

## Family Medicine

# Fourteen Tests and Treatments to Question

by  
College of Family Physicians of Canada  
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### 1 Don't test urine in older patients with a change in mental status unless there is clear evidence of infection.

Treating Asymptomatic Bacteriuria (ASB) does not improve clinical outcomes (including altered mental state) but may increase adverse events from 1% to 7%. In older patients with ASB and altered mental state, antibiotics should be avoided without clear signs/symptoms of infection.

### 2 Don't initiate opioids long-term for chronic pain. Recommend and help support physical activity as the foundation for managing osteoarthritis and chronic low back pain.

Opioid use in osteoarthritis and low back pain beyond 4 weeks duration did not show statistically significantly more responders than placebo beyond 4 weeks' duration, suggesting that the short-term benefit may not persist. Opioids also demonstrated the highest risk of adverse effects, including a number needed to harm (NNH) of 8 to 10 for withdrawal due to adverse effects. No included trials assessed long-term adverse effects including opioid misuse, opioid use disorder, and overdose.

Exercise based programmes showed meaningful pain relief in patients with low back pain and osteoarthritis compared with control.

### 3 Don't continue opioid analgesia beyond the immediate postoperative period or other episode of acute, severe pain.

The immediate postoperative period or acute episodes of pain typically refers to a time period of three days or less, and rarely more than seven days. Prescribe the lowest effective dose and number of doses required to address the expected pain. This recommendation does not apply to individuals already on long term or chronic opioids or opioid agonist treatment.

### 4 Don't do annual physical exams on asymptomatic adults with no significant risk factors.

Annual health exams for asymptomatic people have not been shown to decrease mortality, change blood pressure and body weight significantly, nor change smoking status. Preventive health visits, used by many family physicians, increase uptake of preventive health interventions like PAP test and colon cancer screening and may decrease patient worry. Other means of achieving cancer screening are being implemented by various provincial programs.

**5 Don't order Dual-Energy X-ray Absorptiometry (DEXA) screening for osteoporosis on low-risk patients. Use "risk-assessment first" screening before ordering DEXA.**

Screening may help reduce the risk of fragility fractures in females over 65 years. The Canadian Task Force on Preventive Health Care (2023) recommends "risk assessment-first" screening for females aged  $\geq 65$  years as follows:

- Use the results from the Canadian clinical FRAX risk assessment tool to facilitate a discussion on preventive medication. At this initial assessment, bone mineral density (BMD) measurement is not required.
- After this discussion, if preventive medication is being considered, perform a BMD measurement. Then re-calculate fracture risk by adding the BMD T-score into the FRAX assessment tool.

Screening is not recommended for females under 65 years or for males as evidence was indirect or very uncertain and did not establish a benefit.

**6 Don't advise patients with non-insulin dependent diabetes to routinely self-monitor blood sugars.**

Routine self-monitoring of blood glucose in patients with Type 2 diabetes who do not use insulin has no clinical benefits, is not cost effective, and may reduce quality of life. Its use in patients with Type 2 diabetes using insulin and those with gestational diabetes may be individualized. Though many suggest using it in patients with newly diagnosed diabetes, there is no evidence for improved glycemic control and it may increase depressive symptoms.

**7 Don't screen for thyroid dysfunction in asymptomatic nonpregnant adults.**

The primary rationale for screening asymptomatic non-pregnant patients is that the resulting treatment improves health outcomes when compared with patients who are not screened. There are no RCT or controlled observational studies in non-pregnant adults to assess the value of screening. Treating subclinical hypothyroidism (TSH  $\sim 4$ -10 IU/L and normal T3/T4) showed no benefits in any patient-oriented outcome such as mortality or cardiovascular disease, fatigue, weight, depression, cognitive function or quality of life.

TSH can vary up to 50% between tests and even up to 26% in one day in the same patient. The prevalence of subclinical hypothyroidism is 4-10% in the developing world.

**8 Don't do imaging for lower-back pain unless red flags are present.**

Red flags include, but are not limited to, severe or progressive neurological deficits or when serious underlying conditions such as osteomyelitis are suspected. Imaging of the lower spine before six weeks does not improve outcomes.

**9 Don't use antibiotics for upper respiratory infections that are likely viral in origin, such as influenza-like illness, or self-limiting, such as sinus infections of less than seven days of duration.**

Bacterial infections of the respiratory tract, when they do occur, are generally a secondary problem caused by complications from viral infections such as influenza. While it is often difficult to distinguish bacterial from viral sinusitis, nearly all cases are viral. Though cases of bacterial sinusitis can benefit from antibiotics, evidence of such cases does not typically surface until after at least seven days of illness. Not only are antibiotics rarely indicated for upper respiratory illnesses, but some patients experience adverse effects from such medications.

**10 Don't order screening chest X-rays and ECGs for asymptomatic or low risk outpatients.**

There is little evidence that detection of coronary artery stenosis in asymptomatic patients at low risk for coronary heart disease improves health outcomes. False positive tests are likely to lead to harm through unnecessary invasive procedures, over-treatment and misdiagnosis. Chest X-rays for asymptomatic patients with no specific indications for the imaging have a trivial diagnostic yield, but a significant number of false positive reports. Potential harms of such routine screening exceed the potential benefit.

**11 Don't screen with Pap smears if under 25 years of age or over 69 years of age.**

- Don't do screening Pap smears annually in those with previously normal results
- Don't do Pap smears in those who have had a hysterectomy for non-malignant disease.

The potential harm from screening younger than 25 years of age outweighs the benefits and there is little evidence to suggest the necessity of conducting this test annually when previous test results were normal. Those who have had a full hysterectomy for benign disorders no longer require this screening. Screening should stop at age 70 if three previous test results were normal.

**12 Don't do annual screening blood tests unless directly indicated by the risk profile of the patient.**

There is little evidence to indicate there is value in routine blood tests in asymptomatic patients; instead, this practice is more likely to produce false positive results that may lead to additional unnecessary testing. The decision to perform screening tests, and the selection of which tests to perform, should be done with careful consideration of the patient's age, sex and any possible risk factors.

**13 Don't routinely measure Vitamin D in low-risk adults.**

There are no consistently accepted thresholds to establish clinically relevant vitamin D levels. The association of low vitamin D levels with health outcomes in low-risk people has not been clearly proven. This inconsistency is illustrated by the finding that populations with generally lower vitamin D levels (example non-Hispanic Black) have lower risk of fractures.

The US Preventive Services Task Force has found insufficient evidence to support screening for low vitamin D. No randomized controlled trials in falls or fractures have investigated treating specific vitamin D level targets.

In patients with various vitamin D levels, vitamin D supplementation has not been shown to reduce fractures. It may reduce fractures when combined with calcium in women in long term care. Vitamin D supplementation does not decrease all cause mortality, major cardiovascular outcomes or cancer incidence.

Vitamin D testing is recommended for high-risk adults (renal disease, cirrhosis, malabsorption, parathyroid disease, anticonvulsants/glucocorticoids).

**14 Don't conduct in-person visits where virtual assessment would provide equivalent clinical value and is preferred by the patient.**

**Note: This recommendation applies where fee structures exist to compensate for virtual care.**

Remote monitoring of chronic conditions (for example, to detect early signs of deterioration, to deliver education, to deliver cognitive behavioral therapy) has been found to be safe and effective. A systematic review found no difference in heart failure mortality or hospitalizations and a small improvement in quality of life with virtual care. Blood pressure control was slightly better with virtual monitoring. Effect of therapy for people with mental health and substance abuse problems showed no difference compared to face-to-face delivery. Inflammatory bowel disease monitored by telemedicine showed no difference in flare-ups, quality of life or surgeries.

Uncomplicated urinary tract infections can be diagnosed and treated on the basis of history alone, without additional urine testing. Due to limited evidence supporting evaluation/diagnosis of undifferentiated problems, this recommendation does not apply for most diagnostic consultations.

Travel to and from health facilities by patients, visitors and staff accounted for 10% of the UK NHS emissions.

## How the list was created

### Recommendation 1:

The College of Family Physicians of Canada's Guideline and Knowledge Translation Working Group (GKTWG) added this in 2023. This group generated a list of candidate recommendations from recent evidence-based findings that support reducing unnecessary testing or treatments. They created Evaluation Criteria that included Major Criteria (Addresses a gap in practice, strong evidence-base, clinically significant) and Minor Criteria (common clinical issues, applies nationwide, recent/timely, cost, strengthening other initiatives, durable, measurable, ease of implementation). The criteria were applied to the list of new recommendations and the top recommendation was chosen.

### Recommendations 2 and 3:

These were strengthened with some additional evidence by the GKTWG in 2023. In late 2016, Choosing Wisely Canada partners – the College of Family Physicians of Canada and the Canadian Medical Association – formed the Pan-Canadian Collaborative on Education for Improved Opioid Prescribing, with the goal to reduce harm from opioids, decrease the variability in prescribing practices, and improve pain management for patients. The Collaborative formally reached out to Choosing Wisely Canada (CWC) in early 2017, requesting its involvement, citing the important role played by CWC in convening professional societies representing different clinical specialties to tackle unnecessary care. As a result, the 'Opioid Wisely' was launched in March of 2018 and these two items were added to the preexisting family medicine list of 11 things patients and clinicians should question.

### Recommendations 4-13:

The Canadian Medical Association's (CMA) Forum on General and Family Practice Issues (GP Forum) was a collective of leaders of the General Practice sections of the provincial and territorial medical associations which generated these recommendations in two iterations between 2014 and 2015. To establish its Choosing Wisely Canada recommendations, each GP Forum member consulted with their respective GP Section members to contribute candidate list items. Items from the American Academy of Family Physicians' Choosing Wisely® list were among the candidates. All candidate list items were collated and a literature search was conducted to confirm evidence-based support for the items. GP Forum members discussed which of the thirteen items that resulted should be included. The first wave generated the top five and the second wave added eight more. The College of Family Physicians of Canada was a member observer of the GP Forum and was involved in this list creation process.

**Mammography Recommendation:** In May 2024, the CFPC removed the recommendation related to mammography from the list. The decision to remove this recommendation was made in recognition that mammography screening decisions are highly individual, and should be based on personal values and preferences.

## Climate-Conscious Recommendations

Choosing Wisely Canada's climate-conscious recommendations are developed by clinician societies to improve planetary health without compromising patient care. These recommendations highlight everyday practices we can reduce or eliminate to minimize environmental harm. Visit our [climate page](#) to explore all the recommendations and learn more.

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### About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

**Web:** [choosingwiselycanada.org](http://choosingwiselycanada.org)

**Email:** [info@choosingwiselycanada.org](mailto:info@choosingwiselycanada.org)

**Twitter:** [@ChooseWiselyCA](https://twitter.com/ChooseWiselyCA)

**Facebook:** [/ChoosingWiselyCanada](https://www.facebook.com/ChoosingWiselyCanada)