| **Section and Topic**  | **Item #** | **Checklist item**  | **Location where item is reported**  |
| --- | --- | --- | --- |
| **TITLE**  |  |
| Title  | 1 | Identify the report as a systematic review. | Title: "A Systematic Review and Meta-Analysis" |
| **ABSTRACT**  |  |
| Abstract  | 2 | See the PRISMA 2020 for Abstracts checklist. | Abstract: Structured summary with Background, Methods, Results, Conclusion. |
| **INTRODUCTION**  |  |
| Rationale  | 3 | Describe the rationale for the review in the context of existing knowledge. | Introduction: Discusses EC incidence, prognostic factors, and need for targeted nursing. |
| Objectives  | 4 | Provide an explicit statement of the objective(s) or question(s) the review addresses. | Introduction: "This study aimed to identify...propose targeted nursing interventions." |
| **METHODS**  |  |
| Eligibility criteria  | 5 | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses. | Section 2.3: "Literature inclusion and exclusion 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. | Section 2.2: Databases listed (PubMed, Elsevier, WoS); dates: 2014–2024. |
| Search strategy | 7 | Present the full search strategies for all databases, registers and websites, including any filters and limits used. | Section 2.2: Keywords listed; search terms adjusted per database. |
| 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. | Section 2.4: Two independent researchers screened studies; third resolved disagreements. |
| 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. | Section 2.4: Data extraction by two researchers; EndNote 21 used. |
| 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. | Section 2.4: Prognostic factors (age, BMI, anemia, NLR/PLR) defined. |
| 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 any missing or unclear information. | Table 1: Study characteristics (age, BMI, sample size, country, etc.). |
| Study risk of bias assessment | 11 | 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, and if applicable, details of automation tools used in the process. | Section 2.5: NOS scale used; two reviewers assessed quality. |
| 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. | Section 2.6: HR/OR with 95% CI used for meta-analysis. |
| 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)). | Section 2.6: Studies grouped by prognostic factors (e.g., age, BMI). |
| 13b | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. | Section 2.6: Sensitivity analysis and random/fixed-effects models applied. |
| 13c | Describe any methods used to tabulate or visually display results of individual studies and syntheses. | Figures 2–10: Forest plots for each prognostic factor. |
| 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. | Section 2.6: STATA 12 used; REM/FEM models for heterogeneity. |
| 13e | Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression). | Section 3.2: Subgroup analysis (e.g., I² values reported). |
| 13f | Describe any sensitivity analyses conducted to assess robustness of the synthesized results. | Section 2.6: Sensitivity analysis by sequentially excluding studies. |
| Reporting bias assessment | 14 | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases). | Section 2.6: Begg test used for publication bias. |
| Certainty assessment | 15 | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome. | Not explicitly 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. | Figure 1: Flowchart from 953 records to 10 included studies. |
| 16b | Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded. | Section 3.1: 126 articles excluded after full-text review (reasons not detailed). |
| Study characteristics  | 17 | Cite each included study and present its characteristics. | Table 1: Study details (author, age, BMI, sample size, country). |
| Risk of bias in studies  | 18 | Present assessments of risk of bias for each included study. | Section 3.1: NOS scores >6 for all studies. |
| 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. | Section 3.2: HR/OR values for each factor (e.g., age HR=1.45). |
| Results of syntheses | 20a | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies. | Section 3.2: Heterogeneity levels (e.g., I²=86.6% for age). |
| 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. | Section 3.2: Pooled HR/OR values (e.g., BMI HR=1.19). |
| 20c | Present results of all investigations of possible causes of heterogeneity among study results. | Section 3.2: Subgroup analysis by factor (e.g., NLR/PLR). |
| 20d | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results. | Section 2.6: Stability of results confirmed via sensitivity analysis. |
| Reporting biases | 21 | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed. | Section 2.6: Begg test results mentioned (no significant bias). |
| Certainty of evidence  | 22 | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed. | Not explicitly reported.  |
| **DISCUSSION**  |  |
| Discussion  | 23a | Provide a general interpretation of the results in the context of other evidence. | Section 4.1: Discusses age, BMI, anemia as key prognostic factors. |
| 23b | Discuss any limitations of the evidence included in the review. | Section 5: Mentions heterogeneity and lack of clinical validation. |
| 23c | Discuss any limitations of the review processes used. | Section 5: Acknowledges heterogeneity and small sample sizes for some factors. |
| 23d | Discuss implications of the results for practice, policy, and future research. | Section 5: Recommends future validation of nursing interventions. |
| **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. | Section 2.1: INPLASY2024110012. |
| 24b | Indicate where the review protocol can be accessed, or state that a protocol was not prepared. | Section 2.1: Link to INPLASY protocol provided. |
| 24c | Describe and explain any amendments to information provided at registration or in the protocol. | Not explicitly reported.  |
| Support | 25 | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review. | Funding: "No funding was used in this study." |
| Competing interests | 26 | Declare any competing interests of review authors. | Competing interests: "No conflicts of interest to disclose." |
| 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. | Data availability: Raw data available upon request; PRISMA checklist as Supplementary Material. |

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