**[Add title here related to the question allocated to you panel working group] – A review of the literature and expert panel recommendations**

[**Add authors here (all panel members), full first name, middle initial(s), and family name of each author, each author’s degrees earned, and a number associated to their affiliations. *Example: John M Smith, MD, MSc, PhD1***]. *[Group Authorship including the Junior Research Committee and other Members contributed to this manuscript is recommended]*

[**Add affiliations here**, i.e., the academic department(s) and institution(s). *Example:*

1. *Department, Institution Name, City, Country*

**Correspondence**: [Name, address, email address, telephone and fax numbers for the corresponding author]. [Shared correspondence is also allowed].

**Conflict of interest**: [Any actual or potential conflicts of interest by any of the author(s). If all of the author(s) have no conflict to disclose, please include the phrase, “The authors declare no conflicts of interest.”]

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**Word Count**: [Maximum 4500]

**Keywords**: [Add keywords here, these may be the main ones from the systematic review search provided to you]

This work was conducted in preparation for the Minimally Invasive Consensus Conference (MIOT.cc) 12-14 December 2024, Riyadh, Saudi Arabia.

**Abbreviations**

[List all utilized acronyms and initialisms. These should be listed alphabetically. Acronyms and initialisms should take the form: [term], [meaning]. Example: *DNA, deoxyribonucleic acid*. Terms should not be abbreviated unless they are used more than once in the document. Use only standard abbreviations. All units will be metric. Use no roman numerals in the text. In decimals, a decimal point, and not a comma, will be used. Avoid abbreviations in the title. The full term for which an abbreviation stands should precede its first use in the text unless it is a standard unit of measurement. In cases of doubt, the spelling orthodoxy of The Oxford English Dictionary will be adhered to.

**Abstract**

**Background**: [The question being addressed, what is known and what is not?]

**Objectives:**

**Data sources:** [e.g Ovid MEDLINE, Embase, Scopus, Google Scholar]

**Methods**: Scooping review and recommendations using the GRADE approach derived from an international expert panel. [You may add additional information here if you wish such as study eligibility criteria, participants, and interventions; study appraisal and synthesis methods].

**Results**:

[Describe here the main findings, the number of studies included as well as the study characteristics]

**Conclusions**:

[List the main statements here each accompanied by the rating of quality for each question (i.e., high, moderate, low, or very low) as well as the grade strength (strong or conditional)

of the recommendation according to the GRADE approach (see additional literature provided). Example: *Enhanced recovery programs are related to improved short-term outcomes after liver transplantation (Quality of Evidence; Low | Grade of Recommendation; Strong)*].

*Please note that the former term for “weak” recommendations is now officially called “conditional”.*

**Introduction**

[Rationale: Describe the rationale for the review in the context of what is already known.]

[Objectives: Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).]

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**Methods**

**Research Question**

[Clearly define the research question(s) that the scoping review aims to address. This section can should include the topic allocated to your panel as well as any subtopics you wish.]

**Inclusion and Exclusion Criteria**

[Detail the criteria used to select studies or sources for the review. This includes parameters such as publication date range, study type, population, and context. Clearly outline what is included and what is excluded.]

**Data Sources**

[List all sources of data (e.g., databases, journals, grey literature sources).]

**Search Strategy**

[Describe the search strategy in detail. Include the keywords, search terms, and combinations used in the search queries. Mention any limits applied to the search and provide examples of search strings if possible.]

**Selection Process**

[Explain the process of selecting studies or sources. Describe the screening process and who conducted it. If there were multiple reviewers, explain how discrepancies were resolved.]

**Quality of studies and Recommendations Grading**

The “Grading of Recommendations Assessment, Development and Evaluation” (GRADE) approach was used for grading quality of evidence and strength of recommendations.**1** We applied the modified GRADE approach for QOE assessment derived from scoping reviews using estimates summarised narratively.**2** The QOE was rated separately for each outcome*.* The direction and strength of recommendation was assessed individually by all authors and disagreements resolved by consensus.**3,4**

**Results**

**Study selection**

[Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, with the flow diagram we provided you].

**Study characteristics**

[For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations. Please present this information in a table (e.g., Table 1 below).]

**Table 1.** Study characteristics

|  |  |  |  |
| --- | --- | --- | --- |
|  | Study type | No. of patients | Main outcomes assessed |
| Author, year | [add here] | [add here] | * [add here]
* [add here]
 |
| Author, year | [add here] | [add here] | * [add here]
* [add here]
 |
| Author, year | [add here] | [add here] | * [add here]
* [add here]
 |
| Author, year | [add here] | [add here] | * [add here]
* [add here]
 |

**Results of individual studies**

[For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals if applicable, please present this information in a table. (e.g., Table 2 below).]

**Table 2.** Study outcomes

|  |  |  |  |
| --- | --- | --- | --- |
|  | Outcome 1 | Outcome 2 | Outcome 3 |
| Author, year | [add here] | [add here] | [add here] |
| Author, year | [add here] | [add here] | [add here] |
| Author, year | [add here] | [add here] | [add here] |
| Author, year | [add here] | [add here] | [add here] |

**Quality of evidence**

[List the outcomes / statement(s) derived from the question(s) allocated to your group]

[For each outcome / statement, please provide the final rating of quality of the evidence for each outcome: high, moderate, low, or very low according to the GRADE approach (see additional material we provided you and example Table 3 below)].

The summary of findings for the main outcomes, including the quality of evidence (QOE) assessment according to the GRADE approach are summarised in **Table 3**.

**Table 3**. Summary of Findings leading to the Quality of Evidence Assessment according to the GRADE approach

|  |
| --- |
| **Summary of Findings**  |
| **Number of studies** | **Effect from comparative studies**  | **Limitations**  | **Inconsistency** | **Indirectness** | **Imprecision** | **PublicationBias** | **Quality of Evidence (GRADE)** |
| **RCT** | **Observationalcomparative** | **Observational non-comparative** |
| **Outcome 1: *[Add here]*** |  |   |   |   |   |   |   |
| n  | n  |  n | Clearly lower/higher in intervention group in all studies | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | LikelyNot likely | High●●●● |
| **Outcome 2: *[Add here, if any]*** |  |   |   |   |   |   |   |
| n  | n  |  n | Lower/higher in intervention group in all studies | Not serious SeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | LikelyNot likely | Moderate●●●○ |
| **Outcome 3: *[Add here, if any]*** |  |   |   |   |   |   |   |
| n  | n  |  n | Lower/higher in intervention group in all studies, few events | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | LikelyNot likely | Low●●○○ |
| **Outcome 4: *[Add here, if any]*** |  |   |   |   |   |   |   |
| n  | n  |  n | Lower/higher in intervention group in all studies, few events | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | LikelyNot likely | Low●●○○ |
| **Outcome 5: *[Add here, if any]*** |  |   |   |   |   |   |   |
| n  | n  |  n | Similar, very few events | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | Not seriousSeriousVery serious | LikelyNot likely | Very low●○○○ |

***Effect estimate from comparative studies:*** *This is an quiatlitive (not quantitative) evaluation of the effect estimate / size derived from comparative studies. Examples are shown above on such assessments.* ***Limitations****: Make a judgement on the risk of bias across studies for an individual outcome. It is possible to consider the size of a study, its risk of bias and the impact it would have on the summarised effect.* ***Inconsistency****: Evaluate the difference in the magnitude of effects across studies. Widely differing estimates of the effects indicate inconsistency.* ***Indirectness****: Make a global judgement on how dissimilar the research evidence is to the clinical question at hand (in terms of population, interventions and outcomes across studies).* ***Imprecision****: Consider the optimal information size (or the total number of events for binary outcomes and the number of participants in continuous outcomes) across all studies. Results may also be imprecise when the confidence intervals (CI) of all the studies or of the largest studies include no effect and clinically meaningful benefits or harms. Publication bias can be suspected when the body of evidence consists of only small positive studies or when studies are reported in trial registries but not published. Statistical evaluation of publication bias is not possible in this case.* ***Publication bias*** *can be suspected when the body of evidence consists of only small positive studies or when studies are reported in trial registries but not published.*

**Recommendations**

[Decide on the direction (for/against) and grade strength (strong/conditional\*) of your statement(s) and recommendation(s). Consider the following according to the GRADE approach:

* Quality of the evidence
* Balance of desirable/undesirable outcomes
* Values and preferences
* Resource implications

Example: *Enhanced recovery programs are related to improved short-term outcomes after liver transplantation (Quality of Evidence; Low | Grade of Recommendation; Strong)*].

[Please read the additional material we provided you and if you have any questions, please contact us at any time. We will provide you with additional instructions on rating the quality of evidence and forming your recommendations in the form of a presentation as well as a webinar].

The direction and strength of recommendation was rated as *strong/conditional for/against* [*add intervention here]* with regard to *[add outcomes here]* (**Table 4**)*.*

**Table 4**. Evidence to recommendation framework according to the GRADE approach

|  |
| --- |
| **Question**: [Add the question allocated to your panel here] |
| **Decision domain** | **Judgement** | **Reason for Judgement** | ***Subdomains influencing Judgement (explanation, not to be included in the final table)***  |
| Yes | No |
| Balance between desirable and undesirable outcomes (estimated effects), with consideration of values and preferences (estimated typical)*Given the best estimate of typical values and preferences, are you confident that the benefits outweigh the harms and burden or vice versa?* | ✓ |   |   | *Baseline risk for desirable and undesirable outcomes: Is the baseline risk similar across subgroups? Should there be separate recommendations for subgroups?Relative risk for benefits and harms: Are the relative benefits large? Are the relative harms large?Requirement for modelling: Is there a lot of extrapolation and modelling required for these outcomes?Typical values: What are the typical values? Are there differences in the relative value of the critical outcomes?* |
| Confidence in the magnitude of estimates of effect of the interventions on important outcomes (overall quality of evidence for outcomes)*Is there high, moderate or low-quality evidence?* | ✓ |   |   | *Confidence in estimates of benefits and downsides, confidence in estimates of resource use. Consider all critical outcomes, including the possibility that some may not be measured.Key reasons for rating evidence down or rating up* |
| Confidence in Values and Preference, and their Variability*Are you confident about the typical values and preferences and are they similar across the target population?* | ✓ |   |   | *Source of typical values (panel or study of general population or patients)Source of estimates of variability and extent of variabilityMethod for determining values satisfactory for this recommendation* |
| Resource implications*Are the resources worth the expected net benefit from following the recommendation?* |   | ✓ |   | *Feasibility: Is this intervention generally available?Opportunity cost: Is this intervention and its effects worth withdrawing or not allocating resources from other interventions?Differences across settings: Is there lots of variability in resource requirements across settings?**What are the costs per resource unit?* |
| **Overall Quality of Evidence**: ***[High, moderate, low, very low]*** |
| **Recommendation**: ***[Conditional or Strong, for or against the intervention]*** |

*[Generally, a strong recommendation may be reported when a "yes" judgement is used in 3 or 4 out of the 4 domains listed above, otherwise, a conditional recommendation is derived when a "yes" judgement is used in 2 or 1 out of 4 domains, depending on the confidence in each domain (please give rationale for decision)]*

**Discussion**

[Start with a paragraph reporting the most important findings of your work.]

[Then summarize and discuss all findings (interventions and outcomes) in separate paragraphs].

[Discuss in detail the reasons for the different judgments and the recommendations that the panel concluded upon]

**Limitations**

[Discuss limitations at study and quality of evidence level, and at review-level, if any]

**Conclusion**

[Please conclude with a paragraph regarding the final quality of evidence and recommendation. Example: *Enhanced recovery programs are related to improved short-term outcomes after liver transplantation (Quality of Evidence; Low | Grade of Recommendation; High)*. Here you may also report on the need for future studies and evaluations].

**Authorship**

All authors qualify for authorship as per the International Committee of Medical Journal Editors (ICMJE) guidelines. [You may use the online [Authorships.org](https://authorships.org/) tool to decide upon qualification and order of authorship in case of any disputes. We are more than happy to help you if required].

**Author contributions**

[Recommendation: Include a short description of each authors’ contribution immediately before your references. (Examples of categories for authors’ contributions: Concept/design, Data analysis/interpretation, Drafting article, Critical revision of article, Approval of article, Statistics, Funding secured by, Data collection, Other.)]

**References**

1. Guyatt G, Oxman AD, Akl EA et al. GRADE guidelines: 1. Introduction—GRADE evidence profiles and summary of findings tables. *Journal of Clinical Epidemiology [Internet]* 2011; 64: 383. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0895435610003306

2. Murad MH, Mustafa RA, Schünemann HJ, Sultan S, Santesso N. Rating the certainty in evidence in the absence of a single estimate of effect. *Evidence Based Medicine [Internet]* 2017; 22: 85. Available from: https://ebm.bmj.com/lookup/doi/10.1136/ebmed-2017-110668

3. Andrews J, Guyatt G, Oxman AD et al. GRADE guidelines: 14. Going from evidence to recommendations: the significance and presentation of recommendations. *Journal of Clinical Epidemiology [Internet]* 2013; 66: 719. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0895435612001382

4. Andrews JC, Schünemann HJ, Oxman AD et al. GRADE guidelines: 15. Going from evidence to recommendation—determinants of a recommendation’s direction and strength. *Journal of Clinical Epidemiology [Internet]* 2013; 66: 726. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0895435613000541

[**Please use the AMA (American Medical Association) reference style**. Example:

Djamali A, Wilson NA, Sadowski EA, et al. Nox2 and Cyclosporine- Induced Renal Hypoxia. Transplantation. 2016;100:1198-1210.

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* References in the main body are designated by superscripts.
* References must be numbered and listed in the order in which they
* are cited in the text.
* No more than 6 authors should be listed for a citation. If there are
* 7 or more authors, only the first 3 should be listed followed by ‘‘et al.’’
* The title of the journal article must be included, followed by the National Library of Medicine accepted abbreviation of the journal name, the year of publication, the issue number, and page range. You can search for NLM abbreviations here: http://www.ncbi.nlm.nih.gov/nlmcatalog/journals
* Only published works and manuscripts that have been accepted for publication should be listed in the References.
* Manuscripts in preparation, unpublished observations, and personal communications should be referred to in parentheses in the text as “(name of organization or individual, year, form of communication)”. Form of communication can be either written or oral. See AMA Style, Section 3.13.19 for examples. Please do not include personal communications, in-house data, or unpublished manuscripts in the reference list.

**Tables**

[Add here tables]

**Figures and Legends**

[Add here figures and legends. These will be also provided as separate files in .tiff, or .eps, format].

**Supplemental Digital Content and/or Additional Files**

[Add here any supplemental content you wish including methods, results, discussion, tables or figures]