e-Appendix-1-2: PRISMA 2020 Checklist

Section/topic		Checklist item	Where Reported (page)
TITLE			
1	Title	*Identify the report as a systematic review, meta-analysis, or both*. In title of Part 2-4 papers.	Parts 2-4 papers, Title
ABSTRACT			
2	Structured summary	*See the PRISMA abstracts checklist*. The abstract briefly identifies the topic, databases, search dates, inclusion criteria, method to synthesize and present results, main outcomes, interpretation (items 1, 2, 3, 4, 6, 8, 10). We don't find it possible to address in the abstract how potential residual confounders are assessed, the number of studies identified in the multiple outcomes analyzed, limitations, lack of a funding source (items 5, 7, 9, 11) due to the scope of the project and abstract word limit. All of these points are addressed in the papers as described in other parts of this checklist.	Mostly addressed in abstracts for Parts 2-4, but difficult due to word limit, the detail PRIMA requests and the scope of this 4-part project
INTRODUCTION			
3	Rationale	*Describe the rationale for the review in the context of existing knowledge*. Provided	Part 1, Introduction
4	Objectives	*Provide an explicit statement of questions being addressed*. PICO questions provided	Part 1, Appendix-1
METHODS			
5	Eligibility criteria	*Specify inclusion and exclusion criteria for the review and how studies were grouped for the syntheses*. Provided	Part 1, Literature Search and Study Selection
6	Information sources	*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*. Provided	Part 1, Literature Search and Study Selection; Appendix-2
7	Search Strategy	*Present the full search strategies for all databases, registers and websites, including any filters and limits used*. Provided	Part 1, e-Appendix-2
8	Selection process	*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*. Provided	Part 1, Literature Search and Study Selection; Appendix-2
9	Data collection process	*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*. Data abstracted and reviewed by panelists; requests for additional information listed in the search details, data abstracted by 1 person but checked by another; the data format was according to the table structure and definitions of data columns	Part 1, Data abstraction;
10a	Data Items	*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*. Provided	Part 1, Literature Search and Study Selection, and in inclusion criteria for tables Parts 2-4

10b	Data Items	*List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information*. Part 1 Methods, also at beginning of each section of the results of the Part 2-4 papers	Part 1, Choice of Outcomes of interest; Parts 2-4, Results sections
11	Study risk of bias assessment	*Specify the methods used to assess 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*. Provided in Part 2 Evidence Assessment and e-Appendix 2-A	ROBINS-I; Part 2, Evidence Assessment; Appendix-1
13a	Synthesis methods	*Describe the processes used to decide which studies were eligible for each synthesis*. Studies were assessed independently by 2 reviewers whether they met general inclusion exclusion criteria and specific outcome criteria as defined in each evidence table	Part 1, Methods
13b	"	*Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions*. Described in the legends of the evidence table	Parts 2-4, Tables
13c	"	*Describe any methods used to tabulate or visually display results of individual studies and syntheses*. Described in part 1 paper, also in the structure of tables (ordering – listed as subtitle). A meta-analysis is deemed less informative given the varied residual confounding. Instead an extensive exploration of the impact of differences in the studies, methods and patient populations is provided	Part 1, Aggregation of Studies; Parts 2-4, Tables (i.e. ordering of entries)
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*. No synthesis was done	Part 1, Methods, data abstraction
13e	"	*Describe any methods used to explore possible causes of heterogeneity among study results.* This is explored extensively, addressed in table columns, ordering, also discussed in Results sections, especially in Nuances and Ambiguities sections	Parts 2-4, Tables and Results sections (especially Nuances and Ambiguities)
13f	"	*Describe any sensitivity analyses conducted to assess robustness of the synthesized results*. Multiple qualitative subgroup analyses are a major component of the study, but quantitative meta-analysis is deemed less useful for a nuanced understanding.	Addressed qualitatively in Parts 2-4, Tables and Results sections (especially Nuances and Ambiguities)
14	Reporting bias assessment	*Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).* No data imputation performed, but missing data is shown in tables so that it can be considered appropriately	Reported in relevant individual tables Parts 2-4
15	Certainty assessment	*Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.* Performed extensively by an assessment system tailored to the topic, described in Part 2 methods	Part 2, Methods, Appendix-1
RESULTS			
16a	Study selection	*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*. Flow chart provided	Part 1, Appendix-2
16b	"	*Cite studies that met many but not all inclusion criteria ('near-misses') and explain why they were excluded.* Available on request	Part 1, Appendix-2

17	Study characteristics	*Cite each included study and present its characteristics*. Provided in evidence tables. An individual paragraph for each study is counterproductive (overwhelming for a reader, devoid of an ability to view the studies and results in aggregate together with nuances and differences across studies)	Parts 2-4, Tables and Results
18	Risk of bias in studies	*Present assessments of risk of bias for each included study*. Provided in evidence tables	Parts 2-4, Tables (adjustment for confounding columns)
19	Results of individual studies	*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*. A qualitative summary is integral to the project, summarized in Part 1, using a semi-quantitative assessment relative to clinically meaningful difference	Part 1, Figures; Parts 2-4, supplement summary of Evidence tables
20a	Results of Syntheses	*For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies*. Provided in evidence tables	Parts 2-4, Tables (adjustment for confounding columns)
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.* A quantitative meta-analysis is deemed less useful for a nuanced understanding	Not applicable
20c	"	*Present results of all investigations of possible causes of heterogeneity among study results.* This assessment is the focus of the review and analysis. This is extensively covered in the tables and text Parts 2-4	Parts 2-4, Tables and text
20d	"	*Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.* Multiple qualitative subgroup analyses are a major component of the study, but quantitative meta-analysis is deemed less useful for a nuanced understanding.	Parts 2-4, Tables and text
21	Reporting biases	*Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.*. Missing data is shown in tables so that it can be considered appropriately	Reported in relevant individual tables Parts 2-4
22	Certainty of evidence	*Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed*. Provided in evidence tables	Parts 2-4, Tables (adjustment for confounding columns)
DISCUSSION			
23a	Discussion	*Provide a general interpretation of the results in the context of other evidence.* Provided in Part 1, Results, Nuances and Figures	Part 1, Results, Nuances and Figures
23b	"	*Discuss any limitations of the evidence included in the review.* study level limitations are explored in the relevant sections of the Part 2-4 papers	Parts 2-4, Tables and text
23c	"	*Discuss any limitations of the review processes used.*. Review-level limitations discussed in the part 1 paper in the discussion and the evidence assessment section	Part 1, Discussion
23d	"	*Discuss implications of the results for practice, policy, and future research.* Provided in part 1, figures. This project is specifically focused on providers' decision-making for individual patients. This makes it not applicable to policy makers. We have not addressed future research due to length constraints	Part 1, Figures
OTHER INFORMATION			

24a	Registration and protocol	*Provide registration information for the review, including register name and registration number, or state that the review was not registered.* No protocol was registered	Part 1, Appendix-1
24b	"	*Indicate where the review protocol can be accessed, or state that a protocol was not prepared.* No formal protocol beyond PICO questions was written	Part 1, Appendix-1
24c	"	*Describe and explain any amendments to information provided at registration or in the protocol.* No formal protocol beyond PICO questions was written	Not applicable
25	Support	*Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.* There was no source of funding.	Part 1, Methods
26	Competing interests	*Declare any competing interests of review authors.* No study panelist had any conflicts	Part 1, Methods
27	Availability of data, code and other materials	*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.* No additional data files were generated; the tables represent the data available. Any additional data from the source papers are referenced and in the public domain	Not applicable (all data is already shown in the tables)