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## Monitoring risk of MI in patients receiving antipsychotics

Antipsychotics are used for the treatment of schizophrenia, behavioural and psychological symptoms of dementia and mood disorders. They have been associated with cardiovascular side effects such as tachycardia, arrhythmias, hypotension and QT-interval prolongation. Cases of sudden death have occurred.<sup>1</sup>

Antipsychotic use has also been associated with an increased mortality rate and risk of cerebrovascular events in people with dementia as described in a previous article [LPB Issue 75, September 2015](#).

Antipsychotics should be initiated with caution in the first episode (i.e. start with low dose), and monitored carefully due to the risk of adverse effects.



NICE recommends monitoring weight, waist circumference, pulse, blood pressure, glucose tolerance, movement disorders, nutritional status, and an ECG is sometimes recommended.<sup>2</sup>

**A recent systematic review and meta-analysis of nine observational studies** found that antipsychotic medicines were associated with a statistically significant increase in risk of MI (odds ratio 1.88, 95% CI 1.39 to 2.54,  $p < 0.001$ ), and risk appears to be greatest within the first 30 days of taking the medicine and in people with a diagnosis of schizophrenia.<sup>3</sup>

### The following findings were reported:

- The risk of MI was not significantly increased in patients with mood disorders
- Amisulpride was associated with the greatest risk
- Evidence was inconclusive on whether risk is dose-dependent
- Clinicians should ensure antipsychotics are only prescribed for patients with a clear indication and exercise caution in those with an underlying increased MI risk
- The relatively modest increased absolute risk of MI is unlikely to alter the benefit-risk balance when antipsychotics are used appropriately.

### Key messages

- 🔑 **Antipsychotic use has been shown to increase the risk of MI within the first 30 days of treatment.**
- 🔑 **Choice of antipsychotic should be considered on an individual patient basis, taking into account cardiovascular risk.**
- 🔑 **Cardiovascular monitoring is essential with antipsychotic treatment.**
- 🔑 **Serious adverse events should be reported via the Yellow Card Scheme**  
<https://yellowcard.mhra.gov.uk/yellowcards/reportmediator/>

### References

1. British National Formulary [www.medicinescomplete.com](http://www.medicinescomplete.com)
2. Psychosis and Schizophrenia in Adults: Prevention and Management. National Institute for Health and Care Excellence clinical guideline 178. Updated March 2014. [www.nice.org.uk/guidance/cg178](http://www.nice.org.uk/guidance/cg178)
3. Yu, Z-h *et al.* Use of antipsychotics and risk of myocardial infarction: a systematic review and meta-analysis. *Br J Clin Pharmacol.* 2016;82:624-32. <http://onlinelibrary.wiley.com.proxy.knowledgeservices.org/doi/10.1111/bcp.12985/full> [Athens login]

*Thanks to Hayley Miller and Katherine Kemp, Pre-registration Pharmacist Trainees and Tracy Duff, Lead Pharmacist, for contributing this article.*

## Gonaderelin analogues – first choice is Prostav® DCS (leuprorelin)

[LJF section 8.3.4.2 Prostate cancer and gonadorelin analogues](#) was updated in December 2016. The first choice is now leuprorelin (Prostav® DCS brand) and the second choices are goserelin or triptorelin. This change followed a recommendation in August 2016 by the Effective Prescribing Programme (EPP), a Scottish consensus approach to the use of medicines in a range of therapeutic areas. The national recommendation relates solely to new patients. Implementation of the recommended first-line agent will support boards in accessing the best available price for these medicines in the short term as well as driving down prices over the longer term.

### Key messages

- Leuprorelin (Prostav® DCS brand) is now first choice for new patients.
- Prescribe by brand - Prostav® DCS.
- Endocrine therapy, including gonaderelin analogues, must only be initiated on the advice of a hospital specialist.

## Wound formulary



The [Lothian Joint Formulary Wound Dressings and Bandages](#) section has been reviewed and updated.

Changes include revised first choices for foam dressings, hydrogel dressings and vapour-permeable films and membranes. Desloughing options and enzymatic antimicrobial dressings have both been added.

The complete section has been printed as a handy A5 sized reference booklet. This includes a colour coded chart showing the suitability of the dressing for different types of wound.

The updates will be supported with a promotional poster and a pocket reference card which will be distributed to relevant clinical areas. Please contact your [Tissue Viability Nurse](#) if you require additional copies.

## Risk of hyperkalaemia with concomitant spironolactone and ACEi or ARB

A new prescribing note '*Concomitant use of spironolactone with angiotensin converting enzyme inhibitor (ACEi) or an angiotensin receptor blocker (ARB) increases the risk of severe hyperkalaemia, particularly in patients with marked renal impairment, and should be used with caution*' has been added to [LJF section 2.2.3 adult](#) and [LJF section 2.2.3 child](#) to reflect updated MHRA guidance.<sup>1</sup>

The guidance also clarifies that this advice applies for concomitant use of the aldosterone antagonist **epplerone** with ACEi or ARB in heart failure.

### Reference

1. Drug Safety Update volume 10 issue 4, December 2016: 2. Medicines and Healthcare products Regulatory Agency. [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/577417/pdf\\_Dec.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/577417/pdf_Dec.pdf)

## Prednisolone - oral liquid replaces soluble tablets

Prescribers are reminded that soluble prednisolone tablets are no longer recommended in the LJF for adults or children. Prednisolone liquid offers a more cost effective alternative for patients who are unable to swallow tablets. It is available in **two strengths**, 1 mg/mL and 10 mg/mL. Prescribers and pharmacists should ensure the appropriate strength of oral liquid is prescribed and counsel patients accordingly.

LJF update

## Paediatric update

### 4.7 Analgesics

NSAIDs should be avoided in children suffering from varicella due to a suggested link between NSAIDs and skin and soft tissue complications of varicella.

Soluble diclofenac is no longer available.

Codeine and dihydrocodeine for the treatment of moderate pain have been removed and are now replaced by oral morphine. This follows MHRA/CHM advice (July 2013).

### 6.1 Drugs used in diabetes

#### 6.1.1 Insulins

Abasaglar® 100 units/mL, a biosimilar product, has been added as the first choice insulin glargine.

The section on hypoglycaemia has been updated. Information is included on continuous subcutaneous insulin infusions - see the Lothian paediatric diabetes handbook [[link](#)].

*Thanks to Diane Murray, Formulary Support Pharmacist, for contributing this article.*

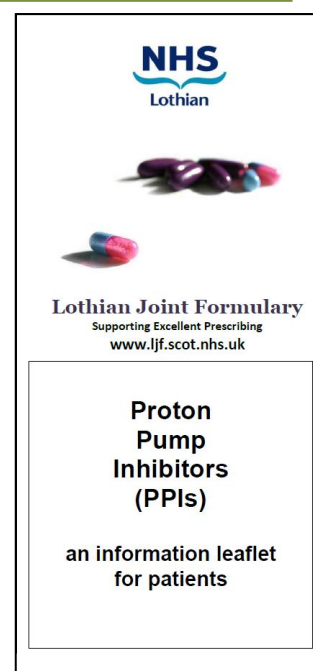
### Updated Proton Pump Inhibitor leaflet

Concern continues regarding the long-term risks associated with the use of Proton Pump Inhibitors (PPIs). Studies have linked their use with an increased fracture risk and increased risk of infection with the bacterium *Clostridium difficile*. NICE updated its guideline on the management of gastro-oesophageal reflux disease and dyspepsia in adults in 2014 and their recommendations included:

- Maximum (treatment) doses should only be used for up to eight weeks.
- Maintenance treatment should be with the lowest possible dose which will control symptoms.
- Using a PPI 'as needed' should also be considered.
- Patients who need long-term management of dyspepsia symptoms should be offered an annual review of their condition, and encouraged to try stepping down or stopping treatment (unless there is an underlying condition or co-medication that needs continuing treatment).

The patient information leaflet on PPIs has been updated to help support and encourage stepping down or stopping PPI treatment. The leaflet is available [here](#).

*Thanks to Hazel Garven, Prescribing Support Pharmacist, for contributing this article.*



## Antidepressants and NSAIDs - caution in combination

There is an increased risk of **upper gastrointestinal bleeding** when some antidepressants (SSRIs, venlafaxine, or duloxetine) and an NSAID are taken concomitantly. If an NSAID is considered necessary, weigh the risks and benefits of treatment and consider prescribing gastroprotection.<sup>1</sup> In particular, consider prescribing a gastroprotective drug in older people who are taking NSAIDs or aspirin.<sup>2</sup>

Neither SSRIs nor NSAIDs alone have been found to be associated with an increased risk of **intracranial haemorrhage** (ICH). However, a retrospective study, found that the combined use of antidepressants in general and NSAIDs was associated with a small but statistically significant increased risk of ICH within 30 days of initial combination.<sup>3</sup>

#### References

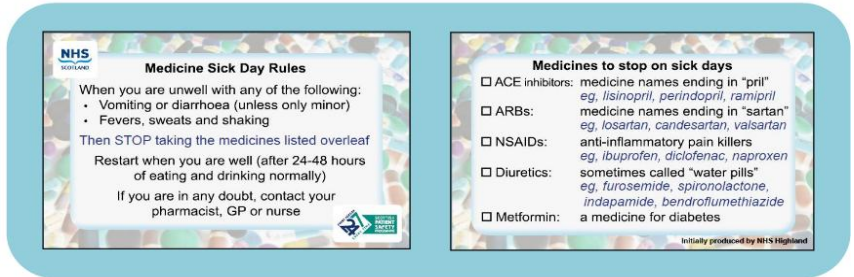
1. Clinical Knowledge Summaries. NICE. <https://cks.nice.org.uk/nsaids-prescribing-issues#!scenario>
2. Depression in adults: recognition and management. Clinical guideline [CG90]. Updated April 2016. [www.nice.org.uk/guidance/cg90](http://www.nice.org.uk/guidance/cg90)
3. Shin J-Y. Risk of intracranial haemorrhage in antidepressant users with concurrent use of non-steroidal anti-inflammatory drugs: nationwide propensity score matched study. BMJ2015; 351:h3517. [www.bmj.com/content/351/bmj.h3517](http://www.bmj.com/content/351/bmj.h3517)

# Medicine sick day rules card

## Survey shows local community pharmacies come up trumps

The medicine sick day rules (MSDR) card aims to reduce the incidence of acute kidney injury by providing advice on the temporary cessation of commonly prescribed medicines while suffering from a dehydrating illness.

A recent project was carried out to evaluate the implementation of the MSDR card in NHS Lothian community pharmacies.<sup>1</sup> An electronic survey was distributed to all 182 community pharmacies. The response rate was 40% (n=73).



### Findings

- Over 90% of respondents had heard of the card, had received a supply, and understood the key messages.
- 80% of respondents were providing the card to patients with the pharmacist being reported as the principal provider. Pre-registration trainee pharmacists, pharmacy technicians and support staff were also providing the card.
- Self-selection of the card at the medicines counter was also identified as a method of supply. This is not a recommended method of supply as patients should be counselled on how to use the card.
- Two respondents reported instances of patients not restarting medicines on the basis of advice stated on the card.

### Key messages

- 🔑 Based on the survey findings, there is good awareness of the MSDR card in community pharmacies.
- 🔑 The majority of pharmacies are providing the card to patients.
- 🔑 Self-selection of the card is not a recommended method of supply.
- 🔑 Further training of pharmacy staff may be helpful to further promote the card and reduce potential misinterpretation of the guidelines by patients.

For further information on the use of the card in primary care please contact:

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### Reference

1. Smyth, G. Prevention of acute kidney injury in primary care: a qualitative and quantitative evaluation of the implementation of medicine sick day rules card in NHS Lothian. 2016.

### Further Information

- Avoid acute kidney injury: stop medicines... then start again. Lothian Prescribing Bulletin. September 2015. Issue 75. [www.ljf.scot.nhs.uk](http://www.ljf.scot.nhs.uk)
- Medicine Sick Day Rules Card. Scottish Patient Safety Programme. [www.scottishpatientsafetyprogramme.scot.nhs.uk/programmes/primary-care/medicine-sick-day-rules-card](http://www.scottishpatientsafetyprogramme.scot.nhs.uk/programmes/primary-care/medicine-sick-day-rules-card)

Thanks to Jenny Bowman and Erin Fraser, Pre-registration Pharmacists, Gráinne Smyth, Specialist Clinical Pharmacist and Karen Reid, Lead Integrated Care Pharmacist, for contributing this article.

## Supplement:

### Recent SMC and Lothian Formulary Committee Recommendations

The supplements can be accessed via the LJF website [www.ljf.scot.nhs.uk](http://www.ljf.scot.nhs.uk) in 'Prescribing Bulletins'.

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