## *Appendices*

### Appendix 01. Identification of published adapted CGs

One author (YS) screened and selected adapted CGs based on pre-established eligibility criteria: "adapted guidelines", "reported at least one recommendation", "described the adaptation process", and "published in English". Another author (RV) double-checked the findings. We contacted the first author of adapted CGs for participation. If the first author did not respond, we contacted the corresponding author. If they could not participate, we requested they recommended another potential participant. We finally identified 472 records from the pragmatic search, after removing the duplicates and screening title and abstract, we reviewed 41 full texts and 16 adapted CGs to extract contact information.

**The pragmatic search strategy of published adapted clinical guidelines and included studies**

| Search strategy (PubMed from 1992 December to 2019 September) | |
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| #1 | "Practice Guidelines as Topic"[Major] |
| #2 | Practice guideline*[tiab] |
| #3 | Clinical guideline*[tiab] |
| #4 | Evidence based guideline*[tiab] |
| #5 | Guideline*[ti] |
| #6 | Recommendation*[ti] |
| #7 | Adopt*[ti] |
| #8 | Adapt*[ti] |
| #9 | Adaptation[tiab] |
| #10 | #1 OR #2 OR #3 OR #4 OR #5 OR #6 |
| #11 | #7 OR #8 OR #9 |
| #12 | #10 AND #11 |
| **Included studies** | |
| 1 | Nishiyama H. Asia Consensus Statement on NCCN Clinical Practice Guideline for bladder cancer. Jpn J Clin Oncol. 2018;48(1):3-6. |
| 2 | Guideline Adaptation Committee. Clinical Practice Guidelines and Principles of Care for People with Dementia. Sydney. Guideline Adaptation Committee; 2016. |
| 3 | Kang CI, Kim J, Park DW, Kim BN, Ha US, Lee SJ, et al. Clinical Practice Guidelines for the Antibiotic Treatment of Community-Acquired Urinary Tract Infections. Infect Chemother. 2018;50(1):67-100. |

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| 4 | Hu J, Yu L, Jiang L, Yuan W, Bian W, Yang Y, et al. Developing a Guideline for Endotracheal Suctioning of Adults With Artificial Airways in the Perianesthesia Setting in China. J Perianesth Nurs. 2018. |
| 5 | Carter J, Lacchetti C, Andersen BL, Barton DL, Bolte S, Damast S, et al. Interventions to Address Sexual Problems in People With Cancer: American Society of Clinical Oncology Clinical Practice Guideline Adaptation of Cancer Care Ontario Guideline. J Clin Oncol. 2018;36(5):492-511. |
| 6 | CAN-ADAPTT. (2011). Canadian Smoking Cessation Clinical Practice Guideline. Toronto, Canada: Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment, Centre for Addiction and Mental Health. |
| 7 | Remington G, Addington D, Honer W, Ismail Z, Raedler T, Teehan M. Guidelines for the Pharmacotherapy of Schizophrenia in Adults. Can J Psychiatry. 2017;62(9):604-16. |
| 8 | Pringsheim T, Addington D. Canadian Schizophrenia Guidelines: Introduction and Guideline Development Process. Can J Psychiatry. 2017;62(9):586-93. |
| 9 | Laver K, Cumming R, Dyer S, Agar M, Anstey KJ, Beattie E, et al. Evidence-based occupational therapy for people with dementia and their families: What clinical practice guidelines tell us and implications for practice. Aust Occup Ther J. 2017;64(1):3-10. |
| 10 | Kim MS, Lee JH, Kim EJ, Park DG, Park SJ, Park JJ, et al. Korean Guidelines for Diagnosis and Management of Chronic Heart Failure. Korean Circ J. 2017;47(5):555-643. |
| 11 | Kim KI, Jung HK, Kim CO, Kim SK, Cho HH, Kim DY, et al. Evidence-based guidelines for fall prevention in Korea. Korean J Intern Med. 2017;32(1):199-210. |
| 12 | Novo A, Subotic-Popovic A, Strbac S, Kandic A, Horga M. Application of Agree II Instrument for Appraisal of Postpartum Hemorrhage Clinical Practice Guidelines in Bosnia and Herzegovina. Acta Inform Med. 2016;24(3):211-4. |
| 13 | McGowan J, Muratov S, Tsepke A, Issina A, Slawecki E, Lang ES. Clinical practice guidelines were adapted and implemented meeting country-specific requirements–the example of Kazakhstan. J Clin Epidemiol. 2016;69:8-15. |
| 14 | Le T, Kennedy EB, Dodge J, Elit L. Follow-up of patients who are clinically disease-free after primary treatment for fallopian tube, primary peritoneal, or epithelial ovarian cancer: a Program in Evidence-Based Care guideline adaptation. Curr Oncol. 2016;23(5):343-50. |
| 15 | Denduluri N, Somerfield MR, Eisen A, Holloway JN, Hurria A, King TA, et al. Selection of Optimal Adjuvant Chemotherapy Regimens for Human Epidermal Growth Factor Receptor 2 (HER2) -Negative and Adjuvant Targeted Therapy for HER2-Positive Breast Cancers: An American Society of Clinical Oncology Guideline Adaptation of the Cancer Care Ontario Clinical Practice Guideline. J Clin Oncol. 2016;34(20):2416-27. |
| 16 | Abdollah Zadegan S, Ghodsi SM, Arabkheradmand J, Amirjamshidi A, Sheikhrezaei A, Khadivi M, et al. Adaptation of Traumatic Brain Injury Guidelines in Iran. Trauma Mon. 2016;21(2):e28012. |

## Appendix 02. Interview Open-ended questions

| **Section 1: Characteristics of participants** | |
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| **Questions** | **Probes/Answers** |
| Country | |
| Organisation | |
| Please choose the option that best describes **your organisation** | □ Hospital<br>□ Primary care / General practice<br>□ Research / Knowledge production organisation<br>□ Service provider organisation (community)<br>□ University<br>□ Other |
| If OTHER, please specify | |
| How many years of experience in guideline adaptation do you have? | |
| Please choose the option that best describes your current experience in the **health-related guidelines field** (please select all that apply) | □ **Experience in developing** clinical guidelines (participation in a guideline development group at least once in the past year).<br>□ **Experience in adaptation** clinical guidelines (participation in a guideline adaptation group at least once in the past year).<br>□ **Methodological experience in developing** clinical guidelines (participation in a guideline technical team at least once in the past year and/or participation in methodological research).<br>□ **Methodological experience in adaptation** clinical guidelines (participation in a guideline technical team at least once in the past year and/or participation in methodological research).<br>□ Clinical guidelines **user** (use of clinical guidelines on a daily basis).<br>□ Other: ( ) |
| **Section 2. Characteristics of health-related guideline developing organisation** | |
| **Questions** | **Probes/Answers** |
| Does your organisation **develop** health-related guidelines (HRGs)? | □ Yes<br>□ No<br>□ Do not know |
| How many HRGs has your organisation published? | |
| How many years has your organisation been developing HRGs? | |
| What is the **average size** of your HRG development group? | |
| Does your organisation **adapt** HRGs? | □ Yes<br>□ No<br>□ Do not know |
| How many adapted HRGs has your organisation published in the last 3 years? | |
| **How many years** has your organisation been adapting HRGs? | |
| What is the average size of your adaptation group? | |
| **What is the average time** for your organisation to develop an adapted guideline? | □ 0 – 1 year<br>□ 1 – 2 years |

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| | ☐ 2 – 3 years<br>☐ ≥ 3 years |
| **Which role does** your guideline adaptation group include? | 1. Clinicians<br>2. Patients<br>3. Methodologists<br>4. Policy makers<br>5. Other roles<br>If other, please specify<br>_____ |
| **Section 3. Current practices regarding guideline adaptation in your organisation** | |
| **Questions** | **Probes/Answers** |
| 1. What is the trigger for your organisation to adapt source guideline(s)? | ☐ Implementing the source guideline in your setting<br>☐ Developing a *de novo* guideline<br>☐ Others<br>☐ Do not know |
| If others, please specify: | |
| 2. Could you please describe the **adaptation process** or which **framework or methods** your organisation used for guideline adaptation? | ☐ ADAPTE 2010 based<br>☐ GRADE based (MAGIC, GRADE-ADOLOPMENT)<br>☐ Others |
| If others, please describe and provide citations (if applicable): | |
| 3. Does your organisation **assess the quality, currency, or content** of the included source guideline(s)? | ☐ Yes<br>☐ No |
| If yes, how does your organisation assess those aspects? Please specify | |
| 4. Does your organisation consider the **difference** between source guideline(s) and target context? Like the population, the setting/health systems, or practice variation/target users? | ☐ Yes<br>☐ No |
| According to your experience, how does your organisation solve the differences? Please specify | |
| 5. Does your organisation assess the **consistency** of the included source guideline(s)? (Only when ≥ 1 source guideline included) | ☐ Yes<br>☐ No<br>☐ Only one source guideline included, not applicable |
| According to your experience, how does your organisation solve the inconsistency? Please specify | |
| 6. Does your organisation consider **other systematic reviews/new evidence** that might not be included in the source guideline(s)? | ☐ Yes<br>☐ No |
| According to your experience, how does your organisation consider other systematic reviews or new evidence? | ☐ Incentive of starting<br>☐ Literature search<br>☐ Experts' groups<br>☐ Others |
| If using other methods, please describe: | |
| 7. Does your organisation typically consider **constrains/barriers** like legislation, policies, or healthcare-setting resources that might impact the implementation when adapting? | ☐ Yes<br>☐ No |

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| According to your experience, how does your organization consider implementation barriers? | |
| 8. Does your organisation externally review the guidelines you adapt prior to publication? | □ Yes<br>□ No<br>□ Do not know |
| 9. What is the funding source for guideline adaptation in your organisation? | |
| **Section 4. Challenges during guideline adaptation process** | |
| **Questions** | **Probes/Answers** |
| 1. According to your experience, which part **is the most challenging** for your organisation when adapting guidelines? | □ Choosing the health question<br>□ Searching for evidence (source guidelines or systematic reviews)<br>□ Evaluating the evidence (source guidelines or systematic reviews)<br>□ Making recommendations from evidence<br>□ Implementation |
| If others, please describe the identification process: | |

## Appendix 03. Views and experiences on guideline adaptation

| Themes | Quotations |
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| ***Question: What is the trigger for your organisation to adapt source guideline(s)?*** | |
| **Developing their guidelines (7 Participants)** | ✔ **As part of *de novo* guideline development process (3 participants):**<br>*"The trigger will be for developing a de novo guideline. We adapt multiple guidelines at a time. The multiple guidelines are usually developed in countries like the UK, Canada, the US etc. Then we adapt those for those resources constrain setting." – (Participant 02)*<br><br>*"For developing de novo guideline. Basically, we are based on the evidence from existing evidence and then may search for new evidence" – (Participant 04)*<br><br>*"Generally, we develop our research question and search for evidence/source guidelines to answer our question. If we find a guideline that answered our question, that is the trigger for us to adapt the guideline potentially." – (Participant 05)* |
| | ✔ **Avoiding duplicates and saving efforts (1 participant)**<br>*"Basically, the trigger is to avoid the duplication of the guideline development efforts. Especially the searching and appraising the primary evidence. We advise them to use aggregate evidence before they do their own research. This is one hand, and for another hand will pause to do systematic reviews" (Participant 03)* |
| | ✔ **Saving resources and time (3 participants)**<br>*"If the guideline group plan to develop a new guideline, they will search for the existing evidence first. However, in the process of adaptation, they always realise that they could not only implement a source guideline because there is some difference between the target settings. If there is already evidence-based up to date guidelines, groups want to use them for their own guideline to avoid or minimise efforts of systematic searches." (Participant 06)*<br><br>*"First, to say primarily, the first we don't want to spend resources on developing de novo. Ideally, we would adapt the source guideline(s). The first trigger for adaptation is that we want to limit the cost and to save resources." (Participant 09)*<br><br>*"We needed to develop in a short period, and we did not have enough money and people to be involved." (Participant 10)* |
| **Implementing/Endorsing for target settings (5 participants)** | ✔ **Implementing (3 participants)**<br>*"Given time and resource constraints, the task force discounted developing new guidelines and opted to adaptation. We use a pragmatic method by which evidence-based guidelines could be adapted to suit our context. New review questions were recommended only for areas not covered by existing guidelines." (Participant 08)*<br><br>*"Government support to adapt for implementation: To be realistic, sometimes the policies or others suggest there is a need to adapt." (Participant 09)* |

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| | *"We were consulted to assist in developing guidelines that were relevant and implementable in a resource-limited setting." (Participant 10)* |
| | ✔ **Endorsing (2 participants)**<br>*"We also do guideline endorsement; sometimes, other organisations come to ASCO to ask us to endorse their guidelines. This could be the single source guidelines. We ask our panel to not change anything of the source guideline(s). In minority times, they made some modifications based on other processes of our own. It's a similar process with what we called adaptation." (Participant 02)*<br><br>*"We will not search for new evidence when endorsement or adaptation if the source guideline did not answer all of our questions, we will conduct the new systematic review for the rest questions". (Participant 05)* |
| **Updating existing guidelines (3 participants)** | *"We will update our guideline when a new guideline comes out by considering whether the new guideline will change our guideline or not, if so, we will adapt/adopt to our topic" (Participant 01)*<br><br>*"When updating an existed guideline, the group will want to adapt a good guideline when updating. We will first look at the existing guideline if you could make a single recommendation, so in some updated guidelines they choose to adapt two of the recommendations, they made also search for systematic reviews, so another five recommendations are based on systematic reviews, and other recommendations are based on primary studies. Other recommendations are based on experts' consensus." (Participant 06)*<br><br>*"The other trigger for adaptation could also be when new evidence showing up, and if new primary evidence changes the recommendations/practice, we will choose adapted the recommendation, to be realistic." (Participant 09)* |
| **Controversial existing guidelines(1 participant)** | *"We do adaptation only when guidelines are controversial, and we intend to harmonise the guidelines." (Participant 07)* |
| ***Question: According to your experience, which part is the most challenging for your organisation when adapting guidelines?*** | |
| **Poor reporting or limitations of source guideline(s) (2 participants)** | *"The most challenging is the guidelines often do a **very poor reporting** of how they make their decision exactly what was based on, what value they were considering, what methodology is, what is the evidence. So sometimes you get the recommendations, but you don't get the why, and you don't get what evidence they considered, and how they rate it and understand it. So poor reporting would be the biggest challenging part for adaptation." (Participant 01)*<br><br>*"This is most challenging because as a methodologist I have not read all the evidence, I haven't searched for it all, so I don't know it well. If there are all guidelines and they all consistency, and they all have the same kind of evidence, and then I feel more confident. Sometimes I do a quick search to see if something is outside the source guideline, but really I rely on my experts' panel in this field if they can endorse these recommendations pretty much as it is and if they think the new evidence is going to change the recommendations." (Participant 05)* |

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| **Limited skills in advanced guideline development and adaptation (3 participants)** | *"I would say* evaluating the evidence (source guideline or systematic reviews) is the most challenging part. *We don't look at the methods the source guideline(s) used for the evidence appraisal. We reevaluated the quality and certainty of the evidence from source guidelines by ourselves." (participant 07)*<br><br>*"I want to say all of these are challenging. Because I think health questions are difficult for people to phrase, people don't have technical skill for searching evidence, we have limited skill to appraisal and identify guidelines that we are using, and there have very few groups that have specific methods to move evidence to a decision." (Participant 09)*<br><br>*"Framing the health question: sometimes the experts even could not draft the health question correct； Choosing the health question; Searching for evidence (source guideline or systematic reviews) and making recommendations from evidence" (Participant 10)* |
| **The intensity in terms of resources and time for adaptation (2 participants)** | *"They have to go down to two-level to see the basis of adaptation. But we don't want them to spend a lot of time to see the weeds of primary evidence. We want them to kind of be able to go from the recommendation level directly." (Participant 02)*<br><br>*"For the guideline development groups, the greatest challenging **is very time-consuming**. Also, **the resource intense**. Or do I need to do an extra evaluation of the source guideline is not good enough?" - (Participant 03)* |
| **Challenges arising from specific steps of adaptation process** | ✔ Addressing context differences between source CGs and adapted CG **(including reporting the differences) (4 participants)**<br><br>*"Sometimes, they also are struggling with translating the evidence to recommendations, because the evidence just not fit to the target population. It is a typical problem of indirectness or imprecision of these things." (Participant 03)*<br><br>*"I think choosing the health questions and also making the recommendations from the evidence-based on our characteristic. Not all the clinical questions are the same for our region because the character is different" (Participant 04)"*<br><br>*"We suggested guideline adaptation group to justify the deviations from source guidelines, but regularly they do not include the reason (reporting). When we ask to clarify the deviations, they said it is too difficult for them to report the reason for deviations. I think it is really too difficult for them to explain. I think this is the real challenging for them because this issue was really discussed in a consensus conference, but nobody really reports the augments (reporting)." (Participant 06)*<br><br>*"The real challenge when you put guidelines together is that you would probably know different guideline groups do their methods differently." (participant 10)*<br><br>✔ **Addressing inconsistency and integrating recommendations from** different source CGs **(3 participants)**<br><br>*"I would say it related to the "**making evidence to recommendations**". From our adaptation experience, you know you have the extra layer, the source guideline, the SR that described and to inform the recommendations, and the basic primary studies; then we come into the adaptation, they have to go down to two-level to see the basis of adaptation. But we don't want them to spend a lot of time to see the weeds of primary evidence. We want them to kind of be able to go from the recommendation level directly.* |

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| | ***For solving the inconsistency of recommendations is also a challenging part"*** *(Participant 02)*<br><br>*"I would say* ***making recommendations from Evidence.*** *If there are evidence that may change the recommendation; is the guideline suitable for our setting? Because it is the link between evidence and recommendations. For adaptation for us is the same with endorsement. If we need to make major change of the recommendation, we will need to develop our own recommendations." (Participant 05)*<br><br>*"There wasn't enough guidance for how to adapt a guideline and even now.* ***There was very limited to no evidence in how recommendations from multiple sources can be put together.*** *Because most of the adapted guideline in practice they only chose one guideline." (Participant 10)*<br><br>✔ **Updating or supplementing additional research evidence (1 participant)**<br><br>*"The evidence base of the source guidelines was complemented by systematic update searches of primary evidence." is a challenge for guideline adaptation group. (Participant 06)* |
| **Implementation barriers (5 participants)** | *"The very most challenging is stratifying the recommendations, decided them into different practice settings" (Participant 02)*<br><br>*"Also, I do believe that like many organisations, implementation is also a great challenge. We do our best to develop our guidelines, but implementation still is a hot topic." (Participant 03)*<br><br>*"And implementation is a whole separate thing and also challenging". (Participant 09)*<br><br>*"Required the resources which might not apply in the target setting. For example, diabetic foot, the evidence and recommendations suggested to conduct yearly foot assessment, however, in practice, none of the clinicians knows how to do a foot examination; Also adherence to the guideline recommendation in the culture of Indian would also be challenging." (Participant 08)*<br><br>*"For example: for our setting, who is the best health professional you should contact or deliver the care, and that is a very local context field. Because in some setting maybe they only have a nurse." (Participant 10)* |
| ***Question: According to your experience, how does your organisation consider the difference between source guideline(s) and target context? Like the population, the setting/health systems, or practice variation/target users?*** | |
| **Experts' opinions and panel discussion (7 participants)** | *"In general, we address the differences according to the feedback from international panel experts/clinicians." (Participant 02)*<br><br>*"Mostly addressed in group discussions, when it comes to reviewing the source guidelines. Then decide if they adopt them or they check if they are adoptable for the national systems. So mostly it's experts' opinions that come in." (Participant 03)*<br><br>*"We made a group discussion; all the participants of my study attend to a seminar and discuss their opinion about the differences." (Participant 04)* |

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| | *"We are looking for the similar guidelines. If there are differences, we discuss through our panel and decide to use it or not." (Participant 05)*<br><br>*"Some group solve differences by discussion or consensus." (Participant 06)*<br><br>*"By discussion within the development group and acknowledge the difference in a document." (Participant 08)*<br><br>*"They solve the differences by discussion in the panel, and they may come to a consensus." (Participant 09)* |
| **Modifying for the target context** | ***At the guideline level:***<br>✔ ***Prioritising* the source guideline according to different factors (3 participants)**<br>*"We do prioritise according to language because we are working in English. First, by prioritisation according to the quality of guideline development organisation, published in English, and sometimes for the global population, which means, common users of our guidelines." (Participant 01)*<br><br>*"You have to look at each guideline methodologically and to see which one is regularly doing and try to lean towards that but also really on AGREE ii instrument evaluation as well and use that to filter which is a good guideline and which is not. The methodological rigorous is important, but on top of that is the interpretation of the evidence and do recommendations. And often look at the evidence directly as well." (Participant 07)*<br><br>✔ ***Discarding source guideline (1 participant)***<br>***"****We develop our own research question. If the source guideline did not answer our question, we will not consider using them. For example, we are looking for the similar guidelines. If there are differences, we discuss through our panel and decide to use it or not." (Participant 05)*<br><br>***At the recommendation level:***<br><br>✔ ***Modifying strength of the recommendations (1 participant)***<br><br>*"If there is not certain difference between population, but different considerations or opinions, we will rate down certainty due to inconsistency; If the guidelines are from different regions, we may give weak recommendation with documented justifications." (Participant 01)*<br><br>✔ ***Contextualizing by considering different factors (3 participants)***<br><br>*"The working group judge whether to adapt according to the context/new balanced benefits and harms and decide through discussion." (Participant 06)* |

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| | *"The recommendation could be changed due to the difference of health settings/target users/population; we request the guideline development group to provide those modifications as well as the justifications." (Participant 08)*<br><br>*"I think this was most helpful about the Evidence to decision framework. Because even if the recommendations were come from other setting, you will go through the acceptability, feasibility. In feasibility, if a drug is not available in your country or you need a different formulation, or the price is inaccessible, then it will influence the recommendations. After the decision was made by the guideline panel, the recommendations will go to another level of group for considering whether it is justified and feasible. So, this is a kind of internal quality insurance." (Participant 09)*<br><br>✔ ***Making a recommendation for subgroup population (1 participant)***<br>*"If there is a certain difference between population, we do a subgroup population and mark clearly which population suits which context." (Participant 01)*<br><br>***At the evidence level:***<br>✔ ***Supplementing new evidence/other considerations (2 participants)***<br>*"Also, we do check the existing policies that need to be addressed. It is not systematically searchable, but it is addressed by group discussion." (Participant 03)*<br><br>*Even at the start, the questions can be contextualised. Which question and which guideline should we practice? Sometimes we did not find any answers. Hence, for some recommendations, we consider some source of information from the local context." (Participant 10)* |
| **Reporting the differences when drafting the recommendation (3 participants)** | *"If there is a certain difference between population, we do a subgroup population and mark clearly which population suits which context; If the guidelines are from different regions, we may give weak recommendation with documented justifications." (Participant 01)*<br><br>*"By discussion within the development group and acknowledge the difference in a document. We request the guideline development group to provide those modifications as well as the justifications." (Participant 08)*<br><br>*"We did not put them together but will report in the appendix." (Participant 10)* |
| ***Question: According to your experience, how does your organisation solve inconsistency of recommendations from different source CGs?*** | |
| **Panel discussion (2 participants)** | *"We deal it more by discussion. There is not a table or formula to tell you how to deal with inconsistency; you have to figure out the reasons for the inconsistency." (Participant 01)*<br><br>*"I would say that is a challenging part. We do a discussion about the inconsistency and then we do rerate the strength of the recommendation based on published criteria." (Participant 02)* |
| **Selection criteria (At the guideline level)** | ✔ ***Good quality and rigorously developed (1 participant):*** |

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| | *"We use matrixes/tables to map the differences. Sometime if they have a good guideline, they will stop to search another guideline. We Used AGREE II to identify the methodological quality of the guidelines and prioritised by methodology sound recommendations." (Participant 03)*<br><br>✔ ***Good quality (3 participants):***<br>*"We don't have a critical cut off to choose which guideline to use, we do prioritise by quality of the guideline. Some group solve differences by discussion or consensus." (Participant 06)*<br><br>*"We do not have a cut-off of the AGREE score, because sometimes there are few source guidelines for the consideration of adaptation. By considering guideline quality:1) from the NGC; or 2) consider the results with AGREE II assessment." (Participant 08)*<br><br>*"So, if it is coming from a higher-level study, and if it's of good quality, and if it's pointing the same direction." (Participant 10)*<br><br>✔ ***Trustworthiness, good quality, and mostly up-to-date (1 participant):***<br>*"We do not have a numeric cut-off for AGREE ii. We don't use a qualitative cut-off with the results of AGREE ii, but we do consider the highest quality are guidelines from well-known guideline development organisation that has used systematic reviewed based guideline development methods and has fully describe their methods.*<br>*And we also can only adapt guidelines that were not funded by industry.*<br>*The decision to adapt a specific guideline or guidelines, is based on:*<br>*o the results of the content review and the level of agreement with the recommendations*<br>*o A quality appraisal of available guideline(s)*<br>*o the time since completion of the best available guideline(s)" (ASCO guideline development manual)" (Participant 02)*<br><br>✔ ***Up-to-date (1 participant):***<br>*"We don't go simply from recommendation to recommendation, we identify the evidence from the most up to date high quality guidelines, also panel will want to look at the primary studies." (Participant 09)*<br><br>✔ ***Relevant to the target context (2 participant):***<br>*"We did our plan to evaluate the inconsistency and solve it by considering whether it suits our context." (Participant 04)*<br>*"Through panel discussion to make the decision whether this guideline is suitable for Ontario context or not." (Participant 05)* |
| **Assessing the reason for inconsistency:**<br>**(At the recommendations and evidence level)** | ✔ ***Assessing at recommendation level (4 participants)***<br>*"We gonna look into what is the recommendation. If the recommendation is different in different guidelines, then we have to figure out do we think one is right and one is wrong and explain it. Or we just say there is a reason for differences of opinion, and we give a weak recommendation overall, because they disagree. Maybe if you look carefully, the guidelines were actually focusing on different population, and there are not truly inconsistent or giving newer on the strong recommendations, in which case you may agree with both guidelines, and then present it more clearly." (Participant 01)* |

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| | *"We ask them to really compare the guideline and see where the inconsistency comes from on the level of individual recommendations." (Participant 03)*<br><br>*"In another case, more than one guideline was used, some groups consider the consistency by using synopsis of each recommendation and checking the inconsistency but some not." (Participant 06)*<br><br>*"We have to look at the inconsistency, uninformative thoughts, the strength of recommendations that will be based on the quality of your evidence and the level of evidence." (Participant 10)*<br><br>✔ ***Assessing at evidence level (3 participants)***<br>*Or maybe one guideline has more evidence or more currency than the other, you may ignore the guideline that wasn't aware all the evidence when they made the recommendations. But until you understand why there is inconsistency, you can determine what to do. We don't have a comment table to work through how to do it, the team uses their judgment to explore this and use their experience." (Participant 01)*<br><br>*"If there is consistency, we will only consider the SRs they are using, using other persons SR, or conduct the SR by our-selves." (Participant 05)*<br><br>*"By looking at the evidence interpretation (the appraisal of the evidence, if they are not good, would go into the individual studies and reassess the quality of the evidence) the quality and rigorous of development (assessed by AGREE ii score)." (Participant 07)* |
| **One single guideline was included (4 participants)** | *"I have in the past looked at whether guidelines have recommended the same treatment. However, recently we have been selecting only one guideline to endorse/adapt." (Participant 05)*<br><br>*"In one case, the group only pick up one good guideline and use it." (Participant 06)*<br><br>*"We did not meet one situation of more than one guideline were included and I do not know how to solve." (Participant 09)*<br><br>*"What people have done is that they chose one guideline one and adapt this guideline for their setting." (Participant 10)* |
| ***Question: According to your experience, how does your organisation consider other systematic reviews or new evidence?*** | |
| **Triggers for complementing / updating the search for source guideline(s)** | ✔ ***Source guideline did not answer all the questions of the adapted guideline (3 participants):***<br>*"If the source guideline did not answer all of our questions, we will conduct the new systematic review for the rest questions." (Participant 05)* |

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| | *"If they find there is no clear answers for their question in the source guidelines, they looked at existing Cochrane SRs but do not conduct a new one." (Participant 08)*<br><br>*"No guideline answers your question, we do consensus process. If the source guideline has limited evidence for specific questions, we will make a consensus process." (Participant 10)*<br><br>✔ ***Source guideline(s) were outdated(1 participant):***<br>*"If it is a great guideline but it's 3 years old, and since then there are new primary studies come out, they will want to look at that." (Participant 09)*<br><br>✔ ***Source guideline(s) were consensus based (2 participants):***<br>*"Resource stratified guidelines means based on the source guidelines and considering resource use. For the source guidelines we did not do the updated;" (Participant 02)*<br><br>*"For experts' consensus from source guidelines, expert panel decide sometimes in addition to do a systematic search for other aggregate sources of evidence, like Cochrane reviews, and sometimes they decide to have a full de novo search for primary evidence to answer the question." (Participant 03)*<br><br>✔ ***Expert-panel recommended it (2 participants):***<br>*"For the other guidelines if we adapt them, yes. In general, we may need to update the literature search if the expert panel think there are new evidence published outside the systematic reviews that particular relevant." (Participant 02)*<br><br>*"We made national wide guidelines launched by the ministry of health. There are more experts connected with us to make more comprehensive guideline, and they do have other source of evidence. Our group starting by searching the databases like PubMed, etc." (Participant 04)* |
| ***If the source guideline(s) were not evidence based*** | ✔ ***Discarded the recommendation, (1 participant):***<br>*"For consensus recommendations from source guidelines, sometimes the group decides to maybe discard specific recommendations from source guidelines but rather than have a consensus-based recommendation in Germany." (Participant 03)*<br><br>✔ ***Conducted consensus process, (1 participant):***<br>*"No guideline answers your question, we do consensus process. If the source guideline has limited evidence for specific questions, we will make a consensus process." (Participant 10)*<br><br>✔ ***Started guideline* de novo *process (3 participants):***<br>*Start guideline de novo process: "We will not search for new evidence when endorsement or adaptation, if the source guideline did not answer all of our questions, we will conduct the new systematic review for the rest questions. We conduct our own SRs if the source guideline did not answer our research questions. We do that only when the source guideline did not address the specific research questions in the case that we are doing multiple questions. Like if we have 5 research questions and the source guideline(s) only* |

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| | *addressed 3 of them, then we need to conduct our own SRs to address the other 2. If we have to look for new evidence, we do the literature search. But for us the adaptation doesn't means we have to search new evidence, if we have to do it, then it is a de novo process." (Participant 05)*<br><br>*"We only limited the evidence of the source guideline; we do not do the supplement evidence otherwise the process will be very complicate. The critical difference of the guideline adaptation and guideline de novo process is you limited the evidence within the source guidelines. You are not looking at the additional information. We don't call them recommendations; recommendations only come out of guidelines that you do yourself." (Participant 07)*<br><br>*"We do not conduct new systematic reviews due to the time limitation. In the case of good guideline absence, we would consider a guideline de novo process rather than an adaptation." (Participant 08)* |
| **Way of including new evidence** | ✔ ***Conducting literature search for complement evidence (6 participants):***<br><br>***Pragmatic search (5 participants)***<br>*"Our group starting by searching the databases **like PubMed**, etc." (Participant 04)*<br><br>*"Our guideline group will make a search for SRs." (Participant 06)*<br><br>*"They did refer to the **Cochrane database**. If they find there is no clear answer for their question in the source guidelines, they looked at existing Cochrane SRs but do not conduct a new one. No cost effectiveness evidence was searched, but patients' values and preferences yes." (Participant 08)*<br><br>*"The guideline group link with organisations like the **Cochrane centre**, and all discuss very nicely to provide evidence." (Participant 09)*<br><br>*"We do everything to ensure the search is comprehensive. We search for guideline has been published everywhere. For some questions we adapted, we take the new evidence around, for instance in the local context setting there might be a **new paper** that has been **published locally**, if the evidence answered the question of the local context." (Participant 10)*<br><br>***Full* de novo *search (1 participants):***<br><br>*"For experts' consensus from source guidelines, expert panel decide sometimes in addition to do a systematic search for other aggregate sources of evidence, like Cochrane reviews, and sometimes they decide to have a full de novo search for primary evidence to answer the question." (Participant 03)*<br><br>✔ ***Updating the search from source guideline(s) (3 participants):***<br>*"Like I said before, we conducted continuously monitoring of new evidence that relevant." (Participant 01)"* |

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| | *"In general, we may need to update the literature search if the expert panel think there are new evidence published outside the systematic reviews that particular relevant." (Participant 02)*<br><br>*"If it is a great guideline but its 3 years old, and since then there are new primary studies come out, they will want to look at that. If there is more up to date SR that includes additional studies, they will want to look at that." (Participant 09)*<br><br>✔ ***Experts' suggestions (3 participants)***<br>*"There are more experts connected with us to make more comprehensive guideline, and they do have other source of evidence. Our group starting by searching the databases like PubMed, etc. And also, experts will recommend new studies if they have one." (Participant 04)*<br><br>*"Experts from our group could recommend recently RCTs apart from SRs identified from the search. But we make the process transparently reported." (Participant 06)*<br><br>*"There is a committee from the national government to find some of the prestigious policy questions. We haven't been involved in any guideline for professional society or private group, we haven't been charged much for conduction reviews. The primary research we don't do. Experts will ask for relevant evidence and we will conduct the synthesis and provide to them if needed to explain or facilitate the decision making." (Participant 09)* |
| ***Question: According to your experience, how does your organisation consider implementation barriers?*** | |
| **Ways to obtain the information and address it by group discussion (7 participants)** | ✔ ***Experts opinion, literature search, group discussion (1 participant)***<br>*"For the resource stratified guidelines, yes; I would say most by discussion. For example, we would include panel members who are in primary practice outside the academic medical settings, their experiences can inform what are the constrains and barriers that may impact on the implementation of recommendations. For the resource stratified guideline, we do also discussion and non-systematic environmental scan of the cost-effectiveness analysis literature. To see if the literature can influence the applicability of the implementation." (participant 02)*<br><br>✔ ***Experts opinion, literature search, group discussion (1 participant)***<br>*"Yes; For example, if one intervention was labelled in the US but off labelled in Germany, we asked the experts panel to assess if the evidence is really sound enough to do a such recommendation. Also, we do check the existing policies that need to be addressed. It is not systematically searchable, but it is addressed by group discussion." (participant 03)*<br><br>✔ ***Experts opinion, literature search (1 participant):***<br>*"Usually from the government people, they have other field angle to see how we treat disease, this is different with the way of think a clinician. But I think they based on a good tele data to make the problem understandable and solve the problem." (participant 04)*<br><br>✔ ***Experts opinion, group discussion (1 participant):*** |

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| | *"We ask our panel about the feasibility of implementing a treatment and discussed within our working group by considering the context of our settings." (participant 05)*<br><br>✔ ***Search, (1 participant):***<br>*"We only look at the cost of the intervention and look at the information available by PubMed." (Participant 07)*<br><br>✔ ***Group discussion, (1 participant):***<br>*"They do discuss the recommendations and to see if the recommendation is appropriate in their setting, what kind of challenging they will have when implementing the recommendations that adapted. By discussion within the guideline development group. And provide the documented acknowledge." (participant 08)*<br><br>✔ ***Literature search, Group discussion, (1 participant):***<br>*"We only look at the cost of the intervention and look at the information available by PubMed.*<br>*Our group will consider at least the feasibility, and within that there will be issue of regulatory issues, ethical issues, and access issues. So, feasibility, equity and cost will be considered." (participant 09)* |
| **Decision made after considering (2 participants)** | ✔ ***Modified the practice instead of changing recommendations:***<br>*"The source recommendations will not be change, however the practice way maybe tailored for the local context to make it applicable." (Participant 10)*<br><br>✔ ***Modified the recommendations:***<br>*"At least for medications, we see evidence on the use of medications, check if it's authorised to use. If it's not approved to use for any country, we won't make a recommendation to use even if there are some evidence." (Participant 01)* |
| **Reporting the difference (4 participants)** | *"We will make the notation in the summary of medication to highlight the difference." – (Participant 01)*<br><br>*"If yes, advice the guideline users this is off-label in Germany and should take this into account when they inform the use for patients." – (Participant 03)*<br><br>*"We described difference constrains when published the guideline, like if the medical insurance did not cover the new intervention, we will mention it." - (Participant 06)*<br><br>*"And provide the documented acknowledge." – (Participant 08)* |

## Appendix 04. Identified adaptation methodologies

| ***Question: Could you please describe the adaptation process or which framework or methods your organisation used for guideline adaptation?*** | |
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| **Adaptation Frameworks** | **Quotes** |
| **ADAPTE 2010** | *"We used ADAPTE 2010 and supplement with GRADE system for assessing the level of evidence."* (*Participant 04)* |
| **ASCO endorsement/adaptation methodology** | *"We used a mixed method, some of them from ADAPTE methodology. We have published a paper on our methods and I´ll be happy to provide that, I think it may explain better than I do." (Participant 02)* |
| **DynaMed methodology** | *"We are using Dynamed methodology which is GRADE-based, you could find it in Dynamed website." (Participant 01)* |
| ***CCO endorsement protocol*** **GRADE-ADOLOPMENT** | *"We used to use more ADAPTE before, and now we are slowly covering to GRADE. For our group we do have an overarching CCO endorsement protocol, but I also use GRADE-ADOLOPMENT as it has more details" (Participant 05)* |
| ***ACP guideline development methods*** | *"We use others methodology of adaptation, which is call ACP guideline development methodology, you could find the information published." (Participant 07)* |
| **Pilot adaptation Framework** | *"The BMJ paper described the framework developed at that time by NICE and piloted it in our setting". (Participant 08)* |
| **ACA framework** | *"We have highlighted the methods in South Africa, and published this resource, and I could give you the references to this methodology. In some cases, questions could either be adopting" (Participant 10)* |
| **DELBI** | *"We do have a national version of the AGREE II instrument, which called DELBI, that is complemented with four specific questions to consider when it comes to guideline adaptation. Most group of our country did not use the whole ADAPTE instrument, but rather consequently used the four questions in DELBI." (Participate 03)*<br><br>*"We use the DELBI to assess the guideline methodology quality. But when group adapting, they use question 30-34 to inform their process." (Participate 06)* |
| **Adaptation Experience** | *"I am trying to think the process. They don't have a standardised guideline development or adaptation protocol in the country. A lot of kinds of process will be in a national process and there will be a specific health questions and PICO. Then we will be asked to conduct SR, and then what we do have in that particular process is that the SR would including first to look at what guidelines are out there, and then we will look at what SRs are out there before we conduct our systematic review. If there is a guideline of good quality, those are the recommendations" (Participant 09)* |

**Details of newly identified methodology and organisations:**

1. DynaMed editorial methodology [3]: DynaMed is a clinician-focused tool designed to facilitate efficient and evidence-based patient care. They review the medical literature daily and updates their CGs. However, Dynamed also adapts CGs when those retrieved reflect relevant differences with the original one.
2. American Society of Clinical Oncology (ASCO) CG endorsement/adaptation methodology [4]: ASCO is a scientific society that provides CG endorsement and adaptation for those resource constrained settings.
3. American College of Physicians (ACP) guidance statement [5]: ACP is a medical-specialty society that develops CG statements when CGs are controversial and finally achieve the adoption or adaptation.
4. Cancer Care Ontario's (CCO) endorsement protocol [6]: The CG development program of the CCO provides CG endorsement/adaptation of high-quality CGs from other authorized institutions.
5. German Instrument for Methodological Guideline Appraisal (DELBI) [7]: The Association of the Scientific Medical Societies in Germany (AWMF) developed DELBI to provide CGs as well as adaptation approval and registration in Germany. Guideline adaptation groups (GAGs) in Germany also use DELBI to inform their adaptation process.
6. Piloted adaptation Framework [8]: The Indian Ministry of Health and Family Welfare raised a call for adaptation process and piloted the adaptation framework developed by NICE in India context.
7. Adopt–Contextualise–Adapt (ACA) framework [9]: Based on a long-term partnership with the International Centre for Allied Health Evidence (iCAHE), one health centre in Philippines developed the ACA framework for practising CGs adaptation with adopt (no modifications from source CGs), contextualized (tailored for target context), and adapt (modified the evidence and recommendations) components.

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