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2018 Updates on guideline recommendations

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As primary care physicians it is an ongoing struggle to remain up to date with the current guideline recommendations, as evidence is rapidly evolving, the volume of publications is increasing, and the breadth of knowledge required is extensive. The following is a brief summary of guideline recommendations that were updated by specialist groups in Canada during 2018. The purpose of this synopsis is to highlight guideline changes and allow primary care physicians to delve deeper into topics of interest or fill gaps in their knowledge. It is worth noting that many of these statements are conditional recommendations based on low-quality evidence, and although they are new recommendations, primary care physicians should critically appraise them before considering implementation into practice.

Guideline updates

Hypertension Canada recommends using an angiotensin receptor–neprilysin inhibitor in place of an angiotensin-converting enzyme inhibitor or an angiotensin receptor blocker in patients with reduced ejection fraction heart failure who are symptomatic despite optimal guideline-directed therapy (grade A).[1] In comparison to an angiotensin-converting enzyme inhibitor, angiotensin receptor–neprilysin inhibitors decrease cardiac death, hospitalization for heart failure, and all-cause mortality, and are associated with a lower rate of heart failure progression.[1,2] This recommendation aligns with the Canadian Cardiovascular Society recommendations.[3]

The Canadian Paediatric Society suggests that physicians recommend contraceptive options to adolescents in order of effectiveness.[4] Consequently, long-acting reversible contraceptives (ie, intrauterine devices) are first-line options; hormonal methods (ie, oral contraceptive, transdermal patch, vaginal ring, injectable contraceptive) are second-line options; and condoms, diaphragms, cervical caps, sponges, and spermicides are third-line options. This aligns with recommendations from the Society of Obstetricians and Gynaecologists of Canada (SOGC)[5] and the American Academy of Pediatrics.[6]

The SOGC recommends not performing a routine urinalysis at every antenatal visit for low-risk normotensive women.[7] This recommendation is part of the Choosing Wisely campaign. Proteinuria is a poor predictor of preeclampsia, and glucosuria has a low sensitivity for gestational diabetes. Instead, the SOGC recommends periodically checking blood pressure and following the gestational diabetes guidelines.

The SOGC recommends offering the Tdap (tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis) vaccine to all pregnant women in all pregnancies between 21 and 32 weeks' gestational age (preferably between 27 and 32 weeks' gestational age) (level of evidence II, class of recommendation 2a).[8] The SOGC also recommends considering immunization for hepatitis A, hepatitis B, and meningococcal and pneumococcal infections in patients with specific risk factors for these illnesses (level of evidence III, class of recommendation A). These recommendations align with those of the American Congress of Obstetricians and Gynecologists[9] and the World Health Organization.[8]

In pregnant women with HIV, the SOGC recommends starting combination antiretroviral therapy immediately, preferably in the preconception period (level of evidence I, class of recommendation A).[10] Discuss pre-exposure prophylaxis with all patients during preconception counseling; however, it is not routinely required if there is viral suppression and medication adherence (level of evidence II, class of recommendation A). Offer a referral to a fertility specialist or a trial of 6 to 12 months of timed condomless sex in patients with medication adherence and viral suppression (level of evidence III, class of recommendation A).

The Centers for Disease Control and Prevention (CDC) recommends that men with possible Zika virus exposure use preventive measures against sexual transmission for 3 months.[11] According to CDC literature, the longest period between symptom onset and potential sexual transmission to a partner was 32 to 41 days. One study found the potentially infectious virus in a semen sample 69 days after symptom onset, but no other study has reported infectious Zika virus in a semen sample 40 or more days after symptom onset.[11] Keep in mind that this is an American guideline. It is worth noting that the Public Health Agency of Canada (PHAC) also updated its recommendations in 2018 and continues to recommend 6 months of preventive measures for at-risk male patients.[12]

The Association of Medical Microbiology and Infectious Disease Canada recommends vancomycin as first-line therapy in all severities of* Clostridium difficile *infections in adults, and fidaxomicin and metronidazole as alternatives for patients with contraindications or limited access to vancomycin (level of evidence I, class of recommendation A).[13] Studies have shown superiority

of vancomycin in comparison with metronidazole in all severities of *Clostridium difficile;* however, findings were only statistically significant in severe cases.[14,15] This recommendation aligns more closely with the guidelines sponsored by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America.[16]

The Canadian Rheumatology Association recommends women with systemic lupus erythematosus who have been sexually active have annual cervical cancer screening, at least until age 69 (conditional recommendation, low-quality evidence).[17] In this population there is no evidence comparing screening intervals and outcomes; however, they have an increased prevalence of cervical lesions, human papillomavirus infection, and cancer. Current guidelines recommend screening immunocompromised women more frequently (eg, annually).[18] Of note, no primary care physicians were on the panel that developed these guidelines.

The Canadian Association of Gastroenterology recommends patients with 1 first-degree relative (FDR) with colorectal cancer be screened with colonoscopy every 5 to 10 years starting at age 40 to 50, or 10 years before the FDR's age at diagnosis.[19] Patients with 2 or more FDRs with colorectal cancer should be screened every 5 years starting at age 40 or 10 years before the FDR's age at diagnosis. Patients with an FDR with advanced adenoma can be screened with colonoscopy (every 5 to 10 years) or a fecal immunochemical test (every 1 to 2 years) starting at age 40 to 50, or 10 years before the FDR's age at diagnosis. Patients are average risk if they have a second-degree relative with colorectal cancer or any relative with a nonadvanced adenoma. Most recommendations are conditional with low-quality evidence (further details are available at **CFPlus**).*

The Canadian Urological Association recommends offering prostate-specific antigen (PSA) screening starting at age 50 (life expectancy >10 years) and proceeding based on patient preference (level of evidence I, grade B).[20] This aligns with recommendations from the American Urological Association and the European Association of Urology but not those from the Canadian Task Force on Preventive Health Care (CTFPHC). The CTFPHC recommends against screening, stating there is inconsistent evidence of a small benefit and evidence of harm. The American Academy of Family Physicians also recommends against PSA-based prostate cancer screening.[21] The US Preventive Services Task Force (USPSTF) recommends shared decision making to determine PSA screening preference in patients aged 55 to 69.[22]

*Relevant **recommendations on colorectal cancer screening in patients with a family history of nonhereditary colorectal cancer** are available at **www.cfp.ca**. Go to the full text of the article online and click on the **CFPlus** tab.

The Canadian Association for the Study of the Liver recommends cohort-based screening of adults born from 1945 to 1975, in addition to risk-based screening for hepatitis C (class of evidence 2a, grade C).[23] The CDC[24] and the USPSTF[25] both recommend cohort screening. The CTFPHC[26] and PHAC[27] do not support cohort screening owing to concerns with diagnostic inaccuracies and treatment cost and access. In addition, the CTFPHC notes that the elevated risk in this cohort is due to increased risk behaviour and, consequently, a risk-based screening method is sufficient and more evidence is needed to recommend cohort screening. The Canadian Association for the Study of the Liver panel explains that treatment costs and access have changed since the CTFPHC recommendations.

The CTFPHC recommends against vision screening in asymptomatic community-dwelling adults aged 65 and older who have no risk factors (weak recommendation, low-quality evidence).[28] This recommendation is supported by PHAC; however, it does not align with the recommendations by the USPSTF or those by various American and Canadian ophthalmologic or optometrist societies.

Diabetes Canada recommends considering screening for diabetes every 6 to 12 months for patients with a risk factor or who are very high risk based on a validated calculator (eg, CANRISK [Canadian Diabetes Risk Assessment Questionnaire]) regardless of age (grade D).[29] Previous guidelines recommended earlier or more frequent screening.[30] Continue screening every 3 years for all other patients aged 40 or older, or those who are high risk on a validated calculator regardless of age (grade D).

Diabetes Canada recommends to screen patients at risk or with prediabetes more often and to consider a 75-g oral glucose tolerance test (OGTT).[29] The OGTT has been de-emphasized, as the recommendations have changed the wording from *should* to *consider*. Previous guidelines recommended an OGTT for all patients with a fasting plasma glucose level of 5.6 to 6.9 mmol/L or a hemoglobin A_{1c} (HbA_{1c}) level of 5.5% to 6.4% (ie, at risk or prediabetes).[30]

Diabetes Canada recommends using a treatment target HbA_{1c} level of 7.1% to 8.0% for functionally dependent adults and an HbA_{1c} level of 7.1% to 8.5% for adults with recurrent severe hypoglycemia, with decreased life expectancy, or who are frail elderly (grade D).[29] Continue individualized targets, with most patients targeting HbA_{1c} levels less than 7.0% and a select group with target HbA_{1c} levels less than 6.5% after balancing risk and benefit. Monitor HbA_{1c} levels in patients with diabetes with recent substantial changes or in pregnancy more frequently than the typical 3 to 6 months (grade D).

Diabetes Canada recommends using medications with demonstrated cardiovascular outcomes for patients with clinical cardiovascular disease who have not obtained glycemic target with first-line agents.[29] Patients who have a risk of a major cardiovascular event, heart failure hospitalization, or progression of nephropathy should consider empagliflozin (grades A to B, levels of evidence I to II) or canagliflozin (grade C, levels of evidence II to III) as second-line agents. Patients at risk of a major cardiovascular event can also consider liraglutide (grade A, level of evidence IA).

Diabetes Canada recommends considering insulin degludec or insulin glargine 300 units/mL over insulin glargine 100 units/mL to reduced episodes of overall and nocturnal hypoglycemia (grade C, level of evidence III).[29] Continue using a long-acting insulin (eg, glargine 100 units/mL, glargine 300 units/mL, detemir, degludec) over neutral protamine Hagedorn. Insulin degludec is available in 100 units/mL and 200 units/mL.

Conclusion

This article includes guideline updates on various areas in family medicine including cardiac care, cancer screening, infectious disease management, and obstetrics and gynecology. Primary care physicians are encouraged to further explore and appraise these updates to expand their knowledge or to confirm their current practice.

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Competing interests
None declared

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