1 Reason for the review

Choice of iron preparation is based on cost and incidence of side effects (BNF 71). There is little difference in efficiency of absorption of iron between the different salts. Modified release preparations have no therapeutic advantage and the low incidence of side effects could be attributed to the lower absorption levels of iron associated with their use. Side effects of iron tablets include nausea, constipation and diarrhoea but this can usually be managed by dose reduction.

Ferrous fumarate in the form of ‘Fersaday’ or ‘Galfer’ are the most cost-effective choices of iron preparation. Iron salts should be given orally until the haemoglobin level is within the reference range and then maintained for 3 months to replenish iron stores. After this the iron can be stopped (BGS guidelines).

Ongoing prophylactic doses can be considered for those considered to be at particular risk of iron deficiency eg malabsorption, menorrhagia, pregnancy, after subtotal or total gastrectomy, in haemodialysis patients, and in the management of low birth weight infants such as preterm neonates (BNF 71).

This review will identify patients suitable for stopping therapy as well as those suitable for switching to a more cost effective preparation. Patients taking long term prophylactic doses will also be reviewed in terms of ongoing need.

NOTE: CKS advises against taking high dose ascorbic acid supplements with iron because the combination may cause epigastric pain. This review will also highlight any patient’s co-prescribed ascorbic acid.

<table>
<thead>
<tr>
<th>Iron preparation</th>
<th>Cost of therapeutic dose (28 days)</th>
<th>Cost of prophylactic dose (28 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous sulphate 200mg tablets</td>
<td>200mg tds (£8.55)</td>
<td>200mg od (£2.85)</td>
</tr>
<tr>
<td>Ferrous fumarate 305mg caps (Galfer)</td>
<td>One cap twice daily (£1.30)</td>
<td>One capsule daily (65p)</td>
</tr>
<tr>
<td>Ferrous fumarate 322mg tabs (Fersaday)</td>
<td>One tablet twice daily (£1.90)</td>
<td>One tablet daily (95p)</td>
</tr>
<tr>
<td>Ferrous fumarate 210mg tabs (Fersamal)</td>
<td>One tablet three times a day (£2.75)</td>
<td>One tablet twice daily (92p)</td>
</tr>
<tr>
<td>Ferrous gluconate 300mg</td>
<td>4-6 tablets daily in divided doses (£7.80 – £11.7)</td>
<td>Two tablets daily (£3.90)</td>
</tr>
</tbody>
</table>

2 Inclusion Criteria

Search for all patients prescribed any iron preparation with or without ascorbic acid on repeat prescription within the last 6 months. Record last haemoglobin result and ferritin against lab reference range specified. (Ferritin levels may be raised in liver inflammation therefore CRPs and LFTs should normally be taken and if these are raised the ferritin may be falsely high). Patients whose haemoglobin, ferritin, CRP and LFTs are within normal range would be suitable for discontinuation of iron replacement therapy (BGS Guidelines)

Caution with patients suffering from inflammatory bowel disease, intestinal strictures and diverticular disease as oral iron can exacerbate diarrhoea – this not an exclusion, but may benefit from careful dose titre.

3 Exclusion Criteria

- Previous intolerance to ferrous fumarate.
• Compliance issues – refer to GP
• Patients with terminal cancer
• Previous switch to an alternative product which caused distress
• Any individual patient exclusions deemed necessary by the GP. (e.g. patients who are deemed to be not open to change, as judged by the GP)

4 Preparation and planning

Implementation of audit in selected GP practices Prescribing Support Team is as follows:

• Protocol to be discussed with all GPs in the practice to ensure that agreement to proceed is reached
• Computer search of all patients according to the inclusion criteria
• Review of patients medical notes and repeat prescribing records
• Two lists produced:
  o List of patients on an iron preparation who are eligible to switch to more cost effective alternative.
  o List of patients for whom there is no longer a valid indication for receiving iron salts (Haemoglobin, Ferritin, CRP and LFTs all normal range – check local laboratory reference values). This list will also include any patients co-prescribed ascorbic acid. Inform GP to arrange medication to be stopped.
• List of eligible patients to be checked by GP/GPs
• Letters to be sent to eligible patients and switch or stop to be undertaken on the computer system (Appendix 1 and 2)

5 Action

Letters written to all patients outlining the reasons for the switch or stopping to ensure they are fully informed and given an opportunity to discuss the switch with either their GP or practice pharmacist. (Appendix 1 and 2)
Admin staff in practices to be made aware of changes of repeat medication.
Local pharmacies to be informed of need to reduce stock and of counselling for patients (copy of patient letters supplied)
Report for practices will include number of switches made by the pharmacist/technician and projected cost savings as a result of the recommendations.


Review to be undertaken by: GP Authorisation: Date:
Appendix 1: Patient letter if stopping iron preparation.

Patient name
Address

Dear Mr/Mrs __________

As part of a review of prescribing, NHS Dumfries and Galloway are currently reviewing all patients prescribed iron supplements for the treatment or prevention of iron-deficient anaemias.

Iron is given to allow your haemoglobin to get to a normal level in the body. Iron should be given for at least 3 months to allow your body to replenish its iron stores, but after this time it is safe to stop, as long as your haemoglobin had reached a normal level.

We have identified that you no longer need to continue taking your iron supplement after you have finished your current pack of treatment and have therefore removed it from your repeat medication list, with your doctor’s approval.

This change has been made to ensure that people are not taking medicines unnecessarily and it also helps doctors to make the most effective use of available resources.

Should have any queries, please contact the Surgery on the number above or, alternatively, you can contact a member of the Prescribing Support Team on

Yours sincerely

Name

Prescribing Support Technician
On behalf of the Doctors
Appendix 2: Patient letter if changing iron preparation.

Patient name
Address

Dear Mr/Mrs __________

As part of a review of prescribing, NHS Dumfries and Galloway are currently reviewing all patients prescribed the iron supplement, ferrous sulphate for the treatment or prevention of iron-deficient anaemias.

The next time you request ferrous sulphate tablets you will notice we have changed your prescription to ferrous fumarate tablets.

Ferrous fumarate gives you more iron per tablet, therefore you don’t need to take as many. It still provides your body with the required amount of iron needed to boost your iron stores.

This change has been made to help doctors to continue to use high quality treatments while making the most effective use of available resources.

We propose to introduce the change with your next prescription. Please finish your tablets as normal and then start the new tablets as directed.

Should have any queries, please contact the Surgery on the number above or, alternatively, you can contact a member of the Prescribing Support Team on

Yours sincerely

Name

Prescribing Support Technician
On behalf of the Doctors
<table>
<thead>
<tr>
<th>SURGERY:</th>
<th>DATE:</th>
<th>UNDERTAKEN BY:</th>
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</thead>
<tbody>
<tr>
<td>Patients name/DOB</td>
<td>Prescribed medication and dosage</td>
<td>Indication</td>
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