Comparing research priority setting partnerships for older adults across international healthcare systems: a systematic review

Supplementary File

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Table S1. PRISMA checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Page 1
ABSTRACT	2	G 4 PDIGMA 2020 C 41 4 4 1 11'4	D 1
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 1
INTRODUCTION Rationale	3	Describe the nationals for the navious in the context of existing linearized as	Page 2
Objectives	4	Describe the rationale for the review in the context of existing knowledge. Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 2 Page 2
METHODS	7	110 vide all explicit statement of the objective(s) of question(s) the review addresses.	1 age 2
Eligibility	5	Specify the inclusion and exclusion criteria for the review and how studies were	Page 3
criteria	3	grouped for the syntheses.	rage 3
Information	6	Specify all databases, registers, websites, organisations, reference lists and other	Page 3
sources		sources searched or consulted to identify studies. Specify the date when each source	
		was last searched or consulted.	
Search strategy	7	Present the full search strategies for all databases, registers, and websites, including	Table S2
C-1+:	0	any filters and limits used.	D2 1 4
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,	Pages 3 and 4
process		whether they worked independently, and if applicable, details of automation tools used	
		in the process.	
Data collection	9	Specify the methods used to collect data from reports, including how many reviewers	Pages 4 and 5
process		collected data from each report, whether they worked independently, any processes for	
		obtaining or confirming data from study investigators, and if applicable, details of	
7	1.0	automation tools used in the process.	37 . 17 11
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results	Not applicable
		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.	
	10b	List and define all other variables for which data were sought (e.g., participant and	Not applicable
	100	intervention characteristics, funding sources). Describe any assumptions made about	1.cv applicació
		any missing or unclear information.	
Study risk of	11	Specify the methods used to assess risk of bias in the included studies, including	Page 5
bias assessment		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	
Effect measures	12	process. Specify for each outcome the effect measure(s) (e.g., risk ratio, mean difference) used	Not applicable
Effect fileasures	12	in the synthesis or presentation of results.	Not applicable
Synthesis	13a	Describe the processes used to decide which studies were eligible for each synthesis	Page 5
methods		(e.g., tabulating the study intervention characteristics and comparing against the	1.81
		planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such	Page 5
		as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies	Page 5
	124	and syntheses. Describe any methods used to synthesise results and provide a rationale for the	Not applicable
	13d	choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify	not applicable
		the presence and extent of statistical heterogeneity, and software package(s) used.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study	Not applicable
		results (e.g., subgroup analysis, meta-regression).	11
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesised	Not applicable
		results.	
Reporting bias	14	Describe any methods used to assess risk of bias due to missing results in a synthesis	Not applicable
assessment	15	(arising from reporting biases). Describe any methods used to assess certainty (or confidence) in the body of evidence	N-4 1: 1-1 -
Certainty assessment	13	for an outcome.	Not applicable
RESULTS		AND DISCOUNTED IN THE CONTROL OF THE	
Study selection	16a	Describe the results of the search and selection process, from the number of records	Page 5
, 5515511011	100	identified in the search to the number of studies included in the review, ideally using a	
		flow diagram.	
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded,	Not applicable
		and explain why they were excluded.	
Study	17	Cite each included study and present its characteristics.	Pages 6 and 7
characteristics			D 0
Risk of bias in	18	Present assessments of risk of bias for each included study.	Page 8
studies Pagulta of	10	For all outcomes present for each study (a) symmetry to the formal and the	Not ampl:1-1
Results of	19	For all outcomes, present, for each study: (a) summary statistics for each group (where	Not applicable
individual			
individual studies		appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	

Section and Topic	Item #	Checklist item	Location where item is reported
syntheses		contributing studies.	
	20Ь	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.	Not applicable
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Not applicable
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesised results.	Not applicable
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Not applicable
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Not applicable
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pages 8 and 9
	23b	Discuss any limitations of the evidence included in the review.	Pages 10 and 11
	23c	Discuss any limitations of the review processes used.	Pages 10 and 11
	23d	Discuss implications of the results for practice, policy, and future research.	Page 10
OTHER INFO	RMATION		
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Page 3
•	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Page 3
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Page 3
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Title page
Competing	26	Declare any competing interests of review authors.	Page 12
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.		Page 12	

Table S2. Search strategies for Medline and Embase

	S2. Search strategies for Medline and Embase
Medline	(Ovid): 1946 to present (for studies in the United Kingdom)
#	Query
1	(research priority setting\$ or research agenda\$ or priority setting\$).tw.
2	(Health Priorities/ and research*.tw.) or (Health Priorities/ and evidence.tw.)
3	((research* or health*) adj3 prioriti*).tw.
4	(research adj2 (agenda or quest* or initiative*)).tw.
5	(priority areas of research or priority setting partnership\$).tw.
6	service* priorit*.tw.
7	(priorit* adj3 (survey* or partner*)).tw.
8	(uncertaint* adj3 research*).tw.
9	or/1-8
10	aged.mp. or Aged/
11	geriatrics.ti,ab. or Geriatrics/
12	(elder* or old*).ti,ab.
13	Aging/ or (aging or ageing).ti,ab.
14	frail elderly.ti,ab. or Frail Elderly/
15	or/10-14
16	9 and 15
17	exp United Kingdom/
18	(national health service* or nhs*).ti,ab,in.
19	(english not ((published or publicati on* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.
20	(gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jw,in.
21	(bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's orleeds*" or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (new south wales* or nsw)) or "norwichor norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" or wolverhampton or "wolverhampton's" or (worcester not (massachusetts* or boston* or harvard*)) or ("worcester's" not (massachusetts* or boston* or harvard*)) or (or ("or or o
22	(bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in. (aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth
23	not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in.
24	(armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or "londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in.
25	or/17-24
26	(exp africa/ or exp americas/ or exp antarctic regions/ or exp arctic regions/ or exp asia/ or exp oceania/) not (exp United Kingdom/ or europe/)
27	25 not 26
28	16 and 27
29	limit 28 to yr="2021 -Current"
30	(case reports or comments or commentary or editorial or letters).mp.
31	29 not 30
32	child/ or infant/ or adolescent/ or maternal health service/
33	(child* or infant* or adolescen* or matern* health service*).mp.
34	or/32-33
35	31 not 34
Embase	(Ovid): 1974 to present (for studies in the United Kingdom)
#	Query
1	(research priority setting\$ or research agenda\$ or priority setting\$).tw.
2	(Health Priorities adj3 (research* or evidence)).tw.
3	((research* or health*) adj3 prioriti*).tw.

4	(research adj2 (agenda or quest* or initiative*)).tw.
5	(priority areas of research or priority setting partnership\$).tw.
6	service* priorit*.tw.
7	(priorit* adj3 (survey* or partner*)).tw.
8	(uncertaint* adj3 research*).tw.
9	or/1-8
10	exp United Kingdom/
11	(national health service* or nhs*).ti,ab,in,ad.
12	(english not ((published or publication* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.
13	(gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jx,in,ad.
14	(bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's" or leeds* or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (ontario* or ont or toronto*)) or manchester or "manchester's" or (newcastle not (new south wales* or nsw)) or (new south wales* or nsw)) or "norwich or "norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" not (massachusetts* or boston* or harvard*)) or ("worcester's" not (massachusetts* or boston* or harvard*)) or ("worcester's" not ("new york*" or ny or ontario* or ont or toronto*)))))).ti,ab,in,ad.
15	(bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in,ad.
16	(aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in,ad.
17	(armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or "londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in,ad.
18	or/10-17
19	(exp "arctic and antarctic"/ or exp oceanic regins/ or exp western hemisphere/ or exp africa/ or exp asia/ or exp "australia and new zealand"/) not (exp United Kingdom/ or europe/)
20	18 not 19
21	9 and 20
22	(case reports or comments or commentary or editorial or letters).mp.
23	21 not 22
24	child/ or infant/ or adolescent/ or maternal health service/
25	(child* or infant* or adolescen* or matern* health service*).mp.
26	or/24-25
27	23 not 26
28	limit 27 to yr="2021 -Current"
29	aged.mp. or Aged/
30	elderly.mp.
31	old*.mp. geriatric.mp. or Geriatrics/
33	
34	frail*.mp. 29 or 30 or 31 or 32 or 33
35	28 and 34
	e (Ovid): 1946 to present (for studies in the United States, South Korea, and countries in Africa)
#	Query
1	(research priority setting\$ or research agenda\$ or priority setting\$).tw.
2	(Health Priorities/ and research*.tw.) or (Health Priorities/ and evidence.tw.)
3	((research* or health*) adj3 prioriti*).tw.
4	(research adj2 (agenda or quest* or initiative*)).tw.
5	(priority areas of research or priority setting partnership\$).tw.
6	service* priorit*.tw.
7	(priorit* adj3 (survey* or partner*)).tw.
8	(uncertaint* adj3 research*).tw.
9	or/1-8
	T

10	aged.mp. or Aged/
11	geriatrics.ti,ab. or Geriatrics/
12	(elder* or old*).ti,ab.
13	Aging/ or (aging or ageing).ti,ab.
14	frail elderly.ti,ab. or Frail Elderly/
15	or/10-14
16	9 and 15
17	exp United States/
18	exp Korea/
19	exp Africa/ or (Africa* or Algeria or Angola or Benin or Botswana or "Burkina Faso" or Burundi or "Cabo Verde" or "Cape Verde" or Cameroon or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or "Ivory Coast" or Djibouti or Egypt or "Equatorial Guinea" or Eritrea or Eswatini or Ethiopia or Gabon or Gambia or Ghana or Guinea or "Guinea-Bissau" or Kenya or Lesotho or Liberia or Libya or Madagascar or Malawi or Mali or Mauritania or Mauritius or Morocco or Mozambique or Namibia or Niger or Nigeria or Rwanda or "Sao Tome" or Principe or Senegal or Seychelles or "Sierra Leone" or Somalia or "South Africa" or Sudan or Tanzania or Togo or Tunisia or Uganda or Zambia or Zimbabwe).mp.
20	17 or 18 or 19
21	16 and 20
22	limit 21 to yr="2011 -Current"
23	(case reports or comments or commentary or editorial or letters),mp.
24	22 not 23
25	child/ or infant/ or adolescent/ or maternal health service/
26	(child* or infant* or adolescen* or matern* health service*).mp.
27	25 or 26
28 Eb	24 not 27
	e (Ovid): 1974 to present (for studies in the United States, South Korea, and countries in Africa)
#	Query
1	(research priority setting\$ or research agenda\$ or priority setting\$).tw.
2	(Health Priorities adj3 (research* or evidence)).tw.
3	((research* or health*) adj3 prioriti*).tw.
4	(research adj2 (agenda or quest* or initiative*)).tw.
5	(priority areas of research or priority setting partnership\$).tw.
6	service* priorit*.tw.
7	(priorit* adj3 (survey* or partner*)).tw.
8	(uncertaint* adj3 research*).tw.
9	or/1-8
10	exp United States/
11	exp Korea/
12	exp Africa/ or (Africa* or Algeria or Angola or Benin or Botswana or "Burkina Faso" or Burundi or "Cabo Verde" or "Cape Verde" or Cameroon or Central African Republic or Chad or Comoros or Congo or "Cote d'Ivoire" or "Ivory Coast" or Djibouti or Egypt or "Equatorial Guinea" or Eritrea or Eswatini or Ethiopia or Gabon or Gambia or Ghana or Guinea or "Guinea-Bissau" or Kenya or Lesotho or Liberia or Libya or Madagascar or Malawi or Mali or Mauritania or Mauritius or Morocco or Mozambique or Namibia or Niger or Nigeria or "Nile Valley" or Rwanda or "Sao Tome" or Principe or Senegal or Seychelles or "Sierra Leone" or Somalia or "South Africa" or "Sub Saharan" or Sudan or Tanzania or Togo or Tunisia or Uganda or Zambia or Zimbabwe).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]
13	10 or 11 or 12
14	9 and 13
15	(case reports or comments or commentary or editorial or letters).mp.
16	14 not 15
17	child/ or infant/ or adolescent/ or maternal health service/
18	(child* or infant* or adolescen* or matern* health service*).mp.
19	17 and 18
20	16 not 19
21	limit 20 to yr="2011 -Current"
22	aged.mp. or Aged/
23	elderly.mp.
24	old*.mp.
25	geriatric.mp. or Geriatrics/
26	frail*.mp.
27	22 or 23 or 24 or 25 or 26
28	21 and 27
	1

Table S3. Description of common priority setting partnerships

Priority setting partnership	Background	Patient and public involvement	Major steps
James Lind Alliance approach	This approach was established by the James Lind Alliance for engaging patients, carers, and the public in identifying research priorities.	Patient and public involvement is essential to this approach, with patients, caregivers, patient advocates, and/or the public presenting in the steering group. They also involve in the priority setting survey(s) and the prioritisation workshop as key stakeholders.	 Setting up a steering group of stakeholder representatives and confirming the action plan Gathering evidence uncertainties (i.e., research gaps) from stakeholders via surveys and searching existing literature to find evidence gaps Summarising the responses gathered and checking if they are true uncertainties Conducting an interim priority setting survey with stakeholders to reduce the list of research questions Convening a prioritisation workshop for stakeholders to discuss the "Top 10" list of research questions Disseminating results
Nominal group technique	This approach was established to encourage all participants to share their own opinions, while considering others', before reaching consensus by voting or ranking exercises.	Patient and public involvement is essential to this approach, with patients, caregivers, patient advocates, and/or the public helping generate research questions and attending and voting in the group discussion.	Gathering research questions from individual stakeholder representatives without group discussion Stakeholder representatives taking turns to read aloud their research questions to the group Discussing and clarifying the research questions among stakeholder representatives and exploring underlying rationales Arranging voting(s) for stakeholder representatives to finalise the list of research questions Disseminating results
Delphi process	This approach was established to reach consensus among experts using repeated rounds of anonymous feedback. It has been adapted for research priority setting exercises.	Patient and public involvement is essential to this approach, with patients, caregivers, patient advocates, and/or the public helping generate research questions anonymously. They also involve in prioritising and re-prioritising research questions via anonymous questionnaires.	 Gathering research questions from stakeholders or stakeholder representatives Stakeholder representatives prioritising research questions and providing opinions via an anonymous questionnaire Summarising the questionnaire results and reducing the list of research questions Presenting the results to the stakeholder representatives Stakeholder representatives re-prioritising the research questions on the list (and providing opinions) via an anonymous questionnaire to finalise the research questions (Steps 3 to 5 can be repeated if extra rounds are necessary) Disseminating results
Cornell Institute for Translational Research on Aging model	This approach was established by the Cornell Institute for Translational Research on Aging for creating meaningful dialogue and equal-status contact between researchers and practitioners, to bridge the gap between research-based knowledge and practice-based insights. It has been extended to consider patients' (and caregivers') expectations.	Patient and public involvement is becoming essential to this approach. Patients, caregivers, patient advocates, and/or the public may involve in the representative advisory group for topic selection. They may also participate in meetings for generating and confirming research questions.	Selecting a topic by a representative advisory group of stakeholders via meetings Selecting a panel of expert researchers and expert practitioners on the topic to produce an up-to-date review that summarises relevant research in nontechnical language Convening a larger group of stakeholders to discuss the review and achieve initial consensus on research questions that are more relevant to practice Convening a follow-up roundtable meeting for stakeholder representatives to reach final consensus Disseminating results

Table S4. Nine Common Themes of Good Clinical Practice

Theme of Good Clinical Practice	Criteria for good practice
	Resources
Context	Focus/scope
Context	Values/principles
	Environment
Use of a comprehensive approach	Decide if use of a comprehensive approach is appropriate, or if development of own methods is the preferred choice
Inclusiveness	Identify which stakeholders need to be involved in the research priority setting exercise, why their opinions need to be sought, and what role they should play in the process
Information gathering	Consideration should be made on which types of information are necessary to inform the priority setting process
Planning for implementation	Planning for implementation should be a priority during the initial phase of a research priority setting exercise (and not be left till after priorities are established)
Criteria	Define criteria for the exercise
Methods for deciding on priorities	Define method used to identify priorities
Evaluation	Plans to evaluate priorities after they have been set
Transparency	The report should not be limited to stating a list of priorities, but should also explain how those priorities were established, and by who

Table S5. Definitions of themes used in grouping research priorities

Theme	Definition
Diagnosis & Recognition	Research priorities related to the diagnosis or recognition (identification) of the medical condition.
Treatment & Intervention	Research priorities related to any pharmacological or non-pharmacological treatment(s) or intervention(s) of the medical condition.
Prevention	Research priorities related to any level of prevention of the medical condition.
Prognostic/Predictive factors	Research priorities related to the prognosis or prediction of the medical condition.
Aetiology	Research priorities related to the cause(s) or pathophysiology of the medical condition.
Caregivers & Support	Research priorities related to the impact of the medical condition on caregivers, healthcare professionals, or social services
Service development	Research priorities related to the development or improvement of healthcare services for managing the medical condition.
Patient knowledge, experience, education, and engagement	Research priorities related to the improvement of patient knowledge, experience, education, or engagement of the medical condition.
Other	Research priorities not related to any of the other defined themes.