Peer Review of PEER Simplified Lipid guideline 2023 'Update': Prevention and management of cardiovascular disease in Primary Care

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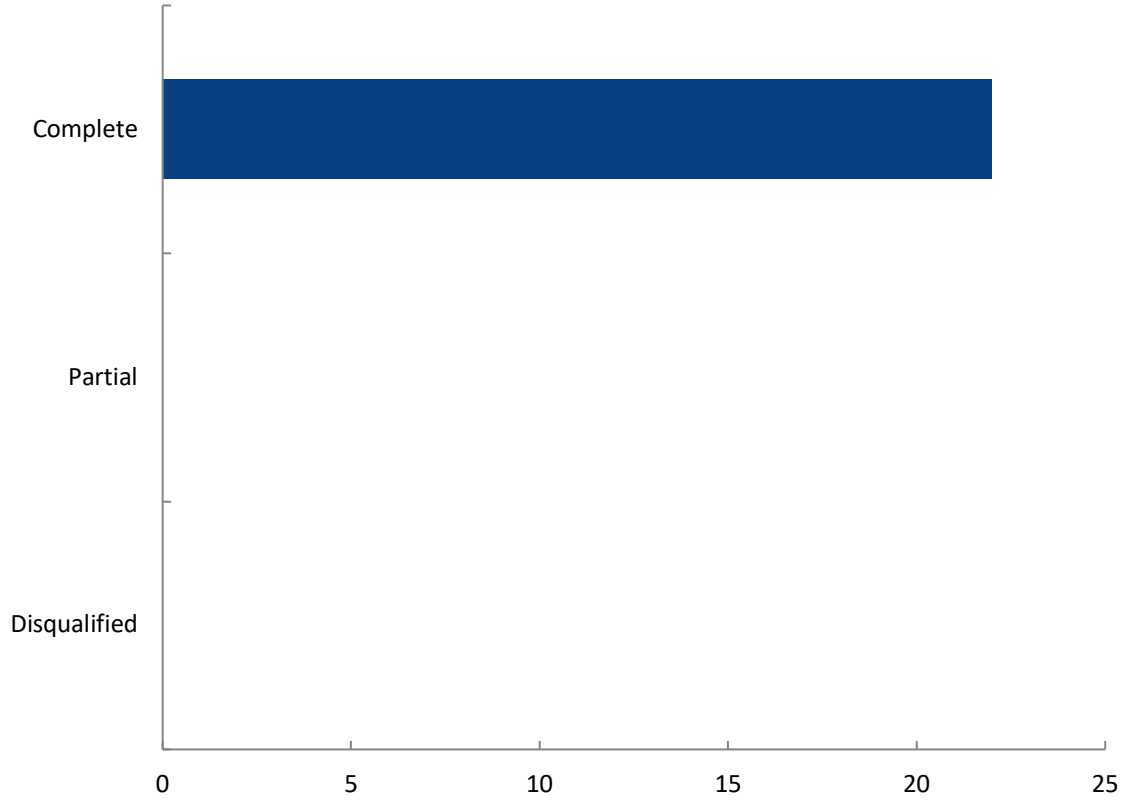
Health Care Professional Peer Review

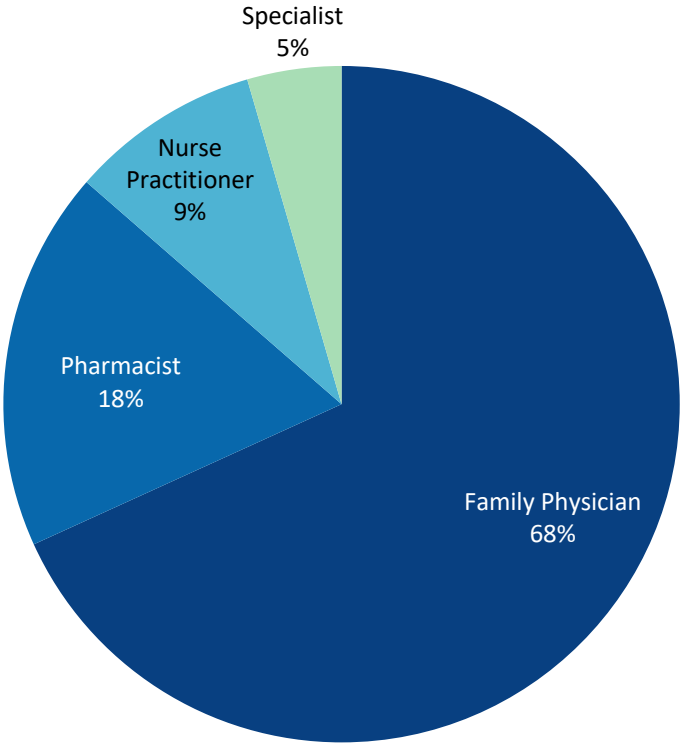
Response Statistics
Completed reviews: 22
Permission to publish name and feedback: 20
Did not give permission to publish name or feedback: 2

Response Statistics



	Count	Percent
Complete	22	100
Partial	0	0
Disqualified	0	0
Total	22	

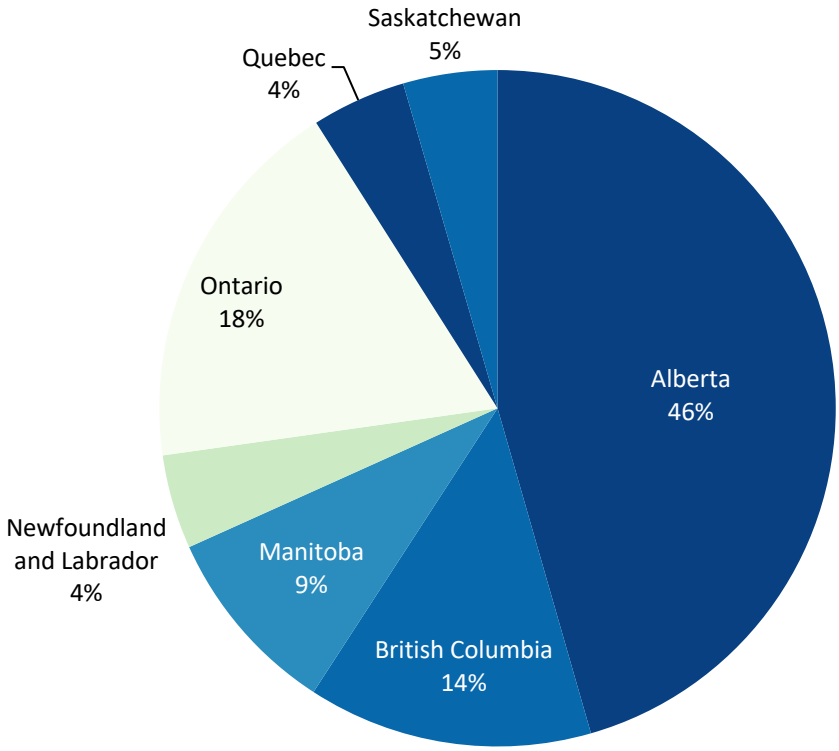
1. Occupation



Value	Percent	Count
Family Physician	68.2%	15
Pharmacist	18.2%	4
Nurse Practitioner	9.1%	2
Specialist	4.5%	1
Totals		22

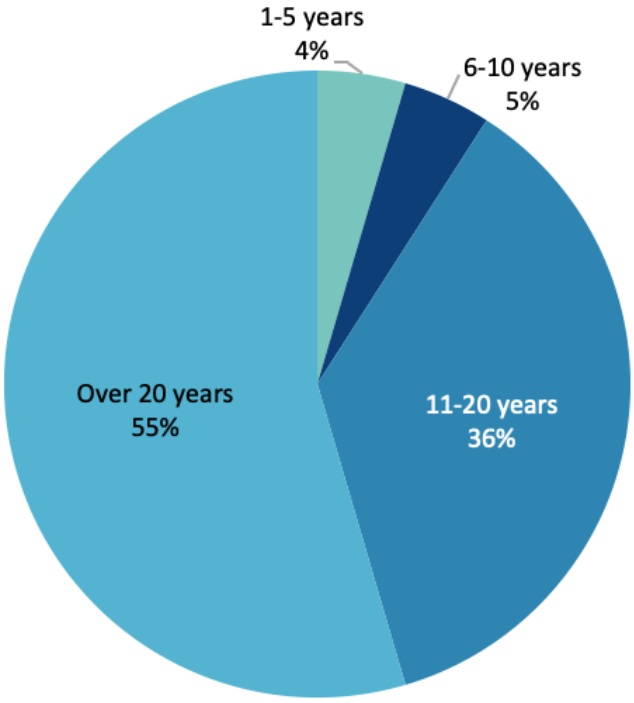
Specialist	Count
Internal medicine	1
Totals	1

2. Which province do you live in?



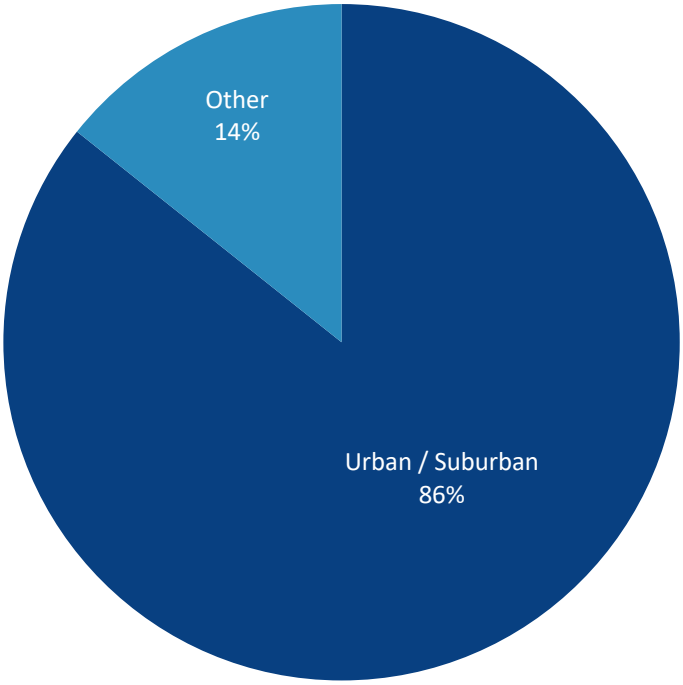
Value	Percent	Count
Alberta	45.5%	10
British Columbia	13.6%	3
Manitoba	9.1%	2
Newfoundland and Labrador	4.5%	1
Ontario	18.2%	4
Quebec	4.5%	1
Saskatchewan	4.5%	1
Totals		22

3. How many years have you been practicing?



Value	Percent	Count
1-5 years	4.5%	1
6-10 years	4.5%	1
11-20 years	36.4%	8
Over 20 years	54.5%	12
Totals		22

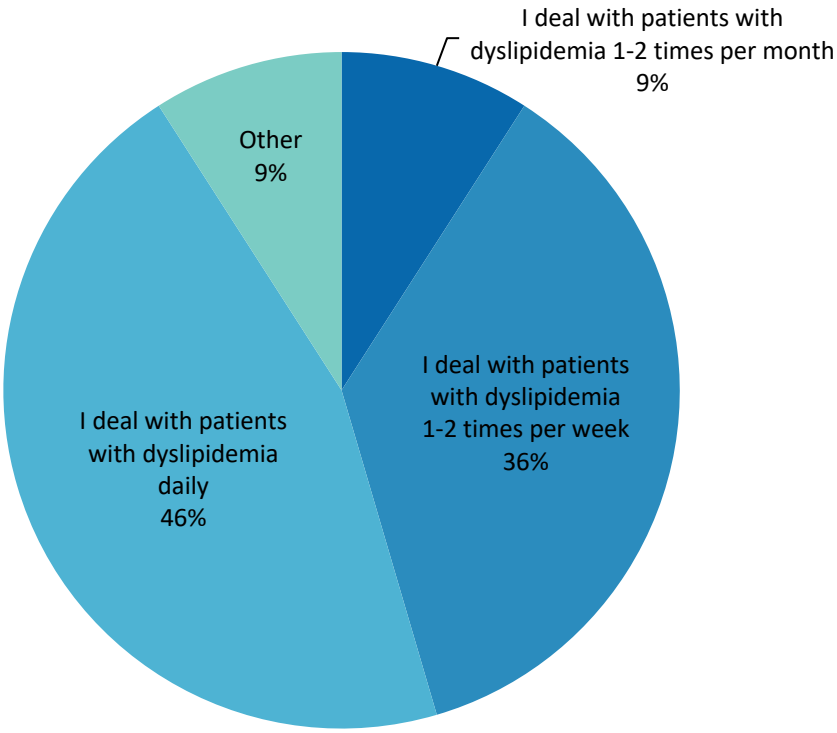
4. How would you describe your area of practice?



Value	Percent	Count
Urban / Suburban	86.4%	19
Other	13.6%	3
Totals		22

Other	Count
Both urban and suburban	1
Now retired from clinical practice	1
Small community	1
Totals	3

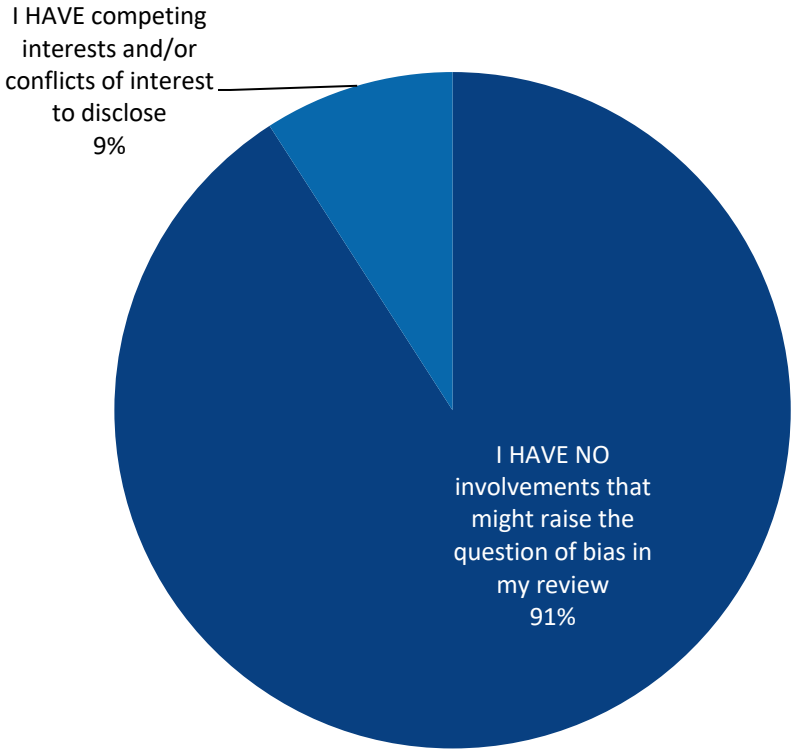
5. My level of familiarity with treating dyslipidemia can be best described as:



Value	Percent	Count
I deal with patients with dyslipidemia 1-2 times per month	9.1%	2
I deal with patients with dyslipidemia 1-2 times per week	36.4%	8
I deal with patients with dyslipidemia daily	45.5%	10
Other	9.1%	2
Totals		22

Other	Count
I teach clinicians about the evidence for dyslipidemia treatment	1
Retired; do practice reviews for CPSA so involved in assessing and coaching around this area	1
Totals	2

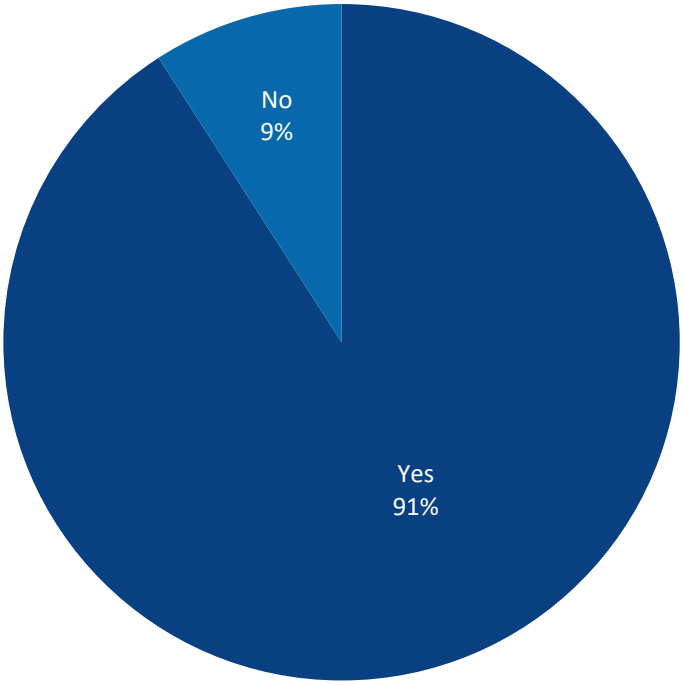
6. Competing Interests or Conflict of Interest Declaration:



Value	Percent	Count
I HAVE NO involvements that might raise the question of bias in my review	95.2%	20
I HAVE competing interests and/or conflicts of interest to disclose	4.8%	2
Totals		22

ID	Conflict of Interest
8	CEO, mmHg Inc (digital health) Speaking - Amgen 2 talks in past 3 years
32	I am currently a member of the Enhanced Lipid Reporting working group designed to educate patients and physicians about CV risk reduction.

7. Would you consent to having your name and peer review comments published? Note: names and comments would be separate.



Value	Percent	Count
Yes	90.9%	20
No	9.1%	2
Totals		22

8. Overall strengths of the guideline

ID	Response
8	Simple, nice graphics. Implementable. Thank you for not discriminating against those over 75!
10	Primary-care-focused. Fits most patient situations.
11	The panel composition is excellent, including the strict avoidance of conflicts of interest. The emphasis on simplicity and time efficiency is fabulous.
12	Applicable to primary care. KT tool is very nice with easy-to-follow, clear recommendations as well as the addition of answers to common questions and links to relevant resources.
13	Very simple and easy to read, especially for busy family physicians who deal with these issues every day in practice.
15	Relatively clear and concise with clear, actionable recommendations. Straightforward recommendations that can be implemented in a typical primary care practice without added work/time.
16	It answered all the questions I often have about lipids and in particular about statins.
17	Easy to understand overall, especially if under 75. Easy to implement. No repeat lipid testing or liver tests. Exercise prescription easy to recommend. Mediterranean diet suggested.
18	Simplified and in two pages. Easy to use. Patient handout is very well explained.
19	Process as per standard protocol. Easy to read, simplified decision points. Summary document and patient handout easy to read and understand.
20	I think the guideline is clear and concise. It is right to the point and evaluated well the level of evidence surrounding lipid use in primary prevention.
21	Simplified, clear, and concise. "Suggest" and "recommended" is easy to follow and an improvement from the 2015 document.
22	Concise, clear, well-structured and easy to follow. Very evidence-based and not biased. Very adaptable to primary care practice.
23	I think it clearly outlines the population that it is applies to, provides good justification for why it is suggesting things that may not currently be common in current practice (i.e., treat to target) and shifts focus to shared decision making.
24	Clarity and simplicity. Lack of bias.
25	Summarizes dyslipidemia from a straightforward, practical, population-based perspective. Includes the concept of time needed to treat.
26	The methods according to [Institute of Medicine] standards... excellent!
29	Residents and I used AGREE tool to assess. For both guideline panel and evidence team the only affiliations were with university, no one with active work in lipid research. No financial COI. Patient on panel (though not clear what their contribution was to be). Mostly primary care providers involved. All domains of the AGREE parameters were dealt with well, it felt highly relevant and readable for primary care. Really like the boxes.
30	Evidence review included real world examples of cases, increasing the practicality and usefulness. Recommendation summary is VERY clear.
32	Very practical. Answers a lot of uncertain questions.

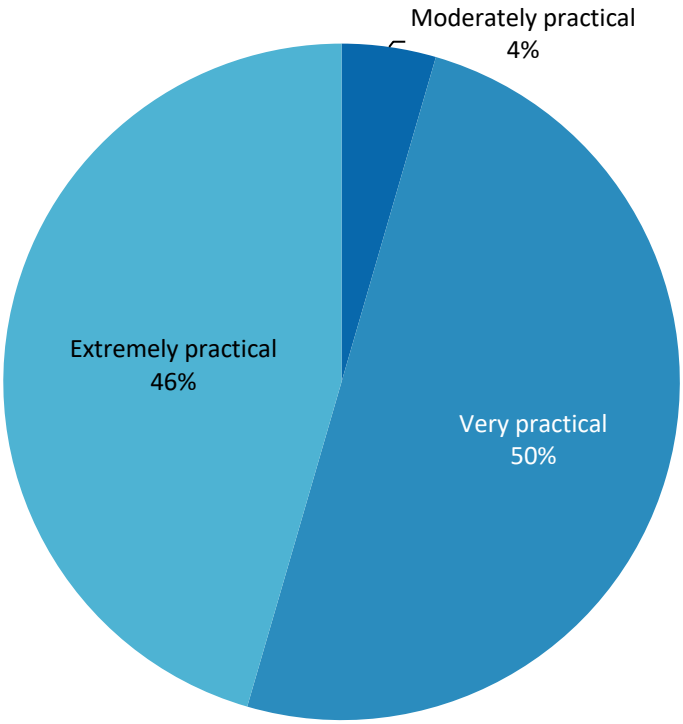
9. Overall weaknesses of the guideline

ID	Response	Response
8	I think you should give the option to rest lipids (adherence and ensure that intensification or additional med is not required for high-risk). Adherence is a known, huge issue documented in many studies	Benefits/risks of testing addressed
	Isn't the cost of PCSK-9 closer to 3,350/year?	Addressed
	'In primary prevention, we recommend against using non-statin lipid lowering drugs as monotherapy or in combination with statins' – but what about FH (Familial Hypercholesterolemia), which is 1/250 people, and where PCSK-9s are often need to get to expert consensus targets… trials show safety and significant LDL lowering. E.g:https://www.nejm.org/doi/full/10.1056/NEJMoa2019910	Addressed
	Consider displaying once-a-day dosage of PCSK-9 inhibitors (easier for patient; same cost)	Addressed
10	Does not recommend risk engine	Addressed
	Framingham way out of date. Consider using New Zealand one on therapeutics collaboration website (James McCormack's and Mike Allan). My personal risk is half what is was on the Framingham one.	Different calculators use different outcomes and timelines
	You no repeat testing but for secondary prevention why add other meds if not at target?	Addressed
11	It took quite a bit of effort to connect individual recommendations to the level of supporting evidence and the relevant references.	Addressed
12	Not a real weakness but would suggest that some clarity in the Screening of patients under age 40: "Testing can be considered earlier for patients with known traditional CVD risk factors including, but not limited to…" - what does "earlier" mean? Is there any value in testing a 25-year-old whose parent had premature CVD? Would their current risk be in the statin initiation discussion range?	Acknowledged
	If testing "earlier" what risk assessment tool could be used, if any, to inform interventions as none of the calculators are applicable in under age 40?	Acknowledged
13	It would be helpful to have a box with the low, moderate, and high intensity statin doses that are shown in the 2-page summary in the actual guideline as well.	Addressed
15	Evidence review is separate from the main guideline, so for those that wish to see the data for themselves would have to access a separate document.	
	Could have more detail about the additional risk stratification tests (LpA, apoB, CAC) as not all readers may be very familiar with what those are or the significance.	Addressed in appendix
16	It is quite repetitive... if I were to read the whole thing, I would end up reading some of the same things more than once.	Addressed
17	Statins for the elderly are not as clear for primary prevention. I am confused how the recommendation for line 229 and 230 came about. 2 studies included found the benefit wasn't there after 75. The abstract for STAREE and SITE said same. They both added cognition is a concern for elderly but your guideline said otherwise. I	Addressed in appendix

ID	Response	Response
	also don't know the definition of overall good health status. After discussion and the pt chooses therapy, is the next step initiate therapy or check lipids if pt requests?	
	I also don't understand how the recommendation in lines 231 and 232 came to. Is deprescribing of a statin ever a recommendation as the pt ages?	Deprescribing out of scope
18	Clear outline on evidence comparing 5-10 yr lipid testing vs more frequent lipid testing and on statin intolerance with regards to patient expectations. This is frequently faced during primary care practice.	Addressed
19	Summary document could link on page 1 to CVD Calculator given the calculator's importance in the decision process of risk scoring.	Addressed
20	I feel like the treatment of patients over the age of 75 years was not very nuanced and might be more difficult to individualize with this guideline.	Addressed
	I find Table 1 may lead to confusion and would have preferred the level of evidence cited at the end of each topic and statement.	Addressed
21	Most controversial part of guideline is not using target LDL/repeating testing after starting medications so may need additional explanation of this concept/rationale in the follow up section vs just in the discussion.	Addressed
	Same [as above] goes for "time needed to treat" - this was a new concept to me.	Addressed
	Tone of some statements in patient handout are negative or could be construed as negative.	Addressed
	Minor grammatical inconsistencies (oxford comma, using abbrev after first citation, capitals sometimes used for Med Diet and sometimes not, etc.).	Addressed
22	Overall, just a few grammatical suggestions to help with flow of guideline.	
23	Patients and health care providers alike have become accustomed to wanting to know the 'numbers', it may be challenging to change that practice as the guideline recommends a shift that is quite far from what still often occurs in primary care.	Addressed
24	Still divides risk by arbitrary categories, though softens that by pointing out the arbitrariness.	Addressed
25	Overall - though not a true guideline weakness, as someone who does some tertiary hospitalist care, combined with primarily office-based care, the dissonance between the CCS guidelines and the lipid guidelines, especially as more novel therapies arise feels to be a point of professional contention. It would be fantastic to see some degree of harmony between the two - but understand that the differences might not be easily reconciled.	Acknowledged
26	The guideline makes no mention of nurse practitioners. This group is heavily involved in primary care and likely deals with dyslipidemia. I would specifically include them when you mention family physicians.	Addressed

ID	Response	Response
	It discusses or implies CVD risk calculation should be done but doesn't not mention if there is evidence that CVD risk calculation has been shown to be useful. A review of evidence for the value of risk scoring would be useful but may be beyond the scope of the guideline.	Addressed
29	Would help to have a bit of info on doses – what is low moderate and high?	Addressed
	RR differences with intensity – which patients is each intensity referring to?	Addressed
	Would help to have a comment about how this guideline relates, if at all, to guidance for other statin-recommended conditions.	Statin-recommended conditions: term not used in this guideline
	Does the presence of CKD or DM change how this guideline should be applied?	Addressed
	Would be helpful to have something that speaks to cost	Addressed
30	Having primary prevention and secondary prevention as 12-14 makes it seem less important. May be worth keeping 12-14 as a separate tab so there is a section called prevention. This extra tab may help ensure that it is not buried.	Acknowledged
	In topic and GRADE certainty may be worth adding some sort of pictorial next to high/moderate/low section of grade level of evidence to make it clear at a glance or reorganize so high is first, then moderate then low.	Acknowledged
32	Conflict with prominent Canadian cardiovascular guidelines which leads to uncertainty amongst physicians.	Acknowledged

10. How would you rate the practicality of this guideline for implementation in a real-world clinical setting?



Value	Percent	Count
Moderately practical	10.0%	1
Very practical	50.0%	11
Extremely practical	40.0%	10
Totals		22

11. Did you have feedback or comments on the following sections of the guideline? If yes, you will see applicable text boxes on the following page.

Section	Yes		No		Responses
	Count	Row %	Count	Row %	Count
Abstract and/or Introduction	4	18.2%	18	81.8%	22
Methods	4	18.2%	18	81.8%	22
Box 1. Recommendations Summary	6	27.3%	16	72.7%	22
Table 1. GRADE Certainty of Evidence Table for All Recommendations	5	22.7%	17	77.3%	22
Screening and Testing	8	36.4%	14	63.6%	22
Non-Pharmacologic Interventions	5	22.7%	17	77.3%	22
Pharmacologic Interventions	6	27.3%	16	72.7%	22
Considerations in the Elderly	4	18.2%	18	81.8%	22
Statin Intolerance	2	9.1%	20	90.9%	22
Follow-Up	3	13.6%	19	86.4%	22
Discussion and/or Conclusion	3	13.6%	19	86.4%	22

12. Abstract and/or Introduction feedback or comments:

ID	Response	Response
16	Lines 11-12, 35, 66-67: Could you put statins first on this list? If they are the first line recommendation, then psychologically it makes sense to put them first in the list so it sticks in our brains better.	Addressed
	Line 33: Typo "and" should be cut, “Cardiovascular related conditions (e.g., hypertension, diabetes) **AND** are common reasons...”	Addressed
	Lines 77-101: LOVED the supplemental questions!	
	Lines 110-111: I would like "suggest" and "recommend" bolded or something (I see that you do that later, it helps with clarity)	Addressed
24	Line 34: The word used in the phrase should be changed: “… agents believed to prevent cardiovascular disease”. I suggest purported, or suggested to, or marketed to.	Addressed
26	Need to mention this would be useful for family physicians and nurse practitioners.	Addressed

13. Methods feedback or comments:

ID	Response	Response
15	Lines 70-72: The phrasing about adverse events is unclear and confusing. Would be nice to have a clear list of the types of adverse events as it is a run on sentence with a semi colon in an odd place.	Addressed
	Lines 77-86: Standard risk estimate used by most physicians in practice is the Framingham risk score, but only age and smoking are listed as examples of "standard risk estimates".	Addressed
	Line 91: Should define the term "rechallenging" as it isn't a term that is commonly used in practice. Could for example say, re-trialing, or re-initiating.	Addressed
	Line 92-93: "Statin use" really refers to "statin compliance" or "statin tolerability", consider clarifying.	Addressed
	Line 113: little bit of nitpicking, but it is "Department of Defence", not "Depart of Defence."	Addressed
19	More an overall comment on physical activity. Many studies done in 1990's systemic reviews from 2017 onward may not reflect older studies on primary prevention physical activity in CVD.	Acknowledged
22	Line 69: Sentence change instead of 'we categorized', perhaps “Findings were categorized into subgroups…”	Addressed
	Line 87: Substitute ‘does’ with ‘will’	Addressed
26	Implies CVD risk calculation should be done and has value but no mention of looking at the evidence for that.	Acknowledged

14. Box 1. Recommendations Summary feedback or comments:

ID	Response	Response
11	As a reader I would value having "recommend" and "suggest" defined within this summary box.	Acknowledged
	I would like to see the level of evidence (from Table 1) right next to each recommendation, along with footnote numbers to connect to which references are relevant to that particular recommendation.	Acknowledged
12	"Testing can be considered earlier for patients with known traditional CVD risk factors including, but not limited to, …" ● What does "earlier" mean? ● Is there any value in testing a 25 year old whose parent had premature CVD? Would their current risk be in the statin initiation discussion range? ● If testing "earlier" what risk assessment tool could be used, if any, to inform interventions as none of the calculators are applicable in under age 40?	Acknowledged
13	Could there be a summary line about when to use low-intensity statins? Perhaps in the in the interventions section?	Addressed
16	Please bold "suggest" and "recommend" (see comment above 110-111)	Addressed
	Line 15-19: LOVE considerations for the elderly	
	Line 24: Is there room to consider offering an example of what might be worthy of CK or ALT testing in this context?	Acknowledged
19	Line 124: Intervention 7, surprised that physical activity is a suggestion not recommendation. I accept that RCTs are hard to do in physical activity and Framingham does not include physical activity in its risk scoring.	Acknowledged
30	Having primary prevention and secondary prevention as 12-14 makes it seem less important. May be worth keeping 12-14 as a separate tab so there is a section called prevention. This extra tab may help ensure that it is not buried.	Acknowledged

15. Table 1. GRADE Certainty of Evidence Table for All Recommendations feedback or comments:

ID	Response	Response
11	As above I would like to see this rolled into Box 1 so that I can see the strength of recommendation and the strength of evidence at the same time.	Acknowledged
19	Line 127: I appreciate the process and work done by the team. Again, surprised that there is a Low grade of evidence for physical activity benefit. It's not included in a lot of systemic reviews. The work of Blair, Paffenberger in 1990's and 2000's and Naci in BMJ in 2013 would not be included in later systemic reviews.	Acknowledged
20	I find Table 1 since it only mentions topic and level of evidence - if someone only looks at that it may lead to confusion. For example, if you read the use of Lp(a) and apo B level of evidence high, you may conclude that testing for them has a high level of evidence if you don't dig a little deeper. I prefer my level evidence at the end of each topic or statement in text, or more context in Table 1.	Acknowledged
21	Table can read as if the topic has High evidence for it when really what is meant is that there is High evidence not to do it. For example, Lp(a) and apoB - GRADE is High, but is that high for it or against it?	Acknowledged
30	In topic and GRADE certainty may be worth adding some sort of pictorial next to high/moderate/low section of grade level of evidence to make it clear at a glance or reorganize so high is first, then moderate, then low.	Acknowledged

16. Screening and Testing feedback or comments:

ID	Response	Response
10	Line 45: Not sure what you mean on time needed to treat. Is that clinician office time or patient time in that they may be preventing an event in 20 years' time?	Addressed
	If you don't retest blood levels, how do you know if those for secondary prevention need more medications? The "anti" blood testing is contradicted internally.	Addressed
	Line 124: Would you add ethnicity there e.g., Indian subcontinent patients have very high CVD risk, in New Zealand likely the same in Canada and perhaps first nations people for equity's sake.	Acknowledged. This information is not always available
12	"Testing can be considered earlier for patients with known traditional CVD risk factors including, but not limited to, …" ● What does "earlier" mean? ● Is there any value in testing a 25-year-old whose parent had premature CVD? Would their current risk be in the statin initiation discussion range? ● If testing "earlier" what risk assessment tool could be used, if any, to inform interventions as none of the calculators are applicable in under age 40?	Discussed above
15	Line 160: Should define somewhere what the c-statistic is, as many readers of this guideline would not know what that is.	Addressed
16	Line 137: Thanks for starting to bold "suggest" and "recommend".	
	Line 147: Would it be ok to say "automatically" at high risk? or is that dumb?	Addressed
	Lines 156-158: The question around to test or not to test is so important! I like how it is worded here better than in the KTT 2-pager.	Addressed
20	I would have liked a mention of the different types of validated CVD risk calculator used in the systematic reviews, or the ones you suggest or recommend we use. Even if it is more than one.	Addressed
26	CVD risk testing evidence is not discussed yet implied that CVD risk scoring should be done.	Addressed
32	I am not clear why you went back to women age 50 not age 40 to start CV risk screening.	2015 recommendation: carried forward.

17. Non-Pharmacologic Interventions feedback or comments:

ID	Response	Response
16	Lines 170-171: Reverse this phrase and start with "adherence probably more important than specific type, duration and intensity..." so that the important thing we should care about comes first and we absorb better.	Acknowledged
19	Line 170: Comments as in methods re: my surprise of low grade of evidence of exercise. I have not looked at systemic reviews of systemic reviews myself so defer to the expert writing team. I don't think it will affect practitioners as 'suggest' or 'recommend' will both be taken up by physicians.	Acknowledged
20	Was there a specific Mediterranean diet used or at least a reference to one?	Addressed
23	Consider including a statement regarding supplements/natural health products and the lack of evidence to support their use in reducing CV risk.	Beyond scope of this guideline
24	For the handout, and KT tool, I suggest that quitting smoking should come first, then exercising, then Mediterranean diet. This is based on the likely magnitude of beneficial effect in practice, including the compliance issue. IF smokers can quit, they reduce not just heart disease and stroke, but also peripheral vascular disease, resp, etc.	Addressed

18. Pharmacologic Interventions feedback or comments:

ID	Response	Response
10	Line 97: Over 75, is that primary or secondary prevention?	Acknowledged
	Not sure of modest doses for modest risk. Perhaps some patients may wish to take maximum doses to get biggest bang for buck. Some patients will do anything to prevent a small risk and if they tolerate a high dose ?? Ok for them to do so.	Addressed
	For muscle pain could do single patients N of 1 trial with drug and placebo to check the muscle pain is real.	Acknowledged
16	Line 204: Not sure what MACE is and scrolling up I actually can't find when it is first mentioned and defined... maybe I am blind? But if it's several paragraphs up maybe re-explain?	Addressed
22	Line 204: MACE - insert acronym meaning “Major adverse cardiovascular events (MACE)…”, then can proceed thereafter.	See above
26	There is limited justification of why high intensity statin is preferred and very little mention of the LDL target issue. I think this needs more attention	2015 recommendation carried forward
	The inclusion of CVD risk estimates as part of treatment decision making... is there evidence to support the use of CVD risk categories when initiating different therapies? If there is, it should be discussed...if not, why is it included?	Addressed
	Moderate and high intensity statin therapy dosing was vague and I had to go searching for the doses so could be a bit clearer and more prominent.	Addressed
32	Treating to target controversial and still not crystal clear - maybe saying either method is acceptable would be better?	Addressed

19. Feedback or comments on Considerations in the Elderly:

ID	Response	Response
10	I like the pro-ageing.	
15	Line 231-232/235: The recommendation is to not stop statins in patients over age 75; however, it may be reasonable in some patients to de-prescribe if other non-cardiac comorbidities limit life expectancy (e.g., cancer, LTC patients, dementia, etc.).	Acknowledged
17	I don't think they are clear for primary prevention.	Acknowledged
	What is good overall health? Maybe add criteria such as frailty scale.	Acknowledged
	After the discussion, then what? If they decide no statin, is the discussion revisited? If so, when?	Addressed
	If on a statin for primary prevention, is deprescribing ever recommended when above 75 years?	Acknowledged
	Do you have studies supporting this recommendation?	See Appendix
20	I feel like the guideline does not permit us to individualize lipid lowering therapy in this population. It paints too much of a broad stroke and since a huge portion of this population has CVD the guideline may be more difficult to apply to this population. For example, why is it not recommended to discontinue statin in someone already taking one versus initiating one? What is an overall good health status for the possibility of initiating one?	Acknowledged

20. Statin Intolerance feedback or comments:

ID	Response	Response
18	Box 1; Recommendation 21: this is difficult to convey to patients especially since there is weak evidence.	Addressed
22	Line 271: Finish sentence at intolerant patients; then, start with “As well, PCSK9 inhibitors....”	Addressed

21. Follow-Up feedback or comments:

ID	Response	Response
16	Line 288: Small thing but not really necessary in my opinion to include the phrase "including visits to discuss repeat test results"... no biggie if you think important to keep.	Addressed
	Lines 288-289: I like the phrase "treat to target" and it's not worded that way anywhere else if I recall... it's sharp and clear.	Addressed
21	Most controversial part of guideline is not using target LDL/repeating testing after starting medications so suggest add additional explanation of this concept/rationale in the follow up section vs or instead of in the discussion.	Addressed

22. Discussion and/or Conclusion feedback or comments:

ID	Response	Response
16	Table 2: I'm wondering if you could reverse the order of the info in the box "comments consistency with guideline recommendation"? Right now you describe the evidence and then in italics write whether it "supports recommendations" or "no change" or whatever... could that be first and then write the evidence below?	Acknowledged
22	Line 348-352: Multiple use of the word 'both' line 351-2- We both... We too	Addressed
	Line 355: Change “Another slight difference…” to “Another modest difference…”	Addressed
	Line 358: Change “We suggest…” to “We encourage…”	Acknowledged
26	Need to add that this would be useful for NPs	Addressed
	Need to discuss why or why not CVD risk scoring is included and what value it adds	Addressed
	Need to talk about LDL targets and why high intensity statins are preferred	Acknowledged

23. Any additional feedback, comments or concerns about this guideline:

ID	Response	Response
10	Line 323: Time needed to treat (whose time is that)? I have a European document that shows between 45 and 70 there is a 1% risk of events started treatment at 70 there is a 10% risk of events so this is a long game for patients. Happy to supply reference.	Addressed
11	Even though I would like to see the footnote numbers right in Box 1, I really liked the detail in the appendix to explain the interpretation of the gathered evidence.	
12	Well-done and thank you for providing this practical tool for primary care.	
15	There is a lot made about how the guideline takes into account "time needed to treat", but it isn't really addressed in the actual recommendations other than the general sentiment that less testing = less work for the practitioner.	Addressed
16	Just want to say I like it and I am reassured by it. Reassured that even in the face of pushy cardiologists who don't know our patients that we will be able to justify our decision making.	
17	Other than elderly prescribing, I found the guideline clear with pertinent research to support the recommendation. I am curious when TNT (time needed to treat) will be calculated.	
18	No concerns. Very good and precisely written out.	
21	I have some line-by-line editorial suggestions if you would like this level of detail.	
22	Very informative. I can hardly wait for the finished product to use in primary care.	
24	I like it, especially the KT tool and patient handout.	
26	Well-done and very practical. Good methods.	
	The CVD risk scoring, high intensity statin issue, LDL target issue...see previous comments. I think more needs to be done and added about this.	Addressed
29	Line 33: Delete "and"	Addressed
	Line 110: Not quite understanding the terminology that is trying to convey strength of recommendation. Why are you recommending/suggesting ACTION for diet and physical activity, but you recommend/suggest DISCUSSION for primary prevention, and recommend/suggest ENCOURAGING for secondary prevention. It takes a while to figure this out, and I think I get what you're trying to say, but maybe you could either explain that better, or change the terminology.	Acknowledged
	Line 298: A nice concise finish with the main highlights mentioned only	
	Line 301: You are making it sound here as though you feel as strongly about primary as secondary prevention, yet as mentioned, your language earlier conveys a difference. If you are ambivalent about primary prevention (I am) this would be a	Acknowledged

ID	Response	Response
	good place to say why. Otherwise, maybe make the strength of recommendation for statins in primary and secondary same throughout the document?	
	Would the discussion be a place where comment could be made about whether this guideline does or does not have relevance in the context of other statin-indicated conditions?	Acknowledged
32	I really do think it is fantastic other than the treat to target or not is still a bit unclear in my mind. Also, I find it is very motivating for patients to see a sharp reduction in their LDL to motivate adherence to the meds long-term.	Acknowledged

24. What are the strengths of the KT document? e.g., reflect on the clarity and usability of the tool in your practice.

ID	Response
8	Looks good overall.
10	If this is the summary (PDF disappeared), it is brilliant.
11	The flow diagram was clear. The three-level risk will be welcomed by many users. I like the asterisk that points out that risk is continuous.
12	Easy to follow recommendations for primary and secondary prevention. Dosing levels for the statins. Cost of the agents. FAQ's and resource links.
13	Very clear and concise. Easy to read. I like the table with the statin regimens in low, moderate, and high dose suggestions.
15	Table on Statin Dosing Range and Intensity is helpful. Consider putting it in the main guideline as well or in the Appendix.
	QR codes are helpful
16	Has pretty much all the important info.
17	The single sheet was helpful. The patient info was also helpful. I liked the previous guideline's calculator with the happy faces. I get the feeling this feature is gone.
18	The crisp and concise nature of the document will make it easy to use.
19	This is an excellent tool, simple to use, easy to follow the flow. It can be shared and explained easily with patients in simple language.
20	Very visually pleasing. Big font. Easy algorithm to use. Presence of text to explain things, but written big and clear.
21	I think this is an improvement over 2015, especially the FAQ section.
22	Clear, concise, excellent, and easy to follow resources/starting doses and benefits. Sound, good evidence
23	Includes secondary prevention. Using along with the PEER CV decision aid could be a very clear guide when discussing options with patients.
24	Very clarifying and simplifying.
25	Brief, readable, applicable in a day-to-day practice. Including cost is a huge bonus, as well as addressing some myths about statin induced myalgias by giving an approach to the same.
26	Nice and simple.
29	Excellent tool. Easy to follow and read. Really want to use it.
30	Very quick to review and clear.
32	Simple.

25. Is there anything that could be improved on the KT tool?

ID	Response	Response
8	Not sure I'd recommend fibrates for LDL lowering but I can see why you did...used more for high trig to prevent pancreatitis.	Acknowledged
10	Just which risk equation are you using? Is there a Canada-specific one?	Addressed
11	Visually it could be more clearly communicated that both a continuous risk, and a three-level risk are potential interpretations. E.g., one could have a color gradient of low/medium/high risk, and still have three outflow arrows.	Addressed
12	Although the tool states that "all steps require clinical judgment and are dependent on patient preference" I think some suggestion on patients under 40 years might help to inform requests from patients.	Acknowledged
	The Statin benefits section: highlighting the relative risk reduction in bold or underlined might provide some clarity to ensure that physicians recognize the difference from ARR	Addressed
13	I'd suggest instead of referencing RxFiles for the cost for statins, putting an approximate cost range would be appreciated as many physicians do not have RxFiles or have access to it, plus looking up that data in another place is a big, time-consuming step. Could it just be added as a $ range to give the reader an idea of approximate cost?	Addressed
15	No cost listed for statins.	Addressed
	Lots of information crammed into two pages, so quite dense. Perhaps have more contrasting color scheme to make different segments stand out more?	Addressed
	Instead of QR codes perhaps have an active link as many of those using this tool will be on phone or computer already, not paper.	Addressed
	The graphic on page 2 for muscle symptoms is probably not necessary and just adds clutter.	Addressed
16	It might be important somehow to explain the difference between "suggest" and "recommend". It's in the guidelines but some may not read the long version. Also, I don't know if it would be too visually confusing if they were bolded... something to consider.	Acknowledged
	The pictogram or whatever that thing is called with the 1/15 muscle aches... could it be bigger? Make the text in the box beside it a bit smaller? (Management of symptoms)	Addressed
18	In "How can I help with life style changes": This is a crucial part in shared decision making. Adding a link on how to motivate health behaviour change to increase patient buy in would be helpful.	Addressed
19	I wonder if a link to the CVD Risk Calculator (already on page 2 of the Summary document tool), could have a link in the flow document next to the box " Calculate patient's 10-year cardiovascular Risk". It may help flow for physician working with it.	Addressed
20	I like having the level of evidence on my tool so that I can easily assess, what is strongly recommended versus what is only a suggestion.	Acknowledged

ID	Response	Response
	I would mention that there is no preferred technique to rechallenge statin.	Addressed
	I am not sure that ''How can I help patients increase with lifestyle modification?'' is a frequently asked question. The question I think that is more pertinent is “What lifestyle modification should I focus on with my patient and how do I help him achieve those goal?” (Answer stays pretty much the same).	Addressed
21	Add cost for statin therapy.	Addressed
	For question 3 of FAQ, add "adherence" or similar, i.e., How can I help patients increase adherence with lifestyle modification?	Addressed
23	Add in lipid lowering agents adverse effects table: no cancer increase seen with statins.	Acknowledged
24	I suggest that the reference 1 should be placed right under the table where it is used, rather than at the end of the page. to make it easier for readers.	Addressed
25	As much as relative risk reduction values can be challenging, I personally would appreciate them to be on the KT tool so I can apply patients individualized CVD risk in a discussion. This is more so relevant for the newer agents (such as PCKS9i) that myself and many primary care colleagues are less familiar with.	Addressed
26	Some sections are a bit wordy. Could bullet points be used?	Addressed
29	Could we have some costing info on statins?	Addressed
	The difference in RR for moderate and high intensity, what risk stratum or patient group does this pertain to?	Addressed
32	Why not men and women age 40 to start?	Acknowledged
	For mod risk treating if LDL >3.5 is not included and I don't remember seeing that in the document. Are you saying anyone with a mod risk should consider a statin independent of their LDL?	Acknowledged

26. Other comments, suggestions, or edits?

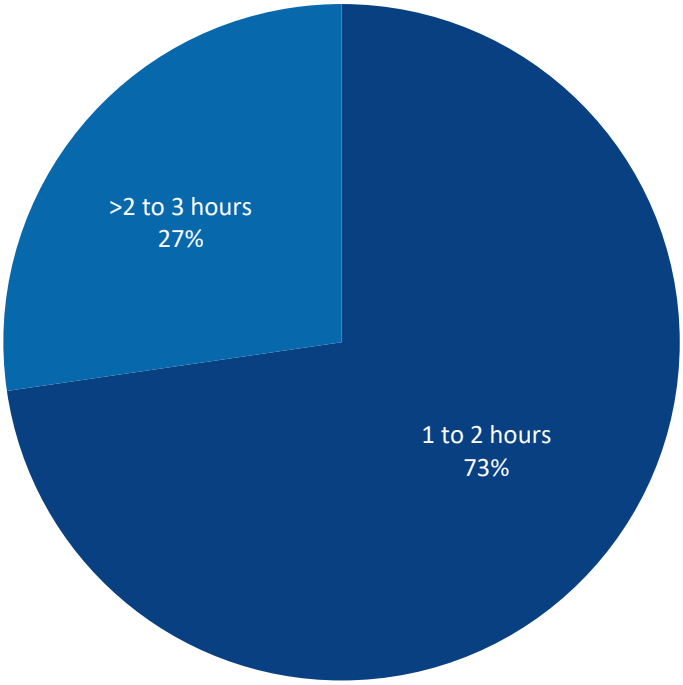
ID	Response	Response
10	Great piece of work.	
11	I'm not sure why there is no cost entry for statins.	Addressed
13	What Mediterranean diet link does the QR code link to? I'd be curious to see what handout that is as a quick 1 page one that would be easy to print to give to patient with an exercise rx would be great.	Addressed
	Under the box on page 1 for moderate risk (10-19%) I'd suggest adding the suggestion for which statin dose is recommended in this category (i.e., moderate dose as it's detailed in the full guideline).	Addressed
16	It's busy. But I really don't want you to cut anything.	Addressed
19	Well-done.	
22	Wonderful and easy to follow.	
23	The prices indicate price/90 days but this is not accurate. If using RxFiles as a reference, ezetimibe is listed as $15/30 days. Would need to review and update pricing. Note: I do think 90-day pricing is a better reflection of dispensing patterns than mostly pricing.	Addressed

27. Any comments, suggestions, or edits to the patient handout?

ID	Response	Response
10	Very simple and clear; well-done.	
11	"Statins can reduce your risk by 25-35%. For example, if your baseline risk is 20%, lowering it by 30% would mean your risk is now 14%". A graphic representation would likely be easier for patients to understand. (Not the 100 persons but something similar.)	Addressed
12	Excellent. Love the bolding of risk reduction numbers, frequency of testing, etc. that draws attention. Also, appreciate the description of what relative risk reduction is by the example.	
	QR code to tool does not appear to be working.	Addressed
13	In the "other pieces" box, I'd move the top 3 items of the right-hand column a little to the right to line up with the "inactive lifestyle" point (a small item I know but it looks less professional the way it is).	Addressed
	I'd also be curious to see what the decision aid is.	Addressed
	Should there be an arrow between statins down to final stop, similar to that connecting first stop to next stop?	Addressed
15	Consider using "cholesterol", a layman's term, instead of "lipids".	Addressed
16	The info in it is good, I like the explanations... but it is visually overwhelming... especially for the first page, I don't know where my eye should go and so I kind of skimmed all over.	Addressed
	Maybe say statins may (but rarely) cause muscle pains... or something like that.	Addressed
18	Excellent tool. The part on lower testing is well-explained, which helps guide shared decision on reducing unnecessary testing.	
19	Flows nicely. Easy to understand and gives basics. Good readable handout at appropriate level.	
20	Seems pretty good.	
21	The comment on page 1 at the top: "A number of studies have shown the improving your lipid levels does not always…" reads as very negative in tone. Perhaps rephrasing in a positive way, "improving your lipid levels may reduce your risk (but not always) …"	Addressed
22	I think the patient handout is easy language for our patients to understand. The QR code is a wonderful addition, very up to date.	
23	Would need to be provided to most patients along with an explanation.	
	Consider modifying wording about statins and muscle aches to include that it is uncommon and/or has potential management strategies.	Addressed
	Could you also include a statement that statins are the most effective medication we have to reduce CV risk? So often see primary prevention pts who don't tolerate a statin who are very quickly started on ezetimibe as an alternative.	Addressed
24	See previous note that order of recommendations should be smoking, exercise, Mediterranean diet. Based on magnitude of possible effect, and possibility for individuals to change. E.g., my Chinese and Indian patients can grasp smoking and exercise easily, but have enormous	Addressed

	difficulty in changing to Mediterranean diet: and while adapted Chinese/Indian diet is possible it requires much discussion to understand what they regard as "normal" and what changes they can do.	
25	Overall, it looks great! Maybe a nitpicky thing, but I wonder about either having a slightly larger QR code for the Med Diet, or including text links for our patients who may have some less comfort/experience with using QR links.	Addressed
29	Really easy to read and follow, good level of language.	
	Would have been nice to see the decision aid as the ARR is what we all need to make our own informed decision about starting a lifetime med or not.	Addressed
	Could we have something in here about what changes about recommendations at age 75?	Acknowledged
32	Section on statins - says it may cause muscle issues and liver issues, needs to have stronger language that the risks are very low and rarer than they think, this is MY MAIN BARRIER to getting acceptance to even try a statin.	Addressed

28. How long did the peer review process take you?



Value	Percent	Count
1 to 2 hours	72.7%	16
>2 to 3 hours	27.3%	6
Totals		22

Acknowledgements (Health Care Professionals)

PEER would like to thank all the health care professionals who contributed to the peer review for this guideline. The following are the names of the reviewers who gave permission for their names to be published.

Name	Profession	Location
Jacques-Alexandre Amiel	Pharmacist	Quebec
Bruce Arroll	Family Physician	British Columbia
Ann Comeau	Nurse Practitioner	Alberta
Giovanni (John) Coppola	Family Physician	Alberta
James Dickinson	Family Physician	Alberta
Geneil Dufresne	Family Physician	Alberta
Jennifer Dunkin	Pharmacist	British Columbia
Dale Guenter	Family Physician	Ontario
Lisa Henry	Nurse Practitioner	Ontario
Marco Mannarino	Family Physician	Alberta
Radhika Marwah	Family Physician	Saskatchewan
Michelle Morros	Family Physician	Alberta
Raj Padwal	Specialist	Alberta
Ean Parsons	Family Physician	Newfoundland and Labrador
William Ring	Family Physician	Manitoba
Shirley Samuek Haynes	Family Physician	Alberta
Lisa Stevenson	Family Physician	Alberta
Roger Suss	Family Physician	Manitoba
Aaron M Tejani	Pharmacist	British Columbia
Jobin Varughese	Family Physician	Ontario

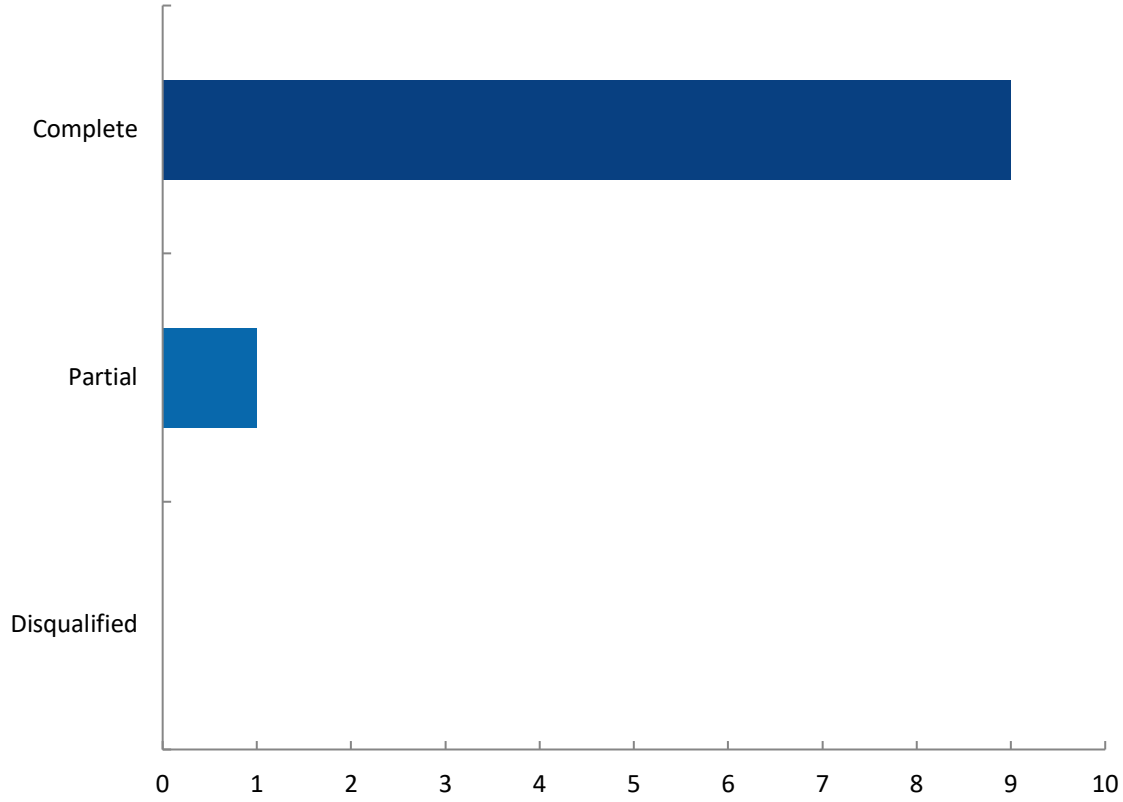
*Note: 2 reviewers requested for their name and comments not to be published.

Patient Peer Review

Response Statistics

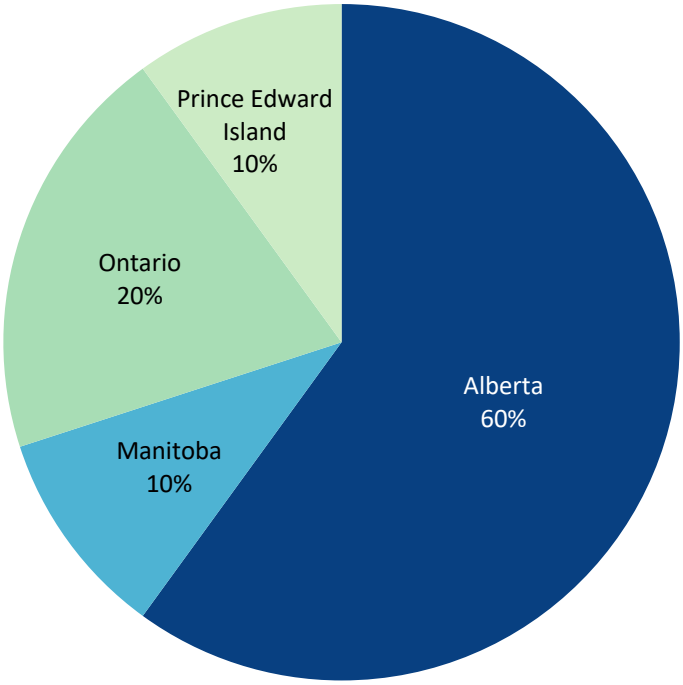
Completed reviews: 9
Permission to publish name and feedback: 7
Did not give permission to publish name or feedback: 2

Response Statistics



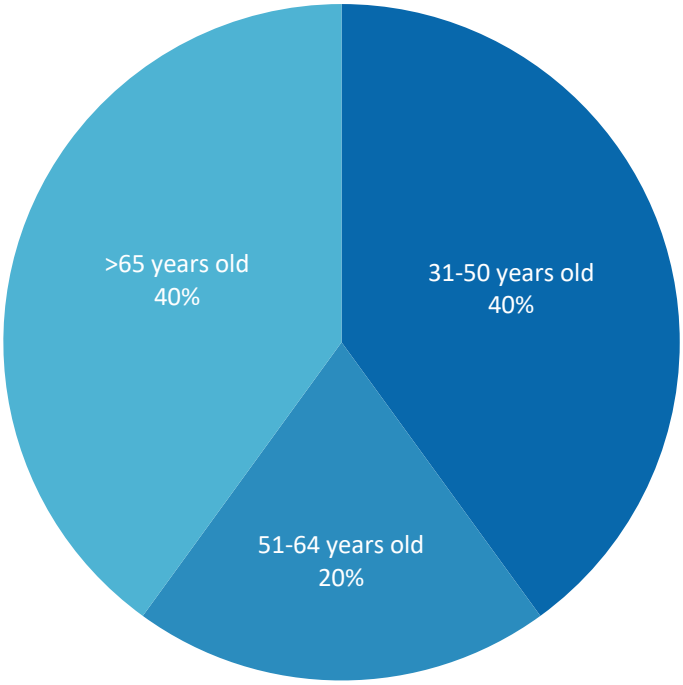
	Count	Percent
Complete	9	90
Partial	1	10
Disqualified	0	0
Totals	10	

1. Which province do you live in?



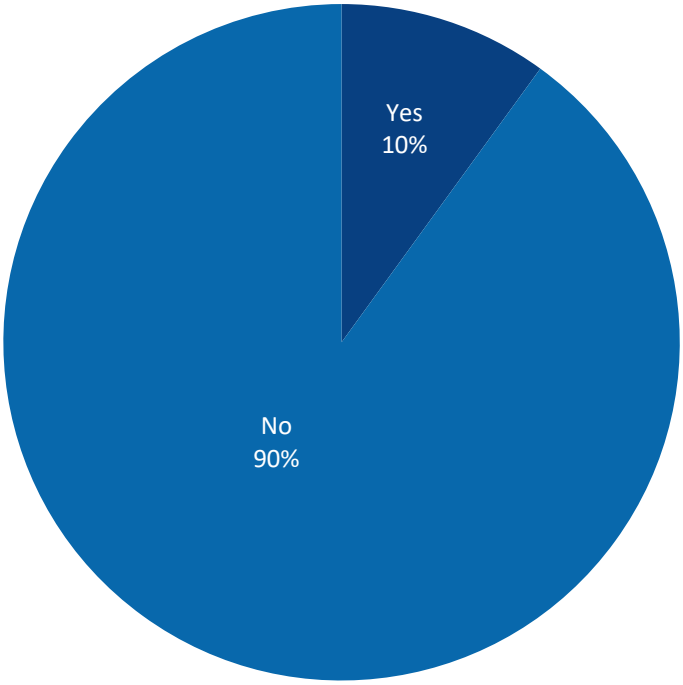
Value	Percent	Count
Alberta	60.0%	6
Manitoba	10.0%	1
Ontario	20.0%	2
Prince Edward Island	10.0%	1
Total		10

2. Which age range do you fall under?



Value	Percent	Count
31-50 years old	40.0%	4
51-64 years old	20.0%	2
>65 years old	40.0%	4
Totals		10

3. Are you currently taking a statin?

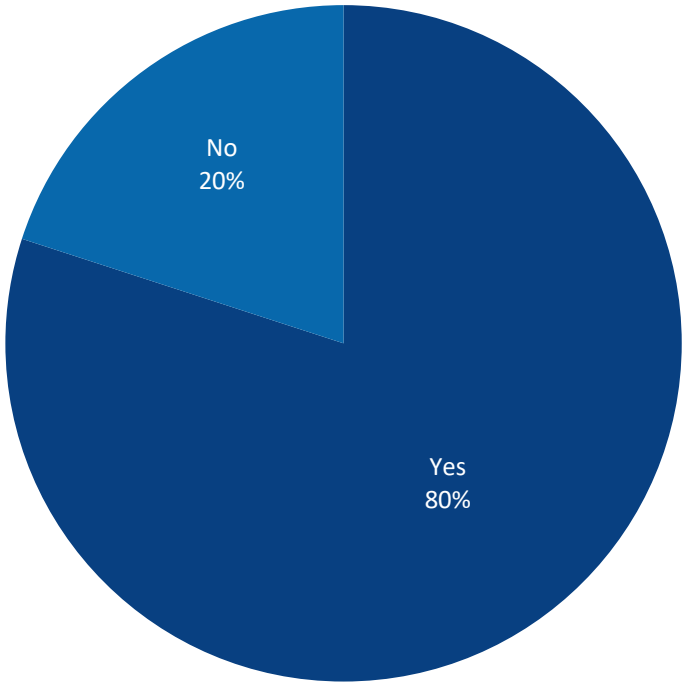


Value	Percent	Count
Yes	10.0%	1
No	90.0%	9
Totals		10

4. Competing Interests or Conflict of Interest Declaration:

Value	Percent	Count
I HAVE NO involvements that might raise the question of bias in my review	100.0%	10
Totals		10

5. Would you consent to having your name and peer review comments published? (Note: names and comments would be separate).



Value	Percent	Count
Yes	80.0%	8
No	20.0%	2
Totals		10

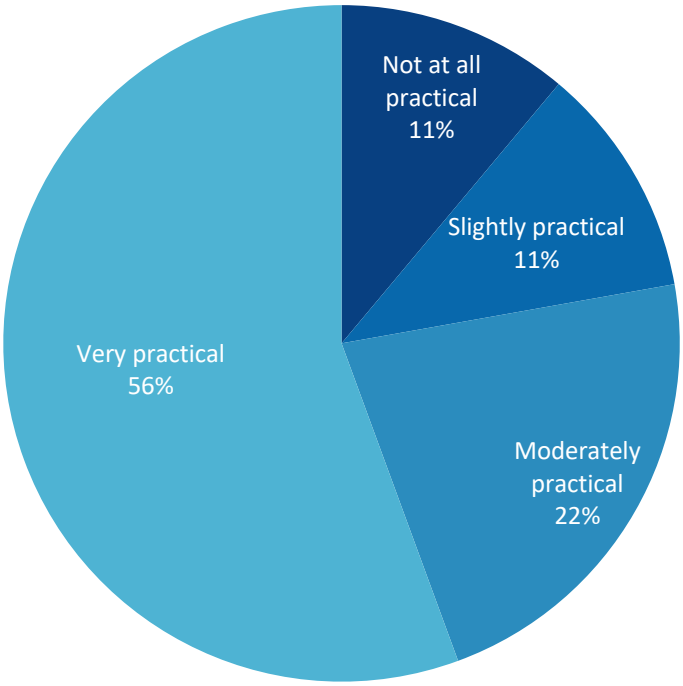
6. Overall strengths of the Guideline:

ID	Response
3	It is thorough and provides a comprehensive outline that describes the process from development to implementation.
4	Lines 41-58: So true and it is great that all of these factors are being considered. Table 1 is a very useful summary to weigh and explain evidence. I like that there are sections that pertain to the elderly in particular. The discussion section (Line 293) is clear in outlining the changes since 2015.
5	I found the document Lipid Guideline very difficult to navigate and understand.
7	I think that it is very positive that the recommendations are patient-centered.
8	Clear, easy to follow. Evidence-based. Focus on patient's quality of life as well by eliminating unnecessary testing.
9	Patient hand out well-done.
10	I was surprised that the guidelines were an interesting and informative read. Diet and exercise are important to me. I am not a fan of more medication. Guideline was very informative.

7. Overall weaknesses of the Guideline:

ID	Response	Response
3	Sometimes hard to follow. Acronyms are sometimes used without introduction. It includes terminology that lay people would not understand.	Addressed.
4	Line 55 and Line 117: refer to patient involvement in developing the guide. I do wonder about the identity factors (e.g., age, ethnicity, sex) of the patients.	Not reported
	As a whole, I am left wondering if there are differential impacts that need to be considered based on some identity factors. Perhaps this level of research does not currently exist and therefore you cannot comment on it? As a racialized woman, I am often left wondering if the current research applies to me as well as it should.	Acknowledged. This information is often not available.
5	As a patient this guideline document was too difficult to understand.	Corrected on patient handout
7	I did not think there was any weakness in the guideline. Guideline was well-explained.	
8	None readily apparent.	
9	Line 125: family history of premature CVD (how many, what age, male/female?)	Not reported
	Line 177: exercise-based cardiac rehab not available in rural; to make exercises more personable and adapted to patient limitations, a few face-to-face sessions to increase compliance.	This is a limitation noted in the supplemental question write-up
	Patient handout needs to be reviewed by doctor and patient.	
	A risk score needs to be written at the top of the page. The risk score needs to be done either by the doctor or MAO and patient with careful attention to include only CVD not valvular, congenital, etc. Then each intervention especially smoking cessation, diet, exercise, and lipid-lowering using RRR x CVD score to give an absolute reduction these numbers need to be written by each intervention then totaled at the bottom of the page. I know all of this seems tedious but the patient needs to know that we are tailoring this intervention to their personal circumstances. It also gives the patient choice which interventions they should double up on especially if they are drug adverse.	Adjusted for clarity
10	Not being overly knowledgeable with this topic I found the guideline very complete.	

8. How would you rate the practicality of this guideline for implementation in a real-world setting?



Value	Percent	Count
Not at all practical	11.1%	1
Slightly practical	11.1%	1
Moderately practical	22.2%	2
Very practical	55.6%	5
Totals		9

9. Do you have any additional comments or concerns about this guideline?

ID	Response	Response
8	Some portions appeared redundant.	Addressed
10	It is a long read with a lot of items to consider. But quite interesting.	

10. What are the strengths of this knowledge translation document? E.g., reflect on the clarity and usability of the tool in your practice.

ID	Response
3	The visuals and simplified descriptions are very helpful and I can see how this tool can help to simplify decision making.
4	I find the table with the lipid-lowering agents the most helpful since it includes cost (so important for senior patients with limited insurance and income) and adverse effects (very important to consider in conjunction with other health concerns and lifestyles). I also appreciate that there are guidelines around options if there are muscle symptoms as well as the infographic showing 1 in 15 cases is due to the statin. It can validate patient concerns and show a path forward. The QR codes are a helpful addition for more information.
5	This document was easier to understand but I am clearly missing some proper education to fully understand it.
7	I am not a medical person. However, I enjoyed reading all the material.
8	Easy to use, simple language, simple excised options.
9	Patient hand out is a good starting point but needs to be supplemented as outlined above to get better compliance.
10	It kept me interested. Reading it was not a chore.

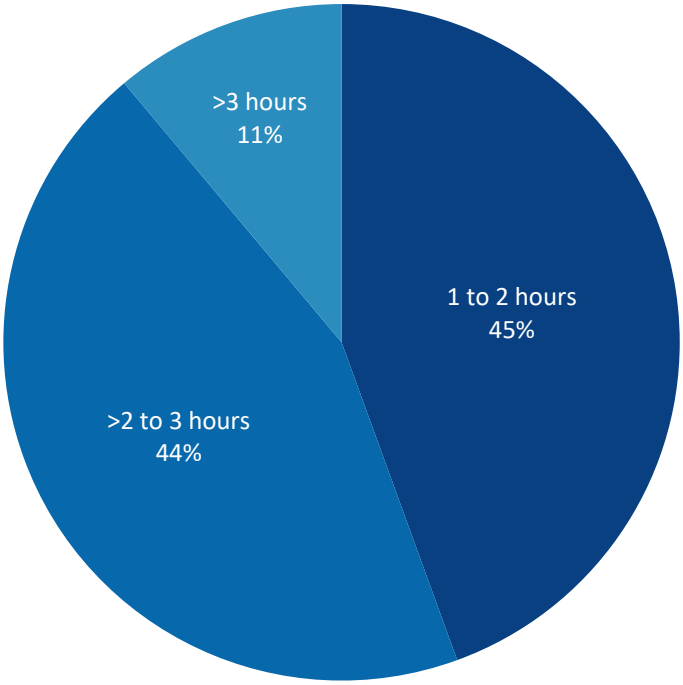
11. Is there anything that could be improved on this knowledge translation document?

ID	Response	Response
3	The path for secondary prevention is not clear. Is the next step lifestyle, risk calculation, or both?	Addressed
4	Just a suggestion to ensure your QR codes are hack-proof. There have been instances where legitimate QR codes are hacked and re-directed to phishing websites that look legitimate.	Addressed

12. Any comments, suggestions, or edits on the patient handout?

ID	Response	Response
3	None, this is well done!	
4	Is ethnicity a factor in the heart health story? For example, don't South Asian populations have a higher risk for heart events?	Acknowledged. This information is often not available.
	"Inactive Lifestyle" has a negative tone compared to the neutral tone in the other risk factors. Perhaps "Activity Level?"	Addressed
	On the second page, my eye first landed on Next Stop: Medication. I wonder if the map needs to be reoriented.	Addressed
	I am not sure the average reader will understand the math in the Statins section. How does lowering risk by 30% result in a risk of 14%?	Addressed
	I would suggest removing the graphic of the puzzle piece and giving some more real estate to the little avocado or doing another "Did you know..." box.	Addressed
	The question mark beside lab tests is a bit distracting and clutters up the white space on the second page. Also, that chunk of information is separated into two boxes while every other section has the chunks of information in one box.	Addressed
	There are periods at the end of each of your heading boxes expect for, "These pieces come together..." I would suggest that you don't need the periods.	Addressed
5	I found the beginning of the flow chart confusing to find.	Addressed
	The colors were a bit bland. Not eye catching.	Addressed
7	Patient handout is very informative and easy to understand. It is very well laid out and easy to follow. I like the QR codes. Information a patient needs is all on the page. Well-done!	
8	This was excellent! User friendly, plain language, but not overly simplistic.	
10	I think the handout was very well done.	

13. How long did the peer review process take you?



Value	Percent	Count
1 to 2 hours	44.4%	4
>2 to 3 hours	44.4%	4
>3 hours	11.1%	1
Totals		9

Acknowledgements (Patients)

PEER would like to thank all the people who contributed to the peer review for this guideline. The following are the names of the reviewers who gave permission for their names to be published.

Name	Province
Gina John	Ontario
Blessie Mathew	Alberta
Sheeba Mathews-George	Alberta
Allan Moore	Manitoba
Tom Phillips	Alberta
Louise Woroniuk	Alberta
Terry Woroniuk	Alberta

*Note: 2 reviewers requested for their name and comments not to be published.