## MediFlags features: Sample clinical statements

Flags identify clinical scenarios encountered in medication reviews and are accompanied by background information (statements) and suggested recommendations (not included here) to those involved in caring for the patient. There are over 700 flags in MediFlags.

Statements and recommendations are intended as a starting point to populate the MediFlags printed report; they are capable of being edited according to the individual situation, a doctor's preferences, or to accommodate the specific HMR or RMMR environment. The MediFlags user can also add and customise their own flags and statements to the database for inclusion in reports.

Flag	Sample clinical statement
Inadequate response to standard dose PPI after 4-8 weeks	Check compliance in someone with inadequate symptom control. If response inadequate in severe oesophagitis, give double dose PPI for a further 4 weeks, then step down to lowest PPI dose that controls symptoms.  If response is inadequate in mild oesophagitis or endoscopynegative reflux disease, consider a 1-month trial of double dose PPI, standard dose H2 antagonist (doubling H2 antagonist dose does not increase efficacy in GORD), metoclopramide (caution in elderly) or domperidone as some patients may respond. In most cases combining a PPI with an H2 antagonist is less effective than increasing the PPI dose.  Consider referral for those with refractory or complicated disease.
Clopidogrel - PPI drug interaction	Proton pump inhibitors appear to reduce clopidogrel's antiplatelet activity by reducing formation of its active metabolite (R-130964). Low concentrations of R-130964, through either genetic lack of CYP2C19 activity or by inhibition of CYP2C19, may decrease clopidogrel's effect and increase the risk of cardiovascular events. Evidence is conflicting, partly due to bias inherent in the types of studies undertaken. Until more information is available, it is prudent to avoid the combination.
Insufficient codeine dose for adequate pain relief	There is no conclusive evidence that combination analgesics containing lower doses of codeine (eg less than 30 mg of codeine per tablet) with paracetamol, aspirin or ibuprofen have any benefits over these non-opioids alone.  Paracetamol is the first choice analgesic for mild-to-moderate pain.  NSAIDs are an alternative but use cautiously in older people due to increased risk of adverse effects (eg gastrointestinal ulceration, heart failure and renal impairment).
Chronic opioid use without regular laxative	Constipation occurs with chronic opioid analgesic use. Tolerance develops slowly, if at all. Always use a laxative in people requiring regular opioids long term. There is no evidence to show that one type of laxative is superior to another. However, fibre-containing laxatives, eg Metamucil®, are not appropriate for people who are debilitated, dehydrated or unable to tolerate increased fluid intake, due to risk of bowel obstruction.
PPI and effect on B12 levels	Decreased absorption of cyanocobalamin (vitamin B12) can occur with long term use of PPIs. It may take 2 years or more for B12 body stores to deplete in this setting. The neurological effects of B12 deficiency may precede any haematological effects.

Long term/regular hypnotic use	The benefits of hypnotics in insomnia are short-lived; hypnotic efficacy is lost after approximately 14 consecutive nights. More than 2 weeks regular use of benzodiazepines or benzodiazepine-related hypnotics may result in physical and psychological dependence and tolerance. The elderly are also at increased risk of oversedation, ataxia, confusion, falls, incontinence, respiratory depression and short-term memory impairment. Withdrawal effects and rebound insomnia may occur in about 45% of patients stopping low therapeutic doses.
Methotrexate in renal impairment	Methotrexate is contraindicated if creatinine clearance <10 mL/minute; dose reduction is required if creatinine clearance 10-50 mL/minute. Furthermore, the incidence of methotrexate-induced bone marrow toxicity rises with increasing age and is related to deteriorating renal function.
Fentanyl patch - correct application of: nursing notes	Write the date and time of application on the patch with permanent marker, then apply it to dry, hairless, non-irritated skin on the upper part of the body or upper arm. Do not use if patch is damaged or cut.  Do not apply after a hot bath or shower; when wearing the patch, do not allow it to come into contact with direct sources of heat such as electric blankets, heat pads, heat lamps, saunas. Monitor for increased adverse effects if patient is exposed to high ambient temperatures, external heat source or develops a fever.  Remove after 3 days (72 hours) and put a new patch on a different place. After removing a patch, avoid exposing that area of skin to the sun for 2 days as it may be more sensitive.
Sibutramine - effect on blood pressure and heart rate	Sibutramine is not recommended in older patients: it can cause cardiovascular adverse effects, including increases in blood pressure and heart rate. Sibutramine can also contribute to serotonin toxicity and may increase its likelihood if used in combination with other serotonergic drugs. Sibutramine was withdrawn from the market in Europe in January 2010 (BMJ 2010;340:c824).
Aspirin use as analgesic in an elderly person	Aspirin use in the elderly is associated with an increased risk of adverse effects, in particular gastrointestinal (GI) ulceration and renal impairment; it may also exacerbate heart failure or uncontrolled hypertension by sodium and fluid retention. Enteric coated products do not reduce the risk of GI ulceration. Paracetamol is the first choice analgesic for mild-to-moderate pain in an older person. NSAIDs are an alternative but should also be used cautiously in older people due to increased risk of adverse effects (eg GI ulceration, heart failure and renal impairment).
Dyspnoea in palliative care	Subjective sensation of breathing difficulty is very common in terminally ill patients and may cause considerable distress. If possible, the specific cause should be identified and treated, eg asthma, chronic obstructive pulmonary disease, heart failure, anaemia. Non-drug measures may help. Morphine suppresses the feeling of breathlessness although nebulised morphine has not been shown to be effective.