Proton pump inhibitor (PPI) prescription volume continues to grow in Northern Ireland. One of the main reasons for this increase appears to be greater awareness of the need for gastroprotection, particularly in relation to oral NSAIDs and antiplatelets. The most common adverse effects of NSAIDs are, dyspepsia and other upper gastrointestinal (GI) complications such as ulcer, perforation, obstruction or bleeding. But when is gastroprotection required?

Gastroprotection for NSAIDs?
If the person is at increased risk of GI adverse effects (see box below) and requires a NSAID, co-prescribe a PPI.

Gastroprotection for < 45 year olds?
- Patients aged < 45 years and at low risk of GI adverse events (i.e. no history of GI bleeding or presence of Helicobacter pylori infection and not taking aspirin, warfarin, or oral corticosteroids) may not need the concomitant use of a gastroprotective drug with a NSAID.

Gastroprotection for antiplatelet therapy?
- Patients with a high risk of GI adverse effects taking low-dose aspirin alone or in combination with ticagrelor or prasugrel: co-prescribe a PPI for gastroprotection.
- Patients with a high risk of GI adverse effects taking clopidogrel alone or in combination with low-dose aspirin:
  - Co-prescribe lansoprazole 15 mg daily (increasing to 30 mg only if 15 mg is insufficient).
  - Avoid co-prescribing of omeprazole (or esomeprazole) with clopidogrel.
  - Alternatively, consider prescribing a double-dose H2-receptor antagonist (but not cimetidine) instead of a PPI, e.g. ranitidine 300 mg twice daily [off-label dose].

Action
- To aid medication review and to ensure that PPIs aren’t continued beyond therapeutic need it is recommended that, when co-prescribing with NSAIDs or antiplatelets for gastroprotection, this is made clear within the directions, e.g. “take one daily while taking ibuprofen”.

<table>
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<tr>
<th>Which patients are at high risk of GI adverse effects?</th>
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<td>One or more of the following risk factors:</td>
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<tr>
<td>- Aged 65 years or older.</td>
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<td>- History of gastroduodenal ulcer, GI bleeding, or gastroduodenal perforation.</td>
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<td>- Serious comorbidity, such as cardiovascular disease, hepatic or renal impairment (including dehydration), diabetes, or hypertension.</td>
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<tr>
<td>- Presence of Helicobacter pylori infection.</td>
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<tr>
<td>- Concomitant use of medications that are known to increase the risk of GI bleeds, e.g. aspirin (even 75mg/day), warfarin, NOACs, corticosteroids, SSRIs.</td>
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<th>What dose of PPI should I prescribe for gastroprotection for a NSAID?</th>
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<tr>
<td>Lansoprazole</td>
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<tr>
<td>Omeprazole</td>
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<tr>
<td>Esomeprazole</td>
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<tr>
<td>Pantoprazole</td>
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<tr>
<td>Rabeprazole</td>
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MANAGED ENTRY DECISIONS

The following medicines were considered in February as part of the Northern Ireland Managed Entry process. For details of the outcomes please refer to the Managed Entry section of the NI Formulary website:

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Service Notifications issued in Northern Ireland for the following:
- NICE TA355: Edoxaban for preventing stroke and systemic embolism in people with nonvalvular atrial fibrillation
- NICE Guideline CG78 Addendum — Rheumatoid arthritis in adults: management
- NICE Guideline NG6 — Excess winter deaths and morbidity and the health risks associated with cold homes
- NICE Guideline NG23 — Preterm labour and birth.
- NICE Guideline CG144 (addendum) — Venous thromboembolic diseases: diagnosis, management and thrombophilia testing
- NICE Guideline CG150 (addendum) — Headaches in over 12s: diagnosis and management
- NICE Guideline NG28 — Type 2 diabetes in adults: management

Primary and Secondary Care
- Albiglutide (Eperzan®)
- Dulaglutide (Trulicity®)
- Ezetimibe (Efzon®)
- Insulin degludec/liraglutide (Xultophy®)

Secondary Care
- Atazanavir/cobicistat (Evotaz®)
- Erlotinib and gefitinib for non-small-cell lung cancer that has progressed following prior chemotherapy
- Netupitant + palonosetron (Akynzeo®)
- Radium-223 (Xofigo®)
- Raltegravir chewable tablets 25mg, 100mg (Isentress®)
- Raltegravir granules for oral suspension (Isentress®)

NEW NICE GUIDANCE

The following medicines were considered in February as part of the Northern Ireland Managed Entry process. For details of the outcomes please refer to the Managed Entry section of the NI Formulary website:

The MHRA have issued a new toolkit to ensure female patients are better informed about the risks of taking valproate medicines during pregnancy. This is to support the stronger MHRA warnings on the risks of valproate in pregnancy to females of child-bearing age:

- Valproate should not be used in female children or adolescents, or in women of childbearing potential and in pregnant women unless other treatments are ineffective or not tolerated.
- No-one should stop taking valproate without discussing first with their doctor.
- If valproate is the only option, women of childbearing age should be given effective contraception. Women taking valproate must have regular reviews of their treatment.

Action
- Carry out a search on GP clinical systems to identify female patients taking valproate. At the next review appointment, go through the checklist with the patient, and direct to the resources available online.

MANAGED ENTRY DECISIONS

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Every effort has been made to ensure that the information included in this newsletter is correct at the time of publication. This newsletter is not to be used for commercial purposes.

References
2. CKS. Antiplatelet treatment. October 2015
3. BSO. Drug Tariff, Feb 2016