

A review of patients' medication history over a 2 month period in an HIV Clinic

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Aim

To establish if patients' declared drug history differentiated from the GPs electronic medication history, to determine if there were any discrepancies and to check for any Drug-Drug interactions using the Liverpool website.

Definition

MEDICINES RECONCILIATION ~ Is the process of creating the most accurate list possible of all medicines a patient is taking and comparing this with another source, such as a repeat prescription with the goal of recognising any discrepancies, documenting any changes and providing the patient with correct and safe medication.

Background

The goal of medicines optimisation is to help patients to:

- Improve their outcomes;
- Take their medicines correctly;
- Avoid taking unnecessary medicines;
- Reduce wastage of medicines;
- Improve medicines safety.

Method

Over a 2 month period, we undertook as many medication reviews as possible. Patients were asked their full drug history including inhalers, nasal sprays, injections, creams, indigestion remedies, over the counter, herbal, recreational, medicines purchased abroad or via the internet. Patients were also asked to consent to allow us to view their medication records with the GP electronically using the SCR (summary care record) or the hospital's electronic patient records.

The patient's drug history was compared to the GP record and any discrepancies noted. The medications were then checked against their Anti-retroviral medicines (ARVs) using the Liverpool website to see if there were any drug-drug interactions (DDIs).

Results

- 83 patients had a full drug history recorded.
- 10 patients (12%) were on no other medicines.
- 16 patients (19%) were only on OTC/Herbal/recreational medicines and were found to have no drug-drug interactions with their ARVs.
- 57 patients (69%) were on at least 1 other prescribed medicine.
- 18 of these 57 patients (32%) had polypharmacy (more than 5 concurrent medicines).
- 32 out of the 57 patients (56%) had no DDIs.
- 25 of the 57 patients (44%) patients had a potential interaction with their ARVs.
 - Majority of interactions were due to PIs and pharmacokinetic boosters.
- 6 patients had multiple DDIs and all of these were from the polypharmacy group.
- There were a total of 7 significant interactions that required action:
 - 4 required documentation to the GPs for careful monitoring or dose adjustment
 - 2 required the concomitant medication to be changed
 - 1 patient needed immediate change of their ARVs to avoid a serious DDI.
- 5 out of 83 patients (6%) had a verbal drug history which varied from their GPs record with 1 of them having a potentially serious undisclosed DDI.

Actions

- 1. Potential interaction between Rezolsta and Atorvastatin and Metformin**
 - Potential interaction between Rezolsta and Atorvastatin and Metformin.
 - Letter sent to GP to highlight the need to keep Atorvastatin to the lowest dose and monitor blood glucose, Metformin toxicity and dose adjustment if required.
- 2. Patient on Descovy/Nevirapine and 7 other medicines**
 - Interaction between Nevirapine and Amlodipine & Femoston.
 - Letter to GP to monitor effects and reduce doses where needed.
- 3. Patient on Genvoya & 11 other medicines**
 - Pharmaceutical booster Cobicistat in Genvoya being the main issue causing increase in drug exposure of many of the other medicines.
 - Letter to GP to monitor effects and adjust doses where appropriate.
- 4. Patient on Darunavir/Ritonavir & Femoston and Sertraline**
 - Ritonavir increases Dydrogesterone & Estradiol levels of Femoston which could potentially increase risk of DVT/Stroke.
 - Letter to GP to use lowest dose and Postmenopausal women should be re-evaluated periodically as clinically appropriate to determine if treatment is still necessary.
- 5. Eviplera & undisclosed Gaviscon**
 - Patient only disclosed using Gaviscon, as we asked about indigestion remedies.
 - Gaviscon can significantly reduce Rilpivirine levels ~ Patient told not to take Gaviscon at the same time as Eviplera but to take at least 4hrs after Eviplera dose.
- 6. Patient on Triumeq and 13 other medicines.**
 - Patient on Calcium, Iron and Vit D supplements. These can decrease the Dolutegravir concentration by ~ 37%.
 - Advice was to take Dolutegravir 2hrs before or at least 6 hours after the administration of the supplements.
- 7. Patient on Stribild plus 6 other medicines plus recreational drugs**
 - The Pharmaceutical booster Cobicistat in Stribild, can increase the concentration of Atorvastatin and mildly increase the levels of Bisoprolol. The dose of Atorvastatin should not exceed 40mg and there is no dose adjustment required for Bisoprolol.
 - There is a major interaction between Cobicistat and recreational drugs. Levels of recreational drugs could potentially be increased to fatal levels.
 - Changed Patient's Stribild to Truvada & Dolutegravir ~ Now No DDIs.

Conclusion

7 (8%) patients had DDIs which were avoided by conducting a full drug history obtained from both the SCR and patient. 3 of which were potentially serious and hence the patients had either their ARVs or their concomitant medication changed.

This demonstrates that having a specialist HIV pharmacist available to screen ARV prescriptions is valuable and it is imperative to conduct a full drug history each time a patient receives an ARV prescription as drug histories change and undisclosed medicines could have potential serious drug interactions.