MANAGEMENT OF IRON DEFICIENCY ANEMIA IN ONCOLOGY:
INTRAVENOUS IRON DISCORDANCE IN CANCER PATIENTS

Ray D. Page, DO, PhD, FACOI, FASCO[1] Mohit Narang, MD[2] Michael Polson, MS, PharmD[3]
1. The Center for Cancer and Blood Disorders; Weatherford, TX 2. Maryland Oncology Hematology; Columbia, MD 3. Pharmacosmos Therapeutics, Inc; Morristown, NJ

BACKGROUND

Anemia is a common hematological manifestation of cancer. Iron deficiency anemia (IDA) is often a main contributor and can be caused by a variety of factors, such as[1]:

- Chemotherapy
- Blood loss after surgery
- Malnutrition
- Malabsorption

Intravenous iron (IVI) is used to treat IDA when oral iron is not effective or not tolerated

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) recommend IVI ranging from 1 to 10 infusions per treatment course, totaling about 1,000 mg for most IVI products[2]

Some payors restrict the use of IVI based on drug cost alone, ignoring the impact of infusion schedules, which may result in incomplete treatment that can contribute to negative patient outcomes and subsequent costs

OBJECTIVE

To evaluate the prevalence of incomplete treatment with IVI products in patients with cancer and IDA

METHODS

This study was a longitudinal, retrospective analysis of commercial administrative claims data from Komodo's Healthcare Map

- This study included patients diagnosed with cancer and IDA prior to the date of first IVI infusion (index date) and treated with an IVI product during the index range (01/01/2020 - 09/30/2022)
- Patients with end stage renal disease or receiving hemodialysis were excluded

Discordance, a surrogate marker for nonadherence, was defined as having received less than 1,000 mg of iron over 6 weeks

IVI products evaluated include:

- Iron dextran
- Ferric carboxymaltose
- Sodium ferric gluconate
- Iron sucrose
- Ferric derisomaltose
- Ferumoxytol

Figure 1: Study Design

RESULTS

n=28,856 patients were included in this study

The average age was	**51.6** years old
Average Charlson Comorbidity index was	**3.2**

Figure 2: Patient Demographics

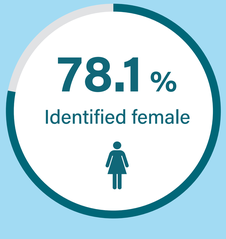
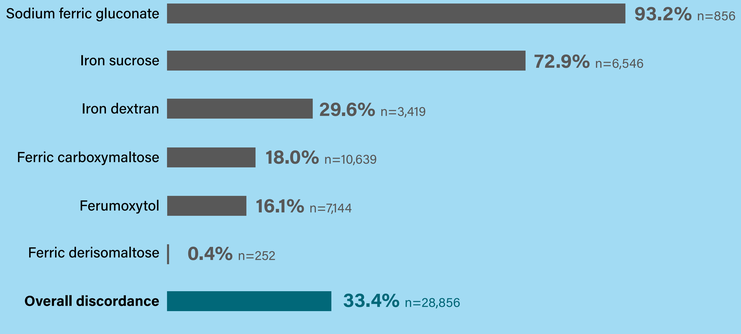


Figure 3: Discordance Rate (overall and by IVI product)



LIMITATIONS

A 6-week timeframe was used for the definition of discordance, which covers the course of treatment per label for all products except for sodium ferric gluconate, which may take up to 8 weeks to administer a 1,000 mg dose

Most patients require 1,000 mg of iron for repletion[3]; however, recommended doses for individual patient need varies

It is possible that some products were not administered according to FDA-approved labeling, rather this analysis represents real-world use of IV iron products

This analysis includes only data from commercially insured patients from Komodo's Healthcare Map, which may not be generalizable to a wider patient population

This analysis excluded patients with certain disease states that alter the dosage and/or delivery of IVI, such as those on hemodialysis

CONCLUSIONS

IVI product selection is important for the treatment of IDA in patients with cancer

- Higher discordance rates were observed with products requiring a greater number of infusions
- Additionally, even products that require only two infusions per label still resulted in discordance to treatment
- Patients with cancer- and chemotherapy-induced IDA who do not receive the full IVI treatment course may potentially experience undertreatment, which can adversely impact patient outcomes

This information could assist in understanding the possibility of inconsistency with IVI treatment, which may influence the management of IDA in cancer patients. Implementing policies that allow unrestricted access to a single-dose option could be beneficial in addressing this concern

ABBREVIATIONS

FDA: US Food and Drug Administration
IDA: Iron deficiency anemia
IV: Intravenous
IVI: Intravenous iron
NCCN: National Comprehensive Cancer Network
US: United States

SPONSORSHIP
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2. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Hematopoietic Growth Factors. V.3.2024. © National Comprehensive Cancer Network, Inc. 2024. All rights reserved. Accessed [April 9, 2024]. To view the most recent and complete version of the guideline, go online to NCCN.org.
3. LaValllee C, Bansal I, Kamdar S, et al. Relationship between initial parenteral iron therapy dosing and treatment effectiveness: a real-world retrospective analysis. *J Blood Med.* 2022 Mar 8:13:133-1422