

Can I Get a Guideline to Help Me Interpret Treatment Guidelines?

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I need help. I have become even more confused than usual, something my friends and colleagues would not have thought possible. The source of my confusion? The reason I need assistance? It's the recent publication of multiple, sometimes conflicting treatment guidelines for cardiovascular disease.

Like many clinicians, I rely on evidence-based therapeutic guidelines to help me determine how best to treat patients. In recent months, several new guidelines have been published to assist clinicians in treating patients with a variety of cardiovascular diseases (my area of specialty). This should be good news. However, there is also bad news, in the form of multiple guidelines on the same topic (specifically hypertension and reduction in cardiovascular risk) and the fact that many of these guidelines provide differing, even conflicting recommendations. Rather than clarifying the treatment of cardiovascular diseases, these new guidelines have clouded my decision-making process.

In the current issue of *CJHP*, Loewen¹ and Pharand² debate, in the Point Counterpoint feature, whether the new American College of Cardiology / American Heart Association (ACC/AHA) guidelines for the use of lipid-lowering agents³ are sound and whether their adoption should be encouraged. Both authors point out the controversial nature of these guidelines and the fact that they differ substantially from the Canadian Cardiovascular Society's guidelines on diagnosis and treatment of dyslipidemia for prevention of cardiovascular disease,⁴ released just a few months before the ACC/AHA guidelines. In some ways, the new cholesterol guidelines (which can be characterized more broadly as cardiovascular risk reduction guidelines) are more evidence-based than previous guidelines, because they acknowledge that evidence is lacking for the benefits of achieving specific low-density lipoprotein (LDL) cholesterol targets. In addition, they note that the evidence that does exist points more toward efficacy of statin drugs for reduction of morbidity and mortality from cardiovascular disease. However, abandonment of specific LDL cholesterol targets, as recommended in the ACC/AHA guidelines, is controversial. In addition, the cardiovascular risk levels at which statin drugs are

recommended are somewhat arbitrary, and the threshold for treatment may be too low for primary prevention.⁵ Furthermore, the risk calculator provided for applying the guidelines may overestimate the risk, resulting in "overtreatment" of patients.⁶ So which of these guidelines is correct, and how can clinicians determine how best to treat their patients?



Multiple sets of guidelines for the treatment of hypertension released in recent months have also muddied the waters, at least for me. The Eighth Joint National Committee guidelines for management of hypertension (JNC 8),⁷ published earlier this year, established a new blood pressure treatment goal (< 150/90 mm Hg) for patients 60 years of age or older. However, this treatment goal differs from the goal (< 140/90 mm Hg) for this patient population (at least those up to 80 years of age) recommended in the hypertension treatment guidelines promulgated by the American Society for Hypertension and the International Society of Hypertension,⁸ which were released at almost the same time as JNC 8. Some drug therapy recommendations in these guidelines also differ, such as those regarding initial drug therapy in non-black patients.

With these (and other) differences in recommendations among the various cholesterol, risk reduction, and hypertension guidelines, how is a clinician to make decisions? The conflicting and controversial nature of many treatment guidelines serves to point out gaps in the evidence and to identify the need for additional research to direct the best course of diagnosis and treatment. But identifying gaps in the available evidence, gaps that should be addressed by future research, does not help clinicians decide how to treat patients today. Krumholz⁹ has opined that "guidelines should inform but not dictate, guide but

not enforce, and support but not restrict.” He also pointed out that, when applying treatment guidelines, clinicians should not impose particular choices on patients but rather should work with patients, supplying sufficient evidence-based information to assist them in making their own decisions about optimal therapy for their disease.⁹ This approach moves beyond strict application of guideline recommendations to incorporate patients’ choices, preferences, values, and goals, as well as patient-specific issues related to quality of life, thus allowing patients to participate in the treatment decision-making process.

Still, the question remains: how can clinicians interpret guidelines that promulgate differing recommendations and still make appropriate treatment recommendations to patients—or at least give patients the best evidence with which to make their own treatment decisions? The treatment guidelines themselves provide rationales, evidence, and explanations for the recommendations they make, and clinicians may need to study and digest this information, perhaps reading some of the original evidence cited in the treatment guidelines, to form their own optimal interpretation of the data and recommendations. In addition, clinicians can assess the trustworthiness of clinical treatment guidelines using criteria developed by the Institute of Medicine.¹⁰ Application of these 8 standards to treatment guidelines gives clinicians some objective means to assess the reliability of the recommendations. The GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach¹¹ also provides a framework for users of guidelines to assess the quality of evidence and the strength of recommendations.

Will application of these approaches alleviate my confusion or the confusion of other clinicians who are unsure how to resolve differing diagnostic and treatment recommendations in multiple guidelines for the same disease state? Not entirely. But they may at least give clinicians some assistance in providing the best evidence and information to their patients, so that the patient–clinician team can arrive at the best possible treatment plan.

References

1. Loewen P. Are the new guidelines for the use of lipid-lowering agents sound, and should their adoption be encouraged? The “pro” side. *Can J Hosp Pharm.* 2014;67(3):246-7.

2. Pharand C. Are the new guidelines for the use of lipid-lowering agents sound, and should their adoption be encouraged? The “con” side. *Can J Hosp Pharm.* 2014;67(3):247-9.
3. Stone NJ, Robinson J, Lichtenstein AH, Bairey Mertz CN, Blum CB, Eckel RH, et al. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *Circulation.* 2013 Nov 12 (Epub ahead of print). DOI 10.1161/01.cir.0000437738.63853.7a
4. Anderson TJ, Grégoire J, Hegele RA, Couture P, Mancini GB, McPherson R, et al. 2012 update of the Canadian Cardiovascular Society guidelines for the diagnosis and treatment of dyslipidemia for the prevention of cardiovascular disease in the adult. *Can J Cardiol.* 2013;29(2):151-67.
5. Downs J, Good C. New cholesterol guidelines; has Godot finally arrived? *Ann Intern Med.* 2014;160(5):354-6.
6. Ridker PM, Cook NR. Statins: new American guidelines for prevention of cardiovascular disease. *Lancet.* 2013;382(9907):1762-5.
7. James PA, Oparil S, Carter BL, Cushman WC, Dennison-Himmelfarb C, Handler J, et al. 2014 evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). *JAMA.* 2014;311(5):507-20.
8. Graham R, Mancher M, Miller Woman D, Greenfield S, Steinberg E, et al. Clinical practice guidelines for the management of hypertension in the community: a statement by the American Society of Hypertension and the International Society of Hypertension. *J Clin Hypertens.* 2014;16(1):14-26.
9. Krumholz HM. The new cholesterol and blood pressure guidelines: perspective on the path forward [editorial]. *JAMA.* 2014;311(14):1403-5.
10. Graham R, Mancher M, Miller Woman D, Greenfield S, Steinberg E, editors; Institute of Medicine, Committee on Standards for Developing Trustworthy Clinical Practice Guidelines. *Clinical practice guidelines we can trust.* Washington (DC): National Academies Press; 2011.
11. Atkins D, Best D, Briss PA, Eccles M, Falck-Ytter Y, Flottorp S, et al. Grading quality of evidence and strength of recommendations. *BMJ.* 2004;328(7454):1490.

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Competing interests: None declared.

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