the patient's response and underlying conditions.

10. MARKET OPPORTUNITIES

The findings from this survey highlight several key market opportunities in the IDA management landscape. The high prevalence of IDA, particularly among pregnant women, adolescents, and individuals with nutritional deficiencies, presents a growing demand for oral iron supplements, especially for mild to moderate cases where oral therapy is preferred. Physicians' increasing preference for oral iron formulations with better gastrointestinal tolerability, such as ferric maltol, signals a significant market opportunity. These new formulations, which offer improved tolerability compared to traditional ferrous salts, are particularly appealing to pregnant women and non-

pregnant patients with conditions like heavy menstrual bleeding (AUB/HMB), where GI side effects are a major concern.

In addition to the demand for improved oral iron formulations, there is an opportunity to cater to personalized treatment strategies. About 15.9% of physicians favor lower-dose elemental iron (30mg) for some patients, indicating a potential market for flexible, patient-tailored dosages. This is coupled with the growing interest in multivitamin and multimineral supplementation, with 81.9% of physicians recommending vitamins like C, D, B9, and B12 alongside iron therapy. The market for combined iron and multivitamin products, or separate complementary supplements, offers a strong growth area.

The shift towards IV iron therapy in cases where oral iron fails or is poorly tolerated also presents a key opportunity. With a significant proportion of patients switching from oral to IV therapy (31% reporting 21-30% of their patients), there is a clear demand for improved injectable iron formulations and injectable iron market expansion, especially in hospital and outpatient settings. Educational initiatives targeting both physicians and patients will be crucial in bridging knowledge gaps about when to transition between oral and IV iron, potentially improving patient adherence and treatment outcomes.

Furthermore, with the prevalence of IDA and the extended duration of treatment (often 1-3 months or more), there is a long-term market for oral iron products. Manufacturers can tap into this by offering cost-effective, generic formulations, especially in rural and underserved areas where affordability and access to healthcare remain challenges. Developing new, more easily tolerated oral iron products and exploring regional distribution strategies will allow companies to meet the diverse needs of the Indian market. The growing demand for combination products and the long-term therapeutic nature of IDA treatment also opens doors for subscription models and bulk purchasing arrangements with healthcare institutions. Thus, the evolving clinical landscape for IDA management presents significant opportunities for companies to innovate, cater to patient preferences, and capture a substantial share of the Indian market.

11. MARKET POSITIONING

Market positioning for oral iron supplements in India should focus on addressing the diverse needs of patients with IDA across different demographics, including pregnant

women, adolescents, and individuals with nutritional deficiencies. The findings indicate that oral iron, particularly formulations with improved gastrointestinal tolerability like Ferric Maltol, is increasingly preferred by physicians, especially for pregnant women with mild anemia and non-pregnant women with conditions like heavy menstrual bleeding (AUB/HMB). The market should emphasize the benefits of these newer formulations in terms of better patient compliance and fewer side effects compared to traditional ferrous salts. Additionally, with a significant demand for multivitamins and multiminerals alongside iron supplementation, positioning combined iron-multivitamin products could appeal to both physicians and patients looking for comprehensive anemia management solutions. Offering flexible dosing options, such as 30mg elemental iron for mild anemia, and targeting rural and underserved areas with affordable, effective solutions will help capture a broader patient base. Emphasizing long-term adherence, patient comfort, and overall treatment outcomes will differentiate products in a competitive market.

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