

Revitalising Maternal Health: The impact of a dedicated iron infusion service

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Introduction

Iron deficiency anaemia (IDA) is the most common nutritional deficiency, with more than 2 billion people affected worldwide significant problem in the developed world. Anaemia increases fetal and maternal morbidity and riskof postpartum haemorrhage (PPH). Effective and quick replacement of iron remains the mainstay in compacting IDA risks and outpatient iron infusion clinic provides an opportunity for such intervention.

The Iron Infusion Service at the Rosie maternity was established in September 2022 to meet the demand of our obstetric population. The Rosie Dedicated Iron Infusion Services was described as outstanding by the Care Quality Commission (CQC) in July 2023.

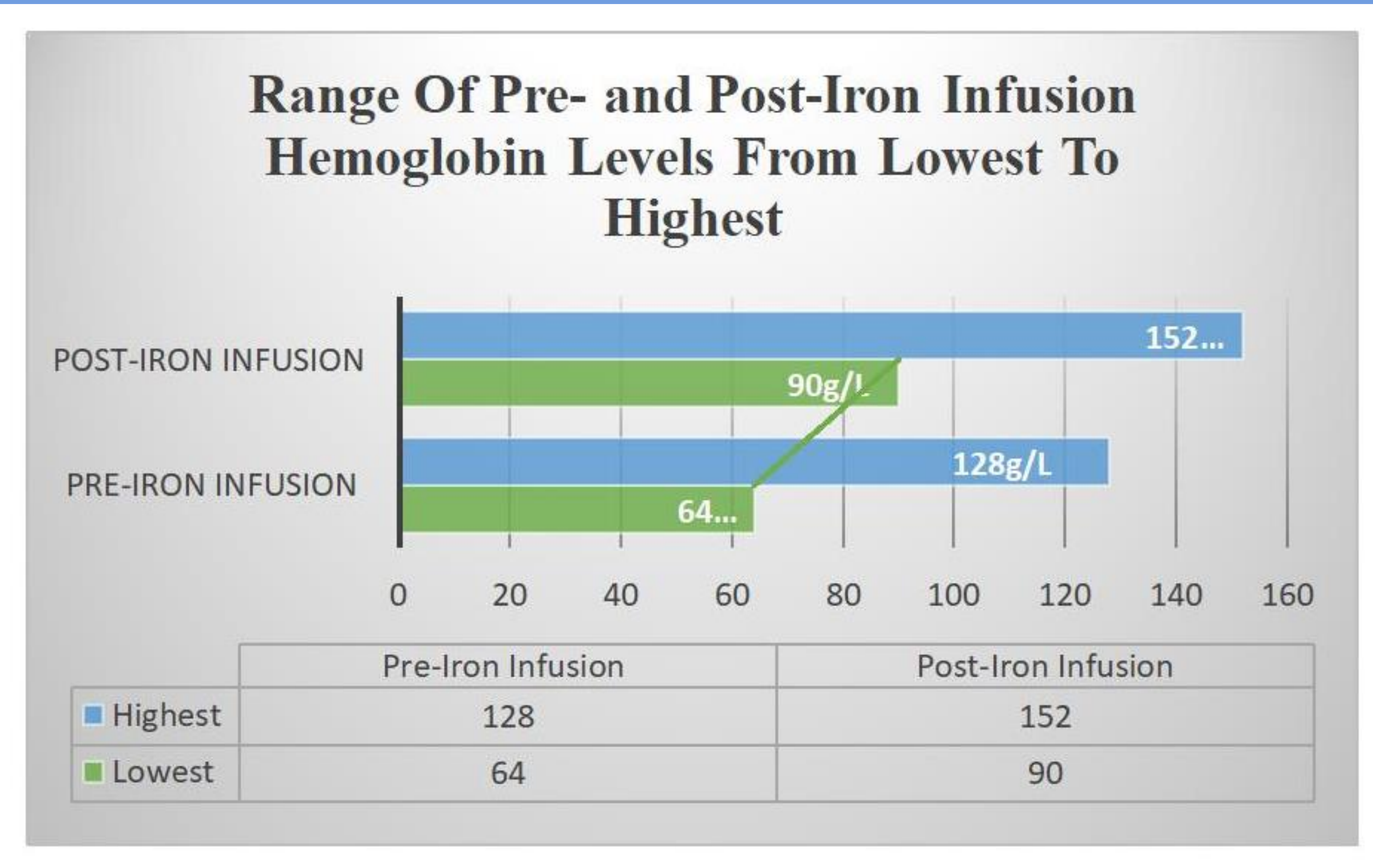
We carried out a service evaluation and QIP to look for areas of improvement and possible innovation.

Aims/Objectives

- To evaluate the effectiveness and performance of the IV Iron Infusion clinic
- To identify opportunities for improvement and potential service innovations
- To assess the clinic’s impact on patient outcomes and overall maternal care

Methodology

We collected retrospective data covering September 2022 until May 2024. Participants were identified from electronic medical records (EPIC). Referrals to the clinic adhered to the Hospital guidelines (eligibility includes failed / intolerance to oral treatment, urgent clinical need and for treatment e.g. late gestation). Inclusion Criteria: All women who received parenteral iron infusion in the clinic in the specified period. IDA was confirmed through laboratory investigations. The clinic uses guidelines and protocols to ensure eligibility and patient safety. Exclusion Criteria: Patients with haemoglobinopathies, individuals who declined treatment, and those who have any contraindication to iron therapy



Results

We included 194 patients
Antenatal patients were 172 and 22 postnatal.

Oral iron intake prior to infusion was documented for 141 patients (73%).
Pre-infusion iron studies were documented for 183 out of 194 patients (94%).
Post-infusion iron studies were documented in 104 patients (54%).

The mean pre-infusion haemoglobin (Hb) level was 100 g/L, with a range of 64 g/L to128 g/L.

Post-infusion Hb levels averaged 105.5 g/L, ranging from 90 g/L to 152 g/L.

Among the antenatal cohort, 158 patients (92%) did not require further iron infusions, whereas 14 patients (8%) required additional treatment.

Discussion

The dedicated Iron Infusion Clinic streamlines the management of IDA. It ensures timely treatment without need for hospital admission, which, reduces bed occupancy and the associated costs. It also improves access for pregnant and postpartum individuals to have iron treatment and it can enhance maternal health. A potential for expansion of such clinic was found and additional screening measures such as vitamin B12 levels, which are not routinely assessed in the clinic (around10% of patients) A recommendation of optimising referral pathways to meet evolving needs, were included. In conclusion, outpatient iron infusion clinics provide an effective and efficient approach to managing IDA, with enhancement in patient's satisfaction and financial benefits. While retrospective data collection has limitations, the use of the EPIC system enabled robust data ascertainment. Future research will focus on complications, inpatient stay duration, and hospital readmissions to further refine service delivery

