Tackling Iron Deficiency Anaemia in Pregnancy

Belfast Health and Social Care Trust
caring supporting improving together

Royal-Jubilee Maternity Service

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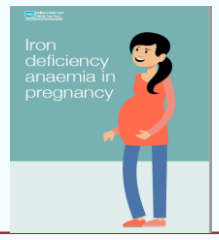
Introduction

Our preliminary study resulted in a list of patient most likely to be at risk of iron deficiency anaemia, showing 34% who had a normal Hb, in the presence of a low ferritin reading.
A comparison of 100 (not just at risk) patients Hb results before and after the study was also undertaken.

Non-anaemic women with high risk of iron depletion:

- Previous Iron Deficiency Anaemia (IDA)/ PPH/ IV iron infusion/Blood Transfusion
- Multiparity >3
- Consecutive pregnancies < 1 yr following last delivery
- Vegetarian/Vegan diet
- Teenage pregnancies
- Recent history of bleeding
- Multiple pregnancy

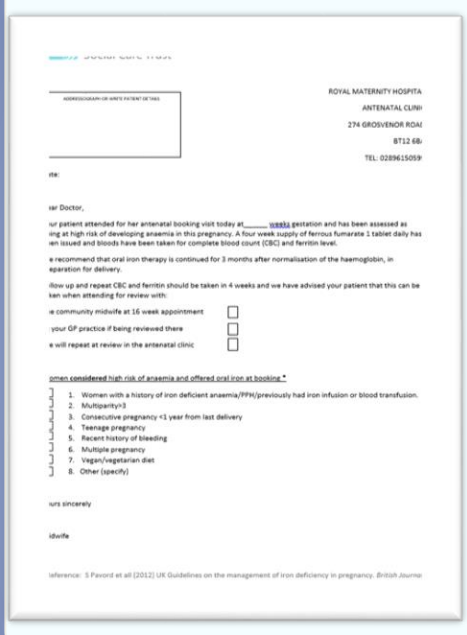


Objective

To reduce the incidence of women presenting in labour/for delivery with anaemia Hb <105g/l by identifying those at risk of becoming anaemic during the pregnancy, from booking onwards

Method

In October 2019, the study below was carried out in 200 antenatal patients in the above iron depletion-at-risk patient groups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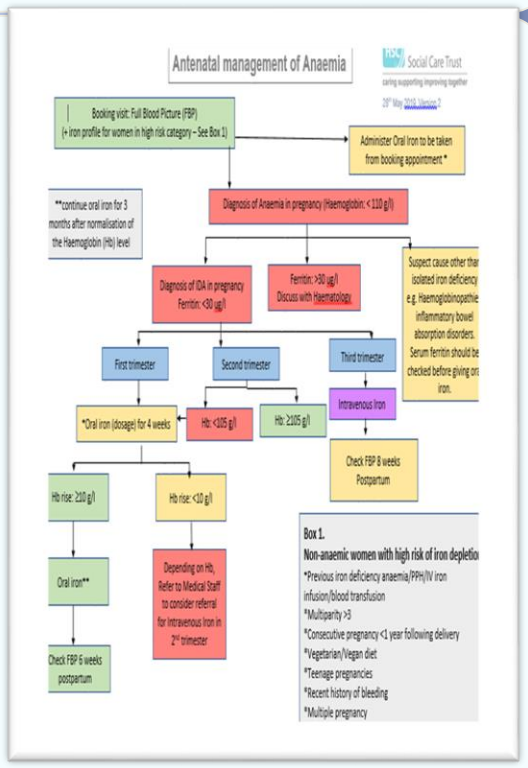
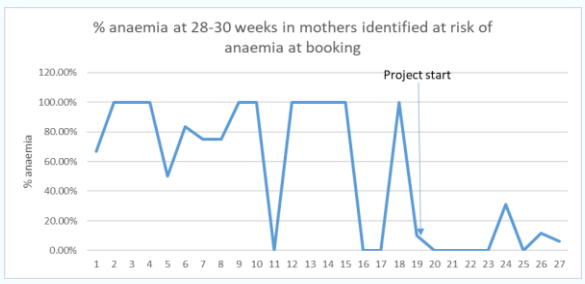
omen considered high risk of anaemia and offered oral iron at booking *

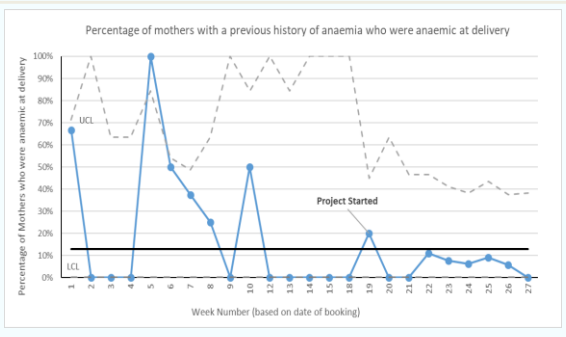
1. Women with a history of iron deficient anaemia/PPH/previously had iron infusion or blood transfusion.
2. Multiparity>3
3. Consecutive pregnancy <1 year from last delivery
4. Teenage pregnancy
5. Recent history of bleeding
6. Multiple pregnancy
7. Vegan/vegetarian diet
8. Other (specify)

1. A ferritin level was taken with routine blood count on first presentation
2. Women counselled about the risk of anaemia
3. One month supply of oral iron was offered
4. New patient information leaflet on iron deficiency in pregnancy was developed and given to women with iron
5. Letter & Medicine's kardex in patients notes
6. Letter sent to GP to request further iron issued throughout pregnancy
7. Follow up bloods Full Blood Count & ferritin 16-20wks /28 / at term
8. Contra-indications to oral iron discussed with Dr before issue e.g. (GI issues/ haemoglobinopathies/ haemochromatosis)



Results





While these results were promising, we realised the project results were on the at-risk patients only, so we compared 200 of all patients 6 weeks of the pre-trial results against 200 of all patients in the 6 weeks results during the trial

Number of women with anaemia	Pre Trial 659 6 weeks postnatal- 91	During the trial 590 6 weeks postnatal- 34
Hb <105 at 28 weeks	71 (10.7%)	23 (3.9%)
Identified anaemic women with risk factors	41 (45%)	15 (44%)
Anaemic at delivery	32 (4.9%)	6 (1%)
Postnatal Hb <100	36 (5.4%)	7 (1.1%)
IV iron	10 (1.5%)	4 (0.4%)

Conclusions

We agreed there was enough evidence of improvement to roll out a modified form of risk assessment/issue of iron from booking for these risk groups which commenced on 8/3/21. This approach has been adopted across the region, the process is now embedded in four other Health and Social Care Trusts across Northern Ireland.

Next Steps

- Assess if any reduction in blood transfusions **(previously unable to confirm a reduction in use)**
- Monitor administration of iron activity and ensure any low ferritin results identified at booking appointment are followed up
- Emphasise to women the need to take oral iron administered
- Continue to raise the profile of iron deficiency/anaemia for all maternity professionals
- Administration of IV iron to be implemented in the immediate postnatal period for women who have had PPH>1500ml and multiple births
- Undertake a review of women receiving treatment for the previous 12 month period

References

Auerbach M, Boccia RV, How Should We Treat Pregnant Women With Iron Deficiency? - ASH Clinical News