# Task Force evidence reviews

## Background

Over the past 4 years, under the auspices of the ILCOR Continuous Evidence Evaluation Working Group (CEE), a large number of carefully conducted systematic reviews have been performed and published. These have allowed the refining and creation of treatment recommendations which have been published initially on line ([www.ILCOR.org](http://www.ILCOR.org)), then in summary publications at the end of the calendar years 2017, 2018 and coming again in 2019.

This detailed process, and its inherent requirement for systematic review publication, has meant that a number of topics/questions identified by the ILCOR task forces have not been able to be allocated to either a contracted Expert Systematic Reviewer (ESR) or a Knowledge Synthesis Unit (KSU). Unfortunately, this has meant that many of the questions that appear to be supported by lower certainty of evidence (published studies), have not been able to be addressed in a systematic manner. There is an urgent need to be able to address these unasked questions in a scientific manner rigorous enough to allow the information gathered to support the creation of Consensus on Science statements and Treatment Recommendations that can be used by resuscitation councils around the world to create their guidelines.

To achieve this aim, we have proposed two additional mechanisms to complement the existing rigorous ESR/KSU process: Taskforce Systematic Reviews, and Taskforce Scoping reviews. The existing “CEE ESR/KSU” process will remain the method of choice of complex questions (PICOST with multiple PICOs) and where engagement of multiple task forces is envisioned.

The relevant taskforces under the guidance of the Scientific Advisory Committee representatives (previously CEE representatives) will be empowered to follow a systematic process to enable a more streamlined approach to collating evidence to inform the task-force summary statements and recommendations.

## Taskforce systematic reviews

The process used for developing the systematic reviews for resuscitation science have become increasingly rigorous since the 2000 ILCOR Guideline process. This has included the development of a more rigorous process around the development of questions (in PICO or variant format), a more rigorous search strategy development (including Information Specialist informed searches for all 2015 PICOs), the introduction of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) process, and more formalised opportunities for community feedback. All of the systematic reviews currently produced, as well as those proposed to be produced under this structure, are compliant with the recommendations of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA: <http://www.prisma-statement.org>), and fit on a methodological rigour scale between the Cochrane process (<https://training.cochrane.org/handbook>) and those described as Rapid Reviews (<https://www.who.int/alliance-hpsr/resources/publications/rapid-review-guide/en/> ).

The process for the Taskforce Systematic Reviews is outlined in the accompanying document (Taskforce\_Systematic\_Review\_21\_June\_2019.xlsx). These reviews should be able to be completed within a 15-week period, with the required methodological rigour enforced by the delegated representative from the Scientific Advisory Committee.

These questions by nature will be focused on answering a single question (PICO), will usually be continuing on from a previously asked question (either in 2010 or 2015), and will only relate to one ILCOR taskforce. The following is an outline of the steps:

* Two content experts (CE) will be allocated by the relevant taskforce (lead CE needs to be task force member, other CE could be co-opted from outside task force membership).
* All 2015 questions have existing detailed search strategies available (<https://www.ilcor.org/data/ACCESS_TO_THE_DIGITAL_WORKSHEETS.pdf>). These searches do not need to be rerun from inception, but instead can be rerun from the date of the last search. Searches not run since 2010, or newly identified topics/PICOs will need search strategies to be developed (may need assistance from Information Specialists at this point).
* The Task Force SR team will be expected to perform the initial title/abstract screen based on the agreed inclusion/exclusion criteria. They will then complete both complete the full text screen. Any discrepancies will be adjudicated by the SAC representative.
* The taskforce will then need to be engaged to ensure that no known studies have been missed, and to ensure that the outcomes have been prioritised (or previously prioritised remain a priority).
* A formal Risk of Bias assessment should then be performed by one content expert (and ratified by the other) for each study, based on each prioritised outcome, and according the relevant Risk of Bias tool (according to study type).
* Relevant data should be extracted from each identified study, and if a meta-analysis is being considered this should be done in conjunction with the SAC representative.
* The content experts will then need to complete the relevant Evidence Profile tables, with rows for each prioritised outcome for each study type. These will then need to be translated into their written version: the initial draft Consensus on Science statements.
* The task force will then need to use these Evidence Profile tables/initial draft Consensus on Science statements, in addition to the questions asked within the Evidence to Decision framework of GRADE, to formulate their final draft Consensus on Science statements and (where possible) Treatment Recommendations.
* These task force products would then be posted on ILCOR.org for community consultation (using the approved template).
* At the same time, the content experts should be writing up their final document for peer review publication or completing a digital version which could be appended to the ILCOR Summary publication.

## Taskforce Scoping Reviews

There are some situations where a specific PICO question has not previously been developed or where a subject/topic has not been able to be narrowed down, especially where it is envisioned that there is not much published data. In this situation a PICO based Taskforce Systematic Review or an ESR/KSU process may be a wasteful/inappropriate initial step. A different approach which has been used in this situation is a Scoping Review.1,2 These reviews tend to start with a broad question, search widely, iteratively focus in on key issues and outcomes, and produce a narrative summary of the studies identified, but not an estimate of the magnitude of effect. Traditionally Scoping reviews do not require Risk of Bias assessments, and combination of data into meta-analyses is therefore considered not helpful or necessary. As a result, Scoping Reviews cannot be used to create Consensus on Science statements or create or modify Treatment Recommendations. They can however be used for creating an evidence map (describe what sort of evidence exists), highlight gaps in evidence, and inform the need (or not) to do a more formal systematic review. Scoping reviews if completed systematically, can provide a manuscript which can be published independently, but these can easily take as much time to conduct as a formal systematic review. If the plan is to publish the Scoping Review, then it should be compliant with the recommendations of Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR: <http://www.prisma-statement.org/Extensions/ScopingReviews> ).3

The process for the Taskforce Scoping Reviews is outlined in the accompanying document (Taskforce\_Scoping\_Review\_21\_June\_2019.xlsx). A short scoping review should be able to be completed within an 11-week period, but a more detailed review, resulting in publication, may require up to twice this time. In both settings, the required methodological rigour enforced by the delegated representative from the Scientific Advisory Committee.

These questions by nature start broad in nature rather than necessarily being focused on answering a single (PICO) question. The expectation again is that they will start off relating only to one ILCOR taskforce, but may be expanded subsequently. The following is an outline of the steps:

* Two content experts (CE) will be allocated by the relevant taskforce (lead CE needs to be task force member, other CE could be co-opted from outside task force membership).
* Given that these searches have not been run previously, new search strategies will need to be developed (and this may require assistance from an Information Specialists).
* The Task Force Scoping Review team will be expected to perform the initial title/abstract screen based on the agreed inclusion/exclusion criteria. They will then complete both complete the full text screen. Any discrepancies will be adjudicated by the SAC representative.
* The taskforce will then need to be engaged to ensure that no known studies have been missed, and to ensure that outcomes have been prioritised (as this is usually performed in a Scoping Review after the literature has been scanned). At this stage, a sufficient body of information may have been identified to support the creation of either a Taskforce Systematic Review or a CEE/ESR/KSU review (going down that relevant process).
* A formal Risk of Bias assessment is not required for a Scoping Review, but a summary of the identified studies is created.
* Relevant data should be extracted from each identified study for the prioritised outcomes, and entered into tables (which may be grouped into obvious subsets). Combination of data into meta-analyses is not required.
* Instead of creating Evidence Profile tables, in Scoping Reviews the next step is to create a narrative summary (“Taskforce Insights”) of the information (using template, supported by the tables of studies and outcomes).
* The task force will then need to revise this document with the target being either a published scoping review, or the template based narrative summary (“Taskforce Insights”) which could be included as an electronic supplement in the ILCOR Summary publication.
* This task force summary (“Taskforce Insights”) would then be posted on ILCOR.org for community consultation.
* At the same time, the content experts should be writing up their final document for peer review publication or completing a digital version which could be appended to the ILCOR Summary document.

## Summary

We have developed two new approaches to support the existing extensive ILCOR evidence evaluation process (see attached flowchart). Both of these approaches have a sufficient rigour to allow a description of the literature in a way that will facilitate the guideline development process, and where targeted to areas of interest, will also increase the likelihood of resultant publications.

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## References

1. Armstrong R, Hall BJ, Doyle J, Waters E. ‘Scoping the scope’ of a cochrane review. Journal of Public Health. 2011 Mar 1;33(1):147-50.
2. Munn Z, Peters MD, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC medical research methodology. 2018 Dec;18(1):143.
3. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, Moher D, Peters MD, Horsley T, Weeks L, Hempel S. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Annals of internal medicine. 2018 Oct 2;169(7):467-73.

