EAU Handbook for Guidelines Development

Update: July 2017
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1. **What is the aim of this handbook**

   The purpose of this handbook is to provide advice on developing an EAU guideline and the methods used. It aims to provide a clear path through the process and seeks to ensure that the resulting guidelines have credibility and meet the EAU’s criteria for content, methods and presentation.

2. **Background**

   Clinical Practice Guidelines (CPGs) are a highly influential tool for the improvement of clinical care, the harmonisation of healthcare provision as well as the management of healthcare associated resources across Europe. Therefore, clinical guidelines must be free of bias, presenting a balanced view of risks and benefits, in which the preferences of patients, best clinical practice and healthcare policy needs are underpinned by the best available scientific evidence. Ultimately, promoting effective therapy and discouraging/avoiding ineffective or potentially harmful interventions.

3. **Structure of the EAU Guidelines Office**

   Within the EAU CPG production is co-ordinated by the EAU Guidelines Office. The EAU Guidelines Office (GO) consists of:

   1. **The EAU Guidelines Office Board**
      Roles and responsibilities:
      - Guide, support and facilitate all aspects relating to guidelines development (e.g. methodology, dissemination and implementation);
      - Actively promote continuous quality improvement;
      - Set future goals and establish priorities for the strategic development of the guidelines project;
      - Development of a robust conflict of interest (COI) policy and overall responsibility for the appraisal of COI information provided by all those involved in the production of EAU guidelines.

   2. **The EAU Guidelines Office Methods Committee**
      Roles and responsibilities:
      - Development and implementation of methodological standards across all EAU guidelines;
      - Provision of methodological support and comprehensive training in Cochrane systematic review methodology;
      - Overall quality control relating to all systematic reviews produced by the EAU Guidelines Panels.

   3. **The EAU Guidelines Office Associates Committee**
      Roles and responsibilities:
      - Development and co-ordination of the EAU Guidelines Office Associates programme;
      - Co-ordination and management of all senior and junior associates;
      - Co-ordination and management of all ongoing systematic review activities.

      Roles and responsibilities:
- Quantify the adherence to recommendations from CPGs among different healthcare systems and physicians;
- Identify existing obstacles and facilitators to adoption of CPG recommendations;
- Identify interventions to facilitate adoption of recommendations from CPGs in different European healthcare systems;
- Evaluate and quantify the effectiveness of the interventions applied to facilitate guideline adoption and adherence to recommendations.

5. The EAU Guidelines Office CONFIDENCE Committee (CONsensus Finding DEvelopmNt Committee)
   Roles and responsibilities:
   - To ensure that EAU consensus finding is done in a structured and transparent fashion, based on a standardised protocol which secures the involvement of all relevant stakeholders in the process.

6. The EAU Guidelines Office Dissemination Committee
   Roles and responsibilities:
   - Active engagement with National Societies to garner endorsement of the EAU Guidelines;
   - Effective dissemination of EAU Guidelines and EAU Guidelines Office projects;
   - Promotion of discussion and triggering of feedback from guidelines users via Facebook and Twitter;
   - Co-ordination of all social media activities of the guidelines panels.

7. The EAU Guidelines Central Office
   Roles and responsibilities
   - Coordinate all organisational aspects (meetings, conference calls, training, agendas, reports, traditional and electronic delivery of manuscripts and files, update schedules, and review and scientific paper submission);
   - Project management - overview of time lines and adherence to deadlines;
   - Assistance with reference management (coordinate literature searches, and liaise with research specialist);
   - Interact with other organisations e.g., guidelines producers, national associations, members, journals, and companies;
   - Attend meetings and liaise with guidelines panels;
   - Editing of guidelines documents for publication – maintenance of standardised guidelines formats;
   - Support the technical needs of the panel members;
   - Coordinate in-office activities related to the guidelines e.g. social media, web-based guidelines material and EUT.
### Table 1. Who is who in the EAU Guidelines Office

<table>
<thead>
<tr>
<th>Guidelines Office Committee</th>
<th>Chair</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAU Guidelines Board</td>
<td>Prof. Dr. James N’Dow</td>
<td>Prof. Dr. Alberto Briganti&lt;br&gt;Prof. Dr. Thomas Knoll&lt;br&gt;Prof. Dr. Maria Ribal&lt;br&gt;Prof. Dr. Richard Sylvester&lt;br&gt;Prof. Dr. Anders Bjartell&lt;br&gt;Prof. Dr. Tillman Loch (ex-officio)&lt;br&gt;Prof. Dr. Hein Van Poppel (ex-officio)</td>
</tr>
<tr>
<td>EAU Methods Committee</td>
<td>Prof. Dr. Richard Sylvester</td>
<td>Prof. Dr. Steve Canfield&lt;br&gt;Dr. Imran Omar, Dr. Lorenzo Marconi, Dr. Cathy Yuhong Yuan, Dr. Steven MacLennan&lt;br&gt;Prof. Dr. James N’Dow (ex-officio)</td>
</tr>
<tr>
<td>EAU Associates Programme</td>
<td>Prof. Dr. Thomas Knoll</td>
<td>Dr. Lorenzo Marconi&lt;br&gt;Dr. Virginia Hernández Cañas&lt;br&gt;Dr. Max Bruins</td>
</tr>
<tr>
<td>EAU IMAGINE Group (core group numerous external collaborators)</td>
<td>Prof. Dr. Alberto Briganti</td>
<td>Dr. Steven MacLennan&lt;br&gt;Dr. Lorenzo Marconi&lt;br&gt;Prof. Dr. James N’Dow (ex-officio)</td>
</tr>
<tr>
<td>EAU CONFIDENCE Group</td>
<td>Prof. Dr. Axel Bex</td>
<td>Dr. Max Bruins&lt;br&gt;Dr. G. Athanasiadis&lt;br&gt;Prof. Dr. James N’Dow (ex-officio)</td>
</tr>
<tr>
<td>EAU Dissemination Committee</td>
<td>Prof. Dr. Maria Ribal</td>
<td>Dr. Stacy Loeb&lt;br&gt;Dr. Inge van Oort&lt;br&gt;Prof. Dr. Morgan Rouprêt</td>
</tr>
<tr>
<td>EAU Guidelines Central Office</td>
<td>Karin Plass (manager)</td>
<td>Julie Darraugh&lt;br&gt;Robert Shepherd&lt;br&gt;Emma Jane Smith</td>
</tr>
</tbody>
</table>

### 4. **EAU Guideline Panels**

The EAU GO oversees the activity of eighteen EAU Guidelines panels and two EAU Ad-hoc Guidelines panels, a full list of all panels and panel members is available upon request from the Guidelines Office or online at [www.uroweb.org/guidelines](http://www.uroweb.org/guidelines).

#### 4.1. Panel participation

Guidelines panel participation, for which no financial remuneration is provided, involves a significant commitment and investment of time. The result of the work done by the EAU Guidelines expert panels is generally well received by the members of the organisation and clinicians worldwide, and most panel members consider their participation in the EAU Guidelines rewarding.

All panel members are required to submit potential COI information and sign a *Non-disclosure Statement* as well as a *Copyright Transfer Form* (see appendix 1). Panel members COIs will be assessed and managed according to the GO’s COI policy which can be requested from the GO.
A policy of confidentiality regarding any guideline document applies until final publication of all related material. It is expected that details of panel discussions will always remain confidential.

The standard term of office for guidelines panel members is 4 years (assuming satisfactory annual assessment up to the end of the first 2 years), which can be renewed once at the sole discretion of the GO Board (giving a maximum of 8 years). All physicians involved in the EAU Guidelines effort should be members of the EAU. Membership fees for non-urologist are waived.

Note: A group size of 10 to 12 members encourages diversity and efficiency yet is small enough to avoid delays and redundancy.

4.2. Identification of new Panel Members

1. Profile of new EAU Guideline Panel members
   The quality and impact of a Guideline is dependent on the quality and breadth of expertise of the panel members and the recognition of panel members as international opinion leaders. In identifying new panel members therefore, the GO will seek candidates with a track record in high quality evidence synthesis (e.g. systematic review) methodology. The GO will also seek potential candidates who have demonstrated an ability to lead opinion in urological practice at international level and as a result are well respected in the urological community. All potential candidates will demonstrate an ability to deliver tasks on time of the highest quality and be team players. All panel members will commit to the principle of Guideline production underpinned by systematic review methodology.

2. Proposals by current members of guidelines panels
   The GO will seek the input of panel members in identifying potential candidates to join their panels either as replacements or as new additions to the panel in question. Such candidates are to supply a letter of motivation, potential COI information as well as a CV including a list of their publications. This information is to be sent to the Guidelines Office. Declaration of a potential COI does not preclude a potential candidate from joining the Guideline panel; however, failure to declare a significant COI may lead to removal from a Guideline Panel at the discretion of the GO.

3. Public call for new panel members
   A public call, inviting experts in a particular field of urology, may be done. All candidates applying are to supply a letter of motivation, potential COI information as well as a CV and a list of publications. This information is to be sent to the Guidelines Office. For a public call, various EAU communication avenues may be used: association website and/or newsletter(s).

4. Identification of potential candidates by Board members of the Guidelines Office
   The EAU Guidelines Office may directly approach potential candidates, inviting them to join one of their Panels. Candidates are expected to provide potential COI information prior to any decision making. Literature consultation, with the aid of a research scientist, may be part of this process.

5. Identification of panel members for Ad-hoc topics and panels will follow the above procedure. Membership of such panels will be limited to the duration of the projects undertaken.

6. Involvement of other stakeholders/patients
   Most EAU Guidelines panels include clinicians from related specialties. Structured involvement of patients or representatives of a patient advocacy groups is an ongoing
project of the EAU GO. The GO are currently developing a policy for meaningful patient involvement in the production of the EAU Guidelines. As a minimum, all guidelines development processes will include comments from patient(s) on the development of clinical questions and the outcomes of most relevance to patients, as well as involvement of patients in review of guidelines prior to their publication, and/or public review.

4.3. **Appointment of new panel members**

A candidate’s scientific expertise and provided potential COIs will be assessed. For the appointment of panel members, assessment and final approval will be made by both by the GO as well as the panel Chair, taking into consideration the balance of expertise in the panel and the need to avoid over representation of panel members from one country/institution. Appropriate international representation has a significant impact on dissemination and implementation. However, expertise always takes precedence over geographical distribution. Panel members do not need to be urologists. For each subject area, decisions are made on a case-by-case basis as to which expertise is needed to address a given topic most effectively. All relevant specialties, other than urology, will be considered in this process. Initial appointment will be for 2 years, which, after satisfactory performance (assessed by the panel Chair and the GO on an annual basis) will be extended until a full 4 year term.

4.4. **Appointment of panel Chair**

For the appointment of a new panel Chair, assessment and final selection will be by the GO Board. Initial selection is based on proven excellence in a particular area, as well as organisational and leadership skills. Candidates are requested to submit a curriculum vitae as well as potential COI information. An interview with (as a minimum) the GO Board Chair and Vice-Chair is part of the selection procedure. Taking on this position involves a substantial commitment of time. It is of the upmost importance that if either the Chair or Vice-Chair has a significant COI the other doesn’t. Ideally, neither the chair nor the Vice-Chair of a panel will have significant COIs.

4.5. **Appointment of panel Vice-Chair**

For established panels the panel Chair, together with the panel members, can propose a vice-chair whom the GO board must ratify. An interview with the GO Board Chair and vice-Chair (as a minimum) is part of the selection procedure. Newly formed guidelines panels generally do not have a Vice-Chair until they have been in office for a minimum of one year. However, the GO board has the option to appoint a Vice-Chair directly, in collaboration with the panel Chair, upon formation of the panel.

Even though the EAU Guidelines are widely used by non-urological medical professionals, their focus is first and foremost on clinicians working in the field of urology. Panel Chairs are, therefore, always specialists working full time in the urological field. For Vice-Chairs, this requirement does not apply.

4.6. **Appointment of Guidelines Associates**

Guidelines Associates are junior clinicians that are involved in the production of EAU clinical guidelines systematic reviews. Any activities undertaken by them are carried out under the direct supervision of a senior (experienced) panel member, ensuring adherence to established quality standards. A minimum level of expertise is expected. Access to training in evidence synthesis and guideline production methodology is provided.
Panel members can propose candidates for consideration for an associate position. The GO Board, in collaboration with other EAU offices may also identify and appoint Guidelines Associates. Guidelines Associates will be credited for their contributions and listed as co-authors on publications resulting from systematic review activities and, as appropriate, on individual guidelines. Newly appointed associates will receive a copy of the EAU Associate Authorship Policy document.

4.7. Roles and responsibilities

4.7.1. Panel Chair

- Overall responsibility for the guidelines manuscript;
- Maintain overview of project and provide the primary direction for the work of the group;
- Adhere to and implement the agreed-upon production methodology (responsible for the evidence base and literature identification);
- Maintain effective communication with panel members, GO Board and office staff;
- Assessment of the functioning of panel members;
- Oversee and monitor the production process, time lines and quality and, together with office staff, decide on timing of meetings;
- Chair panel meetings and ensure that agendas are completed;
- Approve and sign off minutes resulting from meetings;
- Liaise with other guideline groups and external advisors;
- Keep an overview of any potential conflicts of interest and ensure that these cannot (be perceived of) interfere(ring) with any decisions made by the expert panel;
- Set an example by completing all assigned work on time;
- Maintain confidentiality.

In the absence of the Chair the Vice-Chair will assume these roles and responsibilities. The role of the Vice-Chair is to support the Chair in the effective running of the panel.

4.7.2. Panel Members

- Effectively communicate with the Chair and office staff (respond to emails in a timely fashion);
- Participate in meetings and conference calls;
- Follow instructions given by the panel Chair and adhere to the time lines set;
- Actively collaborate and perform assigned tasks (e.g., contribute constructively to discussion at meetings, evidence acquisition, drafting recommendations, and reviewing the manuscript);
- Maintain confidentiality;
- Support the Guidelines Associates in completion of systematic reviews undertaken by the panel.

4.7.3. Guidelines Associates

- Assist with all tasks as determined by the Panel Chair;
- Core activities include but are not limited to systematic review activities and processing of annual horizon scope searches;
- Participate in meetings and conference calls;
- Follow Chair and supervising panel member’s instructions and adhere to the time lines set;
- Contribute to training and mentoring of newly appointed Guideline Associates;
- Maintain confidentiality.
Note: Guideline development requires the full and active participation of all panel members; producing a guideline requires substantial time and effort, which often tends to be underestimated by group members when they sign on. All members have a responsibility to other participants to behave with integrity, commitment, and with a fully professional demeanour.

4.8. Conflict of interest

Conflict of interest may be defined as a “set of circumstances that creates a risk that professional judgment or actions regarding a primary interest will be unduly influenced by a secondary interest.” Conflict of interest is an important potential source of bias when developing guidelines as it frequently results in overestimating benefit and underestimating harm. It is not appropriate for individual panel members to self-judge if a particular relationship causes conflict; their role is to declare, not interpret. The panel Chair, in consultation with the panel as a whole, must ultimately determine if a conflict may result in bias and whether or not the degree of conflict excludes the individual from participating in the entire guideline or selected sections. Panel members COI disclosure forms should be reviewed and updated prior to each panel meeting and prior to publication. The EAU COI policy is laid down in a formal document, which is available online.

5. Principals of Guidelines Development

As defined by the Institute of Medicine (IOM) [1], clinical practice guidelines are “statements that include recommendations intended to optimise patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options.” Guidelines can never replace clinical expertise when making treatment decisions for individual patients, but rather help to focus decisions - also taking personal values and preferences/individual circumstances of patients into account. Guidelines are not mandates and do not purport to be the legal standard of care.

Quality guidelines are characterised by [2];
1. Explicit scope and purpose: Specific descriptions are given of the overall guideline objective(s), the health question(s) covered, and the population to whom the guideline is meant to apply.
2. Stakeholder involvement: The guidelines panel includes individuals from all relevant professional groups, patients’ views and preferences are actively sought and target users are clearly defined.
3. Rigor of development: Systematic methods are used to search for evidence; methods for formulating recommendations are clearly described; strengths and limitations of the body of evidence are clearly described; methods for formulating the recommendations are clearly described; recommendations take into account health benefits, side effects, and risks; recommendations are linked explicitly to supporting evidence; the guideline is externally reviewed by experts prior to publication; and a procedure for updating the guideline is provided.
4. Clarity of presentation: Recommendations are specific and unambiguous, different options for management of the condition or health issue are clearly presented, and key recommendations are easily identifiable.
5. Applicability: The guideline provides advice and/or tools on how the recommendations can be put into practice, the guideline describes facilitators and barriers to its application, potential resource implications are considered, and the guideline presents key monitoring and/or auditing criteria.
6. Editorial independence: The views of the funding body have not influenced content; competing interests of guideline development group members have been recorded and addressed.

5.1. **Five Key Steps in the Development of an Evidenced-based Guideline**

1. Identify and refine the subject area.
2. Convene and effectively manage the guideline development panel.
4. Translate evidence into recommendations.
5. Subject the guideline to independent peer review.

Evidence-based CPGs rely on unbiased and structured literature reviews. The main objective of systematically reviewing the literature is to identify all relevant evidence sources, producing a comprehensive body of evidence that will allow clinical questions to be answered whilst highlighting gaps in the evidence base where formal consensus methods may be needed. The EAU CPGs development model is driven by continuous quality improvement using the literature search as one of many factors that help translate evidence into practice. The ratio of benefits to harms, patient and stakeholder preferences and costs are also considered in formulating recommendations.

Expert opinion or consensus finding outcomes may be used to make recommendations in topics with gaps in the evidence, however the strength of the recommendation will be limited. Discussing topics with limited evidence allows guideline developers to highlight future research needs and suggest how to best fill existing gaps. The guideline as a whole, however, must avoid over-reliance on expert opinion or clinical consensus as a primary decision making strategy.

5.2. **Guidelines Production Process**

It is important to be clear how the guideline is produced. The purpose of clinical guidelines is to enhance clinical decision making, therefore, the emphasis is on the development of recommendations. The inclusion of levels of evidence and grades of recommendation aims to provide transparency between the underlying evidence and the recommendations made, so that the clinician can assess how much confidence they can place in a given recommendation. Please see appendix 2 for a comprehensive production timeline.

5.2.1. **Definition of the subject/disease/condition of the guideline**

The content of the guideline should be explicit from its title; however, any limitations should be stated and if necessary explained. The introductory section should explain the purpose and scope of the guideline as well as the methodology used. All introductory sections must comply with the standardised format which was introduced in 2016 [2]. Standard requirements for all introductory sections are listed in table 2.

**Table 2. Standard requirements for all introductory guidelines sections**

<table>
<thead>
<tr>
<th>Introduction Sub-headings</th>
<th>Description of content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aim and scope</td>
<td>Overall scope and purpose of the guideline (clinical, healthcare or social questions covered by the guideline). Also mention what has not been addressed and explain why.</td>
</tr>
<tr>
<td>Population to whom the guidelines apply</td>
<td>Population and/or target audience to whom the guideline applies (if this is not directly apparent from the title).</td>
</tr>
<tr>
<td>Panel Composition</td>
<td>Multidisciplinary panel, stakeholder involvement. Also rational for not</td>
</tr>
</tbody>
</table>
including obvious groups.

Available publications | Brief description of all available scientific publications related to the guideline.
Publication history | Brief history on the guideline when it was first published and last updated.
Methods | Description of methodology used in which the level of evidence and grade of recommendation are addressed.
Review | Description of the guidelines peer review process.
Future Goals | If relevant, comment on the continual work within the panel and the when this be presented in the guideline

5.2.2. List of subtopics to be included

These form the chapters of the guideline. The exact outline is dependent on the guideline subject; however, all guidelines must make the utmost effort to conform to either the oncology or non-oncology template. Both templates are summarised in table 3; for extended versions please see appendix 3.

Table 3. Oncology and non-oncology templates

<table>
<thead>
<tr>
<th>Template</th>
<th>Chapters</th>
</tr>
</thead>
</table>
| Oncology      | 1. Introduction  
|               | 2. Methods  
|               | 3. The Epidemiology, Aetiology and Pathophysiology  
|               | 4. Staging and classification systems  
|               | 5. Diagnostic evaluation  
|               | 6. Prognosis  
|               | 7. Disease management  
|               | 8. Follow-up  
|               | 9. References  
|               | 10. Conflict of interest |
| Non-oncology  | 1. Introduction  
|               | 2. Methods  
|               | 3. Guideline  
|               | 3.1 Condition A  
|               | 3.1.1 Epidemiology, Aetiology and Pathophysiology  
|               | 3.1.2 Classification system  
|               | 3.1.3 Diagnostic evaluation  
|               | 3.1.4 Disease management  
|               | 3.1.4.1 Conservative management  
|               | 3.1.4.2 Pharmacological management  
|               | 3.1.4.3 Surgical management  
|               | 3.1.5 Follow-up  
|               | 3.2 Condition B (if applicable)  
|               | 4. References  
|               | 5. Conflicts of interest |

5.2.3. Data identification

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5.2.3.1. Horizon scoping search

All panels are expected to perform an annual horizon scoping search covering their entire guideline. The results of this search will result in one of three scenarios;

1. Signing off the guidelines as still current for the upcoming edition i.e. no changes will be made to the text following assessment of the search.
2. Minor adaptions to the upcoming edition for example identification of higher quality studies, which may be used to replace current references. These data do not, or will only marginally, affect recommendations.

All search stages must be documented for transparency and reproducibility. Specific considerations include databases, time periods, keywords, subject headings, language restrictions, use of grey literature (e.g. conference abstracts not published in an indexed journal), and selection criteria. The main data bases consulted are Medline, EMBASE and the Cochrane library. Searches are built based on the topics covered by the guideline. Further information regarding the use of Mesh terms and search design may be found at https://www.nlm.nih.gov/mesh/meshhome.html. An example search strategy is available in appendix 4.

Update scoping searches should be limited strictly to the time frame covering the cut-off date of the latest scope search and today. Initially, scoping searches should focus on the identification of publications that may change the recommendations (scientific papers matching the evidence level of those publications currently supporting the recommendations). If sufficient level 1 papers (RCTs, systematic reviews and meta-analysis of RCTs) are identified to validate the current guideline and/or prompt an update, no lower level publications need be considered. If this is not the case lower-level evidence should be identified but only limited to prospective studies. Retrospective studies should be excluded. Only in case no prospective data exists, retrospective studies may be considered.

All abstracts should be screened with reference to the panels predefined inclusion/exclusion criteria as outlined in their study eligibility form. The Methods Committee have produced two template study eligibility forms, one for adaption by panels whose guideline topics have an abundance of high level evidence and the other for panels where high level evidence is limited or lacking altogether. Please see appendix 4 for both forms.

Once the selected abstracts have been retrieved the panel’s should complete a study eligibility form to determine if the full texts are eligible for inclusion in the guideline. During full text screening each panel member must record why the text is either included or excluded from the guideline. These reasons must be returned to the GO where they will be compiled into a spread sheet and be used as supporting documentation (and potentially also for submission to the National Guidelines Clearing House [NGC]). Upon completion of the scope search the GO will produce a “Scope Management Flow Chart” for each panel which was be part of the supporting documentation (figure 1.).

5.2.3.2. Systematic reviews

The GO has systematically introduced Cochrane review methodology across all 20 guidelines panels, ensuring that high quality systematic reviews underpin key recommendations. The responsibility for completion of systematic reviews rests with the Associates together with the senior panel leads, who are supported by methodologists and statisticians.
Systematic reviews are based on clinical questions prioritised by the Guideline Panel responsible for each topic, and their findings are incorporated into the EAU guidelines as they become available. Benefits and harms of interventions are addressed in detail, both in the development stage of the clinical question and when review findings are being incorporated and treatment recommendations formulated. Whenever possible, patient input is sought at both the development stage of the SR questions as well as when guidelines recommendations are being drafted.

All SRs are performed using standard Cochrane SR methodology: (http://www.cochranelibrary.com/about/about-cochrane-systematic-reviews.html). Two independent reviewers screen abstracts and full texts, carry out data abstraction, assess risk of bias and do a GRADING exercise. The results are presented in tables showing baseline characteristics and summaries of findings. Meta-analyses are performed only as part of a SR when several randomised controlled trials have addressed the same question and outcomes reported homogenously. For lower level data, narrative syntheses of the evidence are provided. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidance is followed.

The GO has produced a step-by-step handbook the “EAU Guidelines Systematic Reviews Methods and Processes Handbook” which must be followed when undertaking SR work for the EAU guidelines, this handbook is available from the GO.

Figure 1. Scope management flow chart

```
Records identified from structured database search (n = xxxx)

Records screened after duplicates are removed (n = xxxx)

Full-text articles assessed for eligibility (n = xxx)

Studies excluded (n = xxxx)
Record reason for exclusion

Studies included (n = xxxx)
Record reason for inclusion

First round:
• Screening carried out by the associates or panel members this is decided at the discretion of the panel.
• Abstracts allocated to chapters/sections of the guidelines.
• Exclude directly off topic papers & papers not meeting the search criteria.

Second round:
• Full text screening completed by the panel members.

Reasons to exclude:
• No additional information as compared to existing refs.
• Methodological flaws.

Reasons to include:
• New reference will change recommendation (Grade, level of evidence, phrasing)
• New insights due to; higher quality publications; studies including more patients; longer follow-up, new treatment modality.
• Updating existing refs.
```
5.2.4. Text presentation

Each chapter/subchapter should be concluded by a summary of evidence table and a summary of boxed, graded recommendations. Summaries and recommendations must be clearly distinguished.

Uniformity is strived for; care should be taken to avoid expanding on guidelines documents indefinitely, where a textbook format is created. Use of tables and algorithms is encouraged for presenting important information whilst helping to keep texts concise. Texts submitted for publication are edited by at least two native English speakers and reformatted, if needed, to comply with the standard publication format. All amendments resulting from the editing process are initially sent to the panel Chair for review. Accuracy of the contents of the Guidelines is the responsibility of the guidelines panel. All Guidelines texts include the following disclaimer;

“It must be emphasised that clinical guidelines present the best evidence available to the experts. However, following guideline recommendations will not necessarily result in the best outcome. Guidelines can never replace clinical expertise when making treatment decisions for individual patients, but rather help to focus decisions also taking personal values and preferences/individual circumstances of patients into account. Guidelines are not mandates and do not purport to be the legal standard of care”

5.2.5. Recommendations

Recommendations should be quality driven and propose actions that will improve quality of care. These actions include, but are not limited to:

- Reducing variations in care;
- Improving diagnosis/recognition;
- Promoting appropriate care;
- Avoiding unnecessary tests or interventions;
- Improved coordination of care;
- Improved patient safety.

The aim of recommendations is to influence the behaviour of a clinician in a given situation; recommendations should be actionable and use clear language.

An ideal recommendation describes:

- When → under what specific conditions should the recommendation be implemented
- Level of obligation → this is linked to the grade of recommendation
- Do what → precisely what action/s should be implemented
- To whom → specifically who the recommendation should be implemented on

Recommendations should be precise. The supporting text, which precedes the recommendations should amplify why the recommendation is important and how it is to be carried out (present a summary of all supporting data). Furthermore, the recommendation should reflect the degree of obligation linked to the intervention. In cases where multiple treatments are equally effective, identical phrasing must be used.

5.2.5.1. Levels of evidence and grades of recommendation

Levels of evidence and grades of recommendations are included in the guidelines in order to provide clinicians with a clear frame of reference by which to rate the statements and recommendations made. Providing transparency between the underlying evidence and a
recommendation made, allows users to judge the validity of the statement made, which should enhance confidence in the quality of the guidelines.

Currently, the EAU GO uses a modified level of evidence/grade of recommendation table from the Oxford Centre for Evidence-based Medicine Levels of Evidence (modified March 2009).

**Table 4. EAU Guideline’s levels of evidence**

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Evidence obtained from meta-analysis of randomised trials</td>
</tr>
<tr>
<td>1b</td>
<td>Evidence obtained from at least one randomised trial</td>
</tr>
<tr>
<td>2a</td>
<td>Evidence obtained from one well-designed controlled study without randomisation</td>
</tr>
<tr>
<td>2b</td>
<td>Evidence obtained from at least one other type of well-designed quasi-experimental study</td>
</tr>
<tr>
<td>3</td>
<td>Evidence obtained from well-designed non-experimental studies, such as comparative studies, correlation studies and case reports</td>
</tr>
<tr>
<td>4</td>
<td>Evidence obtained from expert committee reports or opinions or clinical experience of respected authorities</td>
</tr>
</tbody>
</table>

Each recommendation should be graded A–C and justified by using the strongest, clinically relevant data. It is important to point out any flaws in the evidence used to support any given recommendation. The panel can also make a recommendation AGAINST performing a certain action.

It should be noted, however, that when recommendations are graded, the link between the level of evidence and grade of recommendation is not always immediately apparent. Availability of RCTs may not necessarily translate into a grade A recommendation where there are methodological limitations or disparity in published results.

Alternatively, absence of high-level evidence does not necessarily preclude a grade A recommendation, if there is overwhelming clinical experience and expert consensus. In addition, there may be exceptional situations where corroborating studies cannot be performed, perhaps for ethical or other reasons, and in this case, unequivocal recommendations are considered helpful for the reader. The quality of the underlying scientific evidence – although an important factor – has to be balanced against benefits and burdens, values and preferences, and cost when a grade is assigned.

**Table 5. EAU Guideline’s grades of recommendation**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Nature of recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Based on clinical studies of good quality and consistency addressing the specific recommendations and including at least one randomised trial</td>
</tr>
<tr>
<td>B</td>
<td>Based on well-conducted clinical studies, but without randomised clinical trials</td>
</tr>
<tr>
<td>C</td>
<td>Made despite the absence of directly applicable clinical studies of good quality</td>
</tr>
</tbody>
</table>

From 2018 onwards, all EAU Guidelines will switch to a modified Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach for the grading of recommendations. Assessment of the evidence using GRADE methodology has been the standard for all new systematic reviews undertaken by the GO in the past two years. To allow for a transparent assessment of how recommendation statements have been developed, a Summary of Evidence (SOE) table will be provided for each recommendation within the guidelines which will address a number of key elements:
1. The overall quality of the evidence which exists for the recommendation,
2. The magnitude of the effect (individual or combined effects),
3. The certainty of the results (precision, consistency, heterogeneity and other statistical or study related factors),
4. The balance between desirable and undesirable outcomes,
5. The impact of patient values and preferences on the intervention, and
6. The certainty of those patient values and preferences.

These key elements in the SOE tables are the basis which panels use to define the strength of each recommendation. The strength of each recommendation will no longer be represented by alphabetic characters, but rather by the words ‘strong’ or ‘weak’. The panels will provide both ‘strong’ and ‘weak’ recommendations ‘for’ or ‘against’ recommending an action based on the information found in the SOE tables. The strength of each recommendation is determined by the balance between desirable and undesirable consequences of alternative management strategies, the quality of the evidence (including certainty of estimates), and nature and variability of patient values and preferences.

Under this system each recommendation will have a corresponding ‘Recommendations Worksheet’ which will be available online for all users of the Guidelines to access (see appendix 4).

5.2.5.2. Summary of key points to remember/consider when formulating recommendations

- Recommendations must be actionable.
- The total evidence base, level of evidence (quality of the studies) as well as the number of studies affect the grade of recommendation. As does the uniformity of the studies.
- Are the findings from the scientific data relevant for the population for whom the recommendation is made (generalisability)?
- Is there a logical link between the supporting text, evidence summary statement and the recommendation?
- The health benefits for each statement must be clear.
- Potential harms and side-effects need to be addressed (potential for overtreatment as well as efficacy and effectiveness of the treatment modality).
- Patient views and preferences.

6. Review

The aim is to ensure double-blinded peer review of all guidelines material produced prior to publication. This applies to the extended documents as well as scientific papers published in either the association’s journals, “European Urology, European Urology Oncology & European Urology Focus”, or other peer reviewed journals.

The EAU GO are responsible for review of all extended guidelines (sections). A minimum of 3-4 international expert reviewers are invited to review each document. Furthermore, where applicable, a representative from patient advocacy groups will be included as a lay reviewer.

All scientific papers (summaries of the EAU guidelines and SRs) will be peer reviewed by Eur Urol, Eur Urol Focus or Eur Urol Oncol. The GO can propose 3 reviewers for such review.

7. Authorship
All full panel members who have contributed to a published text (update) will be listed as authors on the title page of the document. Unless otherwise decided, standard listing is, Chair first, followed by all other authors in alphabetical order. Experts are credited in the methodology section and/or with a footnote in the document itself. Associates who have directly contributed to the guidelines text will also be listed, in alphabetical order, as associate members on the title page of the document. In case of any disputes, the GO Board can be called upon to referee.

8. Logistics and other practical matters

8.1. Panel meetings

The number of panel meetings required may vary, but is ultimately decided by the chair of a panel, in collaboration with the GO Board. All panels should schedule a meeting at least once each year. Panel members are expected to attend all panel meetings. In case he/she is unable to participate, notification of the panel Chair/GO staff is expected. The panel Chair can request that any assigned activities are made available in a timely fashion. In case of non-availability there is the option to schedule a telephone/video conference allowing the missing panel member to contribute. It is the responsibility of the Chair to decide whether frequent failure to attend scheduled panel meetings is reason to re-discuss panel participation.

8.2. Logistical support

Logistical support will be provided by the GO in conjunction with the EAU Central Office, this includes:
- Hotel and meeting room bookings (IT requirements)
- Flight arrangements
- Any meals – the GO will arrange for drinks, snacks, lunch and dinners during meetings

The Central Office will confirm any hotel bookings in a timely fashion ahead of the meeting. Incidentally such as minibar, telephone calls and other personal expenses are not reimbursed and will be charged to the panel member by the hotel directly (credit card deposit).

Flights will be booked based on economy fare, reimbursement of costs in case a panel member arranges his/her own travels will also be based on economy fare. A standard EAU reimbursement form is to be used. Train tickets will be reimbursed based on first class fare. Car travel will be reimbursed at Euro 0.19 per km.

All other reimbursable expenses when traveling for the EAU GO must be listed on the standard EAU reimbursement form. Panel members may submit electronic copies of their receipts along with their individual reimbursement forms, however, the all original receipts must be kept and can be request by the EAU Central Office, if deemed necessary.

Note: The Guidelines Office will not be responsible for any costs resulting from panel members who withdraw from meetings having previously confirmed their attendance. The relevant panel member will be asked to reimburse the cost of cancellation. If this cancellation is outside the control of the panel member the GO can choose to absorb the cost upon consultation with the panel member in question.

9. Honoraria
Panel membership does not involve any remuneration, aside from reimbursement of panel meeting expenses. In case a Chair/panel wish(es) to contract assistance elsewhere for any activity e.g. literature, writing or statistical support a prior request must submitted to the GO along with an approximate estimate of the costs involved.

10. **References**

Appendix 1 – Forms for new panel members

Conflict of Information Form

The EAU wishes to promote independence, objectivity, scientific rigor and a fair balance of representation, in all its activities. In order to ensure this, individuals participating in these activities are expected to disclose their financial or in-kind relationships both with health industry that develop, manufacture, distribute or sell health care materials or services, or other organizations that could represent a potential conflict of interest. Such relationships exclude personal or family medical care.

The EAU recognizes that these relationships do not necessarily imply bias or decrease the value of participation in professional activities. Disclosure of these relationships is necessary for others to make an informed decision about the impact of the disclosed relationship. For instance, this may be relevant in the context of educational activities of the EAU or review of material for EAU publications. Recognition of potential COI will allow the office in question to take this into account in the decision making process.

Each EAU office member author, reviewer and editor is requested to complete this form. All relationships over the previous two calendar years and the current year (including future commitments which are foreseen over the coming year) must be disclosed. The information related to COI will be available on request and relevant COI will be cited at EAU related presentations and in publications.

Use the following list to declare your existing or known future financial relationships or commercial affiliations.

If you do not have any conflicts of interest to disclose please check the appropriate box.

<table>
<thead>
<tr>
<th>1. Equity interests</th>
<th>Company Name</th>
<th>Company Name</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>2. Director or employee</td>
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<td>3. Owner enterprise</td>
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<tr>
<td></td>
<td>Company</td>
<td>Conflict Type</td>
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</tr>
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<td>---</td>
<td>---------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>4. Ownership of patent(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Royalties</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Company consultant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Company speaker honorarium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Trial participation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Fellowship, travel grants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Research grants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Other – please indicate</td>
<td>Company</td>
<td>Conflict Type</td>
<td></td>
</tr>
</tbody>
</table>
I do not have any of the following existing or known future financial relationships or commercial affiliations to disclose

1. Equity interests (or entitlement to same) of stocks, stock options, royalties, etc., including income from patents or copyrights
2. Service as a director or employment by a commercial organisation, whether or not remuneration is provided for such service
3. Sole ownership, partnership, or principal of a commercial enterprise
4. Ownership of patent(s)
5. Receipt of royalties
6. Consultant to company including positions on medical or scientific advisory boards
7. Honoraria for speaking at company sponsored meetings or events.
8. Participation in clinical trials
9. Support in the form of fellowships, travel grants, gifts, in-kind donations, etc.
10. Research grants, partial or full salary support from a commercial organisation for self or employees for whom you are managerially responsible (i.e. laboratory technical/research fellow for whom you are managerially responsible).
11. Any other type of financial or other relationship

Confidentiality statement

I herewith declare that I will treat all information, which I will receive in relation to the production of EAU guidelines as confidential. I ensure that my staff will also treat this information confidential.

Confidential information includes, without limitation, the Guidelines (prepublication), the content of draft chapters, the meetings and discussions of the Guidelines Panel, and the development process for the Guidelines. Confidential information might be in written, oral, electronic, magnetic, photographic or any other form, and it loses protection under this provision only if or when it becomes generally known to the public.

Name:

Signature:

Date:
## Appendix 2 - Activities and time-lines: guidelines yearly update cycle

<table>
<thead>
<tr>
<th>Time frame</th>
<th>Activity</th>
<th>Who is involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Oct (14th roughly)</td>
<td>Submission of finalised guidelines manuscripts</td>
<td>Guidelines Panel</td>
</tr>
</tbody>
</table>
| Oct-Dec         | 1. **Text editing**  
|                 |   - Proofreading and reformatting to comply with the standardised GO layout (where applicable).  
|                 |   - Reference updating and management.  
|                 |   - Reformatting of all diagrams and algorithms to match the GO standardised layout.  
|                 |   - Insertion and updating of all hyperlinks.  
|                 | 2. **Review**  
|                 |   - Identify texts or subsections of texts requiring external peer review in advance.  
|                 |   - Identify a shortlist of at least 6 possible reviewers in advance.  
|                 |   - Once the text has been submitted by the panel contact reviewers asking for their participation in the peer review process. Inform them of a strict three week turn around policy.  
|                 |   - Review is double blinded.  
|                 |   - Prepare text for review and send to reviewers who have accepted the invitation to review. Also send reviewers the:  
|                 |     - Common extended methods section of the guideline;  
|                 |     - EAU Guidelines Review Score Sheet  
|                 |   - Return reviewers comments to the panel Chair, the Chair must address all comments in a timely fashion maximum turn around 2 weeks.  
|                 |   - Return the Chair’s responses to reviewer’s comments and the amended document to the reviewers for their final approval, maximum turn around 1 week.  
|                 |   - Close the review process thanking all reviewers for their time.  
|                 | 3. **Signing off of edited Guidelines**  
|                 |   - Presentation of the edited manuscript to the panel Chair for final approval prior to typesetting.  
|                 |   - Allow the chair 1 week for this task.  
|                 |   - Should the Chair wish to have the entire panel comment impose a very strict deadline of 1 week for receipt of all comments.  
|                 |   - Make final edits based on panel comments.  
| Dec - onwards    | 1. Production of the corresponding pocket guideline or each finalised large text.  
|                 | 2. Finalised full guideline texts and pockets sent to the typesetter as they become available.  
|                 | 3. Production and typesetting of the general introductory sections of the large text.  
|                 | 4. Production and sign-off on the front and back covers of both the full text and the pocket.  
|                 | 5. Proofreading and correction of typeset guidelines and pockets.  

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[22](#)
6. Each text must be proofed by at least 2 native speakers.

| Early Jan | Contact printers to arrange print run  
Standard print run numbers are determined by:  
- Full EAU members eligible for print copies  
- EUREP participants  
- Special arrangements with f.i. national societies (like the ICS)  
- Additional sales (in collaboration with Sales & Marketing Dept) | GO staff |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>Guidelines and pockets to Chair and/or Vice-Chair for final sign off.</td>
<td></td>
</tr>
<tr>
<td>Mid Feb (14th roughly)</td>
<td>Final submission to printer of all material.</td>
<td></td>
</tr>
<tr>
<td>Feb-March</td>
<td>Circulate final full text and pocket pdf files to all panel members.</td>
<td></td>
</tr>
<tr>
<td>Mid-March</td>
<td>EAU Annual Congress – launch of Guidelines for that year.</td>
<td></td>
</tr>
</tbody>
</table>
| April-June | 1. Conversion of all final print pdfs back into word documents.  
2. Initiate horizon scoping search for the new update cycle  
- Review previous years search strategy and adjust if necessary in consultation with the panel.  
- Submit the search strategy.  
- Implement agreed upon screening strategy.  
- Agree time lines for completion of the screening.  
3. Compile final screening results and retrieve selected full texts.  
4. Return full text pdfs to panel for screening. | Panel Research scientist GO staff |
| June-August | Facilitate panel meetings to discuss the results of the scoping search and updating of the guidelines. Panels should:  
- Discuss the scope results in relation to the current recommendations.  
- Determine gaps in the literature that need addressing.  
- Assign panel members to specific sub-topics for updating.  
- Update guidelines text. | Panel GO staff |
| Sept | 1. Submit individual guidelines sections to the GO, responsible GO staff member will then produce a draft guidelines master document for the panel.  
2. Circulation of draft master document to entire panel for review and comment. Key aim is to refine and unify recommendations (LE and GR).  
3. Editing of draft master document to reflect panel’s comments.  
4. Presentation of the edited manuscript to the panel for sign-off. |  |
| Mid Oct | Submission of finalised guidelines manuscripts. |  |
Appendix 3 – Oncology and non-oncology guideline templates

Template for EAU Oncology Guidelines

1. INTRODUCTION

- Need for the guideline, its aims and scope.
- Short guideline history with a mention of previous versions and a summary of what has been updated in the current version.
- Current documents (Pocket Version, Full Version, most recent Scientific Publication).
- Panel composition (Areas of clinical expertise, methodologists, information specialists) and any conflicts of interest that are specifically related to the current guideline.

Note: all references should be included at the end of the guideline.

2. METHODOLOGY

2.1 The clinical practice guideline is based on a systematic review of evidence as demonstrated by the documentation of the following aspects in the either the guideline itself or its supporting documents.

Note: the PRISMA Flow Diagram and the PRISMA Checklist should be used as an aide in the conduct and the reporting of the results of a systematic review and meta-analysis.

- The guideline has been developed, reviewed, or revised within the past X years, as evidenced by appropriate documentation (systematic review or detailed description of methodology) which has been archived in an online repository. This should include an explicit statement that (or which parts of) the clinical practice guideline was based on a systematic review.
- For each PICO, a description of the PICO, a summary of the study inclusion and exclusion criteria, and the search strategy that includes;
  - a listing of databases searched
  - a summary of search terms used
  - the specific time period covered by the literature search including the beginning date (month/year) and end date (month/year)
  - the date when the literature search was done.

Links can be provided to an online document where this information has been stored.

- A description of the number of studies identified and the number of studies included. (Links can be provided to an online document).
- A description of data extraction procedures and a reference to data extraction forms (Links can be provided to an online document).
- A description of the data analysis procedures (Links can be provided to an online document).
- Systematic review team composition, their responsibilities for each of the tasks involved and their interaction with the guidelines panel (Links can be provided to an online document).
- A description of the external peer review of the guidelines document prior to its release.

2.2 Information to be provided in supporting online documents for each PICO and guideline:
• Literature search/Systematic Review request form
• Systematic Review/meta-analysis protocol
• Systematic Review team composition and their responsibilities
• List of PICO questions
• Study selection/eligibility criteria
• Search strategy
• Number of studies identified and number of studies included
• Data extraction forms and procedures
• Data analysis procedures
• Results of the Systematic Review to include
• Risk of bias assessment
• Full Summary of Findings Tables (SoF)
• Meta-analysis (if carried out)
• Impact on guideline update
• Reference to the publication of the Systematic Review/Meta-analysis (if published)
• Description of the external peer review of the guidelines document prior to its release

Note: For sections 3, 4, 5 and 6 below, the information may be based on previously published data that are available in the literature.

3. EPIDEMIOLOGY, AETIOLOGY AND PATHOLOGY

Review of data to include disease risk factors and histological subtypes that are pertinent to the understanding of the guideline along with disease
• incidence
• prevalence
• mortality
according to the extent of disease as given below.

4. STAGING AND CLASSIFICATION SYSTEMS

Include classifications and other staging and/or (pathological) grading systems where appropriate.

Note: Where possible, sections 5, 6, 7 and 8 should follow a similar structure based, for example, on the extent of disease.

5. DIAGNOSTIC EVALUATION

Specify screening procedures and investigations undertaken (such as the role of blood tests, imaging, and biopsy) to establish the diagnosis and the clinical stage. This may vary according to the extent of disease as given below.

6. PROGNOSIS

Include prognostic factors, risk stratifications and/or nomograms that are relevant in guiding the choice of treatment.

Provide separate sections, as appropriate, for:
• Localized Disease
• Locally Advanced Disease
• Advanced/Metastatic Disease
• Recurrent Disease

along with any prognostic factors that may be treatment specific within these groupings.

7. DISEASE MANAGEMENT

This part will include a review of the clinical evidence, with an emphasis on systematic reviews and meta-analyses when available. Treatment recommendations should be provided based on the currently used 2009 CEBM LE and grades of recommendation. (Note: this will change in the coming year.) In making recommendations, trade-offs between treatment benefits, QoL and harms should be considered for each type of treatment and whether the patient is newly diagnosed or recurrent. Unanswered questions and research recommendations should also be indicated.

Provide separate sections, as appropriate, for:
• Localized Disease
• Locally Advanced Disease
• Advanced/Metastatic Disease
• Recurrent Disease

8. FOLLOW-UP

Based on the available clinical evidence, provide the general principles for follow up, frequency of follow up and the exams to be carried out with separate sections, as appropriate, for:
• Localized Disease
• Locally Advanced Disease
• Advanced/Metastatic Disease

along with any follow up recommendations that may be treatment specific within these groupings.

9. REFERENCES

10. CONFLICTS OF INTEREST

Link to EAU website for the conflicts of interest of panel members.
I. INTRODUCTION

- Need for the guideline, its aims and scope.
- Guideline history with a mention of previous versions and a summary of what has been updated in the current version.
- Current documents (Pocket Version, Full Version, most recent Scientific Publication).
- Panel composition (Areas of clinical expertise, methodologists, information specialists) and any conflicts of interest that are specifically related to the current guideline.
- SPECIFIC CONDITIONS DISCUSSED IN THE GUIDELINE (if applicable).

2. METHODS

2.1 The clinical practice guideline is based on a systematic review of evidence as demonstrated by the documentation of the following aspects in the either the guideline itself or its supporting documents.

Note: the PRISMA Flow Diagram and the PRISMA Checklist should be used as an aide in the conduct and the reporting of the results of a systematic review and meta-analysis.

- The guideline has been developed, reviewed, or revised within the past X years, as evidenced by appropriate documentation (systematic review or detailed description of methodology). This should include an explicit statement that (or which parts of) the clinical practice guideline was based on a systematic review.
- For each PICO, a description of the PICO, a summary of the study inclusion and exclusion criteria, and the search strategy that includes:
  - a listing of databases searched
  - a summary of search terms used
  - the specific time period covered by the literature search including the beginning date (month/year) and end date (month/year)
  - the date when the literature search was done.
  Links can be provided to an online document.
- A description of the number of studies identified and the number of studies included. (Links can be provided to an online document).
- A description of data extraction procedures and a reference to data extraction forms (Links can be provided to an online document).
- A description of the data analysis procedures (Links can be provided to an online document).
- Systematic review team composition, their responsibilities for each of the tasks involved and their interaction with the guidelines panel (Links can be provided to an online document).
- A description of the external peer review of the guidelines document prior to its release.

2.2 Information to be provided in supporting online documents for each PICO included in the guideline:
- Literature search/Systematic Review request form
- Systematic Review/meta-analysis protocol
- Systematic Review team composition and their responsibilities
- List of PICO questions
- Study selection/eligibility criteria
- Search strategy
- Number of studies identified and number of studies included
• Data extraction forms and procedures
• Data analysis procedures
• Results of the Systematic Review to include
  o Risk of bias assessment
  o Full Summary of Findings Tables (SoF)
  o Meta-analysis (if carried out)
• Reference to the publication of the Systematic Review/Meta-analysis (if published)
• Description of the external peer review of the guidelines document prior to its release.

3. GUIDELINES

3.1 “CONDITION A”

3.1.1 EPIDEMIOLOGY, AETIOLOGY AND PATHOPHYSIOLOGY

• Definition and impact of the disease:
  o Incidence
  o Prevalence
  o Influence in QoL
• Risk factors and underlying causes
• Specific aetiologies or specific populations or specific condition subtype that will be independently discussed within each section (classification system; diagnostic evaluation and disease management) (if applicable)

3.1.2. CLASSIFICATION SYSTEMS

Classification systems and natural history of the disease

3.1.3. DIAGNOSTIC EVALUATION

• General Evaluation
• Supplemental evaluation
• Diagnostic evaluation algorithms

3.1.4. DISEASE MANAGEMENT

• Management rational
• Global management strategies
• Specific aetiologies, specific subpopulations, or specific subtypes that will be discussed under conservative management, pharmacological management and surgical management (if applicable)
• Specific management strategies (for specific aetiologies)

ETIOLOGY/SUBPOPULATION/SUBTYPE A (if applicable)

3.1.4.1 CONSERVATIVE MANAGEMENT

• Watchful waiting = no treatment at all
• Behavioural and dietary modifications (ex: “lifestyle advice” in patients with LUTS = reduction fluid intake at specific times; avoidance of caffeine or alcohol, relaxed/double-voiding techniques...)
• Physiotherapy (ex: pelvic floor muscle training in SUI)

3.1.4.2 PHARMACOLOGICAL MANAGEMENT

• Pharmacological group and mechanism of action
• Comparisons within and between groups in terms of EFFICACY and SAFETY
• Combination therapies

3.1.4.3 SURGICAL MANAGEMENT

ETIOLOGY/SUB POPULATION/SUBTYPE B (if applicable)

3.1.5 FOLLOW-UP

3.2. GUIDELINE ON “CONDITION B” (if applicable – refer to Guideline Conditions List)

4. REFERENCES

5. COI

Link to the EAU website for the conflicts of interest of panel members.
Appendix 4 – Horizon scoping search and recommendation worksheet

Example search strategy – Male LUTS

Database: EBM Reviews - Cochrane Central Register of Controlled Trials <April 2016>, EBM Reviews - Cochrane Database of Systematic Reviews <2005 to May 25, 2016>, Embase <1974 to 2016 May 31>, Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

Search Strategy:

1. exp Lower Urinary Tract Symptoms/ 43859
2. ((lower urinary or bladder or urethra* or urination or LUT) adj4 (symptom* or complain*)).tw. 26026
3. LUTS.tw. 8870
4. exp prostate hypertrophy/ 31024
5. exp Prostatic Hyperplasia/ 51784
6. (benign and (prostate or prostatic) and (obstruction or enlargement)).kw.tw. 6822
7. ((prostate or prostatic) adj2 (hyperplasia or hypertroph* or adenoma*)).tw.kw. 42151
8. (BPH or BPO or BPE or BOO or OAB).tw. 34893
9. exp overactive bladder/ 14476
10. ((Overactive or overactivity or over activit*) adj2 (bladder or detrusor)).kw.tw. 18941
11. (((detrusor or bladder) adj2 (underactivit* or failure or acontractile or hypocontract*)) or DUA).kw.tw. 6894
12. exp bladder obstruction/ or exp bladder neck stenosis/ or exp Urinary Bladder Neck Obstruction/ 11236
13. (bladder adj3 (sclerosis or obstruction or obstructed voiding or neck strangulation or stenosis or stenoses or sclerosis or contracture or stricture* or narrow* or fistula*)).tw.kw. 12429
14. or/1-13 141676
15. limit 14 to english language [Limit not valid in CDSR; records were retained] 115596
16. male/ or (men or man or male*).tw,af. 15353994
17. 15 and 16 67885
18. ((exp animals/ or exp animal/ or exp nonhuman/ or exp animal experiment/ or animal model/ or animal tissue/ or non human/) not (humans/ or human/)) or ((rats or mice or mouse or cats or dogs or animal* or cell lines) not (human* or men or women)).ti. 10614029
19. 17 not 18 63443
20. (urinary tract infection* or prostatitis or stones or neurogenic or urethral stricture* or trauma).ti. 207287
21. (cancer* or carcinoma* or tumour or tumor or neoplasm* or nocturia).ti. 3017652
22. 20 or 21 3222960
23. (non or "not" or without or excluding or other than).ti. 1540357
24. 22 not 23 3076078
25. 19 not 24 51885
26. ((child/ or Pediatrics/ or Adolescent/ or Infant/ or adolescence/ or newborn/) not adult/) or ((baby* or babies or child or children or pediatric* or paediatric* or infant* or infancy or neonat* or newborn* or new born or kid or kids or adolescence* or preschool or pre-school or toddler* or student*) not (aged or adult* or senior or men or women)).ti. 4304072
27. case report/ or case reports/ or (case report or case series).ti. 3973739
28. note/ or editorial/ or letter/ or Comment/ or news/ 3690709
29. conference abstract.pt. or Congresses as Topic/2341190
30 26 or 27 or 28 or 29 12729491
31 25 not 30 38791
32 (Systematic review or meta-analysis).tw,kw. 305757
33 Meta analysis/ or "systematic review"/ 240466
34 (Medline or Embase or Cochrane or Pubme or literature search or literature review).tw. 371623
35 random:.mp. or randomized controlled trial.pt. 2910629
36 double-blind:.mp. or placebo:.tw. or blind:.tw. 1086666
37 clinical trial:.mp. or controlled clinical trial.pt. 2342465
38 exp cohort analysis/ or exp Cohort Studies/ 1901435
39 (cohort or cohorts).tw. 950386
40 prospective$.tw. 1374563
41 ((comparative or comparison or evaluat* or multicenter) adj3 (studies or study)).tw. 1215771
42 ((population or hospital) adj based).tw. 259964
43 controlled study/ or major clinical study/ 6400515
44 comparative study/ 2453432
45 (groups or trial* or controlled or compared).tw. 10807726
46 ((diagnostic adj (accuracy or performance or value*)) or sensitiv* or specific* or predictive value* or NPV or PPV).tw. 7339690
47 (criterion standard* or false negative or false positive or gold standard* or reference standard* or receiver operat* curve* or ROC or SROC or screening).tw. 1231191
48 (likelihood ratio* or positive test likelihood or negative test likelihood or post test probability or posttest probability or post test likelihood or pretest likelihood).tw. 27511
49 exp diagnostic test accuracy study/ or exp diagnostic accuracy/ 225628
50 exp diagnostic procedure/ or exp diagnostic test/ 13932304
51 exp "Sensitivity and Specificity"/ or exp sensitivity analysis/ 810432
52 exp "Predictive Value of Tests"/ or exp predictive value/ 261493
53 exp False Negative Reactions/ or exp False Positive Reactions/ 215582
54 exp Likelihood Functions/ or exp Reference Standards/ 559224
55 exp ROC Curve/ or receiver operating characteristic/ 100830
56 or/32-55 30062104
57 31 and 56 29583
58 limit 57 to ed=20150417-20160531 use ppez [Limit not valid in CCTR,CDSR,Embase; records were retained] 871
59 limit 57 to dd=20150417-20160531 use oemedz [Limit not valid in CCTR,CDSR,Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained] 1009
60 limit 57 to em=201515-201622 use oemedz [Limit not valid in CCTR,CDSR,Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained] 1097
61 limit 57 to yr="2015 -current" use cctr 174
62 limit 57 to yr="2015 -current" use coch 14
63 or/58-62 2158
64 remove duplicates from 63 1622

***************

31
<table>
<thead>
<tr>
<th>Study eligibility form high level evidence topics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guideline Panel:</strong></td>
</tr>
<tr>
<td>Q1: Type of study is the study design one of the following?</td>
</tr>
<tr>
<td>- Systematic review with or without meta-analysis?</td>
</tr>
<tr>
<td>- For interventions: Randomised or quasi-randomised trial (quasi-randomised = alternate allocation)?</td>
</tr>
<tr>
<td>- For diagnostic studies: Cross-sectional study designed to assess diagnostic accuracy of a test using an appropriate reference standard?</td>
</tr>
<tr>
<td>- For prognostic studies: Cohort studies with appropriately defined baseline/pre-treatment characteristics in assessing prognostic value of a variable, nomogram or classification system.</td>
</tr>
<tr>
<td>Additional criteria:</td>
</tr>
<tr>
<td>Q2: Participants in the study</td>
</tr>
<tr>
<td>- Are some (i.e. ≥90%) or all of the participants in the study relevant to the Guideline?</td>
</tr>
<tr>
<td>Additional criteria:</td>
</tr>
<tr>
<td>Q3: Interventions and Comparisons or Tests in the study</td>
</tr>
<tr>
<td>- For interventions: Are the interventions and comparisons being assessed in the study relevant to the Guideline?</td>
</tr>
<tr>
<td>- For diagnostic studies: Are the diagnostic tests being assessed in the study relevant to the Guideline?</td>
</tr>
<tr>
<td>- For prognostic studies: Are the variables, nomogram or classification system being addressed in the study relevant to the Guideline?</td>
</tr>
<tr>
<td>Additional criteria:</td>
</tr>
<tr>
<td>Q4: Outcomes in the study</td>
</tr>
<tr>
<td>- Are the outcomes being reported in the study relevant to the Guideline?</td>
</tr>
<tr>
<td>Additional criteria:</td>
</tr>
<tr>
<td>Final decision (subject to clarification of ‘unclear’ points)</td>
</tr>
<tr>
<td>Question</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Q1</td>
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</tbody>
</table>

Additional criteria:

* Participants in the study
  - Are some (i.e. ≥90%) or all of the participants in the study relevant to the Guideline?

Additional criteria

* Interventions and Comparisons or Tests in the study
  - For interventions: Are the interventions and comparisons being assessed in the study relevant to the Guideline?
  - For diagnostic studies: Are the diagnostic tests being assessed in the study relevant to the Guideline?
  - For prognostic studies: Are the variables, nomogram or classification system being addressed in the study relevant to the Guideline?

Additional criteria:

* Outcomes in the study
  - Are the outcomes being reported in the study relevant to the Guideline?

Additional criteria:

Final decision (subject to clarification of ‘unclear’ points)
## Section A: Recommendations Worksheet

<table>
<thead>
<tr>
<th>Original Recommendation</th>
<th>LE</th>
<th>GR</th>
</tr>
</thead>
</table>

### Summary of Evidence Table Checklist and Strength Rating Assessment

<table>
<thead>
<tr>
<th>Available Evidence (summarised from TEXT)</th>
<th></th>
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</table>

<table>
<thead>
<tr>
<th>Evidence Strength:</th>
<th>□ Strong</th>
<th>□ Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overall Quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Magnitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Certainty</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits to Harms Balance*</th>
<th>□ Strong</th>
<th>□ Weak</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Patient Ideals Values / Preferences*</th>
<th>□ Strong</th>
<th>□ Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consistent/Variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Known/Unknown</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gaps in the literature</th>
<th></th>
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</thead>
</table>

### Section B: Benefit/Harm and Patient Values Assessment - this section should be completed when the benefits/harms or patient values for the described intervention merit detailed panel discussion.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Benefit to Harm Ratio</th>
<th>Patient Values / Preferences Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Very acceptable benefits to harms</td>
<td>□ Consistent</td>
<td>□ Variable</td>
</tr>
<tr>
<td>□ Equal benefit and harm</td>
<td>□ Known</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>□ Unclear</td>
<td></td>
<td></td>
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</tbody>
</table>

If needed, a detailed assessment of all important desirable and undesirable outcomes can be made (This can be used for benefit to harm or patient values, or both)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Patient Important?</th>
<th>Are We Certain?</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ High</td>
<td>□ Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Low</td>
<td>□ No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ High</td>
<td>□ Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Low</td>
<td>□ No</td>
<td></td>
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</table>
### Section C: Final Recommendation and strength rating

<table>
<thead>
<tr>
<th>Overall Rating:</th>
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<tbody>
<tr>
<td>□ Strong</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Final Recommendation</th>
<th>grade</th>
<th>arrows</th>
</tr>
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<tbody>
<tr>
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<td></td>
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