PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	The provision of medical assistance in dying: a scoping review
AUTHORS	Zworth, Max; Saleh, Carol; Ball, Ian; Kalles, Gaelen; Chkaroubo, Anatoli; Kekewich, Mike; Miller, Paul; Dees, Marianne; Frolic, Andrea; Oczkowski, Simon

VERSION 1 - REVIEW

REVIEWER	Nicole Steck Institute of Social and Preventive Medicine, University of Bern, Switzerland
REVIEW RETURNED	16-Jan-2020

GENERAL COMMENTS	The article “The provision of medical assistance in dying: a scoping review” is a well-written review with an interesting question. Not only in Canada, but also in other countries (as Switzerland) there exists no clear guidance on the clinical aspects of providing aid in dying and there is sparse literature addressing advantages and disadvantages of different medical practices. However, in the current form the article does not meet the objectives. The medications prescribed and the roles of health professions and family are listed, but not described by variables as country, setting, participant and outcome. Though particularly the list of the medications used is interesting, the article is therefore not comprehensive enough and does not summarise the (existing) data clearly enough. My comments in detail Introduction: - Though I understand the focus on the Canadian situation, I miss a summary of other countries, their legal situation and clinical guidance on assisted dying. A compilation of the different settings might also help to classify and compare the situation in Canada. Methods - The methods sound reasonable and are well documented. Results: - The main limitation is the unstructured summary of the results. It would be interesting to see differences between countries in the context of different legalisation and medical guidance. - The frequency numbers (for example in table 3 and 4, but also in the text) are not a good indicator for the frequency of MAID regimes,

	as they refer only to articles reporting the corresponding regime. - The table (Nr? Appendix?) describing the characteristics of the studies included is not readable in the pdf-version Minor comments - In the first two sentences of page 7 as well as in Figure 1 the authors write they identified 10'650 potential reports and 22 additional reports. After removing duplicate items they end up with 10'772 reports. It is unclear if there were no duplicates or if they were removed already in the 10'650 reports. - In the paragraph about oral MAID regimes on page 8 it is confusing that all percentages are of all oral MAID regimes (46 reports), expects barbiturate medication with an opioid medication or an alcohol. Even in the first part of the same sentence, the percentage of barbiturate alone is relative to all 46 reports. Discussion: - It says in the discussion "… which varied greatly in geographic origin, report type, and items reported." Unfortunately, I did not discover a clear compilation and summary of this variance. If this was not possible, because "The reports we found did not generally link data between medications, locations, providers, and outcomes" (p. 10, line 29), at least a summary by country would be helpful and interesting to discuss. - On page 10, line 26, it says "our scoping review does provide an overview of what the most commonly decribed practices are, worldwide", but on page 11, line 26 " as a result, our review cannot provide insight into which approaches to providing aid in dying are most commonly used, but only those which are most commonly described in written form." Reference list - The reference list seems a bit sparse and not completely up to date. There are articles and reports available that are more recent on the situation in the Netherlands, Belgium, Switzerland and different US-states.

REVIEWER	Rosanne Beuthin, PhD University of Victoria, BC, Canada
REVIEW RETURNED	12-Feb-2020

GENERAL COMMENTS	Thank you for a solid article that provides insight and perspective to an important emergent area of practice. I was curious that you searched the "clinical trial database"...are there clinical trials related to medications used for assisted death? I found the discussion rich and thought provoking, especially the 3 reasons suggested for medication choice. Your study is medicine and technical in focus, yet these reasons bring in the humane aspect of the providers that is always there; those who act with courage to journey with persons opting for this end of life care. option .

VERSION 1 – AUTHOR RESPONSE

Editorial requests	Author Response	Location of Change

Reviewer #1 Comments		
Though I understand the focus on the Canadian situation, I miss a summary of other countries, their legal situation and clinical guidance on assisted dying. A compilation of the different settings might also help to classify and compare the situation in Canada.	Thank you for this suggestion. We agree that a summary of the legal situation in other settings will help provide context to the Canadian situation. We have added an additional line to our introduction summarizing the legality of MAID in regions outside of Canada. Additionally, we mention in the discussion section that countries such as Belgium and the Netherlands developed more standardized approaches to MAID. We feel that a more complete summary of clinical guidance in other settings would be beyond the scope of our introduction.	Page 2: Introduction “Several other jurisdictions currently permit MAID in the form of assisted suicide (Switzerland, and the American states of Oregon, Montana, Washington, California, Colorado, Vermont, Washington DC, New Jersey, Maine, Hawaii), euthanasia (Columbia), or both (Belgium, the Netherlands and Luxembourg).(3) While states such as Oregon maintain detailed records for all cases of MAID (4), there are few centralized protocols for MAID provision in these settings, and there remains little readily available evidence to assist Canadian clinicians and organizations in addressing these questions.”
The main limitation is the unstructured summary of the results. It would be interesting to see differences between countries in the context of different legalisation and medical guidance.	Thank you for this suggestion. We have included a table which provides a structured summary of report characteristics, including number of reports by country, report type, and numbers of IV and oral protocols. However, due to the nature of our scoping review, we are only able to provide a summary of the most described practices, and not those actually practiced in each country. We address this point in detail in our discussion.	Page 18 Table 2: Report setting, study design, and type of MAID protocol

The frequency numbers (for example in table 3 and 4, but also in the text) are not a good indicator for the frequency of MAID regimes, as they refer only to articles reporting the corresponding regime.	We entirely agree that these frequency numbers are not a good indicator of the frequency with which certain MAID regimes are practiced. However, this was not the aim of our paper. Our explicit objective in this scoping review was to map the literature describing MAID provision, and "summarize reports of the technical aspects of MAID provision". We were not able to identify which MAID practices are most commonly used, and we identify this as one major limitation of our study. We state, "As a result, our review cannot provide insight into which approaches to providing aid in dying are most commonly used but only those which are most commonly described in written form." (Page 11) We are in the process of undertaking a separate study that aims to better understand which MAID protocols are most commonly used in Canada, as a separate study. However the review provides a good overview of "what's out there" even if it's not clear (and the literature is unclear) how often specific approaches are used. As such, no changes have been made to our manuscript to address this comment.	No changes made.
The table (Nr? Appendix?) describing the characteristics of the studies included is not readable in the pdf-version	Thank you for bringing this to our attention. This table was not meant to summarize the characteristics of included studies. This is a pdf file containing the data extracted for individual sources of evidence. This was meant to satisfy item 17 on the PRISMA-ScR checklist : "For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives." We have edited the table to make it viewable as a PDF. For a table describing the characteristics of studies, please see Table 2.	Supplemental file 3: Sources of evidence and data extracted

In the first two sentences of page 7 as well as in Figure 1 the authors write they identified 10’650 potential reports and 22 additional reports. After removing duplicate items they end up with 10’772 reports. It is unclear if there were no duplicates or if they were removed already in the 10’650 reports.	Thank you for this comment. We have updated our screening flow chart to include additional more recent reports. There are no longer any discrepancies in the number of studies included. Of note the protocols in the grey literature did not undergo duplicate screening (since we obtained them from each health region/authority or hospital individually). They thus are added to the total list of titles and abstracts screened.	Figure 1: PRISMA study selection flow chart Page 7: Selection of sources of evidence “The initial online database search identified 12514 potential reports, and 22 additional reports were identified through the grey literature search (Figure 1). After removing duplicate items, 11470 abstracts were screened, 582 of which met initial eligibility criteria and were assessed through full-text screening. Among these, articles were removed if they were of an ineligible reference type, reported on an ineligible population, only addressed MAID eligibility rather than provision, could not be successfully accessed, or were one of multiple reports on the same data. After applying these exclusion criteria, 163 articles were included in the review.”

In the paragraph about oral MAID regimes on page 8 it is confusing that all percentages are of all oral MAID regimes (46 reports), expects barbiturate medication with an opioid medication or an alcohol. Even in the first part of the same sentence, the percentage of barbiturate alone is relative to all 46 reports.	Thank you for bringing this to our attention. This was a typo and has been corrected in the revised manuscript. The percentages for barbiturates with alcohol and opioids was meant to be relative to the 46 studies describing oral protocols. These results have been revised, and are now presented both as percentages of the number of oral MAID regimes, and in absolute numbers.	Page 8: Medications "Oral MAID regimes were detailed in 50/163 reports. A sample protocol for oral administration is presented in Figure 3, and the frequencies and doses for oral medications are presented in Table 4. Barbituate medications are mentioned in 94% of oral protocols (47/50)."
It says in the discussion "... which varied greatly in geographic origin, report type, and items reported." Unfortunately, I did not discover a clear compilation and summary of this variance. If this was not possible, because "The reports we found did not generally link data between medications, locations, providers, and outcomes" (p. 10, line 29), at least a summary by country would be helpful and interesting to discuss.	Thank you for this suggestion. We agree that a clear compilation of summary data would be helpful to the reader. and have included this in the revised version, as stated above in response to a previous comment.	Page 18 Table 2: Report setting, study design, and type of MAID protocol

On page 10, line 26, it says “our scoping review does provide an overview of what the most commonly decribed practices are, worldwide”, but on page 11, line 26 “ as a result, our review cannot provide insight into which approaches to providing aid in dying are most commonly used, but only those which are most commonly described in written form.”	Thank you for this comment. As stated on page 10, line 26, due to the nature of our scoping review, we can only comment on which practices are most commonly described in the literature. With that said our review does provide an overview of what the most commonly described practices are (not what’s commonly done— and we all know what people say they are doing and what they actually do often differ). This is the point made on page 11, line 26. Since we do not see the inconsistency, we have made no changes to these lines in version 2. Some of the studies do report frequency of medication use, but not all. The studies we do have suggests that self-reported practice varies substantially between individuals. We are conducting a large cohort study to describe what is actually done in Canada using institutionally collected data.	No changes made.
The reference list seems a bit sparse and not completely up to date. There are articles and reports available that are more recent on the situation in the Netherlands, Belgium, Switzerland and different US-states.	Thank you for this suggestion. The reference list has been updated to include data on the legal status of MAID outside of Canada up to March 2020. Please also note that we have updated our literature search to include sources up to March 2020.	Page 12: References 3. Nicol J. Medical Assistance in Dying: The Law in Selected Jurisdictions Outside Canada. 2019. 4. Harty C, Chaput AJ, Trouton K, Buna D, Naik VN. Oral medical assistance in dying (MAiD): informing practice to enhance utilization in Canada. Can J Anaesth. 2019 Sep;66(9):1106–12. 5. Hedberg K, New C. Oregon’s Death With Dignity Act: 20 Years of Experience to Inform the Debate. Ann Intern Med. 2017 Sep 19;167.
Reviewer #2 Comments: No revisions requested. Thank you very much for your comments on our manuscript.		

VERSION 2 – REVIEW

REVIEWER	Nicole Steck Institute of Social and Preventive Medicine, University of Bern
REVIEW RETURNED	09-Apr-2020

GENERAL COMMENTS	Dear authors Thank you for updating, revising and improving the manuscript “The provision of medical assistance in dying: a scoping review”. I think it is particularly valuable that something is said about the clear differences between the countries. In that sense I also appreciate Table 2. Unfortunately I could not read supplementary file 3, the message of Adobe Acrobat said “There is a problem reading this document (14)”. I do not have any further comments. Best regards Nicole Steck

VERSION 2 – AUTHOR RESPONSE

Editorial requests	Author Response	Location of Change
Reviewer’s Comments to Author		
Unfortunately I could not read supplementary file 3, the message of Adobe Acrobat said “There is a problem reading this document (14).	We apologize for this inconvenience. Supplementary file 3 has been renumbered as supplementary file 4 as described above. The file has been re-attached in a simple pdf format and should be viewable using any pdf reader.	No changes made. Please see supplementary file 4.