



### Systematic Review Search Strategy

Review title: The configuration of a prototype variable corresponding to the proportion of ischemia as a derivative outcome for the comparison between robotic and open partial nephrectomy. A meta-analysis of observational studies accompanied by sensitivity analysis.

#### Review team:

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The search strategy will be conducted by Sotirios Artsitas, Dimitrios Artsitas, and Ioanna Segkou. Irene Koronaki, Konstantinos G. Toutouzas, and George C. Zografos held a supervisory position during the formulation of the strategy. The latter will be updated as needed based on database-specific, language or other requirements within the following databases:

- MEDLINE (PubMed)
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Google Scholar (Google LLC)
- Scopus (Elsevier B.V.)
- ScienceDirect (Elsevier B.V.)

For non-indexed conference proceedings, the review team will search relevant conference proceedings announcements and websites. Additionally, the review team will hand-search bibliographies of relevant randomized controlled trials (RCTs), non-randomized observational comparative studies, systematic reviews, narrative reviews, and meta-analyses found, as well as relevant citations bibliographies of the articles included in the review. For maximum transparency regarding the literature search process, all results in references will be integrated and analyzed within "Sysrev" online platform framework (<https://sysrev.com>).

The absolute ischemia duration represents a parameter of critical importance in partial nephrectomy procedures, since it is directly related both to the level of postoperative renal function and the incidence of surgery-related complications as well. In fact, the significance of this parameter becomes even more evident due to its inclusion in the triple outcome of "trifecta", which is generally accepted as a qualitative measure of effectiveness after the surgical resection of small renal masses. The aim of the present study concerns the formation of a novel variable that expresses the proportion of intraoperatively applied ischemia for the comparison between robotic and open partial nephrectomy. Specifically, all the available literature with data regarding the duration of surgery as well as the duration of ischemia will be collected. After the formation of the novel variable, the methodology of meta-analyses will be utilized to assess the comparative effect between the two abovementioned surgical approaches.

We will not include or exclude studies based on the length of the studies, patient populations under comparison, follow-up periods or publication dates, and only content published or available in English will be included. Bibliographic data from systematic reviews, meta-analyses, as well as narrative reviews will be utilized appropriately. However, the above will not be included in the final sample of studies from which the necessary quantitative data will be extracted. Studies with specialized patient populations such as pediatric patients are also to be excluded. To ensure the content accurately reflects research reported within the review's proposed time frame, bimonthly search alerts will be established for each database and monitored after the initial search, and eligible articles will be added to our review through the data extraction phase. For the thorough control of the above process, records of reviewed references will be kept, which will be compiled monthly in "Sysrev".

<b>MEDLINE (PubMed)</b>	
1	(((robotic[Title]) OR (robot-assisted[Title])) AND (open[Title])) AND (partial[Title])) AND (nephrectomy[Title])
2	(((robotic[Title]) OR (robot-assisted[Title])) AND (open[Title])) AND (nephron[Title])) AND (sparing[Title])
3	#1 AND #2
<b>CENTRAL (Cochrane Central Register of Controlled Trials)</b>	
4	(robotic):ti AND (open):ti AND (partial):ti AND (nephrectomy):ti
5	(robot-assisted):ti AND (open):ti AND (partial):ti AND (nephrectomy):ti
6	(robotic):ti AND (open):ti AND (nephron):ti AND (sparing):ti
7	(robot-assisted):ti AND (open):ti AND (nephron):ti AND (sparing):ti
8	#4 AND #5 AND #6 AND #7
9	#3 AND #8
<b>Google Scholar (Google LLC)</b>	
10	allintitle: robotic, open, partial, nephrectomy
11	allintitle: robot-assisted, open, partial, nephrectomy
12	allintitle: robotic, open, nephron, sparing
13	allintitle: robot-assisted, open, nephron, sparing
14	#10 AND #11 AND #12 AND #13
15	#9 AND #14
<b>Scopus (Elsevier B.V.)</b>	
16	TITLE ( robotic OR robot-assisted AND open AND partial AND nephrectomy )
17	TITLE ( robotic OR robot-assisted AND open AND nephron AND sparing )
18	#16 AND #17
19	#15 AND #18
<b>ScienceDirect (Elsevier B.V.)</b>	
20	Title: robotic AND open AND partial AND nephrectomy
21	Title: robot-assisted AND open AND partial AND nephrectomy
22	Title: robotic AND open AND nephron AND sparing
23	Title: robot-assisted AND open AND nephron AND sparing
24	#20 AND #21 AND #22 AND #23
25	#19 AND #24