IRON SUMMIT CONFERENCE REPORT

2017

Alberta Health Services

UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE

Choosing Wisely Alberta | Choosing Wisely Canada
In partnership with the Canadian Medical Association

A Message from Dr. Eddy Lang

As one of the leads of an AIHS/SCN PRIHS research project aiming to improve decision-making around anemia management and transfusion decisions in emergency department patients with non-variceal upper GI bleeding, the Iron Summit was conceived to address a closely related but more widespread concern voiced by our stakeholders. Although initially a source of speculation, our research team began to appreciate that hemodynamically stable patients with symptomatic anemia were receiving red cell transfusions when treatment with parenteral iron therapy might be preferred.

This state of affairs also seemed to extend to all patients with significant iron deficiency anemia, independent of cause and location within AHS facilities in the Calgary Zone. This uncovered a significant concern over providers' ability to access parenteral iron therapy for outpatients through day programs. Additional complexity was superimposed with concerns over appropriateness of indications and resource consumption. These system-wide concerns also raised concern over capacity issues in medical day settings and costs. This range of related but widespread concerns led our PRIHS stakeholders to propose the planning of a meeting (The Iron Summit) to clarify gaps and opportunities and propose potential solutions to the management of iron deficiency anemia in the Calgary Zone. This initiative aligned well with the Alberta Medical Association's simultaneous development of a Towards Optimal Practice guideline related to the management of iron deficiency anemia.

This report describes the high-level findings and preliminary conclusions developed through this collaboration of providers and researchers.

Summary

The Iron Summit 2017 was a half-day meeting involving forty-five representatives of nine medical specialities. The objectives of the Summit were:.

i. To optimize appropriate use of parenteral iron in AHS facilities

ii. To implement Choosing Wisely guidelines for the appropriate use of red blood cell transfusions

iii. To develop a plan for a zone-wide, multi-disciplinary and collaborative clinical pathway for the treatment of IDA

Presentations

Eight rapid presentations took place outlining perspectives on iron deficiency anemia (IDA), clinical management, access, and health system implications of increased use of parenteral iron. A sample of key messages includes:

Jennifer Coulthard
Executive Director,
Outpatient Medicine

Dr. Peter Jamieson
Associate Zone Medical Director,
Calgary

Opening Remarks

Rebecca Rock
RN, Patient Blood Management

Patient access to parenteral iron is hindered by IV iron booking limitations, availability of appointments, and a shortage of iron products. A wish list for improved access includes comprehensive resources, patient and physician education, alignment of Day Medicine referral and booking, a central IDA team, and advocacy for more iron product options.

Dr. Davinder Sidhu
Pathology and Laboratory Medicine

Alberta uses more per capita blood products than other provinces, although this is trending down. Approximately 4% of the population meet the criteria for iron deficiency anemia and could benefit from iron supplementation. Alberta spends $65 million a year on blood products. The cost to purchase a unit of red blood cells is $425, and the cost including laboratory work and administration is estimated at $908.

Daniel Grigat
Emergency Strategic Clinical Network

A survey of medical specialities in the Calgary Zone found that hematology and gastroenterology have easy access to parenteral iron and are utilizing that treatment for appropriate patients. All other specialities (surgery, obstetrics, family medicine, emergency, internal medicine) reported a significant gap between the number of patients appropriate for parenteral iron and patient being treated with parenteral iron.

Dr. Taher Shabani-Rad
Hematology

Dr. Eddy Lang
Emergency

The draft guidelines for Iron Deficiency Anemia developed under Towards Optimized Practice were presented. The guidelines cover laboratory diagnosis of IDA, as well as a treatment algorithm and transfusion protocol. The transfusion protocol reflects numerous Choosing Wisely recommendations to avoid transfusions in stable patients with an hgb>70g/L, or 80g/L + cardiovascular disease. The guidelines recommends oral iron for non-symptomatic patients with hgb 60-90g/L, and parenteral iron or transfusion for patients <60g/L.

Dr. Michelle Hart
Family Medicine

The ability to provide patients with access to parenteral iron is limited by the availability of iron products, an inconsistent referral process across sites (with PLC not accepting referrals from family medicine), and a general lack of Day Medicine privileges among family physicians.

Jeremy Slobodan
Drug Utilization and Stewardship

Dr. Gerald Lazarenko
Pharmacy Services

Parenteral iron represents 4% of the total budget for ambulatory pharmacology, and has grown 22% in the past two years. Patients have been referred to parenteral iron that may not have been appropriate as they had not previously received a trial of oral iron. It is not a default position that AHS will pay for IV iron, and payer variance exists in Alberta and in Canada. Due to the financial implications of expanded parenteral iron use, there needs to be clear clinical and health system benefits.

Dr. Horacio Groshaus
Alison Lock
Day Medicine

Referrals should be preceded by an appropriate work-up including 4 weeks of oral iron, consultation with a nutritionist, and recent lab work. Patient visits to Day Medicine for IV Iron make up approximately 20% of visits in the Calgary Zone and has been trending upwards in recent years. Recent shortages of parenteral iron have been driven by increasing referrals from gastroenterology, hematology, and nephrology.

Dr. Jeff Schaefer
Internal Medicine

Dr. Horacio Groshaus
Day Medicine

Consultation with colleagues has shown an interest in a coordinated approach to the problem of iron deficiency. These could include a centralized triage with care pathways toward:

i. establishing degree of urgency and avoidance of acute complications of anemia
ii. ensuring that adequate trials of oral iron before proceeding to the added costs, risks, and discomfort of parenteral iron
iii. establishing the underlying cause and treatment of iron deficiency
iv. consideration of central versus distributed points of care

Breakout Sessions

Attendees came together to identify current issues and suggest actions to address these issues. These are summarized below for three key areas in the management and treatment of IDA.

Guidelines for IDA Treatment Appropriateness

1. Treatment targets should be condition specific.
2. Genetic causes, and guidance on these, should be included in the work-up.
3. There was support for the Towards Optimized Practice (ToP) algorithm, with attention to hemoglobin trends.
4. There was support for the idea of a 'Central Iron Clinic' that:
   - Has multidisciplinary teams
   - Can address appropriateness of parenteral iron referrals and explore alternatives
   - Provide education, pharmacy and dietary guidance related to increased tolerance or oral iron
   - Patients access by having met ToP IDA algorithm criteria and having a "failed" oral iron trial
   - Offers free iron to patients who meet eligibility criteria
   - Offers a return on investment
   - Results in increased capacity in day medicine

IV Iron Access and Referral Process

1. There is a lack of clear referral process/guidelines for referral. There needs to be clarity regarding who is responsible for what.
2. A consistent order set, triage process, and a standard referral process are goals across sites.
3. Lack of privileges:
   - Rural versus urban
   - Takes time to get access
   - MRP availability
4. Service delivery versus case management, and therapeutic interchange to address drug shortage.

IV Iron Resource Implications and Health Economic Impact

1. In order to affect change, there need to be clear guidelines with administrative hard stops e.g.,
   - 3 months of failed oral iron therapy required before referral to iron clinic
   - If patient does not meet this criteria, they should be referred to a specialist
   - Once parenteral iron is administered, the patient can begin maintenance on oral iron (i.e., go back and forth)
2. Nurse and staff workflow must be considered.
3. There should be a family physician proxy panel.
4. Physician report cards may be helpful in addressing physician misconceptions.
5. It is not just the initial level-up of iron that needs to be considered, but also replenishment and the long-term plan.
6. Calgary has more detailed data than the rest of the province. Costs to be measured:
   - Drug costs
   - Transfusion costs
   - Association costs and lab costs
7. It is important to consider patient outcomes and the patient experience.

IRON SUMMIT: Attendee Feedback

Evaluation forms were distributed to conference attendees. Of the 45 attendees, 34 completed the evaluation form. Feedback was generally quite positive and in support of moving forward with a multi-disciplinary and zone-wide approach to the treatment of iron deficiency anemia.

- All respondents either **strongly agreed** (62%) or **agreed** (38%) that the Iron Summit was a relevant, practical and well-spent use of their time.
- The majority of respondents **strongly agreed** (72%) that the content/presentations were informative and highlighted key issues and perspectives in the treatment of iron-deficiency anemia patients and access to intravenous iron.
- All respondents **strongly agreed** (52%) or **agreed** (48%) that the breakout sessions were valuable and allowed for productive sharing of ideas.
- Almost all respondents **strongly agreed** (66%) or **agreed** (31%) that this multi-disciplinary and zone-wide approach is an appropriate way to address the management of clinical conditions.
- Almost all respondents **strongly agreed** (34%) or **agreed** (59%) that this meeting will help with implementing guidelines for the appropriate use of red blood cell transfusions, and will help advance a zone-wide clinical pathway for the treatment of iron deficiency anemia.

Attendees appreciated the multi-disciplinary approach as it highlighted various perspectives in the treatment of iron-deficiency anemia. The presentations were said to have provided valuable background information from a variety of perspectives. The breakout sessions were the most useful portion of the conference for the majority of attendees, as they allowed for collaboration with key stakeholders across the continuum of care and an opportunity to discuss issues in detail.

Moving Forward: Thoughts from Dr. Jeff Schaefer

While the problem affects many areas, the solutions lay mostly in a patient centred approach. It is within our reach to undertake a central coordinated approach to triage (1-800-LOW-IRON), establish urgency and activate triggers to appropriate intensities of care, engage the internal medicine community to create diagnostic protocols that offer patients the best chance of resolving the underlying cause of iron deficiency, and administer IV iron when indicated within safe and monitored clinical settting(s). Consultative care will be needed (e.g. obstetrics and gynecology, otolaryngology, gastroenterology).

Harmonization of the expectations placed upon Day Medicine Units will improve efficiency. Patient education and reporting back to referring physicians along with recommendations for follow-up and instructions for recurrence are critical elements. With Calgary's spirit of innovation, collaboration, and caring, we can do better.

A note from Jennifer Coulthard

A number of opportunities for process improvement exist with the Day Medicine units in the Calgary zone regarding the infusion of parenteral iron. The teams, supported by operational and medical leadership, have collaboratively begun work on standardizing referral practices, improving access, creating consistency in order sets and enhancing communication with referring physicians.