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# Nurse Practitioner

## Nine Things Nurse Practitioners and Patients Should Question

by  
Nurse Practitioner Association of Canada  
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### 1 **Don't prescribe any medication to patients over the age of 65 without conducting a thorough medication review.**

Patients over the age of 65 have an increased risk of drug interactions, adverse drug reactions and falls. Although it can sometimes be appropriate to prescribe new medications, a thorough medication review should be done concurrently. The review should ensure that the medications are having the desired effect, that the lowest effective doses are being used, that the patient has been involved in the decision to use them and that they align with the patient's goals of care. There is a paucity of research on clinical outcomes associated with medication review tools however, the STOPP/START, Beers criteria and the McLeod criteria have been reviewed in a Cochrane analysis. Another useful resource is [www.Medstopper.com](http://www.Medstopper.com).

### 2 **Don't prescribe vitamin B12 injections to clients with low vitamin B12 levels as first line therapy.**

Vitamin B12 deficiency affects approximately 5% of Canadian adults. Deficiencies are primarily the result of a lack of intrinsic factor (pernicious anemia). Vitamin B12 absorption can also be affected by the regular use of proton pump inhibitors. There is a large body of evidence supporting the efficacy of oral B12 administration in most cases related to pernicious anemia, malabsorption or malnutrition. The use of oral vitamin B12 is cost effective. Furthermore, using the oral formulation will decrease the need for unnecessary clinic visits for vitamin B12 injection, improve efficiency and decrease costs without compromising patient care. After the initiation of therapy, serum vitamin B12 concentrations should be monitored to assess for efficacy. Given the lack of conclusive evidence, vitamin B12 injections should still be considered for patients with severe neurological involvement, ileectomy and significant malabsorption syndromes.

### 3 **Don't routinely measure Vitamin D levels in low risk adults.**

Clinical evidence shows that screening for vitamin D deficiency in healthy individuals is generally not necessary. Vitamin D deficiency is common in many populations, particularly in patients at higher latitudes, during winter months and in those with limited sun exposure. Therefore, Canadians have inadequate exposure to sunlight, which puts them at risk for vitamin D deficiency. Over the counter vitamin D supplements and increased summer sun exposure are sufficient interventions for most otherwise healthy patients. Laboratory testing is appropriate in higher risk patients when results will be used to institute more aggressive therapy (e.g., osteoporosis, chronic kidney disease, malabsorption, some infections, obese individuals).

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

Instead, nurse practitioners should counsel their well, asymptomatic patients regarding the importance of screening and focused health assessments performed according to their risk factors. These visits may include specific physical examination maneuvers and screening tests that should occur at intervals informed by the available evidence such as the Canadian Task Force on Preventive Health Care and provincial cancer care organizations. Following evidence based recommendations, including relevant physical examination and screening test guidelines (pap smears, colorectal cancer screening, etc.) has been shown to be effective at helping nurse practitioners and their patients to find disease before symptoms arise.

### 5 **Don't order screening chest X-rays in asymptomatic patients.**

This includes periodic health exams, pre-employment health assessments, tuberculosis screening, preoperative and pre-admission screening and cancer screening. There is little evidence to indicate that patient outcomes are improved with screening in these populations. Furthermore, exposure to unnecessary radiation may exceed any potential benefits. Chest X-rays on asymptomatic patients may also result in false positive reporting, which may cause undue stress. The decision to order a chest X-ray should be considered on careful evaluation of any patient presentation indicative of respiratory disease or illness.

**6 Don't order chest X-rays in patients with acute upper respiratory tract infections.**

There is no evidence that a chest X-ray improves patient outcomes or decreases recovery time for those with upper respiratory infections. Chest X-rays should be reserved for those patients with clinical suspicion of pneumonia, acute upper airway infection with comorbid conditions and those with symptoms persisting beyond three weeks. Pneumonia presents with at least two of: fever, rigors, new cough with or without sputum production or chronic cough with change in colour of sputum, pleuritic chest pain, shortness of breath and localized crackles. Nurse practitioners should be mindful of the risks associated with cumulative radiation exposure such as that from chest X-rays.

**7 Don't order thyroid function tests as screening for asymptomatic, low risk patients.**

The primary rationale for screening asymptomatic patients is that the resulting treatment leads to improved health outcomes when compared with patients who are not screened. There is insufficient evidence available indicating that screening for thyroid diseases will have these results.

**8 Don't prescribe prophylactic antibiotics to prevent travellers' diarrhea.**

Travellers' diarrhea is the most predictable travel related illness affecting up to 70% of travellers to developing countries. The vast majority of cases clear on their own in a few days without treatment. Antibiotic prophylaxis for travellers' diarrhea is not recommended as these treatments disrupt the normal gut flora and allow resistant bacteria such as extended-spectrum beta lactamase (ESBL) producing bacterial to flourish. Those taking antibiotics are more likely to become colonized with ESBL producing bacteria. These individuals can shed the bacteria upon return home for several months and close contacts and family members may become colonized with the organism. As a safer alternative, travellers should consider prophylaxis with bismuth salicylate given the good evidence for its use. Clinicians may consider prescribing a three-day supply of antibiotics to carry with patients with clear instructions to only take them for severe diarrhea, given the benefit of reduced symptom duration.

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

Screening pap tests should not be done on asymptomatic patients outside of screening intervals and age groups specified in relevant provincial and national guidelines. Cervical cancer is very rare in women younger than 25 years of age even if they are sexually active. Cervical cancer is very rare in women over 65 years of age who have had normal pap smears at regular recommended screening intervals. Screening pap smears done outside of recommended populations could result in false positive findings and lead to unnecessary follow up and treatment. This could result in stress for the patient and expose them to the risks associated with additional investigations and treatments.

## How the list was created

The Nurse Practitioner Association of Canada's (NPAC) Executive Board approved the development of Choosing Wisely Canada's NP recommendations. NPAC created a small working group to review existing Choosing Wisely Canada recommendations and develop potential ideas for an NP list. The working group created a list of suggested recommendations based on existing research, experience and common practice patterns. The Choosing Wisely Canada NP list was posted on the NPAC website discussion board for review and comments by NPAC members. The nine recommendations selected to be part of the Choosing Wisely Canada NP campaign were presented to the NPAC executive board for review and final approval prior to being submitted to Choosing Wisely Canada.

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### About the Nurse Practitioner Association of Canada

NPAC-AIIPC is the national voice for Nurse Practitioners, with the goal of advocating for, and reducing barriers to NP practice. This Canadian organization consists of over 1300 members, encompassing a number of nurse practitioner specialties.



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### About Choosing Wisely Canada

Choosing Wisely Canada is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures, and to help physicians and patients make smart and effective choices to ensure high-quality care.

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