

Correspondence

Low dose aspirin and the risk of GI complications

Dear Editor

I would be grateful for your advice regarding best practice for patients on long term aspirin. An increasing number of middle-aged and elderly patients are on long term low dose aspirin – and I wondered what the current advice was as to whether they should also be on long term PPIs.

If a patient is at a high risk of GI complications or has a history of dyspepsia, a proton pump inhibitor can be added to low dose aspirin therapy.

It is well established that low dose aspirin produces significant inhibition of gastric mucosal prostaglandins, even when taken as an enteric coated tablet. Therefore, low dose aspirin has the potential to induce gastric lesions and GI complications even in normal healthy subjects.

Some factors to consider when assessing GI risk with low dose aspirin include; a history of peptic ulcer or GI bleeding, significant co-morbidity and previous NSAID gastropathy. Peptic ulcer disease is of particular importance because it leads to recurrent episodes of dyspepsia and is associated with significant complications of bleeding and perforation.

NICE guidelines recommend that patients taking low-dose aspirin, who have a history of dyspepsia, would benefit from concurrent treatment with a proton pump inhibitor (NICE Clinical Guideline 17).

It is therefore important to assess each patient on an individual basis – check for red flags (BPJ Issue 4, April 2007), assess risk and take into account any symptoms and other medications.

It is always worth considering the potential for adverse effects, particularly in elderly people. The most common side effects of proton pump inhibitors include headache, diarrhoea and skin rashes. Proton pump inhibitors may also increase the risk of gastrointestinal infections and pneumonia because of their acid suppressive effects.

In summary, PPIs can be considered for patients on long-term low dose aspirin therapy, with a high risk of GI complications or a history of dyspepsia.

References

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IM injections

Dear Editor

Occasionally we need to give IM injections (other than immunisations) e.g. antibiotics or anti-emetics, to toddlers and young children.

1. *What is the preferred site and at what age can the gluteal site be used?*
2. *Is the use of lignocaine (plain) ok for dilution of antibiotics (adult use only) and if so, how much if say 4 ml total of fluid is required for the dilution?*

Unfortunately there is no simple answer to this. IM injections (excluding vaccines) are generally avoided in children. Many doctors would not use anti-emetics for children, particularly not IM. Their use is mainly postoperative, for oncology or for special situations such as cyclical vomiting. IM antibiotics would usually only be given in an emergency situation, for example suspected meningitis en route to hospital. However, GPs, especially in rural areas, may have a different situation and environment to deal with. Some antibiotics, for example benzathine penicillin, can only be given by IM injection.

Preferred site of IM injection in children

There is little information on recommended sites for IM injections other than vaccines in children. Manufacturers' data sheets will often have information on the recommended site of administration. The Ministry of Health Immunisation Handbook (2006) states that the recommended sites for IM vaccines are:

For children under 15 months of age, the vastus lateralis muscle on the lateral thigh is used

For children over 15 months, both the vastus lateralis and deltoid sites may be used – the choice will be based on the vaccinator's professional judgement

For older children, adolescents and adults, the deltoid muscle is used

For injections, other than immunisations, there is no clear guidance and it may be wise to consult MedSafe datasheets. However there are some general areas of agreement:

The dorsogluteal site (upper outer quadrant): use of this site is associated with significant risk of damage to the sciatic nerve and superior gluteal artery. There is often a deep layer of subcutaneous fat in this region and the injection may not reach the muscle, resulting in the drug being deposited in the subcutaneous fat.

This site should not be used in children.

The ventrogluteal site: this is a good site for intramuscular injections in adults and children over seven months. The site provides the greatest thickness of gluteal muscle, is relatively free of major nerves and blood vessels and is easy to locate. However there is little experience of use of this site in New Zealand and consequently it is not used often.

The lateral thigh (vastus lateralis): This site is safer than the dorsogluteal site and is recommended for intramuscular injection of adrenalin in anaphylaxis. Patients can be taught to self-inject in this area.

The deltoid: This site is safe for low volume injections of non-irritating solutions for older children and adults, provided the deltoid muscle mass is located with care.

Using lignocaine to dilute antibiotics

Anyone considering using lignocaine for dilution should refer to the specific datasheet of each medicine to ensure that dilution with lignocaine is approved and compatible with the injectable antibiotic. However, some data sheets do not include this information, stating only that the antibiotic should not be mixed with other medicines, while acknowledging pain on IM injection. Note that some antibiotics (e.g. Augmentin) should not be given by the IM route.

Most injectable drugs that allow the use of a local anaesthetic as a diluent, will specify the same volume of diluent, be it water for injection or 1% lignocaine, to reconstitute the powder. However, great caution must be applied when using lignocaine in an IM injection, as inadvertent IV administration may result in serious cardiac adverse effects.

This advice was developed in consultation with Dr David Reith, Paediatrician, Alan McClintock, Pharmacist and Barbara Warren, Immunisation Co-ordinator.

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