Global Health
AN ONLINE JOURNAL FOR THE DIGITAL AGE

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THE INDIAN PHARMA IRON MARKET

The Indian Pharmaceutical industry plays a prominent role among global pharmaceuticals industries and because of its large share to various regions of the world, is known as the pharmacy of the world[1]. India is the largest generic drug supplier and Indian drugs are exported to more than 200 countries in the world, with the US being the key market.

The Indian Pharmaceutical Market (IPM) is valued at Rs. 182791.7 Cr [$24,000 million] and is growing by 10% annually. Companies of varying sizes, whose revenues ranges from100 to 10,000 Crore are involved in the IPM market. Further, each company has separate divisions that focus on specific aspect of the product. For any product to be marketed a Company requires 2 set of departments mainly - Sales and Marketing.

Sales domain enshrines the concept of "selling with brains" where a Medical Representative aim to influence prescription pattern of doctors in favor of their brands based on the recommendation by the marketing team/ Product Management Team (PMT). On the other hand, Marketing (PMT) forms a link between field colleagues (Medical Reps) and the upper management (President/CEO). It incorporates Brand Building, Product Life Cycle and Strategizing.

Top 10 therapies comprising IPM's are - cardiac, anti-Infectives, gastro, anti diabetic followed by vitamins, minerals and nutrients, respiratory, pain, dermatology, neurology/Central Nervous System, gynaecology.

Top 10 Brands of IPM are as follows Mixtard, Glycomet-gp, Lantus, Foracort, Pan, Monocef, Thyronorm, Electral, Dexorange.

Top 10 Companies are: Sun Pharma, Abbott, Cipla, Mankind, Alkem, Lupin, Intas, Torrent Macleods, Dr. Reddy's.

The hematinic market in India is Rs. 3000 crores and is growing at 11% per annually. Hematinics are drugs used for the treatment and prevention of Anemia (due to Iron deficiency). The overall Hematinics Market comprises of oral solids, oral liquids and parenterals. Anemia is a common clinical diagnosis and a huge public health issue. Anemia is characterized by the reduction in number of red blood cells in the blood, thereby decreasing the amount of hemoglobin and its capacity to carry oxygen. The World Health Organization (WHO) defines Anemias as hemoglobin (Hb) levels <12.0 g/dL in women and <13.0 g/dL in men and less than 11 g/dL for pregnant women. Anemia is a serious global public health problem that particularly affects young children and pregnant women. WHO estimates that 42% of children less than 5 years of age and 40% of pregnant women worldwide are anaemic.

Iron Deficiency Anaemia

Iron Deficiency Anemia [IDA] is caused by inadequate intake or absorption of iron. Further, spurts of growth and increased physiological requirements may lead to IDA in infants, particularly in premature infants, growing children, and pregnant and lactating women. Even chronic kidney disease patients are prone to get IDA due to excessive loss of erythrocytes during hemodialysis. During pregnancy, IDA has severe consequences for both mother and

fetus. It may lead to fatigue, pallor, palpations, preterm delivery, postpartum hemorrhage, puerperal sepsis, prolonged labor, and lactation failure in the mother, and low birth weight, growth retardation – in the child.

Oral Iron Supplementation (Solids+Liquids)

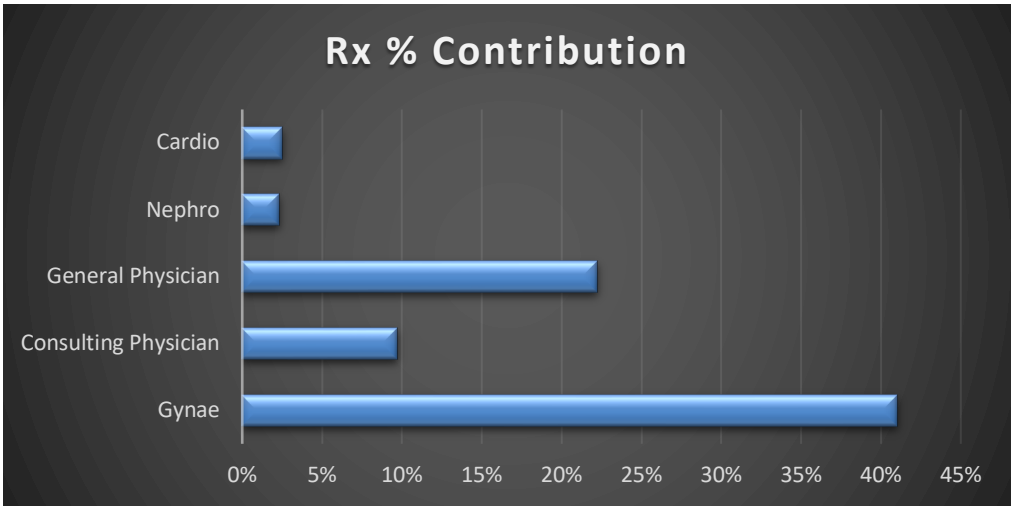
Oral iron supplementation (includes Oral Solids like Tablets and Capsules, & Oral Liquids like Syrups) is used for the treatment of mild to moderate IDA, whereas severe cases need parenteral therapy. Patients with an intolerance to oral iron preparations or malabsorption are also given preference when it comes to parenteral preparations. Effective and well-tolerated oral formulations for iron supplementation are required. To reach the desired Hb levels, iron supplementation must be continued for at least two months. Therefore, a well-tolerated iron preparation is necessary for excellent therapeutic compliance. The severity of anemia and the response to iron supplementation are two of the many variables that affect this. other medical conditions present, iron salt's absorption, bioavailability, and most crucially, its tolerability. In developing nations, adding iron supplements presents a number of difficulties. For Example, In India due to both economic and religious restrictions, the bulk of Indians' meals typically consist of vegetarian meals, Most importantly inhibitory ligands such phytates, phosphates, tannins (present in tea/coffee), and polyphenols are abundant in the food options, and they prevent the absorption of iron by converting ferrous iron to ferric form.

If you look at Iron formulations marketed in India as hematinics that contain not just iron, but has folic acid, vitamin B_{12}, and vitamin C, and other B complex vitamins, as well as trace elements like copper, cobalt, and zinc, and biological products (heme iron) such as liver extract (beef/chicken) and oysters, clams, mussels.

The overall Iron Solid Market consists of salts like, ferrous ascorbate, ferrous sulphate, ferrous fumerate, ferric pyrophosphate Iron, carbonyl iron, iron polypeptide, and ferrous bisglycinate.

Major prescribers for iron solids are Gynaecologists, General Physicians (G.P), Consultant Physicians (C.P), Cardiologists and Nephrologists. (Shown in below Graph)

Source SMSRC Feb'22



Indications for the iron prescriptions are:

- Gynaecologists prescribes hematinic during pregnancy, amenorrhea, bleeding P V, menorrhagia, Anemia, menstrual disorder.
- Cardiologists and Consulting Physicians prescribe them for hypertension, & Anemia due to iron deficiency.
- Nephrologists prescribe them for CKD (chronic kidney disease) patients.

Preference of iron salts by various specialties

"Ferrous Ascorbate" Combination of iron with other nutrients like ascorbic acid, folic acid, and other vitamins - increases the product cost, frequency of side effects and hence leads to non-compliance.

Many reports suggests that 1 in 3 patients are non-adherent to Iron Therapy. This has led to search for an iron-supplement that would have better GI tolerance - ferrous bisglycinate, which is an Iron amino acid chelate, fits that bill. It has increased tolerability, bioavailability, and absorption.

A GSK sponsored study, comparing ferrous bisglycinate (60mg) once-daily to ferrous ascorbate (100mg) once daily, demonstrated better tolerance for ferrous bis-glycinate. (2)

Better tolerance for ferrous bisglycinate may result from following structural advantage. Iron molecule is chelated and shielded with two molecules of glycine. The glycine molecules do not allow the iron to come in direct contact with GI mucosa. Hence, it does not interact with food substances like phytates and tannins, resulting in lower GI irritation. Moreover, US FDA has certified ferrous bisglycinate as GRAS (Generally regarded as safe).

Ferrous Ascorbate remains a preferred choice in Iron therapy for gynaecologist during pregnancy. And for Consulting Physicians too, when given during co-morbid conditions in elderly. Ferrous bisglycinate has the least amount of GI discomfort, the least amount of constipation, and an enhanced bioavailability of up to 91%. But prescribing is still a last choice to prescribe.

There is a massive competition between Iron

making Companies for promotion of their products to their targeted specialties. Just to win over competition, some companies opt for patient centric activities. Helping doctors and paramedics to connect with their patients more effectively and efficiently. Thus, creating more productivity and sales for the company. Some companies offer bonanza trips or give honorarium to doctors in order to make them write their brands/ to speak for their brands during scientific meetings. Bribing doctors to prescribe their products are clearly unethical marketing practices - showing no concern for the patient/ end user. The issue is not only limited to Iron therapy but happens with many other products too. The important question to ask is that, how to market a brand with more patient-centric approach. However, few Companies have started a Free Hemoglobin Detection Campaign for the wellness of patients. The camp detects the HB level of patient and if the levels are found below normal, doctor accordingly prescribes the Iron brand. Such activity is not only helping the health care professionals, but also helping the patients/ end user to know if they are anemic or not. Such efforts boost sales and would benefit patient and can be considered as a ethical marketing technique.

Anemia is highly prevalent and is underdiagnosed. Hence, awareness is required. So, patient education leaflets are provided to patients to increase the awareness. This leaflet contains information regarding Anemia, Symptoms of Anemia, Do's and Don'ts' in Anemia. To increase the awareness this leaflet can also be displayed in digital way by scanning a QR Code on product/brand Pack. So that as soon as the end user (patient) buys the iron brand they can scan the QR Code present on the pack insert and can read the Patient Education Leaflet.

References

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