



# 5 THINGS

CLINICIANS AND CONSUMERS SHOULD QUESTION

*Developed by The Royal Australian College of General Practitioners*

1

**Don't use proton pump inhibitors (PPIs) long term in patients with uncomplicated disease without regular attempts at reducing dose or ceasing**

PPIs are very effective and widely used medications for treating gastroesophageal reflux disease (GORD) and peptic ulcer disease. However, there is evidence of inappropriate prescribing, with a high proportion of patients kept on maximal doses long term. After initial symptom control, the lowest dose and frequency that provides ongoing symptom control should be reached by 'stepping down', and the medication ceased when no longer required. This reduces the risk of possible adverse effects to the individual, and the costs of long term treatment.

Adverse effects of long term use include increased risk of GI infection (incl. clostridium difficile), community acquired pneumonia, osteoporotic fractures, interstitial nephritis, and nutritional deficiencies (B12, Fe, Mg), particularly in the elderly or immunocompromised. Exceptions, for which prolonged treatment may be necessary, include Barrett's oesophagus, high grade oesophagitis, and GI bleeding.

The cost of anti-acid medication was \$450 million in 2013-14, with prescription volume increasing 9% annually.

2

**Don't commence therapy for hypertension or hyperlipidaemia without first assessing the absolute risk of a cardiovascular event**

The benefit gained from treating elevated blood pressure or lipids is proportional to a patient's baseline risk of a cardiovascular event. Patients with multiple risk factors who are at high risk of an event will gain the most benefit from treatment. Patients with elevated blood pressure or lipids but who are 'low risk' (< 10% 5-year risk according to the current National Vascular Disease Prevention Alliance (NVDPA) absolute CVD risk guidelines) do not require medication. The NVDPA guidelines also recommend treatment of blood pressure persistently greater than 160/100 mmHg regardless of baseline risk, and for other patients with conditions considered high risk, or with existing cardiovascular disease (see guidelines).

Ideally, patients should share in the decision to commence medication, with an understanding of the potential benefits and harms. Lipid-modifying drugs cost the PBS \$1.1 billion in 2013-14, more than any other class of medication.



3

**Don't advocate routine self-monitoring of blood glucose for people with type 2 diabetes who are on oral medication only**

There is no evidence that self-monitoring of blood glucose (SMBG) affects patient satisfaction, general well-being or general health-related quality of life. A 2012 Australian review found SMBG may possibly reduce HbA1c levels by 0.25–0.3%, considered clinically insignificant. SMBG actually increased hypoglycaemia risk, although causation was uncertain.

This recommendation aligns with the 2015 draft NICE guidelines for self-monitoring of blood glucose, the Canadian CADTH recommendations and the Scottish Intercollegiate Guidelines Network.

Therefore, use HbA1c levels to guide therapy, and promote lifestyle interventions regardless of diabetes control. Exceptions (i.e. not 'routine') may include: symptomatic hypoglycaemia; heavy machinery operators on a sulfonylurea; elderly people with renal failure; pregnancy; and possibly short-term education about diet influencing blood sugar.

Australian government spending on test strips was \$143 million in 2012. Diabetics not on insulin who used SMBG, averaged 300 test strips annually.

4

**Don't screen asymptomatic, low-risk patients (<10% absolute 5-year CV risk) using ECG, stress test, coronary artery calcium score, or carotid artery ultrasound**

Major risk factors for vascular disease include older age, male sex, hypertension, smoking, dyslipidaemia and diabetes. Calculators using cardiovascular risk factors are widely available to determine a patient's individual risk for a vascular event. The additional information obtained by screening asymptomatic adults at low risk for a vascular event, via a resting ECG or stress test, is very unlikely to alter risk stratification or reduce overall events related to coronary artery disease. The potential harms of these tests have been found to equal or exceed the potential benefits in this population.

In the absence of clinical trial data demonstrating an overall benefit, coronary artery calcium score is also not recommended in this population. (NVDPA guidelines)

Similarly, screening with carotid duplex ultrasound in low-risk patients results in many more false-positive than true-positive results. This in turn leads to a significant number of unnecessary angiographies or surgical procedures, with the attendant risks of stroke, myocardial infarction and death.



5

**Avoid prescribing benzodiazepines to patients with a history of substance misuse (including alcohol) or multiple psychoactive drug use**

Based on epidemiological data, the prevalence of benzodiazepine (BZD) abuse is generally low in the therapeutic setting. However, the incidence of BZD misuse and abuse is much higher in people who abuse alcohol and other drugs, either currently or in their past history.

When BZDs are combined with other CNS depressants (e.g., alcohol, antidepressants, antipsychotics, opioids), patients are at risk of respiratory depression, heavy sedation, coma and death. Alcohol and BZDs can produce cross-tolerance, and regular use of both can make withdrawal more severe and/or protracted.

Patients who use two or more psychoactive drugs in combination (polydrug use) and those with a history of significant mental illness may be more vulnerable to major harms. When treating polydrug users, avoid initiating BZDs, and for patients already taking them, reduce and cease prescription of BZDs in a supervised manner.



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## HOW THIS LIST WAS MADE

All RACGP members were invited, and five GPs selected, to join the Choosing Wisely panel. They raised 28 issues, researched these and voted on a shortlist of 10. The voting for this shortlist was based on the amount of supporting evidence available, the degree of importance for patients, and the frequency of the test or treatment being used by Australian GPs. Opinion from the entire College membership was then sought via online survey, to choose five of the shortlisted 10. Additional free-text comment was encouraged, with good response rates. This national vote determined the final five topics. Following an NPS Representatives meeting, two on that list were found to duplicate other Colleges' choices, and it was felt the RACGP could endorse these rather than replicate them. Therefore the next two highest voted options were selected instead.

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### About Choosing Wisely Australia

Choosing Wisely Australia® is enabling clinicians, consumers and healthcare stakeholders to start important conversations about tests, treatments and procedures where evidence shows they provide no benefit and in some cases, lead to harm. This initiative is being led by Australia's medical colleges and societies and is facilitated by NPS MedicineWise.

### About RACGP

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1

**Don't order colonoscopy as a screening test for bowel cancer in people at average or slightly above average risk. Use faecal occult blood screening instead**

This recommendation does not apply to people with a bowel symptom such as bleeding. Approximately 98% of Australians are at 'average' or 'slightly above average' risk (e.g. one relative with bowel cancer diagnosed at  $\geq 55$ yo).

RACGP guidelines recommend two-yearly faecal occult blood testing (FOBT) from 50-75 years of age. The best available data to 2011 suggests 13% of this group were instead over-screened using colonoscopy.

National Bowel Cancer Screening Program (NBCSP) data shows that, per 10,000 people in this group followed up for an average 18 months, 6 will die from bowel cancer if unscreened. If screened with colonoscopy, 2.3 will die (1.5 from bowel cancer plus 0.8 from colonoscopy complications), compared to just 1.9 deaths for FOBT. A colonoscopy also risks bowel perforation (7 per 10,000), involves bowel preparation, and costs around \$3000. NBCSP monitoring shows that a negative FOBT is 99.9% specific in ruling out bowel cancer.

2

**Don't order chest x-rays in patients with uncomplicated acute bronchitis**

Acute bronchitis is the commonest cause of cough presenting to GPs. It is usually viral (>90%) and self-limiting, and antibiotics should not routinely be used.

Chest x-rays (CXRs) are the imaging tests most frequently ordered by Australian GPs, and the most common indication is acute bronchitis/bronchiolitis (140,000 annually, data combined for both conditions).

'Uncomplicated' bronchitis refers to cough and sputum lasting less than three weeks in immunocompetent patients without underlying respiratory disease, and no clinical features suggesting pneumonia (heart rate  $>100$ , resp rate  $>24$ , temp  $>38.0^{\circ}\text{C}$ , haemoptysis, signs of consolidation). A Cochrane review found routine CXR did not affect outcomes in adults or children presenting to hospital with acute chest infection. Note that purulent (green) sputum is not predictive of bacterial infection and is not in itself an indication for CXR. CXRs may also lead to false positives, further investigation and unnecessary radiation. The threshold for CXR should be lower in patients over 60.



3

**Don't routinely do a pelvic examination with a Pap smear**

During a routine cervical smear for screening (i.e. no symptoms), a bimanual pelvic examination has no proven benefit, as it has not been shown to improve the detection of ovarian cancer or to benefit other outcomes. In a large study of Australian women undergoing routine screening pelvic examination, no ovarian malignancies were found, and the high prevalence of benign abnormalities (bulky/fibroid uterus in 13%, abnormal adnexal findings in 2%) often led to further investigation.

A recent US review concluded that no data supports the effectiveness of speculum or bimanual pelvic examinations in the asymptomatic, average-risk woman. The procedure causes pain, fear, anxiety, and/or embarrassment in a third of women and can lead to unnecessary, invasive, and potentially harmful diagnostic procedures. Pelvic examinations require additional clinician time and, for consultations not otherwise requiring intimate examination, the consideration of a chaperone. Therefore, unnecessary examinations lead to resource and opportunity costs.

4

**Don't treat otitis media with antibiotics, in non-Indigenous children aged 2-12 years, where reassessment is a reasonable option**

Avoid the routine use of antibiotics in acute otitis media, except in a child with acute systemic features such as high fever, vomiting or lethargy. Clinical review at 24-48 hours is good practice, if available. Regardless of whether one or both eardrums are red or bulging, antibiotics do not reduce pain at 24 hours, and up to 20 children must be treated to prevent pain in one child at 2 to 7 days. Routine antibiotic use slightly reduces tympanic membrane perforation (NNT = 33) but has no effect on tympanic membrane findings at 3 months, nor on severe complications.

One in 14 children will develop antibiotic side effects, particularly rash, diarrhoea, or vomiting. Antibiotic use promotes bacterial resistance, both in the individual and community. Aboriginal and Torres Strait Islander children are at higher risk of complications and should be treated early. Guidelines vary about the value of antibiotic treatment in children aged 6-23 months, but support antibiotics for infants under 6 months.



5

**Don't test thyroid function as population screening for asymptomatic patients**

This 'screening' recommendation does not apply to people with symptoms suggestive of thyroid disease. The prevalence in adults of subclinical hypothyroidism is about 4.3% (0.7% for subclinical hyperthyroidism), and prevalence is higher in older adults and women. About 2-5 percent of people with subclinical hypothyroidism and 1-2 percent with subclinical hyperthyroidism will develop overt thyroid disease per year.

However, many patients with subclinical thyroid dysfunction revert to normal when followed over time. A 2014 systematic review of screening for thyroid dysfunction found that clear evidence on the benefits and harms of screening is unavailable, and recommended against population-based screening. In the absence of evidence that early treatment reduces symptoms, lipid levels, or the risk of cardiovascular disease in patients with mild thyroid dysfunction detected by screening, the RACGP Guidelines for preventive activities in general practice does not recommend screening for thyroid disease in asymptomatic populations.



## SUPPORTING EVIDENCE

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## HOW THIS LIST WAS MADE

The RACGP Working Group established for Wave 1 of Choosing Wisely identified 32 candidate topics for Wave 2, then shortlisted fifteen, spread across four categories – screening, imaging, pathology and treatment. The shortlisting criteria were: quality of supporting evidence; importance for patients; and number of Australian GPs using the test or treatment.

A dedicated workshop was held at the RACGP Annual Scientific Meeting, 'GP15', and the entire RACGP membership was asked to vote for their 'top five' via online survey. Additional free-text comment was encouraged, with good response rates. The top five topics from this national vote were written up by the Working Group and reviewed by the RACGP Expert Committee – Quality Care.

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