

Doncaster & Bassetlaw Teaching Hospitals

NHS Foundation Trust

PRESCRIBING MATTERS

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Keeping Prescribers up-to-date on Medicines Management Issues

Transdermal Fentanyl Patches: Life Threatening & Fatal Opioid Toxicity from Accidental Exposure, Particularly in Children

MHRA continues to receive reports of unintentional opioid toxicity and overdose of fentanyl due to accidental exposure (AE) to patches. Patients/caregivers should be given clear information about how to minimise risk of AE and importance of appropriate disposal of patches. The advice for healthcare professionals to give to patients and carers include:

- always fully inform patients and caregivers about directions for safe use for fentanyl patches, including the importance of:
 - not exceeding the prescribed dose
 - following the correct frequency of patch application, avoiding touching the adhesive side of patches, and washing hands after application
 - not cutting patches and avoiding exposure of patches to heat including via hot water (bath, shower)
 - ensuring that old patches are removed before applying a new one
 - following instructions for safe storage and properly disposing of used patches or those which are not needed (see instructions below)
- ensure patients and caregivers are aware of the signs and symptoms of fentanyl overdose (see below) and advise them to seek medical attention immediately (by dialling 999 and requesting an ambulance) if overdose is suspected

- in patients who experience serious adverse events, remove patches immediately and monitor for up to 24 hours after patch removal
- report any cases of accidental exposure where harm has occurred or suspected side effects via the Yellow Card Scheme

For more information please use the following link: <https://bit.ly/2yyTuro>

Locally, we have had further incidents where patients have erroneously had patches applied without removal of the previous patch. If you are involved in administration, please ensure that the patch checks on JAC take place and that old patches are removed.

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Lock It Up

We all know the importance of medicines security. A recent incident illustrates why this is important to our patients!

The nurse administering the morning dose of oral antibiotics popped the first tablet into a pot for the patient to take but left the sealed foil pack on the patients table. The patient took the antibiotic from the pot as well as the antibiotics in the strip.

In this incident the patient suffered no harm but had this been a different drug or a much larger quantity been available to take it could have been different.

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Gentamicin Prescribing

We have recently had a number of incidents where the dose of gentamicin was incorrectly prescribed. The common error is that prescribers appear to be unsure which weight to use. This should be the lowest of the ideal and actual body weights. The full prescribing guidance is available via:

<https://bit.ly/2RB84GV>

The guidance is in the process of being both simplified and updated.

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Tacrolimus / Clarithromycin Interaction

Within the last year, we have had at least two incidents where tacrolimus has been co-prescribed with clarithromycin. Tacrolimus is an immunosuppressant used for transplant patients (amongst other indications) and levels need to be regularly monitored. If tacrolimus levels are increased then there is a risk of acute kidney injury and, ultimately loss of the graft.

The first incident was a gentleman who came in very unwell and was given clarithromycin for a presumed pneumonia for 3 days before being diagnosed with a perforated oesophagus. He was on tacrolimus for his kidney transplant. After 3 days of clarithromycin treatment, his kidney function deteriorated and tacrolimus levels were increased 6 fold. Unfortunately, this caused him to require dialysis for the remainder of his life as the kidney graft never recovered from the insult.

The second incident was a gentleman who presented at the OoH GP and was prescribed clarithromycin. After 3 days of clarithromycin he came into hospital with an acute kidney injury and elevated tacrolimus levels. In this case, kidney function did recover. **Action:**

- Be aware that tacrolimus does interact with clarithromycin (and other medications too) and so the combination should be AVOIDED.
- Before prescribing ANY MEDICINE take a careful medical history and consider the consequence of the combination with high risk medicines such as tacrolimus
- Seek specialist advice if you know the patient is on a high risk medicine such as tacrolimus: this could be a renal consultant, pharmacist or contact Medicines

Information. Microbiology are also a useful source of advice for seeking alternatives to interacting antibiotics.

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Sulphite Allergy

Sulphites are additives used in food, drinks and medicines, usually as preservatives or colouring. They include the following compounds:

E220 Sulphur dioxide	E226 Calcium sulphite
E221 Sodium sulphite	E227 Calcium Hydrogen sulphite
E222 Sodium hydrogen sulphite	E228 Potassium hydrogen sulphite
E223 Sodium metabisulphite	E150b Caustic Sulphite caramel
E224 Potassium metabisulphite	E150d Sulphite ammonia caramel

The European Commission guideline on 'Excipients in the labelling and package leaflet of medicinal products for human use' states that manufacturers are required to include in the PIL 'may rarely cause severe hypersensitivity reactions and bronchospasm' for products containing any level of sulphite. However, there is no current requirement to state the concentrations of sulphite excipients used in pharmaceutical products. Sulphite preservatives are more common in oral solutions and injectable preparations, which can contain as much as 1.6mg/ml.

Anaphylaxis UK suggests that true sulphite allergy is extremely rare in the general population. Adverse reactions to sulphites have been estimated to be less than 2%. This is increased in the asthmatic population (up to 3-10%) with reactions likely to be more severe. For patients who report a history of sulphite allergy:

- This should be recorded on the Hazard Sheet in the front of patients' medical records and on the current prescription.
- Before prescribing new medicines, prescribers should check with a Pharmacist or the Trust's Medicines Information Service to determine if the intended medicine contains sulphite and to discuss potential alternative medicines.

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