

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 1)

The authors' detailed responses to the comments received from the *CMAJ* editorial staff and the external reviewers are presented here at the request of *CMAJ* and with permission from all the external reviewers. *CMAJ* received useful comments from the peer reviewers, and the authors responded to them to our satisfaction. They made several changes but also gave reasons where they had opted not to make any changes. Together the comments from the reviewers and the authors' responses make an informative and educational document. We feel that our readers will gain a lot from this dialogue and hence have chosen to publish this document.

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
The editors are interested in publishing this manuscript, but a number of concerns remain. We would like to review another version of the manuscript, revised to address the following concerns. Please note that these comments relate to the main document intended for web publication. These comments would also apply to the relevant sections of the print version which you have submitted and which needs to be revised similarly.		
1. Please provide an itemized list of your responses to these comments. We will be unable to process your manuscript further without such a list.	Provided in this table	N/A
2. Please tell us how these guidelines have been funded. In particular please state if any funding was received from pharmaceutical companies to help in the production of these guidelines. This requirement is separate from the competing interests of individual contributors which you have submitted.	The development of these guidelines has been funded in their entirety by the Canadian Stroke Strategy, a joint initiative of the Canadian Stroke Network and the Heart and Stroke Foundation of Canada. Funds are received primarily from the Canadian Stroke Network, who is in turn funded by the Networks of Centres of Excellence federal government program. No funds for these guidelines have come from commercial interests, including pharmaceutical companies.	Paragraph added to start of Appendix 1. Note: Conflict of Interest notations in Appendix 1 have also been updated with outstanding participants since first submission to <i>CMAJ</i> .
3. Please respond to all the comments made by our reviewers (see below) and tell us what changes you have made to address their comments. If you disagree with any of the comments tell us why. Please itemize your responses.	Refer to remainder of this table for responses	N/A
4. Please provide all references in the Vancouver style - see any recent issue of <i>CMAJ</i> for examples.	Completed	Throughout document
5. Please provide a separate but small section (clearly identified with a subheading) listing the areas where currently available evidence is weak.	We have highlighted the areas with weaker evidence as those with 'Level of Evidence B or C' indicated at the end of each relevant recommendation throughout the whole range of stroke care covered in this document. It would be very difficult to provide a brief overview of subtopic areas that have weak evidence and would be extensive to document, and would not be in any priority order without further consultation with experts in the field. For example what is the optimal duration of rehabilitation, what is the target for BP.? The accompanying analysis paper does discuss weaker versus stronger evidence in relation to the four new recommendation areas and how this was addressed during our expert consensus development process. We have added a brief statement about controversies and weaker areas of evidence in the methodology section.	Overview Section 2.3 Page 7

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 2)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
6. Please provide a separate section (clearly identified with a subheading) specifically highlighting controversial areas — example, use of prophylactic anticoagulants to prevent venous thromboembolism. In particular mention those areas where your recommendations differ significantly from other guidelines.	<p>There are several areas across the continuum of stroke care that could be considered controversial — some based on expert opinion and others based on conflicting research evidence. Specific issues have been highlighted throughout the document within the evidence summaries for relevant recommendations. Some of these areas include:</p> <ul style="list-style-type: none"> • long term combined ASA and Plavix in persons with both coronary artery and cerebrovascular disease • superiority of LMWH over heparin • acute aspirin initiation prior to CT scan • risk/benefit of statin agents in hemorrhagic stroke • optimal timing, duration, and intensity of inpatient and outpatient rehabilitation <p>This is not a finite list, rather some examples already highlighted in the guideline. Our Expert Advisory Group felt adding a separate section for this topic would be difficult as it could not be exhaustive and the issues are already covered within specific recommendations.</p> <p>We have added a brief statement about controversies and weaker areas of evidence in the methodology section.</p>	<p>Overview Section 2.3 Page 7 and Located within relevant recommendations throughout the document.</p>
7. Please provide a separate section (clearly identified with a subheading) highlighting the limitations of your guidelines.	New paragraph on limitations added.	<p>Overview New section 2.7 Page 8</p>
8. Please clarify how you graded the evidence when you based your recommendations on other guidelines. Did you use the grading provided by the referenced guideline or did you independently assess the supporting evidence? If you did not do so please state this explicitly.	<p>The grading of the strength of the evidence provided for each recommendation was based on our own independent evaluation of the strength of the primary evidence sources. Wording of the recommendation that was adopted from other guideline developers was acknowledged at the end of each recommendation. At no time did we rely on the evaluation of the evidence by other guideline developers to define the available levels of evidence for each recommendation.</p> <p>Edits have been made to the text describing the appraisal process to clarify this issue.</p>	<p>Overview Section 2.2 Page 5</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 3)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
<p>9. Could you please list the topic areas that have not been covered by your guidelines and explain why you have chosen to do this? (For example — the management of raised intracranial pressure in (hemorrhagic) strokes). Oral contraceptives are also not mentioned in your guideline with respect to their use or withdrawal in younger women with strokes. The section on the management of acute hemorrhagic stroke appears too concise given that many of these patients are not managed by neurosurgeons.</p>	<p>Our stroke guidelines were not intended to be all inclusive or exhaustive in covering all possible topics in stroke care and management. Decisions were made originally and during the update process regarding inclusion or exclusion of topics, based on some key criteria as stated in the guidelines: strongest levels of evidence, and/or key system drivers, and relevance to intended scope. In addition, our goal was to keep the guidelines manageable in size and user friendly. Areas such as primary prevention of stroke or related risk factors were determined to be outside the scope of this project from the onset.</p> <p>The target audience for these guidelines are primarily family doctors, neurologists, internists and related allied health professionals. The guidelines are primarily intended to focus on early diagnosis of stroke, etiology, and then much of the management focuses on ischemic stroke. We acknowledge SAH and ICH briefly and refer readers to other neurosurgical guidelines for more comprehensive guidance in these areas. This is why the section you refer to on hemorrhagic is concise. This approach has been supported by 2 consensus panels and through discussions with Neurosurgeons during the development of the guidelines.</p> <p>Areas not included thus far but are emerging have been already identified in section Five of the guideline document on development. Oral contraceptives have not been raised by any other reviewers to date and not identified in content analyses of international guidelines. We will bring this forward and possibly add it to the topics in section 5 for consideration for the next update. One of the reviewers mentioned addressing stroke in younger people and the issue of contraceptives would fit appropriately there.</p>	<p>Overview Section 5 Page 11</p>
<p>10. Please remove mention of all trade names including Plavix, Ticlid, and Aggrenox and substitute these with generic names. In the case of drugs dispensed as combinations please mention the constituent compounds and their amounts.</p>	<p>Completed</p>	<p>Changes to Recommendation 2.5, Pages 38–39</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 4)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>11. P 68 — Acute aspirin therapy</p> <p>"All acute stroke patients should be given at least 160 mg of acetylsalicylic acid (ASA) immediately as a one time loading dose after brain imaging has excluded intracranial hemorrhage." Please confirm that ASA should not be given till a scan has excluded intracranial hemorrhage. Does this mean that a family physician should not advise immediate aspirin when he sees (or gets a phone call about) a patient who says that his arm has just gone weak, because a CT scan has not been done? If this is a controversial area could you please elaborate on the controversy?</p>	<p>This issue was discussed in detail at the consensus panel. Panel members felt that although there is room for clinical discretion, they could not support a recommendation that aspirin be given without a CT scan. This is from a clinical perspective as well as a legal one. Further, primary care should be focused on getting suspected stroke patients immediately to an acute care hospital for comprehensive assessment and management, rather than spending time discussing aspirin and possibly creating delays in access to emergency care for this time-sensitive condition. Aspirin can be given after initial assessment and making other recommendations will take away from the main message of urgent treatment.</p>	<p>No changes</p>
<p>12. P 49 — Carotid intervention</p> <p>"Successful carotid endarterectomy virtually abolishes the risk of recurrent stroke in patients who present with a hemispheric transient ischemic attack or minor stroke and a high-grade stenosis (narrowing) of the proximal internal carotid artery." We feel that "virtually abolishes" is too strong a term to use in this context.</p>	<p>"Virtually abolishes" has been changed to 'substantially reduces'</p>	<p>Recommendation 2.7 System Implications Second Line Page 46</p>
<p>13. P 155 — Priorities for implementation</p> <p>The list of 10 priorities looks like a "laundry list" and the method used to derive this is poorly described (members were asked to participate in an exercise to prioritize the recommendations for implementation.) Could you please clarify the details of how this list was derived — how many members were involved? Did they vote? And so on.</p>	<p>Additional information added to describe the process.</p> <p>All consensus panel members participated in a voting exercise. Each member was given 5 votes. They were instructed to place no more than two votes on any topic to indicate those recommendations of most importance for implementation.</p>	<p>Overview Section 3.5 Page 10</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 5)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
<p>14. P 46 — Atrial fibrillation</p> <p>"Patients with stroke and atrial fibrillation should be treated with warfarin at a target INR of 2.5, range 2.0 to 3.0. Could you please state your position with respect to the prevention of stroke in patients with atrial fibrillation who have not had a stroke? The way the document is currently worded leaves room for confusion. (You do discuss atrial fibrillation without stroke in the Summary of the evidence section on P 47.)"</p>	<p>The Canadian Best Practice Recommendations for Stroke Care are intended for management of patients at high risk of stroke and for those who have experienced a stroke. Our guidelines are not intended to be primary prevention in scope. Several other organizations and government offices have a specific mandate to address primary prevention, health promotion and global chronic disease management. Our approach has been to acknowledge and work closely with these groups and supports their efforts while not duplicating or competing with them, especially since we would not be able to be comprehensive or exhaustive in addressing broader primary prevention as it may relate to stroke.</p> <p>Considerable discussions have been held for this particular recommendation regarding whether we should be making recommendations for primary prevention of stroke in atrial fibrillation patients.</p> <p>The outcomes of the panel discussion and their guidance on this issue were clear:</p> <p>First of all, primary prevention is currently outside our scope for these guidelines; however it has been identified as something to consider for 2010.</p> <p>Secondly, it is unlikely that any physician seeking advice on primary prevention of stroke or other cardiovascular events for atrial fib patients will look to the stroke guidelines as a first line option in patients who have no symptoms of stroke. Guidelines such as the ACCP guidelines are available that address primary prevention of atrial fib in a much more comprehensive way than we could do and should be the first option for them.</p> <p>For these reasons, the recommendation was set as it is. We do present the information in the summary to be comprehensive and open the door for future development.</p>	No changes

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 6)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
<p>15. P 25 — Defining prevention</p> <p>“Secondary stroke prevention is an individually based clinical approach to reducing the risk of further vascular events in individuals who have already experienced a stroke or transient ischemic attack, and in those who have medical conditions or risk factors that place them at high risk of stroke.²”</p> <p>The definition of secondary prevention is confusing as a result of the phrase “and in those who have medical conditions or risk factors that place them at high risk of stroke.²” added above. Does this mean that a person with say hypertension and nothing else (or diabetes and nothing else) is identified as a candidate for secondary prevention — the same as person who has already experienced a stroke? Will such a person also have the same recommendations with respect to anticoagulant therapy and carotid revascularization?</p> <p>Could you please list the medical conditions and risk factors that you refer to? Which and how many risk factors must a person have to receive secondary prevention? Also, we were unable to find reference 2 (or missed it) mentioned above in the text.</p>	<p>The definition for secondary prevention that has been quoted here is taken directly from documents produced by the Heart and Stroke Foundation of Canada (note - reference has been corrected — footnote #5). This definition is used widely and was accepted by our prevention task group and by the consensus panel. At the panel meeting we specifically asked about the definitions and we incorporated suggestions raised at that time. It would therefore not be appropriate to change wording now.</p> <p>Furthermore, the section on prevention of stroke directly addresses those risk factors that are considered as ‘high risk’, and are listed already in the definition. We have changed the wording to make it more clear that these are the targeted ‘high’ risk factors for stroke.</p> <p>It is not realistic to define which and how many risk factors a person must have, as risk is determined by a number of factors that are considered on an individual basis when the patient is appropriately assessed by medical professionals. These recommendations provide guidance on the areas that should be assessed and considered in determining appropriate management strategies.</p> <p>Recommendation 3.2 on acute management of transient ischemic attack and minor stroke provides further information on defining risk. A reference note to this recommendation has also been added at the end of the definitions of prevention.</p>	<p>Minor changes Page 21</p>
<p>16. P 6 — (What’s new in 2008)</p> <p>You have several bullet points which begin with “New recommendation....” We would prefer you to mention what the new recommendation is and make this box more relevant clinically to our readers. Likewise you mention that some recommendations have been revised, reorganized, and expanded. Again we would like you to make these statements clinically more meaningful by saying what the changes are and what is the new thing that health professionals are now required to do.</p>	<p>We had added more description to the ‘What’s new’ statements and will add page numbers for where to locate the full recommendations quickly. We do not think it is appropriate to add all the exact wording in for each recommendation or the box will become unmanageably long.</p>	<p>Page 1 of the main document following the Table of Contents.</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 7)

Comments from CMAJ and reviewers	Authors' response	Location of edits
Reviewer: 1		
Comments to the author		
This set of guidelines is exhaustive and extremely well-written. I am convinced these guidelines will improve stroke care. The following suggestions primarily reference newer articles that the authors might consider in the "rationale" and "summary of evidence" sections of the guidelines.		
1) Adobe PDF page 27 of 181 (guideline page 22 of 147). There is a fairly newer meta-analysis on the effects of eating fruits and vegetables on the risk of stroke which was recently published in the Lancet: He FJ, Nowson CA, MacGregor GA. Lancet. 2006 Jan 28;367(9507):320-6. Fruit and vegetable consumption and stroke: meta-analysis of cohort studies.	This reference has been reviewed and discussed with the appropriate task group members. The reference cited by this reviewer supports the existing evidence and is aligned with the recommendations as currently worded. Therefore, it has now been included in the summary of evidence for this recommendation.	Recommendation 2.1 Summary of evidence First paragraph Page 23
2) Adobe page 28 of 181, internal document pagination 23 of 147: There is a very recent and excellent meta-analysis on various smoking cessation therapies in CMAJ: Eisenberg MJ, Filion KB, Yavin D, Bélisle P, Mottillo S, Joseph L, Gervais A, O'Loughlin J, Paradis G, Rinfret S, Pilote L. CMAJ. 2008 Jul 15;179(2):135-44. Pharmacotherapies for smoking cessation: a meta-analysis of randomized controlled trials.	This reference has been reviewed. It is supportive of our recommendation, however it is outside the final date of June 30 th for publications included for review by consensus panel members and external reviewers. It will be included in an Appendix on further reading since consensus panel.	Appendix 7 at end of online document Page 155
3) Adobe page 33 of 181, internal pagination 28 of 147. One of the most amazing things about the trial by Beckett et al (HYVET), is the reduction in all cause mortality. We don't have many interventions that actually prevent death in the elderly in RCTs. It might be nice to just add a subclause about this, since many physicians are reluctant to treat hypertension in the elderly (this trial in my view abolishes such nihilism).	The HYVET study was considered in our early discussions of this recommendation and referenced in the summary of evidence — 4 th paragraph. We have added an additional statement regarding all-cause mortality as suggested by this reviewer as this had just been omitted for brevity of the section.	Recommendation 2.2 Summary of evidence Fourth paragraph Page 29
4) Adobe page 34 of 181, internal pagination 29 of 147. The authors discuss ACCESS, SCOPE, and LIFE for ARBs (as well as ON-TARGET). It is worth mentioning JIKEI-HEART (valsartan vs non-ARB based therapy) and MOSES (candesartan vs nitrendipine), as both of these trials showed major reductions in cerebrovascular events with ARBs. MOSES enrolled a cerebrovascular sample. Together LIFE, MOSES, SCOPE, JIKEI-HEART and ACCESS provide strong data on the use of ARBs to prevent stroke.	These two studies were not included in our reviews or in our consensus panel deliberations. For the hypertension review, we worked closely with CHEP and the Canadian Hypertension guideline process. Our recommendations refer to CHEP for all pharmacotherapy guidance. These two papers concur with what we have said and will be added to the additional reading list as they were not considered as part of our consensus process.	Appendix 7 at end of online document Page 155

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 8)

Comments from CMAJ and reviewers	Authors' response	Location of edits
5) Adobe page 42/181, internal pg. 37/147. Best practice recommendation 2.5, subpoint iii. "Long-term combinations of aspirin and clopidogrel are not recommended" (MATCH, CHARISMA; Evidence B)." I think this sentence might best be ended, in both the expanded and condensed guidelines, with the phrase "unless specific indications exist for the combination (such as recent bare metal stent, drug eluting stent, or unstable angina). We do not want patients stopping their antiplatelet therapy who have these indications, which are Class IA from AHA/ACC/ESC/ACCP.	We have added the phrase "Long-term combinations of aspirin and clopidogrel are not recommended <i>for secondary stroke prevention</i> " which clarifies our intent. We did not discuss the situation of exceptions or other indications with our task groups or at the expert consensus panel therefore it would not be consistent with the consensus process to add in this piece if the experts did not review this. We will identify this as an area for further reinvestigation for the 2010 update.	Recommendation 2.5 Recommendation statement iii Page 38
6) spelling typo - adobe pg 44/181, internal pagination 39/147 -- line 36 "trialogrel" should be corrected.	Corrected — should read 'trial'	Recommendation 2.5 Summary of evidence Page 40
7) Best practice recommendation 2.6: Antithrombotic therapy in atrial fibrillation. Robert Hart has recently published an update of the efficacy of warfarin in the light of the BAFTA trial — Ann Intern Med. 2007 Oct 16;147(8):590-2. This is a research letter updating his earlier-in-2007 review.	The content of this letter reinforces the findings we already report. The reference has been added	Recommendation 2.6 Summary of evidence Page 44
8) Adobe pg 58, internal pagination pg 53, line 46 - "the benefit of simvastatin in this setting was not able to be provided." Wording could be better clarified here (re: "not able to be provided").	Wording was rephrased to be more clear	Recommendation 3.2 Summary of evidence Fifth paragraph Page 55
9) Section 4. There is a new Cochrane review on stroke units -- Lindsay Govan, Christopher J. Weir, Peter Langhorne for the Stroke Unit Trialists' Collaboration Organized Inpatient (Stroke Unit) Care for Stroke. Stroke, Aug 2008; 39: 2402 - 2403.	This paper is a summary of the Cochrane review on stroke units that was actually released in 2007 through the Cochrane Library on Stroke units. The review referred to in this article was included in our deliberations and evidence summary. Our recommendations took this updated Cochrane review into consideration during the update process.	No changes required
10) Venous thromboembolism - the evidence suggests LMWH is better than heparin in this and other medical settings. A new meta-analysis: Chest. 2008 Jan;133(1):149-55. Epub 2007 Oct 9. I believe that -- correct if I am wrong -- the new ACCP Antithrombotic guidelines published last month in Chest now recommend LMWH in this setting over heparin.	This is a controversial area for practice. During our deliberations we discussed this with experts including Dr. W. Geerts (member of the ACCP guideline committee) and Dr. Martin O'Donnell (a recognized expert who is well-published on this topic), as well as our task group members, and consensus participants. Given the state of the research evidence at the time of the consensus panel we were advised to include some caution at this time and revisit it again for the next update in 2010 as hopefully new evidence will be available.	No changes required

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 9)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
<p>11) Did the authors cite and discuss a trial containing a meta-analysis on antihypertensives for dementia (published in <i>Lancet Neurology</i>). Peters R, Beckett N, Forette F, Tuomilehto J, Clarke R, Ritchie C, Waldman A, Walton I, Poulter R, Ma S, Comsa M, Burch L, Fletcher A, Bulpitt C; for the HYVET investigators. Incident dementia and blood pressure lowering in the Hypertension in the Very Elderly Trial cognitive function assessment (HYVET-COG): a double-blind, placebo controlled trial. <i>Lancet Neurol</i>. 2008 Aug;7(8):683-689. Epub 2008 Jul 7.</p> <p>This trial contains a meta-analysis of all the data available to date on this topic, which was statistically significant (even though HYVET-COG was not).</p>	<p>This reference was not available and therefore not reviewed as part of our development and deliberations for the hypertension and the cognitive dementia recommendations.</p> <p>It will be identified in an Appendix on further reading since consensus panel.</p> <p>It will also be included for detailed review for the next update to these guidelines.</p>	Appendix 7 at end of online document
<p>I enjoyed reading these guidelines and learned from them. I think they will be a great tool for optimizing the care of patients with stroke or TIA.</p>	Thanks!!	No changes required
Reviewer: 2		
<p>The authors have updated the 2006 Canadian Best Practice Recommendations for Stroke Care to provide an outstanding set of guidelines which should provide a benchmark for clinical practice both in Canada and many other parts of the world. I have no specific criticisms of the manuscript but note a number of strengths:</p>		
<p>1. The overview of "What's New in 2008?" is particularly helpful so that the readers can focus on recent updates.</p>	<p>Some of the statements have been expanded to increase clarity even further.</p>	Page 1
<p>2. The addition of paediatric stroke guidelines is particularly timely given the increasing focus of clinical management and research in this area.</p>	<p>These are not intended to be paediatric guidelines but rather where appropriate we acknowledge issues related to the paediatric stroke population.</p>	No changes required
<p>3. The antiplatelet recommendations for secondary prevention are nicely pragmatic with a choice given of three agents depending on circumstances.</p>	<p>This was a challenging area to define recommendations given the results of PROFESS, and we tried to be pragmatic so we are glad the reviewer felt we succeeded.</p>	No changes required
<p>4. The summary of evidence section at the end of each recommendation is always succinct.</p>	<p>Every effort was made to present just the most key and compelling evidence and then refer the readers to the broader literature for more information as required.</p>	No changes required

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 10)

Comments from CMAJ and reviewers	Authors' response	Location of edits
Reviewer: 3		
<p>The Canadian Best Practice Recommendations for Stroke Care is well recognized internationally as one of the best prepared and presented guidelines available. The updated 2008 version under review represents a solid achievement and the large group of very competent scientists and clinicians should be congratulated for excellent work. In particular, the lay out is reader-friendly and the text is generally well balanced.</p>		
<p>It is understood that at this stage the purpose of a review is not to change recommendations done in consensus by a credible group (this would be to unduly interfere with a guideline preparation process), but rather to give comments on clarity, consistency of different sections and other publication related issues. The present reviewer also recognizes that all issues raised may not be able to be addressed by a revision.</p>		
<p>General comment: Comment on manuscript pagination: there are 3 systems of pagination in this document; i) a 182 page-one (includes the CMAJ cover page), ii) a 181 page-one of submitted version (indicated on top part of manuscript pages), and iii) a 147 page-one (indicated on bottom part of manuscript pages). The present review uses the 181 page system (ii).</p>	<p>This was a result of the online submission process and will be corrected in all final versions by the CMAJ layout and design specialists.</p>	<p>Deferred to the CMAJ production group</p>
<p>1. Page 13/181: Performance measures/measurement notes: What is the rationale for having 2 very similar (and highlighted) performance measures (#1 and #2) on naming of stroke symptoms? How can data on performance measure #2 be obtained from chart audit data?</p>	<p>For measures 1 & 2 they address different aspects of knowledge — general knowledge by being able to name any two signs and symptoms whereas measure 2 gets specific to the three more critical signs and symptoms, which have now been included as the first three listed in all ads by HSFC. Both these questions are asked in all polls by HSFC and the data is readily available.</p> <p>For the Measurement notes, thank you for picking up the error — measure 2 comes from the HSFC polls, not chart audit. This has been corrected.</p>	<p>Recommendation 1.1 Measurement notes Second bullet Page 14</p>
<p>2. Pages 26/181, 31/181 and 32/181 includes the phrases "persons at risk of stroke....should be assessed for vascular risk factors and life style management issues", "Blood pressure should be monitored in all persons at risk for stroke", "All persons at risk of stroke should have their blood pressure measured at each healthcare encounter, but no less than once annually", and "Proportion of persons at risk for stroke who had their blood pressure measured at their last healthcare encounter". This phrasing is quite vague and is like Catch 22 (you know if you are at risk of stroke only when life style factors and BP have been assessed — but not beforehand). Consider being more specific (who should actually have their BP controlled as indicated?) or rephrase. This section avoids one of the main problems in stroke prevention viz population detection/screening of hypertension.</p>	<p>A considerable amount of discussion with task group members occurred regarding this phrase with the consensus panel and with other risk factor groups such as the Canadian Hypertension Education Program members. Part of the decision on this phrase related to the intent of the guidelines — they address patients at high risk for stroke and patients who have had a stroke. They are not intended as primary prevention/ health promotion, therefore the phrase was deemed appropriate. This has been positioned at the beginning of this section with the definitions we provide on secondary prevention of stroke for the purposes of these recommendations.</p> <p>Given the amount of discussion about this wording and agreement by consensus, we do not believe it appropriate now to revise it before publication. We feel it does address our intent.</p> <p>I am confident we will have this discussion for every update and again with our collaboration colleagues in their own reviews as well.</p>	<p>No changes made</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 11)

Comments from CMAJ and reviewers	Authors' response	Location of edits
3. Page 27/181: the important role of governmental actions in restricting smoking could be more emphasized, and reference could be made to the important WHO initiatives launched earlier this year (the MPOWER package). By far the most important effects on smoking behaviour come from legislation and taxation.	We agree that this is important and have added an additional statement to the Systems Implications piece for the lifestyle recommendation.	Recommendation 2.1 System implications Fifth bullet Summary of evidence Fifth paragraph
4. Page 36 lipid lowering therapy: - Consider adding the Lancet report from the HPS Study on patients having a history of stroke at study onset. Consider also adding the meta-analysis of statins in secondary stroke prevention by Verhouwen et al published in the February 2008 issue of Stroke. - For secondary stroke prevention targets for lipid lowering of LDL-C has not been well defined (the data rather support a pleiotropic effect of statins with no strong link to lipid levels achieved). The recommendation of 3 different performance measures of target levels of LDL-C 3 months post stroke therefore appears over-ambitious; you may consider reducing these items.	The Heart Protection Study is discussed in detail in the Summary of Evidence already and does refer to the findings for persons who have had a stroke prior to onset of the study. The reference we use is in Lancet 2004, so we are unclear whether a different paper is being suggested by the reviewer. We feel that the research we reviewed provided a comprehensive overview of all the findings of this study for our panel. For the Vergouwen study, the findings are similar to those reported by other studies, including the caution for hemorrhagic stroke. Since this paper was not included in our reviews by the task groups or consensus panel, it has not been added at this time. It has however been listed in the new Appendix 7 on further reading related to topics covered in our stroke guidelines. Performance measures: agree with statement and Measures 4 & 5 removed	Recommendation 2.1 Summary of evidence Fourth paragraph Appendix 7 at end of online document Performance measures: 4 & 5 removed
5. Diabetes management: consider adding the recent Lancet report on statin effects in diabetics (which includes effects on stroke).	This is an interesting paper that had not been identified by our expert groups during the review process. It will therefore be added to the new appendix on additional references.	Appendix 7
6. On prevalence of diabetes in stroke patients reference is made to a study in Qatar by Bener et al (page 121). This finding (half of all stroke patients have diabetes) is markedly different from almost all other studies, and findings may not be generalizable to other areas. Consider replacing this reference.	Reference to the Benner study was only one sentence and it has been removed, following a discussion with our expert on diabetes and stroke.	Recommendation 2.4 Summary of evidence First paragraph
7. Page 43 antiplatelet therapy. Reference is made in text to meta-analysis by O'Donnell 2008, reference is missing in reference list at end of document.	This has been added to reference section. Thanks for finding this.	Added to master reference list for Section 2.5 on antiplatelets
8. Page 51 refers to reference by Rothwell in Lancet 2004 on asymptomatic carotid stenosis, this reference appears to be missing in reference list	This has been added to reference section. Thanks for finding this.	Added to master reference list for section 2.7 on carotid intervention
9. Page 58: the rationale to iterate the design and main findings in the PRoFESS trial in this section is unclear to this reviewer (seems out of context), and it also appears elsewhere in the text. Consider to omit this paragraph in this section.	This has been considered and we agree with the suggestion. The paragraph on PRoFESS has been removed from section 3.2.	Recommendation 3.2 Summary of evidence Third paragraph removed

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 12)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>10. There is an apparent contradiction between text on Page 59 which does not recommend the ABCD2 score because of low precision, and later on the same page where elements from the ABCD2 score is used for assessment which patients should be evaluated emergent or later (same terms appear on page 56 without reference). These sections need coordination.</p>	<p>The criteria identified in Appendix 3.2a for emergent, urgent and semi-urgent timing are not a direct application of the ABCD tool. They are criteria that were identified after a rigorous consensus process with a group of experts across Canada in 2005. The ABCD tool and other tools were presented to the panel as part of the evidence review and were not selected in their entirety by the panel. Although the panel final criteria do appear similar to ABCD, they are not intended to be the ABCD tool.</p> <p>In the recommendation itself we refer to the Appendix for clinicians to use in decision-making, we do not refer them to ABCD or other available tools.</p>	<p>See current wording for Recommendation 3.2</p> <p>No changes made based on this feedback</p>
<p>11. On page 60 the 2 recommendations on vascular imaging (“ii Vascular imaging should be done as soon as possible to better understand the cause of the stroke event and guide management decisions. Vascular imaging may include CTA, MRA, catheter angiography, and duplex ultrasound, (ASA; Evidence Level B”);... “v: Carotid imaging should be performed within 24 hours of a carotid territory transient ischemic attack or nondisabling ischemic stroke (if not done as part of the original assessment) unless the patient is clearly not a candidate for carotid endarterectomy (CSQCS, SIGN14; Evidence Level B”)”) need to be better coordinated. Should vascular imaging really be done as soon as possible in all patients (and even include catheter angiography!)? Should patients have both an urgent CTA of extracranial vessels? What is the role of ultrasound? The reader needs more precise guidance.</p>	<p>We had considerable discussion regarding brain and other vascular imaging and consulted with Neuroradiologists in the development of this recommendation. It is a combination of 2 separate ones in the original version — one on brain and one on carotid imaging.</p> <p>All members felt that ‘as soon as possible’ emphasizes the need to address broader imaging needs promptly without imposing a specific time frame, to temper the feasibility issues. After much discussion, the consensus panel agreed to this wording and to maintain the credibility of the consensus process it cannot be changed.</p> <p>The choice of imaging modality would be left to the clinicians and be appropriate to the individual patient situation and availability of scanning capabilities. We use the term ‘may include’ to keep it broad intentionally and do not specify one procedure over another. We do mention duplex Dopplers so ultrasound is considered an option however emerging evidence suggests CTA a better alternative when possible. This is an area that requires further analysis and consideration for the next edition.</p>	<p>No changes made</p> <p>Will carry forward issues for further consideration in 2010</p>
<p>12. Page 67 consider adding something on the SITS-MOST and CASES studies which showed that thrombolysis could be given with good safety in clinical routine at many different settings (the current text is too cautious in some aspects in my opinion).</p>	<p>The SITS-MOST study was an open observational monitoring study based on voluntary reporting of data into an internet-based registry. There was no control or validation of the data included in the data collection process. Therefore the references were not included in our discussion.</p> <p>CASES was discussed by the task groups and the data was part of the deliberations. A synopsis of CASES has now been added to the Summary of Evidence section.</p>	<p>Recommendation 3. Summary of evidence Page</p>
<p>13. Page 68: I take note that both generic names and commercial names for drugs are sometimes given. In most guidelines only generic names are used for several reasons. Consider a consistent policy on this issue in the current guidelines as well (the situation probably arises throughout the document but I have not specifically checked this).</p>	<p>All medications have been changed to generic names. We do have criteria for this, and at times when quoting from other studies in the evidence summary, name changes were missed if the original study used trade names. We have done our best to correct this.</p>	<p>Throughout document. Noted in track changes.</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 13)

Comments from CMAJ and reviewers	Authors' response	Location of edits
14. Page 70: consider mentioning the FAST trial in this section, though the trial was negative. It is as relevant to include as the section on steroids, glycerol etc.	<p>The FAST Trial was negative and Factor VII is not currently approved for use in hemorrhagic stroke therefore it was not included in these recommendations based on our criteria to include only recommendations with the highest levels of evidence or key system drivers.</p> <p>The task groups also reviewed it and the decision was made that it is premature to include this in our discussions until further research evidence is available. We will continue to monitor progress on this topic for future consideration.</p>	No changes made
15. Page 76: the recommendation "Within the first 3 days after stroke, blood pressure, oxygen saturation, and heart rate should be monitored before each mobilization (AVERT Trial; Evidence Level C)" appears over-cautious and impractical for clinical practise ("...before EACH mobilization"). If the first few mobilizations turn out ok I see little rationale in repeating? And - why only before? It seems more relevant to observe the patient's tolerance to mobilization and to measure BP and heart rate if there is any indication that the patient does not tolerate the manoeuvre. Some other articles have emphasized that early mobilization is part of routine care at stroke units (even part of the definition).	<p>We agree that early mobilization is part of routine care and something that gets emphasized especially within stroke units.</p> <p>This recommendation wording is based on evidence from the AVERT trial and was discussed among physiotherapists and nurses in clinical practice prior to the wording being confirmed. It was also raised at the consensus panel and this was the wording that was agreed upon. As a matter of process and integrity we cannot change this wording at this time.</p> <p>It is important to keep in mind that these are recommendations and guidelines and although we try to be prescriptive and specific as much as possible, we still recognize the role for clinical judgement.</p> <p>We will however, continue to have the dialogue around this issue as we work through dissemination and implementation of the 2008 update. With your feedback we will actively explore this issue over the coming months and hopefully have additional information to include during deliberations over future revisions.</p>	No changes made
16. Page 102, point vii: what is "hypoactive delirium", a term I have not come across earlier.	Features of this type of delirium includes withdrawal, lethargy, and reduced arousal (Ref: DSM_IV). Papers have been published on dementia and delirium in stroke that suggest these symptoms have to be carefully evaluated to determine if they are stroke related (covert silent strokes manifesting as delirium or depression) or actually depressive symptoms following stroke. Hence the recommendation.	No changes made — for information only
Reviewer: 4		
A very comprehensive manuscript, with a great deal of useful evidence based recommendations for person involved in stroke care. Congratulations to all involved in putting this together.		

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 14)

Comments from CMAJ and reviewers	Authors' response	Location of edits
Reviewer: 5		
<p>The authors have developed a very nice, very comprehensive outline for assessing stroke care across the continuum. In general my comments are provided for you to consider whether these changes will improve the document and therefore the Canadian Stroke Strategy. Some of the other comments are specific comments on the measurements that need clarification.</p>		
<p>Overall comments:</p> <p>1. The improvement on these performance measures is not assignable to any one organization but several. How is improvement going to be done and who is being ultimately measured and responsible? Is there any service and/or organization that should take the lead or be most responsible for a measure?</p>	<p>This is a very important area and the ultimate responsibility for measurement and monitoring is still unclear. In provinces that have now received provincial funding for stroke program service delivery, there has been varying degrees of accountability for measurement defined, and this is still being clarified in several provinces with the departments of health.</p> <p>The Canadian Stroke Strategy is working closely with those persons in each province that have been identified as the 'Evaluation leads' for their respective stroke programs. We have had several meetings with them to discuss the performance measures. In addition at the provincial level we have facilitated workshops in several provinces where persons with responsibility for measurement within stroke and within the ministry of health come together and select a core set of indicators to be measured province-wide. This is now in implementation in 5 provinces and hopefully others will be ready for this in the coming months.</p> <p>In addition, at the national level, we have several projects initiated to support monitoring of these performance measures:</p> <ul style="list-style-type: none"> • Working with Accreditation Canada to develop a specialized accreditation award of excellence for stroke programs that is very specific and reflects implementation of the Canadian stroke guidelines and performance measures. This will initially be voluntary, but as uptake increases this will be a major source of monitoring these guidelines and performance measures. Discussions are currently occurring regarding data collection methods. • Work with CIHI to create stroke—specific data elements in their databases to allow for measurement of some performance measures • Also working with CIHI to develop national reports on stroke care that include some of these performance measures and calculated in a consistent way • Work with PHAC to add stroke as a component of the National Diabetes and Chronic Disease surveillance system (NDCSS) • We have written a chapter on stroke care including some of these performance measures to be included in the next PHAC report on cardiovascular disease and stroke (to be released this October) • Working with other groups to standardize stroke measurement and reporting 	<p>No changes</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 15)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>2. Although extra work, as long as the government is collecting detailed data for these performance measures, for each measure it would be nice to consider a process that can be changed to effect adherence to the measure.</p> <p>For example: The adherence to DVT prophylaxis can be improved by the use of standing orders. If the use of standing orders was also collected then it may provide a target for improvement (we know use of standing orders is related to adherence, we know we are not using standing orders, our intervention is to increase our use of standing orders and presumably this will lead to increased adherence to the overall measure).</p>	<p>At this point, no one government is collecting detailed data on all these performance measures — although it is highly desirable.</p> <p>Initiatives such as the development of a stroke accreditation program with Accreditation Canada will capture some of the elements highlighted by this reviewer — such as use of standing orders.</p> <p>There is a Professional Development and Training working group as part of the Canadian Stroke Strategy and they are developing many point-of-care tools such as standing orders, education modules, pocket cards etc that help with uptake of the best practices. Once these tools are more widely available and in use, more refined performance measures can be developed as suggested by this reviewer to look at uptake and impact of these tools on patient care and outcomes where appropriate.</p>	<p>Will bring forward to discussions related to the update of the Performance Measurement Manual</p>
<p>Some of the performance measures are mostly descriptive (percentage of population with stroke). It may not be feasible for the "system" to identify a quality improvement process that they can implement that will improve adherence. This is particularly true when patients have significant impact on the measure. That does not mean they should not be considered for measures but because of lack of feasibility, and unknown percentage of target adherence that can be expected via system interventions, these measures should be rated lower and perhaps prioritized lower than some of the more specific measures.</p>	<p>Valuable input. We will consider these thoughts as we update the performance manual that provides detailed information for each performance measure included with the best practices as well as other measures that are considered of lower importance that our experts suggested should be available for groups interested in an in-depth analysis of particular topics where these extra measures are available.</p>	<p>No changes made</p>
<p>Specific comments on the performance measures:</p> <p>Section 1. Public awareness and patient Education</p> <p>1.1 Public awareness and responsiveness</p> <p>Under Rationale, sentence 3 states: ... arrive in the emergency within an hour or so....</p> <p>Suggest stressing arrival as soon as possible, at least within an hour or so, to limit misinterpretation that waiting is an option at any point as long as they get there in an hour.</p>	<p>Agree with the comments on arrival as soon as possible. The rationale has been reworded to clarify this point.</p>	<p>Recommendation 1.1 Rationale Third line Page 14</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 16)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>Performance measures</p> <p>At what point are these measures going to have benchmark targets to assess stakeholder's improvement impact? How are the targets going to be developed?</p>	<p>Benchmarks currently exist for only a small number of stroke performance measures internationally. For example tPA door to needle time (within one hour), and these benchmarks have mainly been established through related clinical trial research.</p> <p>The CSS Information and Evaluation working group currently have a benchmarking project underway. We are working with PHAC, CIHI and the Accreditation Canada to develop benchmarks using accepted methodologies for as many of the core performance measures as possible (those highlighted in bold in the guideline document). In addition, the Canadian Stroke Network is leading an international working group on harmonizing stroke guidelines, and benchmarks for the recommendations and performance measures have been identified as a priority for this grouping the next two years.</p> <p>A separate performance measurement manual has been developed that supports the best practices and contains detailed definitions and formulas for calculation of the indicators. As benchmarks become available they will be included in this performance manual and incorporated into public reports and the accreditation process.</p>	<p>An additional sentence has been added to the performance measurement section of the overview with respect to benchmarks. The issue is also addressed in more detail in the performance manual.</p> <p>Overview Section 2.5 Page 8</p>
<p>1.2 Patient and family education</p> <p>Performance measure 1 assesses patient education documentation but under the recommendation section it is suggested that this information should be patient/family/caregiver specific.</p>	<p>Patient and family education should be specific to their needs, education levels, and stage of care and recovery. Our Evaluation consensus panel and expert task group recognize the significant data quality issues and feasibility in trying to measure the nature and quality of patient and family education provided.</p> <p>Therefore members identified 'documentation' of education as an objective initial performance measure to start to understand what is occurring in this area. We acknowledge that even documentation will have data quality issues, but by identifying this as a core performance measure we hope it will be a catalyst for improved documentation of educational interventions as a first step.</p> <p>Our intent is to further develop performance measures in this area once there has been increased uptake of the best practices and improvements in documentation.</p>	<p>No changes</p>
<p>Section 2. Prevention of stroke</p> <p>2.1 Lifestyle and risk factor management</p> <p>Performance measures refer to all Canadians for both primary and secondary stroke prevention. Of course the Stroke association wants all members of the population to practice primary prevention, what organization and resources are truly responsible for this? The target audience for this measure will be primary care physicians and patients need not be those who have had an identified stroke.</p> <p>(just a thought for this whole section)</p>	<p>This reviewer has identified a critical challenge we have faced for this section. As stated earlier our intent is to focus on patients at high risk and those who have had a cerebrovascular event.</p> <p>Several organizations have a mandate that includes primary prevention; therefore we have intentionally not made that our focus. Rather we work with Heart and Stroke, Public Health Agency and other primary prevention and health promotion organizations to support implementation of these recommendations.</p> <p>It is very important to include this lifestyles piece and yes we acknowledge the challenges inherent to it.</p>	<p>No changes</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 17)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
<p>2.3 Lipid management</p> <p>Performance measures #4 and 5 are the same, is #5 supposed to be 1 year?</p>	<p>We agree with your comments. Performance measures 4 and 5 have been deleted.</p>	<p>Recommendation 2.3</p> <p>Performance measures section</p> <p>Page 31</p>
<p>2.4 Diabetes management</p> <p>Performance measure: proportion of patients with diabetes who present with a new stroke.</p> <p>It may also be useful, as a country, to determine the number of patients with a known history of diabetes or who are found to have diabetes after presenting to the hospital with a new stroke event.</p> <p>This may identify an area for improvement — if there are many patients who present without a history of diabetes but have diabetes the target improvement would be back to increasing identification of diabetes in the community, not necessarily how well diabetes is being controlled in the community.</p>	<p>This is a helpful suggestion. Our evaluation task force has agreed to add an additional recommendation on diagnosis of diabetes after hospital presentation with stroke. This will be included in the performance manual as well with definitions and formulas for calculation.</p>	<p>Recommendation 2.4</p> <p>Performance Measures section</p> <p>Page 35</p>
<p>2.5 Antiplatelet therapy</p> <p>Performance measure does not include reasons for no antiplatelet but that would still be acceptable — patients with atrial fibrillation on an anticoagulant.</p> <p>Antiplatelet agent may be too limiting for determine how many stroke patients are discharged on an antithrombotic. Unless there are specific exclusions for this measure that include those who require anticoagulants.</p>	<p>The issue of antiplatelet versus antithrombotic for this recommendation overall, and these performance measures, was discussed at length by the CSS Evaluation consensus experts. It was decided to focus this recommendation and measures on antiplatelets. This recommendation is mainly intended for patients who do not have atrial fibrillation, as there is another recommendation targeting that population. The benchmarks and targets for this measure will take into account those on anticoagulants. We have added additional comments to clarify this intent in the measurement notes.</p> <p>In addition, the CSS Performance measurement Manual does have additional measures that consider both antiplatelets and anticoagulants.</p>	<p>Recommendation 2.5</p> <p>Measurement notes</p> <p>Page 38</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 18)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>2.6 Antithrombotic therapy in atrial fibrillation</p> <p>Performance measure # 3 may provide an uninterruptible result- what is the proportion of patients on antiplatelet therapy because they have an exclusion to anticoagulants? Would the intervention of the healthcare system be to decrease this proportion of patients on aspirin alone or let it stay as is, further assessment into reasons why no anticoagulant might be needed to identify the issue. Although this is true for many of the measures, the adherence rate may not be fully understood until further investigation is made, in this case identification during data collection, not afterwards may be helpful.</p>	<p>We have added an additional statement in the Measurement Notes to encourage groups to further explore the reasons for aspirin over anticoagulants, which would consider contraindications, patient or physician preferences, and compliance issues mostly. This information will be helpful in interpreting the results of the performance measures and directing quality improvement initiatives.</p>	<p>Recommendation 2.6 Measurement notes Page 43</p>
<p>Section 3: Hyperacute management 3.1 Emergency medical services</p> <p>Performance measure 1 — is there a definition for “potential stroke patients” that applies to pre-hospital determination? For example, not patients who are discharged with a diagnosis of stroke after investigation but would an alternate caregiver pre investigation also have thought it was a “potential” stroke?</p>	<p>First, we have standardized our language and will use ‘suspected stroke patients’ based on discussions with Canadian EMS leaders.</p> <p>The idea of ‘who’ determines a suspected stroke is not so much the issue in the first performance measure. It is considered more of a process/utilization measure looking at overall proportions of suspected stroke patients arriving by EMS. The CIHI emergency database (NACRS) has a presenting complaint code as well as final diagnosis code, and this can be calculated using a logic sequence of who may get included under ‘suspected strokes’. We have done a lot of work looking at chief complaints and final diagnosis for confirmed strokes and those who end up with other diagnoses to develop the case definitions for this measure.</p>	<p>Details will be provided in the updated CSS Performance Measurement Manual, which is referred to in the guidelines document</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 19)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>3.2 Acute management of TIA and minor stroke</p> <p>a) Under assessment section vii</p> <p>"Patients with a confirmed cerebral infarction" (does this need to be more specific i.e. TIA or minor stroke)</p> <p>b) Do all of these patients need a comprehensive evaluation of determination of fitness to drive, or what is the definition of a comprehensive evaluation — is screening for these problems acceptable?</p> <p>c) Under management</p> <p>Are you implying that minor stroke patients do not need a swallow screen prior to oral medication, which is very likely if they are to get an antiplatelet agent immediately after the brain scan.</p> <p>If this is the case, how is minor stroke defined?</p> <p>d) The performance measure in section 3.6 measures if stroke patients should receive aspirin within 48 hours. Does this exclude minor strokes who should receive aspirin emergently?</p>	<p>a) The wording has been edited to clarify as suggested.</p> <p>b) Comprehensive evaluation refers to a series of areas that are initially included in a screening and assessment process. Fitness to drive is just one component among many, and is only listed here as an example. The extent of detailed assessment required will be determined on an individual basis, and initially based on the findings of the preliminary screening. The wording has been altered with the agreement of the task group.</p> <p>c) We do not imply that TIA and minor stroke patients should be given aspirin without a dysphagia screen. Dysphagia screening should be completed as part of the initial clinical evaluation as described under Assessment Recommendation # i. Recommendation 3.2 is one of many in our guidelines and it is not intended to stand alone or be mutually exclusive to the other recommendations. All relevant recommendations should be applied to every patient that is evaluated for suspected or confirmed stroke or TIA.</p> <p>d) No this does not exclude minor strokes. Recommendation 3.6 reads that all acute stroke patients should be given aspirin immediately after CT has ruled out hemorrhage so it is consistent. The 48 hour parameter in the performance measure in 3.6 is based on published research evidence that indicates that ASA should be given no later than within the first 48 hours, and therefore in the performance measure this is used as the timeframe for measurement purposes.</p>	<p>a) Recommendation 3.2 Assessment vii Page 53</p> <p>b) Recommendation 3.2 Assessment vii Page 53</p> <p>c) No change</p> <p>d) No change</p>
<p>3.3 Neurovascular imaging</p> <p>a) Performance measure 1. Do all stroke patients need a brain image within 25 minutes of hospital arrival or only those who arrive within a specified time period?</p> <p>b) If a patient who had their stroke yesterday came in stable today should they get an emergent CT because they can not get an MRI for 1 hour?</p>	<p>The recommendation states that all patients should undergo brain imaging immediately. The expert panels set this statement to intentionally. They felt that including exceptions and options in the recommendation would dilute the imperative for brain imaging. Clinical discretion will always be a component of decision-making on a case by case basis.</p> <p>a) For the performance measure 1 a measurement note has been added to clarify that this measure should be applied to potential tPA candidates and not the whole stroke population.</p> <p>b) A table has been provided at the end of Recommendation 3.2 with suggested timing of diagnostics. It clearly addresses the issue presented by the reviewer. Based on urgency classification. The scenario this reviewer presents regarding CT and MRI suggests this patient may be able to undergo imaging within 7 days. This is subject to clinical evaluation and other presentation findings.</p>	<p>a) Recommendation 3.3 Measurement notes Page 58</p> <p>b) No change required</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 20)

Comments from <i>CMAJ</i> and reviewers	Authors' response	Location of edits
<p>3.4 Blood glucose abnormalities</p> <p>Performance measure 2. "The proportion of patients with diabetes who have blood glucose levels in therapeutic range." When is this determined, on admission to acute care? Is there evidence based goal for this even though blood glucose can go up as an acute phase reactant?</p> <p>If the goal of the measure is to determine how many patients with known diabetes on presentation to acute care have their sugars under control, perhaps an A1C level would be appropriate.</p>	<p>This measure looks at acute determination of diabetes therefore blood glucose levels are appropriate and more cost effective. A1C levels may also be considered in addition to glucose levels. A bullet has been added to the measurement notes to state this point.</p>	<p>Recommendation 3.4 Measurement notes Page 60</p>
<p>Section 4: Acute inpatient stroke care</p> <p>4.2 Components of acute inpatient care</p> <p>Nutrition</p> <p>Nutritional and hydration status are not defined but under section iii. There is mention of dysphagia, is this part of the nutritional assessment?</p>	<p>Dysphagia is considered in a separate recommendation (6.1). It is mentioned here to emphasize that it is definitely considered part of nutrition assessment. However, it is important to stress that it is not solely the responsibility of the dietitian and should be part of the initial assessment of all patients as well as part of ongoing assessments by a range of healthcare professionals who have training in dysphagia screening. Dysphagia should be assessed at different stages in the early recovery — both in acute care and during rehabilitation, as swallowing ability may change over time in the early phase following stroke (either improvement or deterioration). We have linked Recommendations 4.2 (Nutrition) with Recommendation 6.1 (Dysphagia) to ensure those who are using the recommendations consider all aspects of both nutrition and dysphagia.</p>	<p>No changes</p>
<p>Section 5: Stroke rehabilitation and community reintegration</p> <p>a) Under this section there are several recommendations that are listed in the TIA and minor stroke section that are far more specific, especially 5.1 ii.</p>	<p>Thank you for pointing out the inconsistency. We have endeavoured to be consistent in wording in similar recommendation statements, and this was overlooked. It has now been rectified.</p> <p>In several instances we intentionally repeat parts of recommendations to emphasize their importance and also to link recommendations. This was done on the advice of our consensus panel and based on feedback since the first release of the guidelines.</p>	<p>Recommendation 5.1 (ii) Page 80</p>
<p>The rehabilitation section performance measures require a more in depth assessment of interventions that may lead to a better understanding of the relationship between specific interventions (intensity, duration, frequency) and outcome. This is fantastic. I did not notice this level of detail in the other sections.</p>	<p>In some parts of rehab, it is easier to be more specific. Recently a separate consensus process was undertaken by members of the Canadian Stroke Network to explore both functional outcome and system-level performance measures for stroke rehabilitation. The results of that process have been incorporated into these best practice and performance measurement documents.</p>	<p>N/A</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 21)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>5.3 Components of inpatient stroke rehabilitation</p> <p>a) Performance measure 2. Length of time from stroke onset to admit to stroke rehabilitation — this number will vary but several factors, which if identified prior may help determine where the problem is and thus what intervention, is necessary. For example, factors delaying discharge from the hospital that have no relationship to the ability to provide timely rehabilitation include stroke severity/comorbidities and the development of in-hospital complications. Excluding these variances may help identify if there is truly a problem between the hand off from inpatient to the outpatient setting.</p> <p>b) Performance measure 11. Time of onset to various stages of mobilization. I am assuming, perhaps wrongly, that these are indirect markers for a process, what is the real process that is being measures. Is it time to walking w/w/o assistance? Then if a delay is identified between time of onset to sitting, or time from standing upright to walking then areas are identified for improvement. This is somewhat similar to the thrombolytic being delivered in 1 hour measure, secondary processes can be measured to determine why this time is prolonged — delay in CT, delay in blood draw, delay between CT and infusion.</p>	<p>a) we agree that there are many factors that can affect this time interval. A measurement note has been added to highlight this and encourage groups to collect information on other factors that may affect transfer. As the reviewer indicates, these reasons often become the targets for quality improvement initiatives.</p> <p>b) Yes, this was broken down into steps by the task group members to track all parts of the process to identify areas for targeting improvement efforts.</p>	<p>a) Recommendation 5.3 Measurement notes Last Bullet Page 87 b) No changes</p>
<p>5.4 outpatient and community-based rehabilitation</p> <p>Performance measure 1 — excellent.</p> <p>A point to consider: What is the percentage of patients who were "screened" for rehab while an inpatient, determine not to need it then, but still should be referred for more in depth or follow up assessment for after discharge. This measure uses the phrase "ongoing", suggesting that only those who needed rehab in the hospital should have a follow up after discharge.</p>	<p>This is an important area that has been discussed thoroughly by task group and expert panel members</p> <p>Recommendations 3.2 (vii), 5.1 (i and ii), and all of Recommendation 5.5 address the issue of additional outpatient assessments and rehab needs. The use of the word 'ongoing' is intended to imply that rehab needs are a continuous issue and should be considered at several stages of care and recovery. We appreciate the comments of the reviewer that it may imply only those that were initially identified with rehab needs, but during our consultation with several community-based rehab providers (May 2007) this phrase was identified in the context of rehab being 'dynamic'.</p> <p>The feasibility of collecting information on any aspect of outpatient rehab has been a major challenge. Ontario has attempted to collect information on the number of stroke patients who attend funded outpatient rehab programs and the validity of the data has been problematic. This will be brought forward through the implementation process in addressed by our Evaluation working group as apriority to address in the coming months.</p>	<p>No changes</p>

Appendix 8: CMAJ reviewers' comments and detailed authors' responses (part 22)

Comments from CMAJ and reviewers	Authors' response	Location of edits
<p>Section 6: Selected topics</p> <p>Dysphagia —</p> <p>Performance measures</p> <p>1. Does not specifically mention that the dysphagia screen is documented prior to oral intake. There are 2 important factors here: 1. Is a screen done at all and 2. Is the screen performed after oral intake. Knowing the difference between these 2 events helps identify the area for improvement — not using the screen at any time versus addressing areas or reasons why the screen is done after PO.</p>	<p>We appreciate the nuances pointed out by this reviewer.</p> <p>We have actually looked at data quality issues for documentation on dysphagia screening through the Registry of the Canadian Stroke Network. That investigation found that 'dysphagia' screening is generally fairly well documented, however more detailed information regarding whether it was done before oral intake is poorly recorded. This is a common dilemma — restrict the measure to what we know is available or create a measure that reflects the highest standards we are trying to achieve.</p> <p>In our Performance Measurement Manual we will address this by including both the current measure and an additional measure that is more specific as the reviewer suggests. During implementation of the guideline we will again stress the importance of documentation for many aspects of stroke care and include this in all professional development materials prepared by the CSS.</p>	<p>Bring forward to discussions on update of Performance Measurement Manual</p>
<p>Identification and management of post-stroke depression</p> <p>Performance Measure ii — all patients "at risk" for depression are sent to a mental health professional, whether they are identified to have depression or not? This may be costly and/or unproven to be necessary.</p>	<p>The recommendation statement (ii) states that stroke patients who are identified during screening should be referred to a trained professional for further assessment and diagnosis. This was developed in conjunction with experts from neuropsychology and psychiatry. They felt strongly that any patient who was suspected of depression should receive a referral for further assessment as the risk for depression is high and often overlooked in stroke patients, especially during the early phases of recovery.</p> <p>These are guidelines and represent the ideal best practices. Clinical presentation of stroke patients at the time of initial screening is also an important consideration.</p>	<p>No changes</p>