Supplementary Material for:

Hewitt J, Latimer S, Deakin J, Ranse K, Lawson C, Grealish L. The factors that act as barriers and enablers to the implementation of voluntary assisted dying services in acute care health settings: a systematic mixed studies review and secondary analysis. *Aust J Adv Nurs.* 39(2):48-64. Available from: https://doi.org/10.37464/2020.392.280

Supplementary table 1: Example search strategies employed

Embase	**Search Terms**
S1	('medically assisted suicide' OR 'voluntary assisted death' OR 'voluntary assisted dying' OR 'physician assisted death' OR 'physician assisted suicide' OR 'medical assistance in dying' OR 'voluntary euthanasia' OR 'right to die' OR 'voluntary active euthanasia' OR 'aid in dying') AND ([young adult]/lim OR [adult]/lim OR [middle aged]/lim OR [aged]/lim OR [very elderly]/lim) AND [humans]/lim AND [english]/lim AND [embase]/lim AND [1997-2019]/py
S2	('hospital' OR 'health service' OR 'acute care' OR 'healthcare' OR 'tertiary care' OR 'hospice') AND ([young adult]/lim OR [adult]/lim OR [middle aged]/lim OR [aged]/lim OR [very elderly]/lim) AND [humans]/lim AND [english]/lim AND [embase]/lim AND [1997-2019]/py
S1 + S 2	
CINAHL Complete	**Search Terms**
S1	"medically assisted suicide" OR "voluntary assisted death" OR "voluntary assisted dying" OR "physician assisted death" OR "physician assisted suicide" OR "medical assistance in dying" OR "voluntary euthanasia" OR "right to die" OR "voluntary active euthanasia" OR "aid in dying"
S 2	"hospital" OR "health service" OR "acute care" OR "healthcare" OR "tertiary care" OR "hospice" OR "sub-acute care"
S1 AND S2	
ProQuest Central (Nursing and Allied Health)	**Search Terms**
S1	("medically assisted suicide"OR "voluntary assisted death"OR "voluntary assisted dying"OR "physician assisted death"OR "physician assisted suicide" OR "medical assistance in dying " OR"voluntary euthanasia" OR"right to die" OR "voluntary active euthanasia" OR "aid in dying" OR "assisted suicide")AND la.exact("English") AND PEER(yes) AND pd(1997-2019)

S2	("hospital" OR "heath services"OR "acute care" OR "tertiarycare" OR "hospice" OR"heathcare") AND la.exact("English") AND PEER(yes) AND pd(1997-2019)
S1 AND S2	

Supplementary table 2: Quality Appraisal Using the MMAT

Quantitative Descriptive Studies	***Are there clear research questions?***	***Do the collected data allow to address the research questions?***	***Is the sampling strategy relevant to address the research question?***	***Is the sample representative of the target population?***	***Are the measurements appropriate?***	***Is the risk of non-response bias low?***	***Is the statistical analysis appropriate to answer the research question?***
Francke et al. (2016)	Y	Y	Y	Y	Y	CT	Y
Gallagher et al. (2019)	Y	Y	Y	CT	Y	CT	Y
Hogg et al. (2018)	Y	Y	N	CT	CT	N	Y
Inghelbrecht et al. (2009)	Y	Y	Y	Y	N	Y	Y
Inghelbrecht et al. (2010)	Y	Y	Y	CT	Y	Y	Y
Kouwenhouven et al. (2014)	Y	Y	Y	CT	Y	CT	Y
Van Bruchem-van de Scheur et al. (2008)	Y	Y	Y	Y	Y	Y	Y

Qualitative Studies	***Are there clear research questions?***	***Does the collected data allow to address the research questions?***	***Is the qualitative approach appropriate to answer the research question?***	***Are the qualitative data collection methods adequate to address the research question?***	***Are the findings adequately derived from the data?***	***Is the interpretation of results sufficiently substantiated by data?***	***Is there coherence between qualitative data sources, collection, analysis, and interpretation?***
Buchbinder et al. (2019)	Y	Y	Y	Y	Y	Y	Y
Denier et al. (2009)	Y	Y	Y	Y	Y	Y	Y

Supplementary table 3: PRISMA Checklist

		PRISMA Checklist	
Section &Topic	**Item #**	**Checklist item**	**The location where the item is reported**
TITLE			
Title	1	Identify the report as a systematic review.	Title
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Abstract
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Background
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Objective
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Methods. Phase 1 Define the eligibility criteria
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Methods. Phase 1 Apply an extensive search strategy in multiple information sources
Search strategy	7	Present the full search strategies for all databases, registers, and websites, including any filters and limits used.	Methods. Phase 1 Apply an extensive search strategy in multiple information sources
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Methods. Phase 1: Identify and select relevant studies
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Methods. Phase 1: Extracting data and synthesizing themes from the studies

Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g., for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Methods. Phase 1: Extracting data and synthesizing themes from the studies
	10b	List and define all other variables for which data were sought (e.g., participant and intervention characteristics, funding sources). Describe any assumptions made about	NA

		PRISMA Checklist	
Section &Topic	**Item #**	**Checklist item**	**The location where the item is reported**
		any missing or unclear information.	
Study risk of bias assessment	11	Specify the methods used to assess the risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Methods Phase 1: Appraise the study quality using the MMAT
Effect measures	12	Specify for each outcome the effect measure(s) (e.g., risk ratio, mean difference) used in the synthesis or presentation of results.	NA
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g., tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Methods Phase 1: Identify and select relevant studies
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Methods Phase 1: Extracting data and synthesising themes from the studies
	13c	Describe any methods used to tabulate or visually display the results of individual studies and syntheses.	Table 2 Descriptive summary of the studies included in the review
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Methods Phase 1: Extracting data and synthesising themes from the studies

	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g., subgroup analysis, meta-regression).	NA
	13f	Describe any sensitivity analyses conducted to assess the robustness of the synthesized results.	NA
Reporting bias assessment	14	Describe any methods used to assess the risk of bias due to missing results in a synthesis (arising from reporting biases).	Methods Phase 1: Appraise the study quality using the MMAT
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	NA

		PRISMA Checklist	
Section &Topic	**Item #**	**Checklist item**	**The location where the item is reported**
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Results Including the PRISMA Flow Diagram
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	NA
Study characteristics	17	Cite each included study and present its characteristics.	Results
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Supplementary File Table 2: Quality Appraisal Using the MMAT

Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g., confidence/credible interval), ideally using structured tables or plots.	NA
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Results
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g., confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	NA
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	NA
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	NA
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	NA
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	NA

		PRISMA Checklist	
Section &Topic	**Item #**	**Checklist item**	**The location where the item is reported**
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Phase 2 – Secondary analysis using the consolidated framework for implementation research
	23b	Discuss any limitations of the evidence included in the review.	Phase 2 - Secondary analysis using the Consolidated Framework for Implementation Research
	23c	Discuss any limitations of the review processes used.	Study limitations
	23d	Discuss implications of the results for practice, policy, and future research.	Discussion and Table 5: Possible VAD Implementation Plan
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Abstract and Study Design
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	A study protocol is available by contacting the author
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Abstract - The project was supported by a Research Seeding Grant offered by the School of Nursing and Midwifery, Griffith University, Queensland, Australia.
Competing interests	26	Declare any competing interests of review authors.	Nil to declare

Availability of data, code, and other materials	27	Report which of the following are publicly available and where they can be found template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	These are not publicly available but may be provided on request.

Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71