SPECIAL ARTICLE

Clinical Practice Guideline for the Diagnosis and Management of Urolithiasis in Adults (Protocol)

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Executive Summary

Urolithiasis, or urinary stone disease, is a significant health burden both globally and in the Philippines. It affects quality of life, causes substantial healthcare costs, and often leads to recurrent clinic and emergency department visits.

In response to the growing need for standardized, evidence-based, and locally relevant guidance, the Philippine Urological Association (PUA) initiated the development of the Philippine Clinical Practice Guideline (CPG) for the Diagnosis and Management of Urolithiasis.

Using the GRADE Adolopment methodology, this CPG aims to provide recommendations for the diagnosis and management of urinary stone disease.

A multidisciplinary team will be convened, and recommendations will be based on systematic reviews, best available evidence, clinical expertise, in the Philippine healthcare context. It will serve urologists, nephrologists, primary care providers, emergency physicians and policy-makers involved in urinary stone disease care.

This CPG intends to improve clinical decision-making, reduce variations in practice, optimize resource use and ultimately enhance patient outcomes nationwide.

Background

Global Burden of Urolithiasis

Urolithiasis, commonly known as urinary stone disease, is the formation of stones in the urinary tract. This disease entity remains a significant global health concern. It has exerted a significant burden of disability, morbidity, mortality and medical costs worldwide. In the Global Burden of Disease study in 2021, there were 106 million incident cases of urolithiasis, accounting for 17,700 deaths in both sexes. Urinary stone disease is also responsible for 694,000 disability adjusted life years (DALYs).[1]

A concurrence of multiple epidemiologic studies show that despite an increased global incidence, there has been a decreased age-standardized rate. These studies suggest that demographic shifts have occurred alongside advances in prevention and risk reduction.[1–3] Curiously, over the last two decades, there has been no markedly novel preventive intervention for urolithiasis worldwide, multiple studies posit that the decline may be related to a high influx of health advocates and associations providing evidence-based recommendations on preventive strategies for urolithiasis[1], as well as an increased access to information, education and

awareness initiatives of disseminating information and guidance to both patients and the general public.[4,5]

National Burden of Urolithiasis in the Philippines

In 2021, the Philippines accounted for 2,560,000 cases of urolithiasis, a number amounting to 20% of the total cases in Southeast Asia, second only to Indonesia in the region. Moreover, the Philippines recorded 22,600 age-standardized DALYs per 100,000, third highest in the world, and is also ranked fourth globally in age-standardized death rates at 0.7 per 100,000 cases, following Armenia, Kazakhstan and Trinidad and Tobago.[1] This especially underscores the need for standardization and a multidisciplinary initiative to improve disease outcomes.

Various local studies show that stone disease is largely under-reported and undisclosed[6,7] and detection efforts need to be streamlined to address morbidity and mortality outcomes. National efforts include House resolutions urging legislation to facilitate comprehensive programs for the prevention and treatment of urinary stone disease.[8] This guideline put forth by the Philippine Urological Association, in collaboration with stakeholders, is one such effort.

Necessity for Guidelines in Urolithiasis Management

The development and implementation of clinical guidelines for urolithiasis are essential due to several factors:

1. Standardizing Care Amidst Practice Variations: Variations in clinical practice can lead to inconsistent patient outcomes. Evidence-based guidelines provide a standardized approach to diagnosis, treatment and follow-up, ensuring uniform care of the highest quality.
2. Incorporating New Evidence into Practice: The field of urology is continually evolving, with new research introducing more effective diagnostic tools and treatment modalities. Regularly updated guidelines ensure that the latest evidence is integrated into clinical practice, optimizing patient outcomes.
3. Supporting Cost-Effective Interventions: Certain interventions for urolithiasis can have significant cost implications. Guidelines help in making informed decisions about the most efficient use of resources, balancing efficacy and cost-effectiveness.
4. Addressing Gaps in Existing Guidance: Emerging interventions or those not previously covered necessitate the development of new guidelines to provide clear recommendations for clinicians.

In the Philippine context, the absence of local guidelines tailored to the specific epidemiological and socio-economic landscape warrants an endeavor to factor in this context in patient management. Streamlined, appropriate and accessible recommendations would address local practice variations, incorporate region-specific evidence, and provide direction on cost-effective interventions suitable for the country's healthcare system and patient demographic.

Scope

This Clinical Practice Guideline (CPG) addresses the diagnosis and management of patients with urolithiasis, encompassing renal (nephrolithiasis) and ureteral stones (ureterolithiasis), irrespective of stone composition, unless otherwise specified within particular recommendations.

Specifically, the scope of this CPG includes:

- Patient Population:
  The recommendations apply to adult patients (aged 18 years and older) diagnosed with urolithiasis. Management of pediatric patients (under 18 years of age) is outside the scope of this guideline.

- Healthcare Setting:
  The CPG is intended for use across primary care and specialty care settings in the Philippines, including general practice, internal medicine and its subspecialties, emergency medicine and surgery. It is applicable to outpatient care, inpatient care and emergency department management.

- Disease Aspects Covered:

    - Diagnosis:
      Identification of clinical signs and symptoms suggestive of urolithiasis, and appropriate use of diagnostic modalities such as imaging and laboratory investigations to identify patients with urinary tract stones who will benefit from either further testing or from management.

    - Management:
        - General Therapy: Non-surgical and supportive interventions including pharmacologic therapies for symptom relief (e.g., pain management, medical expulsive therapy, medical chemolysis or stone dissolution) and non-pharmacologic, non-surgical strategies (e.g., hydration, dietary counseling).
        - Specialist Therapy: Criteria for types of sub-specialty care and guidance on surgical and procedural interventions such as extracorporeal shock wave lithotripsy (ESWL), ureteroscopy and percutaneous nephrolithotomy (PCNL).

Objectives

The objective of this project is to develop clinical practice guidelines (CPGs) in the Philippines for the management of adult patients with urolithiasis across primary and specialty care settings, utilizing the best available scientific evidence and considering the economic implications of diagnostic tests and pharmacologic therapies.

Specifically, this guideline aims:

1. To address key clinical questions—prioritized for their relevance to Philippine practice and variability in care—concerning the diagnosis and management of adult patients with urolithiasis.
2. To determine the utility, effectiveness and safety of diagnostic tests and treatment interventions used in the management of urolithiasis.
3. To assess the certainty of the evidence supporting the use of each selected diagnostic and therapeutic intervention, using systematic and transparent appraisal methods.
4. To formulate evidence-based recommendations to guide clinicians in the appropriate diagnosis and management of patients with urolithiasis, taking into account both clinical benefit and resource considerations.

These guidelines are intended to standardize the care of patients with urolithiasis, reduce practice variability, integrate new and emerging evidence into clinical practice, and promote the rational use of healthcare resources.

Expected Target Users and Institutions

The primary target users of this Clinical Practice Guideline (CPG) are healthcare professionals involved in the diagnosis, management, and follow-up of patients with urolithiasis in the Philippines. These include, but are not limited to, primary care physicians, general practitioners, family medicine specialists, internists, nephrologists, emergency medicine physicians, urologists and general surgeons.

In addition to individual healthcare providers, the guideline is also intended for use by training institutions, as well as primary, secondary, and tertiary-level healthcare facilities. Furthermore, public and private health insurance providers such as PhilHealth and Health Maintenance Organizations (HMOs) may reference this CPG in the formulation of reimbursement policies and benefit packages.

This guideline may also serve as a resource for policy-makers, payors, hospital administrators and employers.

Related Guidelines

This is the first Philippine clinical practice guideline on urinary stone disease.

Working Groups

1. Conflict of Interest Review Committee (COIRC)
    a. Alvin Marcelo, MD

b. Noemi Buensuceso, MD
c. Vincent Tanseco, III, MD
d. Joseph Adrian Buensalido, MD

2. Steering Committee (SC)
   a. Sylvia Alip, MD – Philippine Urological Association
   b. Jason Arboleda, MD - Philippine College of Emergency Medicine
   c. Daniel Guevara, MD - Philippine Society of Nephrology
   d. Rowena Plumo, MD - Philippine Academy of Family Physicians

3. Nominated Guideline Panel Stakeholder groups (GP)
   a. Philippine Urological Association
   b. Philippine College of Emergency Medicine
   c. Philippine Society of Nephrology
   d. Philippine Academy of Family Physicians
   e. Philippine College of Physicians
   f. Philippine Society of General Internal Medicine
   g. Philippine Association of Patient Organizations
   h. Department of Health
   i. Philippine Association of Nutriritionists

4. Technical Working Group (TWG)
   a. Technical Lead: Dr. Aldrich Ivan Lois D. Burog
   b. Evidence Reviewers
      i. Dr. Ian Theodore Cabaluna
      ii. Dr. Karl Murillo
      iii. Dr. Jayson Villavicencio
      iv. Dr. Hannah Almenario
      v. Dr. Darwin Del Rosario
      vi. Dr. Mayo Viray
   c. Guideline Panel Facilitator : to be determined
   d. Technical Writer : to be determined

Conflict of Interest Management

To ensure transparency and safeguard the integrity of the Philippine Urolithiasis Clinical Practice Guideline (PUA CPG) development process, the PUA-CPG Committee convened an independent Conflict of Interest Review Committee (COIRC). This committee is composed of four healthcare professionals who are independent of the field of urology and not involved in the CPG development.

All nominated members of the CPG Task Force—including the Steering Committee (SC), Guideline Panelists (GP), Technical Working Group (TWG) and Administrative Support Staff—will be required to submit their curriculum vitae and complete the PUA-CPG Conflict of Interest Declaration Form prior to their participation. The form requires full disclosure of any financial or intellectual conflicts of interest within the past four years.

The COIRC will independently review all submitted documents to determine the nature and extent of any disclosed conflicts. Based on the PUA-CPG COI policy (see Appendix 1), the committee will classify each individual's conflict of interest and provide recommendations on eligibility and the extent of participation, aligned with the individual's assigned role in the CPG process.

The following COI classifications and corresponding management strategies will be applied:

1. Allowed / Acceptable – No relevant financial or intellectual conflicts of interest. Full participation in all activities, including evidence appraisal and voting, will be permitted.
2. Manageable B (Broadcast) – Typically applied to intellectual conflicts of interest (e.g., affiliations with related organizations, authorship of relevant studies, or leadership roles). These members will be allowed to participate fully and vote, but will be required to verbally declare their COIs during guideline meetings and in the final manuscript.
3. Manageable C – Applies to individuals with both intellectual and limited financial conflicts of interest. These members may contribute as resource persons but will not be allowed to vote on recommendations in which they may have potential conflict. This includes representatives from implementing government agencies or the funding organization. Specific terms of participation will be determined by the COIRC on a per-question basis.
4. Disqualified – Applied when an individual has significant financial and intellectual conflicts that may compromise objectivity. These individuals will not be permitted to participate in the guideline development process.

Following the COIRC's recommendations:

- The Steering Committee will finalize the composition of its own members, and subsequently approve the membership of the Technical Working Group, Guideline Panelists, and other CPG working groups.
- Appropriate COI management strategies—including restrictions on voting, authorship, or participation in evidence appraisal—will be implemented and documented accordingly.

All COI declarations will be reviewed and updated prior to the Guideline Panel Consensus Meeting. All declarations of potential conflicts of interests will be presented during the meeting.

Identification and Prioritization of Clinical Questions

A preliminary list of clinical questions on the diagnosis and management of urolithiasis was compiled during a CPG workshop attended by PUA and PURA (Philippine Urology Resident Association) members on May 25, 2024. The SC members representing non-PUA organizations also nominated clinical questions for possible inclusion in the CPG. The SC had a prioritization meetings on March 20 and March 30 to short list the questions to 10, taking the following into consideration:

1. Uncertainty in practice / common question in practice
2. Variation in practice
3. New evidence for consideration
4. Cost considerations / significant resource use
5. Question not previously or sufficiently addressed

A virtual discussion between the SC and the technical lead to finalize the list of questions. The proposed guideline questions are in the table below.

Guideline Question 1.	Should ultrasonography be used versus non-contrast computed tomography (NCCT or CT stonogram) in patients consulting for flank pain or acute renal colic?
Review Question 1.	In individuals suspected of having urolithiasis (i.e., patients consulting for flank pain or acute renal colic), how accurate is ultrasonography compared to non-contrast computed tomography (NCCT or CT stonogram) in diagnosing urolithiasis?
P (Population)	Patients consulting for flank pain or acute renal colic
I (Index Test)	Ultrasonography
R (Reference Standard)	Non-contrast computed tomography (NCCT or CT stonogram)
T (Outcomes) Anticipated outcomes	Efficacy outcomes: ● Time-to-diagnosis ● Sensitivity, Specificity ● Likelihood ratios ● Missed diagnosis (False negative) ● Overtreatment/overdiagnosis (False positive) Safety outcomes: Adverse events
Subgroups (If necessary)	Subgroup Analyses: ● Outpatient Department (OPD) settings ● Emergency Department (ED) settings ● Age and Sex

Guideline Question 2.	Should NSAIDs be used in patients consulting for acute renal colic?
Review Question 2.	In people consulting for acute renal colic, how effective and safe are NSAIDs compared with opioids or combination therapy on pain relief, time to pain relief, length of hospital stay, and adverse events?
P (Population)	Patients consulting for acute renal colic
I (Intervention)	NSAIDs (Oral or intravenous or IM)
C (Comparator)	Opioids monotherapy
O (Outcomes) Anticipated outcomes	Efficacy outcomes: ● Pain relief ● Time-to-pain relief ● Length of hospital stay (stay in the ED until discharge) Safety outcomes: ● Adverse events (e.g., gastrointestinal upset, sedation, respiratory depression)
Subgroups (If necessary)	Subgroup by setting: ED setting vs outpatient clinic Subgroup by comparator (i.e., different opioids) Subgroup by route of giving NSAIDs (IV, IM); Subgroup different types of NSAIDs, if applicable

Guideline Question 3.	Should tamsulosin be used in patients consulting for acute renal colic or for flank pain?
Review Question 3.	In people consulting for acute renal colic or for flank pain, how effective is tamsulosin as add-on therapy to standard of care compared with standard of care on pain relief, time to pain relief, length of hospital stay, and adverse events?
P (Population)	Patients consulting for acute renal colic or for flank pain (i.e., with suspicion of stone disease)
I (Intervention)	Tamsulosin added to standard of care/usual care
C (Comparator)	Standard of care/usual care (e.g., NSAIDs, none/increased oral fluid intake, etc.)
O (Outcomes) Anticipated outcomes	Efficacy outcomes: ● Pain relief ● Time to pain relief ● Length of hospital stay ● Stone passage Safety outcome: ● Adverse events (e.g., hypotension, dizziness, gastrointestinal upset)
Subgroups (If necessary)	Subgroup by setting: ED setting, outpatient clinic Subgroup by SoC used

Guideline Question 4.	Should anti-spasmodics (e.g., hyoscine-N-butylbromide, otilonium bromide, pinaverium) be used in patients consulting for acute renal colic or for flank pain?
Review Question 4.	In people consulting for acute renal colic or for flank pain, how effective and safe are anti-spasmodics (e.g., hyoscine-N-butylbromide, otilonium bromide, pinaverium) as an add-on therapy to other treatments (e.g., NSAIDs, opioids, propulsives) on pain relief, time to pain relief, stone passage, and adverse events?
P (Population)	Patients consulting for acute renal colic or for flank pain
I (Intervention)	Anti-spasmodics (e.g., hyoscine-N-butylbromide, otilonium bromide, pinaverium) as add-on therapy to other treatments ((e.g., NSAIDs, opioids, propulsives)
C (Comparator)	Standard of care (e.g., NSAIDs, opioids, propulsives)
O (Outcomes) Anticipated outcomes	Efficacy outcomes: ● Pain relief ● Time to pain relief ● Length of hospital stay (stay at the ED before discharge when pain-free) Safety outcome: ● Adverse events (e.g., hypotension, dizziness, gastrointestinal upset)
Subgroups (If necessary)	Subgroup by setting: ED setting, outpatient setting Subgroup by SoC used Subroup by anti-spasmodic used

Guideline Question 5.	Should propulsives (e.g., metoclopramide) be used in patients consulting for acute renal colic or for flank pain?
Review Question 5.	In people consulting for acute renal colic or for flank pain, how effective and safe are propulsives (e.g., metoclopramide) as an add-on therapy to SoC/other treatments (e.g., NSAIDs, opioids, anti-spasmodics) on pain relief, time to pain relief, resolution of nausea and adverse events?
P (Population)	Patients consulting for acute renal colic or for flank pain
I (Intervention)	Propulsives (e.g., metoclopramide) as add-on combination with other treatments (e.g., NSAIDs, opioids, anti-spasmodics)
C (Comparator)	SoC/Other treatments (e.g., NSAIDs, opioids, anti-spasmodics)
O (Outcomes) **Anticipated outcomes**	Efficacy outcomes ● Resolution of nausea and vomiting ● Prevention of nausea and vomiting ● Length of hospital (ED stay) ● Pain relief ● Time-to-pain relief Safety outcomes ● Adverse events
Subgroups (If necessary)	Subgroup by setting: ED setting, outpatient setting Subgroup by SoC used Subgroup by type of propulsive used

Guideline Question 6.	Should coconut water (i.e., buko juice) be used in patients consulting at the outpatient clinic for urolithiasis?
Review Question 6.	In people consulting at the outpatient clinic for urolithiasis, how effective and safe is coconut water (buko juice) compared with increased fluid intake alone (>2 liters, >3 liters) on stone-free rate (by ≤7 days, 8 to 15 days, and 16 to 30 days), time-to-stone-free status, adverse events, and re-treatment rate?
P (Population)	Patients consulting for urolithiasis
I (Intervention)	Coconut water (e.g., from buko juice)
C (Comparator)	Increased fluid intake alone (>2 liters or >3 liters per day) or no treatment
O (Outcomes) **Anticipated outcomes**	Efficacy outcomes: ● Stone-free rate (≤7 days, 8 to 15 days, 16 to 30 days); by dissolution, expulsion ● Time-to-stone-free status ● Re-treatment rate (need for second intervention) ● Pain relief Safety outcome: ● Adverse events (e.g., hyperkalemia, GI upset in susceptible individuals, hyperglycemia) ● Development of new stones
Subgroups (If necessary)	By stone composition By stone burden (size of the stone) By stone location (nephrolithiasis, ureteral stone)

Guideline Question 7.	Should Rowatinex be used in patients consulting for urolithiasis with a total stone burden less than 1 cm?
Review Question 7.	In people consulting for urolithiasis with a total stone burden <1 cm, how effective and safe is Rowatinex compared with no treatment on stone-free rate (by ≤7 days, 8 to 15 days, and 16 to 30 days), time to stone dissolution, adverse events, and re-treatment rate?
P (Population)	In people consulting for urolithiasis
I (Intervention)	Pinene (α + β), 15 mg of Camphene, 3 mg of Cineol, 4 mg of Fenchone, 10 mg of Borneol, 4 mg of Anethol and 33 mg of Olive Oil alone or as add-on to usual care
C (Comparator)	Usual care
O (Outcomes) **Anticipated outcomes**	Efficacy outcomes: ● Stone-free rate (≤7 days, 8–15 days, 16–30 days) ● Time to stone free status ● Re-treatment rate (need for second intervention) ● Episodes of renal colic / acute flank pain / ER consult due to pain Safety outcome: ● Adverse events (e.g., GI symptoms, allergic reactions)
Subgroups (If necessary)	By stone burden By stone location (Nephrolithiasis; Include ureteral stones in search)

Guideline Question 8. **Should A* be used in patients with <insert here>?**	Should Sambong be used in patients consulting for urolithiasis with a total stone burden less than 1 cm?
Review Question 8.	In people consulting for urolithiasis with a total stone burden <1 cm, how effective is Sambong alone or as add-on to usual care compared with usual care or no treatment on stone-free rate (by ≤7 days, 8 to 15 days and 16 to 30 days), time to stone dissolution, adverse events and re-treatment rate?
P (Population)	Patients consulting for urolithiaisis with a total stone burden <1 cm
I (Intervention)	Sambong alone or as add-on to usual care
C (Comparator)	Usual care
O (Outcomes) **Anticipated outcomes**	Efficacy outcomes: ● Stone-free rate (e.g., ≤7 days, 8 to 15 days, 16 to 30 days) ● Time-to-stone-free status ● Re-treatment rate (need for second intervention) ● Change in stone burden ● Pain relief Safety outcome: ● Adverse events (e.g., allergic reactions, gastrointestinal symptoms, hepatotoxicity)
Subgroups (If necessary)	By stone burden By stone location (Include ureteral stones in search; nephrolithiasis)

Guideline Question 9.	Should sodium citrate be used instead of potassium citrate in patients consulting for urolithiasis?
Review Question 9.	In people consulting for urolithiasis, how effective is sodium citrate compared with potassium citrate on stone-free rate (by ≤7 days, 8 to 15 days, and 16 to 30 days), time to stone dissolution, adverse events and re-treatment rate?
P (Population)	Patients consulting for urolithiasis
I (Intervention)	Sodium citrate
C (Comparator)	Potassium citrate
O (Outcomes) **Anticipated outcomes**	Efficacy outcomes: ● Stone-free rate (≤7 days, 8 to 15 days, 16 to 30 days) ● Time-to-stone-free status ● Re-treatment rate (need for second intervention) ● Change in stone size ● Pain relief Safety outcome: ● Adverse events (e.g., gastrointestinal discomfort, electrolyte disturbances) ● Lack of efficacy due to discontinuation/drop-out for any reason
Subgroups (If necessary)	Stone burden Stone location

Guideline Question 10.	Should extracorporeal shockwave lithotripsy (ESWL) be used in patients with nephrolithiasis with a total stone burden between 1 to 2 cm?
Review Question 10.	In patients with nephrolithiasis with a total stone burden between 1 to 2 cm, how effective is extracorporeal shockwave lithotripsy (ESWL) compared with other minimally invasive stone treatments (retrograde intrarenal surgery, percutaneous nephrolithotripsy, mini-percutaneous nephrolithotripsy, or laparoscopy) on stone-free rate (by ≤7 days, 8 to 15 days, and 16 to 30 days), time to stone dissolution, adverse events and re-treatment rate?
P (Population)	Patients with nephrolithiasis with a total stone burden between 1 to 2 cm
I (Intervention)	Extracorporeal shockwave lithotripsy (ESWL)
C (Comparator)	Other minimally invasive treatments: ● Retrograde intrarenal surgery (RIRS) ● Percutaneous nephrolithotripsy (PCNL) ● Mini-percutaneous nephrolithotripsy (Mini-PCNL) ● Laparoscopy
O (Outcomes) **Anticipated outcomes**	Efficacy outcomes: ● Stone-free rate (≤7 days, 8 to 15 days, 16 to 30 days) ● Time-to-stone-free status ● Re-treatment rate (need for second intervention) Safety outcome: ● Adverse events (e.g., bleeding, infection, renal trauma, anesthesia-related risks)
Subgroups (If necessary)	● Stone location (inferior pole versus non-inferior pole) ● Stone composition (HU) ● Comparison MIS modality

Evidence Review Questions Formulation

Once the clinical questions to be addressed by the guidelines are finalized, the Technical Lead, in coordination with the Steering Committee (SC), will develop the corresponding evidence review questions using the PICO (Population, Intervention, Comparator, Outcome) or PIRT (Population, Index Test, Reference Standard, Target Outcome) format, depending on whether the question pertains to therapy or diagnosis.

Each PICO/PIRT question will specify:

- The patient population
- The intervention or diagnostic test under consideration
- The comparator or alternative strategy
- The outcomes of interest

Following the development of these structured questions, a comprehensive list of outcomes across all clinical questions will be generated.

All proposed outcomes will then be rated for their importance to decision-making by the Guideline Panel members, using a 9-point GRADE scale:

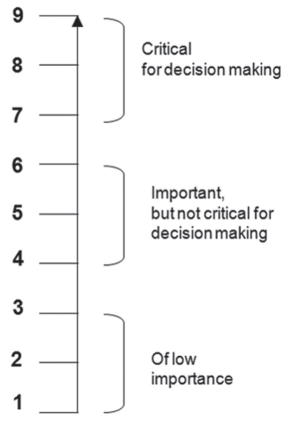

Figure 2. Interpretation of the numerical ranking for critical outcomes.

Guideline panelists will be asked to independently rate each outcome through an online or paper-based survey. The ratings will be averaged, and the critical outcomes with the highest mean scores will be prioritized.

For each guideline question, the top seven outcomes (ranked as most critical/important) will be retained for the evidence synthesis, certainty assessment and recommendation development, in accordance with the GRADE approach.

Evidence Review and Synthesis

Mode of CPG Development

The guideline will be developed through the GRADE Adolopment approach, allowing the CPG Task Force to adopt, adapt, or create de novo recommendations based on a systematic evaluation of existing guidelines and evidence bases.

Selection of Reference CPGs for Adoption/ Adaption

An extensive search for existing high-quality clinical practice guidelines was undertaken in June 2024 using MEDLINE via PubMed, Google Scholar, and the websites of major urological societies including the American Urological Association (AUA), European Association of Urology (EAU), Urological Association of Asia (UAA), Federation of ASEAN Urological Associations (FAUA), and national societies prioritizing those from Asian and LMIC (low- and middle-income country) contexts.

Candidate CPGs were appraised using the AGREE II tool[9] by at least two independent reviewers who are members of the PUA and Philippine Urological Residents Association (PURA), and the PUA-CPG Committee Chair Guidelines were considered eligible if they demonstrate good quality (≥75% score) in at least five AGREE II domains, without any failing scores (≤40%) in the Scope and Purpose and Rigor of Development domains. The average scores for each domain will be computed. The following quality assessment thresholds will be applied as per Table 1.

For CPGs assessed to be of good quality, the recommendations that address the proposed guideline questions will be identified. The quality and recency of the evidence review underpinning each recommendation will be assessed. The evidence-to-decision framework parameters considered in each recommendation will also be evaluated if these are similar and applicable to the local context.

The adaptation pathway will depend on the appraisal results:

- When both the evidence base and the evidence-to-decision framework parameters are found to be satisfactory, the recommendations will be adapted.
- If the evidence base is of sufficient quality but the evidence-to-decision framework elements are found to be unsatisfactory, new recommendations will be formulated by the guideline panel, using the evidenced base from the CPG.
- When both the evidenced base and evidence-to-decision framework parameters are deemed insufficient, a systematic review will be performed and new recommendations will be developed de novo.

The results of the guideline assessments will be presented as a separate publication.

Systematic Search Strategy

When existing high-quality clinical practice guidelines or systematic reviews do not provide direct

Table 1. Quality assessment thresholds for AGREE-II for CPGs

Domain	Good Quality Score	Failing Score
Scope and Purpose	≥ 75%	≤ 40%
Stakeholder Involvement	≥ 75%	≤ 40%
Rigor of Development	≥ 80%	≤ 40%
Clarity of Presentation	≥ 75%	≤ 40%
Applicability	≥ 75%	≤ 40%
Editorial Independence	≥ 75%	≤ 40%
Overall Quality Assessment	≥ 75%	≤ 40%

or applicable evidence for a specific clinical question, de novo systematic reviews and meta-analyses will be conducted. Literature searches will be performed in major international databases including MEDLINE (via PubMed), CENTRAL (Cochrane Central Register of Controlled Trials), and Google Scholar. Local databases such as HERDIN and the PCEDM registry of research outputs will also be consulted to identify relevant Philippine-based studies.

Search strategies will be designed around the structured PICO (Population, Intervention, Comparator, Outcome) or PIRT (for diagnostic questions) framework of each guideline question. Search terms will include both Medical Subject Headings (MeSH) and free-text keywords. Where needed, authors of relevant articles, particularly local research, will be contacted for full texts or clarifications. A separate strategy will be used to locate cost-effectiveness or economic evaluations where applicable.

Inclusion and Exclusion Criteria

Studies will be included if they are aligned with the structured PICO or PIRT questions and report patient-important outcomes identified as critical or important by the Guideline Panel. Studies that do not directly address the clinical question or that report surrogate or irrelevant outcomes will be excluded to maintain consistency and relevance.

Risk of Bias (Quality) Assessment of Included Studies

Quality and risk of bias assessments will be conducted using validated tools appropriate to the study design:

- AMSTAR-2 for systematic reviews[10]
- Cochrane RoB 2.0 tool for randomized controlled trials [11]
- ROBINS-I for non-randomized studies of interventions[12]
- QUADAS-2 for diagnostic accuracy studies[13]
- Newcastle-Ottawa Scale (NOS) for observational cohort and case-control studies[14]

Two reviewers will independently assess the risk of bias for each included study. Discrepancies will be resolved through consensus or by a third reviewer.

Data Extraction and Evidence Retrieval

A customized data extraction form will be used to systematically collect information on study characteristics and findings. The extracted data will include the study design and setting, sample size and population characteristics, details of the intervention and comparator, and the type of randomized controlled trial (e.g., superiority or non-inferiority). Key outcomes such as stone-free rates, recurrence, and adverse events will also be recorded, along with the results, effect estimates, and corresponding confidence intervals. Two reviewers will extract data independently, and any discrepancies will be resolved through discussion or, if necessary, adjudication by a third reviewer.

Synthesis of the Evidence

Where appropriate, meta-analyses will be performed using Review Manager (RevMan 5.0). Effect measures will include risk ratios (RR), odds ratios (OR), mean differences (MD), and 95% confidence intervals (CI), depending on the outcome type.

For diagnostic accuracy reviews, meta-analysis will be performed using MetaDisc 2.0. Pooled sensitivity and specificity using bivariate analysis (or univariate analysis when less than 4 studies are included).

In cases where meta-analysis is not appropriate due to heterogeneity in study design, populations, interventions, or outcome measurement, a narrative synthesis will be conducted. All synthesized evidence will be presented in GRADE Summary of Findings (SoF) tables.

Evidence Synthesis Using the GRADE Approach

The Evidence Review Experts (EREs) will evaluate the certainty of the evidence for each outcome individually. An overall certainty rating for the body of evidence will then be determined, anchored to the outcome with the lowest certainty among those rated as critical to decision-making. This rating reflects the confidence in the estimated effect and whether it is sufficient to support a recommendation.

GRADE categorizes evidence into four levels of certainty: High, Moderate, Low and Very

Low. Evidence from randomized controlled trials (RCTs) begins as high certainty, while evidence from observational studies starts at low certainty due to the possibility of residual confounding. The interpretation of each certainty level is summarized below:

Once the initial certainty is established (e.g., high for RCTs), the rating may be downgraded or upgraded based on specific domains. The certainty can be lowered due to: (1) risk of bias from individual study limitations, (2) imprecision of the effect estimate (e.g., wide confidence intervals), (3) inconsistency in results across studies, (4) indirectness of evidence relative to the population or interventions of interest, and (5) publication bias, especially when evidence may be missing or selectively reported. On the other hand, certainty may be upgraded (only for observational studies) if there is a large effect size, a dose-response gradient, or if it is unlikely that confounding influenced the observed outcome.

Since GRADE assesses the body of evidence at the outcome level, the EREs will determine whether any substantial bias in individual studies diminishes confidence in the pooled estimate of effect. Imprecision will be a concern when the 95% confidence interval spans a range that might change clinical decisions depending on the actual effect. Certainty may also be downgraded when only a few small studies contribute to the evidence or when the number of events is limited.

To assess inconsistency, the variation in point estimates and the overlap of their confidence intervals will be reviewed, using heterogeneity statistics such as I^2 and the chi-square test. Indirectness will be considered when the studies do not align with the population, intervention, or outcomes relevant to the Philippine context—for example, if the population studied differs significantly from Filipino patients or if surrogate outcomes are reported instead of direct clinical outcomes.

Publication bias will be assessed by examining potential missing studies, using visual tools such as funnel plots and statistical indicators. Factors such as study size (small vs. large), study design (experimental vs. observational), time-to-publication (lag bias), and comprehensiveness of the search strategy will also be considered in evaluating the risk of bias due to selective publication.

Use of the Core GRADE Framework

In addition to the standard GRADE domains, assessments will incorporate Core GRADE principles as outlined in the updated 2025 BMJ series[15–18]. Core GRADE emphasizes explicitly defining the target of certainty rating—whether the goal is to determine the presence of any true effect (using the null threshold) or to assess whether the effect is important from the patient's perspective (using the minimal important difference, MID). This distinction guides how imprecision and inconsistency are interpreted. For imprecision, Core GRADE recommends downgrading if the confidence interval crosses the relevant threshold and provides structured rules for assessing the optimal information size (OIS)[17]. For inconsistency, Core GRADE users assess the variation in point estimates and CI overlap in relation to the chosen threshold and explore potential sources of heterogeneity using a priori subgroup

Table 2. GRADE categories of certainty of evidence.

Certainty of Evidence	Interpretation
Very low ⊕◯◯◯	The true effect is probably markedly different from the estimated effect [the estimate of the effect is very uncertain].
Low ⊕⊕◯◯	The true effect might be markedly different from the estimated effect [further research is very likely to have an important impact].
Moderate ⊕⊕⊕◯	The true effect is probably close to the estimated effect [further research is likely to have an important impact].
High ⊕⊕⊕⊕	The authors have a lot of confidence that the true effect is similar to the estimated effect [further research is unlikely to change our confidence in the estimate of the effect].

hypotheses. This structured and patient-centered approach ensures the certainty rating is meaningful for decision-making, especially within the Philippine clinical context.

Core GRADE also provides updated guidance on assessing risk of bias, publication bias and reasons for rating up certainty. For risk of bias, it emphasizes evaluating the proportion of evidence from studies at high risk and considering the impact on the overall effect estimate. Publication bias assessment includes examining the likelihood of missing studies and their potential influence on the results. Additionally, Core GRADE outlines criteria for upgrading certainty in observational studies, such as the presence of a large effect size, a dose-response gradient, or if all plausible confounding would reduce a demonstrated effect[18].

Evidence to Recommendation

For each clinical question, recommendations will be developed using the GRADE Evidence-to-Decision (EtD) framework, supported by the GRADEpro online software (https://www.gradepro.org). The Evidence Review Experts (EREs) will generate a Summary of Findings (SoF) table for each outcome, summarizing the best available evidence and assigning an overall certainty rating. These SoF tables will be presented to the expert panel during the recommendation formulation phase.

The EtD framework will guide the panel in translating evidence into actionable recommendations, taking into account several key domains (See Appendix 3 and 4), including:

- Importance and rationale of the question
- Evidence of test accuracy (for diagnostic questions)
- Evidence of benefit versus harm, including net benefit or harm
- Certainty of the evidence for benefit and harm
- Resource use, costs, and cost-effectiveness
- Availability and accessibility of the intervention
- Values and preferences of patients and providers

The Evidence Reviewers will supply relevant research evidence for each of these domains, as applicable to the clinical question at hand.

Determining the Direction and Strength of Recommendations

During consensus meetings, the wording and strength of each recommendation will be decided by the panel through deliberation and voting. The panel will consider the domains listed in Table 7 to guide their judgments:

Basic Policy for Formulating Recommendations

The Guideline Panelists will be provided with the evidence summaries at least two weeks

Table 3. Domains that contribute to the strength of a recommendation.

Domain	Comment
Balance between desirable and undesirable outcomes (trade-offs) e.g. prevention of complications of diabetes versus adverse effects of drugs, taking into account: - Best estimates of the magnitude of effects on desirable & undesirable outcomes - Importance of outcomes (estimated typical values and preferences).	The larger the differences between desirable and undesirable outcomes, the more likely a strong recommendation is warranted. The smaller the net benefit and the lower the certainty for that benefit, the more likely is a weak recommendation warranted.
Confidence in the magnitude of estimates of effect of the interventions on important outcomes (overall quality of evidence for outcomes)	The higher the quality of evidence, the more likely a strong recommendation is warranted.
Confidence in values and preferences, and their variability	The greater the variability in values and references, or uncertainty about typical values and preferences, the more likely a weak recommendation is made.
Resource use.	The higher the cost of an intervention (the more resources consumed), the less likely a strong recommendation is warranted.

Source: Schünemann H, Brożek J, Guyatt G, and OxmanA (eds). GRADE Handbook. October 2013.

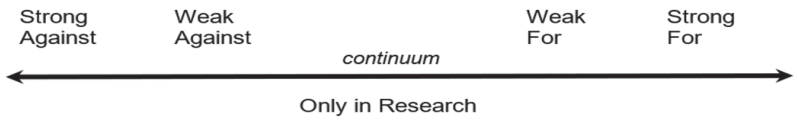

Figure 3. Strength of recommendation: a continuum divided into categories.

before the scheduled consensus panel meeting. In addition, the GRADE EtD worksheets for each of the guideline question will also be provided and Panelists will provide their insights and judgements for each parameter. Their completed worksheets will be consolidated and presented during the Guideline Panel Consensus meeting to serve as discussion take off points.

The recommendation for each question and its strength will be determined through voting. A consensus decision is considered reached if 75% of all voting Guideline Panel members agree, in accordance with the Department of Health Philippines Manual for Clinical Practice Guideline Development (2018)[19]. If consensus is not achieved in the first round of voting, further discussion and clarification will be encouraged. Up to two additional rounds of voting will be conducted to try to reach consensus. If consensus still cannot be reached after three rounds, a Delphi method of anonymous voting will be implemented as outlined in the manual.

A strong recommendation means that the panel is "confident that the desirable effects of adherence to a recommendation outweigh the undesirable effects" while a weak recommendation means that the "desirable effects of adherence to a recommendation probably outweigh the undesirable effect but is not confident."

Barriers and Facilitators

As part of the CPG development process, the Task Force will proactively identify and document potential facilitators and barriers to the future implementation of the Philippine Urolithiasis Clinical Practice Guideline (PUA CPG). Information on these factors will be gathered through structured discussions with the Guideline Development Group (GDG), as well as targeted engagements with other key stakeholders, including practicing urologists, primary care providers, hospital administrators and representatives from government agencies and patient groups.

Feedback will be obtained through online surveys, key informant interviews, and consensus panel deliberations. These activities will explore real-world enablers and challenges related to diagnostic capacity, referral pathways, surgical services, preventive care and reimbursement.

Anticipated facilitators may include:

- Strong support and leadership from the Philippine Urological Association (PUA)
- Availability of trained specialists and increasing interest in guideline-concordant care
- Government programs that provide financial assistance for diagnostics and procedures (e.g., MAIP, PhilHealth coverage)
- Integration of guideline content into residency training programs and institutional protocols

Potential barriers may include:

- Limited availability of imaging modalities (e.g., non-contrast CT scan) and metabolic evaluation in primary or secondary-level hospitals
- Out-of-pocket payment for diagnostics, surgery and maintenance therapy
- Variability in clinician familiarity with current evidence and management approaches, especially in remote areas
- Lack of standardized referral systems for complex cases or post-surgical follow-up
- Limited access to dietary counseling and stone analysis laboratories

Insights gathered on these facilitators and barriers will inform the value judgments of the consensus panel during the formulation of recommendation statements. They will be considered within the Evidence-to-Decision (EtD) framework, particularly for judgments on feasibility, acceptability and equity. These contextual factors will also guide implementation planning and help identify areas for future system strengthening and support.

Finalization of the CPG Manuscript

Writing the CPG Manuscript

The Clinical Practice Guideline (CPG) manuscript will be developed in accordance with the Department of Health Manual for Clinical Practice Guideline Development (2025 version). The Technical Writer will be responsible for drafting the manuscript by consolidating all finalized evidence summaries, consensus panel proceedings and other relevant documentation.

Throughout the writing process, the Technical Writer will work in close coordination with the Technical Lead and members of the Steering Committee (SC) to ensure that the content is accurate, complete and reflective of the discussions and decisions made during the guideline development process. This includes ensuring consistency in structure, appropriate use of GRADE terminology, and clear articulation of recommendations and justifications.

Once the initial draft of the CPG manuscript is completed, it will undergo internal review and be submitted to the SC Chair for approval. Upon endorsement, the manuscript will then proceed to external review in accordance with established procedures.

External Review

The draft Philippine Urolithiasis Clinical Practice Guideline (PUA CPG) will undergo a structured external review prior to its finalization and submission to the Department of Health (DOH) for inclusion in the national Compendium of Clinical Practice Guidelines. This review aims to enhance the overall quality and relevance of the guideline by incorporating expert feedback on the clarity, acceptability and implementability of the draft recommendations, as well as to ensure that the evidence is appropriately contextualized to urologic practice in the Philippines.

Methods of External Review

At least two independent external reviewers will be invited by the Steering Committee to evaluate the draft CPG using the AGREE-REX (Appraisal of Guidelines Research and Evaluation–Recommendation Excellence) tool and/or AGREE-II tool. One external reviewer will be a urologist who was not involved in the guideline development process. The other will be a non-urologist, to provide perspectives from a broader clinical or health systems lens.

External reviewers will be selected based on their professional expertise, independence from the CPG Task Force, and familiarity with clinical practice or health policy in the Philippine context. Their input will reflect both content-specific and methodological considerations, ensuring that the recommendations are sound, implementable, and responsive to local health system needs.

If the timing of the draft CPG's completion coincides with the Philippine Urological Association (PUA) Annual Convention, the draft recommendations will be presented to convention attendees. Feedback from participants will be documented and considered as part of the external review process. In addition, the draft manuscript will be submitted to the University of the Philippines Manila – Institute of Clinical Epidemiology for an independent review focused on methodological rigor, evidence synthesis, and adherence to national CPG development standards.

Use of Feedback in Finalization of the CPG

All feedback from external reviewers will be consolidated by the Technical Working Group and reviewed by the Steering Committee. Suggestions that improve the clarity, contextual relevance, or applicability of the recommendations will be integrated into the final guideline. For conflicting inputs, the Steering Committee will deliberate and make consensus-based decisions grounded in evidence, clinical judgment and methodological standards.

Implementation

Dissemination

The final version of the Urolithiasis Clinical Practice Guideline will be submitted to the Department of Health – Disease Prevention and Control Bureau (DOH-DPCB) for official review and

inclusion in the national Compendium of Clinical Practice Guidelines. Upon acceptance, it will also be made available for public access through the DOH website.

Digital copies of the full CPG will be disseminated to all institutions, professional societies and stakeholders that participated in the development of the guideline, including PhilHealth and selected health maintenance organizations (HMOs). These partner organizations will be encouraged to cascade the guideline to their respective networks and memberships to facilitate broader reach and implementation.

An abbreviated version of the CPG, including selected recommendations and supporting evidence summaries, will be submitted for publication in the Philippine Journal of Urology. The complete CPG manuscript will also be uploaded on the official website and social media platforms of the Philippine Urological Association (PUA) to ensure open public access.

Additional dissemination strategies may include media releases, online webinars, social media campaigns and dedicated presentations during annual scientific conferences of the PUA and other relevant medical societies.

Updating of the Guidelines

The Philippine Urolithiasis Clinical Practice Guideline will be reviewed and updated every three (3) years following its publication (i.e., next update by 2028), or earlier if warranted by new, high-certainty evidence from large-scale clinical trials, changes in the standard of care, the introduction of new technologies or interventions, revisions in national policies or clinical resources, or shifts in the values placed on patient outcomes. The Steering Committee will initiate the update process and oversee its implementation in coordination with the Department of Health (DOH), which may also recommend interim updates based on ongoing guideline relevance assessments.

The update process will follow the Department of Health Manual for Clinical Practice Guideline Development (2025 version), employing the GRADE approach for assessing the certainty of evidence and determining the strength of recommendations. If applicable, the GRADE-Adolopment approach and the Evidence-to-Decision (EtD) framework will be utilized to efficiently adapt and finalize revised recommendations.

Logistics and Resources

Funding Sources and Other Support

The PUA Urolithiaisis CPG development project is funded by the Philippine Urological Association. Logistical support to the CPG Task Force will be provided by the PUA Secretariat and the PUA CPG Committee. Technical assistance from the Institute of Clinical Epidemiology of the National Institutes of Health - University of the Philippines Manila will be sought through a critical review of the CPG protocol, the evidence summaries and the final CPG manuscript.

The PUA Executive Committee will not have any influence in the prioritization of the guideline questions and in the formulation of the recommendations of the CPG.

Budget

The PUA Urolithiasis CPG development project will work on a budget amounting to Php 1,200,000.00

Timelines / gantt chart

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Organization of working groups												
Selection of questions												
Completion of CPG protocol												
Evidence review												
SC review of evidence summaries												
Guideline panel meeting												
CPG manuscript draft and review												
Submission to CPG to DOH												

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Appendices

Appendix 1 PUA-CPG COI Policy

PUA-CPG Committee Conflict of Interest Management Policy May 2024

This document details how the conflict of interests of the members of the Philippine Urological Association - Clinical Practice Guideline (PUA CPG) Task Force will be reviewed and managed. The policies within will be implemented by the Conflict of Interest (COI) Review Committee convened for each PUA-CPG Task Force.

Definition of Terms

1. Commercial entity – any group that manufactures, distributes, markets or sells, for profit, drugs, devices, equipment and services related to the condiGon of interest
2. CPG task force member nominee – an individual considered to take on a role in a PUA-CPG development project

COI Declaration, Review and Management Policies
The COI Review Committee

1. A COI Review Committee will be convened for each CPG development project.
2. The Committee will be composed of at least three members who are not PUA or Philippine Urological Residents Association (PURA) members.
3. The Committee will review the curriculum vitae and the declaratIon of conflict-of- interest forms of all the CPG task force member nominees and provide recommendations on the management of the COIs in the context of the role of the nominee in the project.

Declaration of COIs

1. All CPG task force member nominees shall fill up the PUA-CPG Conflict-of-Interest Form completely (see accompanying form).
2. Which COIs to declare
    a. Direct Financial Interests:
        i. employment in commercial entities
        ii. consulting services including, but not limited to, payment of honorarium for speakership, advisory board membership, technical consultancy by any commercial entity
        iii. ownership and investment including, but not limited to, proprietorship, board membership, holder of stocks of a commercial entity
        iv. research support including the provision of commissioned research grants by a commercial entity or receipt of solicited research grant from a commercial entity; this excludes research grants received as a result of winning a competition organized by a non-commercial entity which received an unrestricted grant from a commercial entity supporting the competition
        v. other academic and non-academic grants such as sponsorship for attendance to conferences, meetings (registration and/or travel and/or accommodation), sponsorship for sports events, etc
    b. Indirect / Non-financial Interests
        i. Intellectual property including any patent, copyright, trademark of products, processes, tools and other materials related to the topic of the CPG
        ii. Public statements and positions related to the topic of the CPG
3. Who should be covered by the declaration: The COI declaration should include the CPG task force nominee himself/herself and his/her immediate family relations (i.e. spouse, children and parents)
4. When is the covered period: All potential COIs in the recent one (1) year should be declared. Any new potential COIs that may arise during the guideline development process must be declared.
5. When is the declaration period: The declaration should be made at the beginning of the CPG development project and updated before the consensus panel meeting, if necessary.

COI Management Policies

1. The COI Review Committee will make its recommendations regarding the management of COI as follows:
    a. Allowed – the nominee can participate in all activities attendant to the assigned CPG task force role
    b. Broadcast – the nominee must disclose relevant COIs prior to CPG activities attendant to the role, particularly at the beginning of the consensus panel meetings
    c. Restricted – the nominee can participate in all the discussions but is not allowed to vote on recommendations on the specific topic of interest of the relevant COI
    d. Disallowed – the nominee cannot take on the assigned role due to significant COI
2. The PUA-CPG Guidelines Committee, as the CPG convenor, will appoint the members of the CPG task force, in consideration of the assessment and recommendations of the COI Review Committee and the provisions of the PUA-CPG Committee Management Policy.
3. The Steering Committee chair should have no financial COI, as much as possible. If no other person is identified to take on this role, he/she may have a financial COI but must have a co-chair with no financial COI.
4. Majority (>50%) of the Steering Committee should have no financial COI.
5. Members of the technical working group should have no major financial COI but may have non-financial COI for the specific topic they are involved in
6. Consensus panel members who have financial COIs on a specific topic cannot vote on such. Non-financial COIs are allowed but need to be broadcasted.
7. When a new potential COI is declared by a CPG Development Group member, the COI Review Committee will reevaluate the member and provide recommendations regarding the continued participation of the member.

Appeals Process

Decisions by the COI Review Committee may be appealed through a written request. The submitting nominee or the

PUA-Guidelines Committee should include any additional information and the potential justification for the appeal which will be re-evaluated by the COI Review Committee.

Appendix 2 - AGREE-II Assessments of CPGs

Domain	EAU	AUA	CUA Kidney	CUA Ureter	UAA
Scope and Purpose	93.70	85.71	85.00	74.57	80.95
Stakeholder Involvement	91.48	66.67	71.00	91.48	78.57
Rigor of Development	96.40	64.28	63.33	61.73	81.25
Clarity of Presentation	100.00	76.19	77.62	93.66	100.00
Applicability	61.90	35.71	54.14	35.07	78.57
Editorial Independence	50.00	78.57	71.43	52.35	85.71

Appendix Table 1. Summary of Agree-II CPG Domain Scores (in %)

Guideline: Medical Management of Kidney Stones: AUA Guideline

Guideline Developer: American Urological Association
Guideline Date: Published 2014; Reviewed and Confirmed Validity 2019
Assessors: Tagra JB, Alip SL
References / Source Documents Reviewed:

1. Pearle MS, Goldfarb DS, Assimos DG, Curhan G, Denu-Ciocca CJ, Matlaga BR, Monga M, Penniston KL, Preminger GM, Turk TMT & White JR. Medical management of kidney stones: AUA guideline. J Urol 2014; 192(2): 316–24. https://doi.org/10.1016/j.juro.2014.05.006
2. Unabridged guideline available online at https://www.auanet.org/documents/education/clinical-guidance/Medical-Management-of-Kidney-Stones.pdf
3. Guideline information available online at https://www.auanet.org/guidelines-and-quality/guidelines/kidney-stones-medical-mangement-guideline

Domain 1. Scope and Purpose
Over-all Domain Score: 85.71%

1. The overall objective(s) of the guideline is(are)specifically described.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - The guideline clearly describes its objectives, focusing on the medical management of kidney stones, including evaluation, prevention, treatment and follow up
2. The health question(s) covered by the guideline is(are) specifically described.
   Average Score: 7
   References: Ref 1, Ref 2
   Comment:
   - The guideline has listed various recommendations for the medical management of kidney stones organized into evaluation, diet therapy, pharmacologic therapy and follow up
3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.
   Average Score: 5
   References: Ref 1, Ref 2
   Comment:
   - The guideline has listed detailed recommendations for each target population of specific condition but could be further improved to include other characteristics.

Domain 2 : Stakeholder Involvement
Over-all Domain Score: 66.67%

1. The guideline development group includes individuals from all relevant professional groups.
   Average Score: 5
   References: Ref 1, Ref 2, Ref 3 under Section Panel Members
   Comments:
   - The guideline has included the process of panel selection and peer review process. However, it does not directly state the member's field of expertise but have stated that they included subject matter experts and reviewers of varying background in the development of the guideline
   - No details on CPG Working Group members save for affiliation
2. The views and preferences of the target population (patients, public, etc.) have been sought.
   Average Score: 3
   References: Ref 1, Ref 2
   Comment:
   - The guideline did not mention patient involvement in the development of the guideline.
3. Target users of the guideline are clearly defined.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - Each guideline statement states the specific target population for each recommendation but could be further improved

Domain 3 : Rigour of Development
Over-all Domain Score: 64.28%

1. Systematic methods were used to search for evidence.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - The guideline has stated in the methodology the steps and source of collecting evidence used for review and data extraction
2. The criteria for selecting the evidence are clearly described.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - The guideline has specified in their methodology the process of evidence selection including the inclusion and exclusion criteria
3. The strengths and limitations of the body of evidence are clearly described.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - The guideline discussed in the methodology the strength and limitation of the body of evidence as well

as stated specific tools used in classifying the quality of the studies and determination of evidence strength.

4. The methods for formulating the recommendations are clearly described.
   Average Score: 3
   References: Ref 1, Ref 2
   Comments:
   - The guideline discussed the method of classifying their recommendations vaguely depending on the risk to benefit ratio but has not thoroughly run through its development process
   - No evidence to decision tables, no publicly-accessible protocol available for review
5. The health benefits, side effects and risks have been considered in formulating the recommendations.
   Average Score: 4
   References: Ref 1, Ref 2
   Comment:
   - The guideline has discussed the benefits, side effects and risks of each particular recommendation on the discussion part. All of which are considered to reflect on the AUA Nomenclature System but was not thoroughly discussed
6. There is an explicit link between the recommendations and the supporting evidence.
   Average Score: 5
   References: Ref 1, Ref 2
   Comments:
   - Each recommendation is followed by supporting reference to the evidence that forms the basis of the recommendation as superscripted in the statement
   - No evidence to decision tables, no publicly-accessible protocol available for review
7. The guideline has been externally reviewed by experts prior to its publication.
   Average Score: 4
   References: Ref 1, Ref 2
   Comments:
   - The guideline stated that the AUA underwent an extensive peer review process but has not stated the details in the selection of the reviewers and their expertise. Although, they have vaguely discussed that the panel reviewed and discussed all submitted comments and revised the draft as needed.
   - No methodology for specific external review.
8. A procedure for updating the guideline is provided.
   Average Score: 2
   References: Ref 1, Ref 2
   Comment:
   - There was no mention regarding the methodology or timing of the update of the guideline. Although, this particular guideline has been published last 2014 and has been again reviewed and validated last 2019.

Domain 4 : Clarity of Presentation
Over-all Domain Score: 76.19%

1. The recommendations are specific and unambiguous.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - Each recommendation is thoroughly discussed and explained under the discussion portion of each guideline statement
2. The different options for management of the condition or health issue are clearly presented.
   Average Score: 4
   References: Ref 1, Ref 2
   Comment:
   - The guideline was not able to provide a variety of options since all statements were focused only on medical management of stones.
3. Key recommendations are easily identifiable.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - Key recommendations are listed on the first page of the guidelines with the specific evidence strength based on the AUA Nomenclature System and are divided to evaluation, diet therapy, pharmacologic therapy and follow-up, respectively

Domain 5 : Applicability
Over-all Domain Score: 35.71%

1. The guideline describes facilitators and barriers to its application.
   Average Score: 3
   References: Ref 1, Ref 2
   Comment:
   - Some of the guideline statements includes the facilitator and barriers/ hindrance of its application. They seldom provide an alternative in such difficulties.
2. The guideline provides advice and/or tools on how the recommendations can be put into practice. 3
   Average Score: 3
   References: Ref 1, Ref 2
   Comment:
   - Most of the guideline statements are straightforward and advice/tools on how these recommendations can be put into practice are rarely tackled since it's direct
3. The potential resource implications of applying the implications have been considered.
   Average Score: 2
   References: Ref 1, Ref 2
   Comment:
   - No breakdown of the budgeting and costing were discussed in the guideline. However, they have lifted several literature regarding the healthcare cost of having nephrolithiasis but not cost information of the recommendation per se.
4. The guideline presents monitoring and/or audit criteria.
   Average Score: 2
   References: Ref 1, Ref 2, Ref 3
   Comment:
   - There was no mention in the guideline regarding monitoring and/or auditing criteria. However, since its publication in 2014, it has been reviewed and re-validated in 2019 showing a possible monitoring scheme and intent of auditing the guideline eventually.

Domain 6. Editorial Independence
Over-all Domain Score: 78.57%

1. The views of the funding body have not influenced the content of the guideline.
   Average Score: 5
   References: Ref 1, Ref 2
   Comment:
   - Funding of the committee was provided by the AUA and the committee members received no remuneration for their work. No external sponsorship was mentioned in the guideline.
2. Competing interests of guideline development group members have been recorded and addressed.
   Average Score: 6
   References: Ref 1, Ref 2
   Comment:
   - Panel members provided an ongoing conflict of interest disclosure and providing specific details through the AUA interactive website. These conflict of interest statements were further reviewed the Guidelines Oversight Committee and approved by the AUA Judicial and Ethics (J&E) Committee. A majority of panel members may not have relationships relevant to the guideline topic.

Guideline: Canadian Urological Association Guideline: Evaluation and Medical Management of Kidney Stones
Guideline Developer: European Association of Urology Guidelines Office – Urolithiasis Panel Guideline Date: 2022
Assessors: Achacoso JRP, Villanueva JOB, Guy MJ
References / Source Documents Reviewed:

1. Bhojani N, Bjazevic J, Wallace B, et al. UPDATE – Canadian Urological Association guideline: Evaluation and medical management of kidney stones. CanUrol Assoc J 2022;16(6):175-88. http://dx.doi.org/10.5489/cuaj.7872

Domain 1. Scope and Purpose
Over-all Domain Score: 85%

1. The overall objective(s) of the guideline is(are)specifically described.
   Average Score: 6
   References: Ref 1 Page 175, 180 Par 16-23
   Comments:
   - The article clearly describes its objectives with specific goals and criteria for each
   - Each section has a specific criterion which can be easily used a basis for management
   - The guideline identified the target population specifically recurrent stone formers and pediatric patients.
   - The guideline identified the target population as those with recurrent stone illness. However, only for patients with recurrent stone illness, or patients with risk factors, not for the general population
2. The health question(s) covered by the guideline is(are) specifically described.
   Average Score: 6
   References: Ref 1 Page 176 Par 5, Page 180 Par 118
   Comments:
   - Pediatric age groups were also identified as risk stone formers. For patients with clinical history through the guidelines, age was suggested as when to undergo metabolic workup.
   - Patients who are high risk and in need for metabolic work up were identified and stated.
   - Each section has clearly stated criterion which can be easily used as basis for management
   - Discussions are well organized and detailed, management can be easily seen and used for specific population and/or disease
3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.
   Average Score: 6
   Reference: Ref 1 Page 176, Par 5 16-23
   Comments:
   - The guideline appears well-written, with clear and concise descriptions. The targeted populations for metabolic evaluation are enumerated in a structured manner, making it easy for the reader to understand the specific groups at risk.
   - The guideline clearly stated indications for their proposed management with specific target population (considering the patient demographics, condition, severity of disease, and comorbidities).

Domain 2 : Stakeholder Involvement
Over-all Domain Score: 71%

1. The guideline development group includes individuals from all relevant professional groups.
   Average Score: 6
   Reference: Ref 1 Page 175, 185
   Comments:
   - Most of the information regarding each member of the development group was written. There were no description of member's role.
   - Competing interests were stated
   - The guideline was reviewed by CUA Guideline Committee and CUA Board of Directors
   - According to the published paper, the Canadian Urological Association guideline contains precise information about each member of the guideline development panel.
2. The views and preferences of the target population (patients, public, etc.) have been sought.
   Average Score: 5.5
   Reference: Ref 1 Page 177
   Comments
   - There is a sufficient amount of references used to make this guideline. However, there was only one citation of population survey mentioned but only as data on prevalence of kidney stones based on gender. No other surveys cited regarding management.
   - There was no section dedicated for discussion of methodology and/or outcomes of their management.
   - The technique employed involves a review of the literature on values and preferences, as well as evidence gathered from surveys and focus groups.

- Preferences and opinions were gathered through surveys, literature reviews, and focus groups. For example, data from patient interviews showed preferences for preventative medicine over surgery to prevent stone recurrence.

3. Target users of the guideline are clearly defined.
   Average Score: 3.5
   Reference: Ref 1 Page 177
   Comments:
   - No clear description of intended guideline audience or reader
   - This section explains the overall purpose and application of the guideline by healthcare practitioners and its population.

Domain 3 : Rigour of Development
Over-all Domain Score: 63.33%

1. Systematic methods were used to search for evidence.
   Average Score: 6
   Reference: Page 176
   Comments:
   - The criteria employed literature reviews from 11,640 international papers that were reviewed, and 293 were selected as part of the study.
   - The guideline used PubMed search from January 01 2015 to July 01, 2021 using 6 phrases/ search terms, yielding about 11 640 article titles. The full search strategy was included.
2. The criteria for selecting the evidence are clearly described.
   Average Score: 4.66
   References: Ref 1 Page 175
   Comments:
   - The guideline was not able to specify their inclusion and exclusion criteria for each recommendation but was able to create a specific criterion based on specific recommendations.
   - The criteria employed literature reviews from 11,640 international papers that were reviewed, and 293 were selected as part of the study.
3. The strengths and limitations of the body of evidence are clearly described.
   Average Score: 4.66
   Reference: Ref 1 Page 175
   Comments:
   - All recommendations used in this guideline are evidence based
   - There were no strengths and limitations written in this guideline
   - The studies were analyzed and suggested based on oxford levels of evidence and Canadian Urology Association guidelines.
4. The methods for formulating the recommendations are clearly described.
   Average Score: 3.5
   Reference: Ref 1 Page 177
   Comments:
   - This was not discussed in the guideline
   - Guidelines and recommendations are clearly stated.
5. The health benefits, side effects, and risks have been considered in formulating the recommendations.
   Average Score: 4.33
   Reference: Page 176 Par 1
   Comment:
   - Evidence-based suggestion and grade were stated in each recommendations.
6. There is an explicit link between the recommendations and the supporting evidence.
   Average Score: 6.33
   Reference: Ref 1 Page 176-177
   Comments:
   - The document includes precise recommendations for various patient examinations and therapies, each with an associated evidence level (LE) and recommendation grade (Grade). For example, the prescription for basic metabolic screening comprises specific tests and is based on the LE 4 grade C recommendation. An in-depth metabolic examination is recommended for patients with risk factors for recurrent stone disease at LE 3, Grade C.
   - To support the principles presented, recommendations include specific studies and references.
7. The guideline has been externally reviewed by experts prior to its publication.
   Average Score: 4.33
   Reference: Page 176
8. A procedure for updating the guideline is provided.
   Average Score: 4.66
   Reference: Page 175
   Comments:
   - There was no statement regarding the next update of this guideline nor any criteria used for the next update
   - The methodology for the current update was clearly stated
   - The updated content in this paper is based on a review of English-language literature. A PubMed search was conducted from January 1, 2015 to July 1, 2021, using the following terms: 'nephrolithiasis,' 'urolithiasis,' 'kidney stone,''renal stone,' or 'urinary stone.' In total, 11,640 article titles were reviewed, and 293 were identified as potentially relevant for inclusion in the literature review for this guideline update.

Domain 4 : Clarity of Presentation
Over-all Domain Score: 77.62%

1. The recommendations are specific and unambiguous.
   Average Score: 6
   Reference: Ref 1 Page 177
   Comments:
   - The guideline includes a summary section which includes follow up information for patients. It is clear and specific with specific qualifiers.
   - The recommendations are specific and detailed.
2. The different options for management of the condition or health issue are clearly presented.
   Average Score: 5

Reference: Ref 1 Page 181
Comment:
- There were no alternative options or management written in this guideline

3. Key recommendations are easily identifiable.
Average Score: 5.3
Reference: Page 181
Comments:
- Several algorithms and tables were used to make the guideline easier to understand and remember.
- Every recommendations are clear and identifiable.

Domain 5 : Applicability
Over-all Domain Score: 54.14%

1. The guideline describes facilitators and barriers to its application.
Average Score: 4.33
Reference: Ref 1 Page 181 onwards
Comment:
- Guidelines included dosages specified for how to employ the right treatment recommendation.

2. The guideline provides advice and/or tools on how the recommendations can be put into practice.
Average Score: 3.5
Reference: Ref 1 Page 177 onwards
3. The potential resource implications of applying the implications have been considered.
Average Score: 3.33
Reference: Ref 1 Page 177
4. The guideline presents monitoring and/or audit criteria.
Average Score: 4
Reference: Ref 1 Page 185

Domain 6. Editorial Independence
Over-all Domain Score: 71.43%

1. The views of the funding body have not influenced the content of the guideline.
Average Score: 4
References: Ref 1 Page 185
Comments:
2. Competing interests of guideline development group members have been recorded and addressed.
Average Score: 6
References: Ref 1 Page 185
Comments:
- Competing interests were identified and written
- Competing interests were discussed beside the companies and the co-author's opinion.
- Competing interests were stated beside the companies and the co-author's stance. However, the impact of studies in which the firms sponsoring the research were not revealed

Guideline: Canadian Urological Association Guideline: Management of Ureteral Calculi
Guideline Developer: Canadian Urological Association
Guideline Date: August 2021
Assessors: Bandarlipe E, Roxas JEV, Binas TJ
Reference / Source Documents Reviewed:

1. Lee JY, Andonian S, Bhojani N, et al. Canadian Urological Association guideline:Management of ureteral calculi – Full-text. Can Urol Assoc J 2021;15(12):E676-90. http://dx.doi.org/10.5489/cuaj.7581

Domain 1. Scope and Purpose
Over-all Domain Score: 74.57%

1. The overall objective(s) of the guideline is(are)specifically described.
Average Score: 5
Reference: Ref 1 Page 1
Comments:
- objectives are not discussed in detail
- target population are only mentioned
- guidelines only formulated an introduction with no actual inclusion of a domain/scope/objectives

2. The health question(s) covered by the guideline is(are) specifically described.
Average Score: 5.33
Reference: Ref 1
Comments:
- no clear statement on target population but there are citations intervention and outcomes
- discussions are not organized separately per criteria
- all information given prior to recommendations have citations

3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.
Average Score: 5.33
Reference: Ref 1
Comments:
- no specific population information can be found
- there is discussion for some specific population groups: anticoagulated pts, pregnant pts, pediatric pts
- guidelines were organized in a case to case basis which were based on results of RCTs, and these studies were well cited
- specific target population (e.g. pregnant women) were discussed in detail

Domain 2 : Stakeholder Involvement
Over-all Domain Score: 91.48%

1. The guideline development group includes individuals from all relevant professional groups.
Average Score: 4.33
Reference: Ref 1
Comments:
- content expertise are not specified for the stakeholders
- guidelines only included institution and location
- no notes specified but with paragraph outlining all interests in some of the panel members
- The panel members comprising the guidelines committee were described in detail, including their profession, institution of affiliation, however conflicts of interest were not clearly defined

2. The views and preferences of the target population (patients, public, etc.) have been sought.
Average Score: 5.66

Reference: Ref 1
Comments
- there are some citations of population surveys but only as part of the recommendation discussion
- no actual portion of the guidelines included target population perspectives/external review
- target population were somewhat defined , also stated were surveys done by these populations

3. Target users of the guideline are clearly defined.
Average Score: 4
Reference: Ref 1
Comment:
- guideline was written in a clear and concise manner, however target population was not specifically defined, only broadly discussed

Domain 3 : Rigour of Development
Over-all Domain Score: 61.73%

1. Systematic methods were used to search for evidence.
Average Score: 5.67
Reference: Ref 1
Comments:
- search strategies, time period and databases included
- no search terms defined
- screening criteria not specified

2. The criteria for selecting the evidence are clearly described.
Average Score: 4
Reference: Ref 1
Comment:
- No inclusion and exclusion criteria for evidence search mentioned. also the keywords used were not stated

3. The strengths and limitations of the body of evidence are clearly described.
Average Score: 3.33
Reference: Ref 1
Comment:
- level of evidence was stated however the exact limitations and strengths of the evidence were not clearly defined

4. The methods for formulating the recommendations are clearly described.
Average Score: 4.67
Reference: Ref 1
Comment:
- The recommendations were clearly stated as well as the studies or references where these recommendations were based. They also stated that it is a consensus of the authors involved.

5. The health benefits, side effects, and risks have been considered in formulating the recommendations.
Average Score: 6.33
Reference: Ref 1
Comment:
- these are discussed through the recommendation/ discussion citations

6. There is an explicit link between the recommendations and the supporting evidence.
Average Score: 6
Reference: Ref 1
Comments:
- each recommendation have evidence discussed
- authors arranged in a way that the discussion (including evidences) preceded each recommendation

7. The guideline has been externally reviewed by experts prior to its publication.
Average Score: 2.6
Reference: Ref 1
Comment:
- they mentioned a single reviewer , however they did not specifically state that it was reviewed externally

8. A procedure for updating the guideline is provided.
Average Score: 2
Reference: Ref 1

Domain 4 : Clarity of Presentation
Over-all Domain Score: 93.66%

1. The recommendations are specific and unambiguous.
Average Score: 6.67
Reference: Ref 1
Comment:
- recommendations are clear and specific with inclusion of some caveats and qualifiers

2. The different options for management of the condition or health issue are clearly presented.
Average Score: 6.33
Reference: Ref 1
Comments:
- medical, minimally invasive, and endourological intervention were mentioned alongside their specific target population and use case scenarios.
- guidelines generally compared the ff options in treatment ESWL, Medical mgt and Ureteroscopy
- included recommendations for pts requiring special considerations

3. Key recommendations are easily identifiable.
Average Score: 6.67
Reference: Ref 1
Comments:
- descriptions are placed in bold text
- no algorithms were placed but considerations for management were placed in text

Domain 5 : Applicability
Over-all Domain Score: 35.07%

1. The guideline describes facilitators and barriers to its application.
Average Score: 2.33
Reference: Ref 1

2. The guideline provides advice and/or tools on how the recommendations can be put into practice.
Average Score: 2.66
Reference: Ref 1

3. The potential resource implications of applying the implications have been considered.
Average Score: 2.33
Reference: Ref 1
Comment:
- Cost information was not included

4. The guideline presents monitoring and/or audit criteria.
   Average Score: 2.5
   Reference: Ref 1

Domain 6. Editorial Independence
Over-all Domain Score: 52.35%

1. The views of the funding body have not influenced the content of the guideline.
   Average Score: 3
   Reference: Ref 1
2. Competing interests of guideline development group members have been recorded and addressed.
   Average Score: 4.33
   Reference: Ref 1
   Comments:
   - interests of panel members were outlined but there is no content on conflicts and mitigation strategies
   - guideline members were specified but not their funding or conflicts of interests

Guideline: EAU Guidelines on Management of Urolithiasis (published online)
Guideline Developer: European Association of Urology Guidelines Office – Urolithiasis Panel Guideline Date: 2024
Assessors: Reyes DEA, Alip SKL
References / Source Documents Reviewed:

1. EAU Guidelines on Management of Urolithiasis (PDF published online full guideline) https://d56bochluxqnz.cloudfront.net/documents/full-guideline/EAU-Guidelines-on Urolithiasis-2024.pdf, accessed June 17, Sept 2)
2. EAU GO Systematic Review Handbook March 2022 version (PDF published online https://d56bochluxqnz.cloudfront.net/media/Guidelines_Systematic_review_handbo ok_website.pdf, Accessed Sept 2)
3. EAU GO Development Handbook (https://d56bochluxqnz.cloudfront.net/media/Guidelines_Office_Development_Handb ook_website.pdf Published online, Sept 2)
4. EAU Guidelines Office Strategy 2022 to 2027 (Published online, https://d56bochluxqnz.cloudfront.net/media/EAU_GO_strategy_2022_2027_final.pdf, accessed Sept 2)
5. EAU Guidelines Conflict of Interest Policy version 2022 (Published online https://d56bochluxqnz.cloudfront.net/media/Guidelines_COI_Policy_website.pdf, accessed Sept 2)
6. EAU Guidelines Patient Representative Handbook (Published online https://d56bochluxqnz.cloudfront.net/media/Guidelines_Office_Patient_Representative_Handbook_website. pdf, Accessed Sept 2)
7. EAU Guidelines UROLITHIASIS Search strategy (Published online https://d56bochluxqnz.cloudfront.net/documents/guideline appendices/urolithiasis/Search-Strategy-Urolithiasis-guidelines-2024.pdf, Sept 2)
8. Strength ratings forms (provided by EAU GO) https://www.dropbox.com/scl/fo/2gtnj4rm9uxmwpx4j6mnl/AA_C8dLfWhbEHxBgjcLRj4M?rlk ey=1k32lsupiyzeixkxt7i8o7jvw&dl=0
9. Panel Composition for UROLITHIASIS https://uroweb.org/guidelines/urolithiasis/panel 10. List of related peer-reviewed publications https://uroweb.org/guidelines/urolithiasis/publications-appendices

Domain 1. Scope and Purpose
Over-all Domain Score: 93.7%

1. The overall objective(s) of the guideline is(are)specifically described.
   Average Score: 7
   Reference: Ref 1, page 6-37
   Comments:
   - Addresses various health intents including prevention, screening, diagnosis, treatment, and management of urolithiasis. It offers strategies such as dietary modifications and increased fluid intake to prevent stone formation, guidance on appropriate screening in high-risk populations, and recommendations on diagnostic tools like CT scans and urine analysis. Treatment options, both medical and surgical, are tailored to individual patient needs and stone characteristics.
   - The expected benefits of following this guideline include improved patient outcomes through evidence-based practices that reduce stone recurrence rates, enhance pain management, and minimize complications. This approach not only aims to improve patient quality of life but also to decrease healthcare costs associated with urolithiasis management.
   - This guideline is well written with clear and concise descriptions. The criteria noted such as health intents, expected benefit or outcome and target population are all within the guidelines. The use of imaging modality depends on the patient's factors such as pregnancy, solitary kidney, transplanted kidneys, with urinary diversions, children those patients initially presenting as acute flank pain. Initial workups are also included in the guidelines which are all relevant in the diagnosis and treatment of patients with urolithiasis.
2. The health question(s) covered by the guideline is(are) specifically described.
   Average Score: 6.33
   Reference: Ref 1 Page 7-10, 6-38, page 50-62
   Comments:
   - Targets individuals across all stages of urolithiasis, including pediatric patients, pregnant women, and those with metabolic or anatomical predispositions. It emphasizes diagnostic approaches such as imaging and lab tests, and tailored therapeutic options including medications and surgeries. The guideline evaluatestreatment modalities, comparing efficacy and safety, and aims for improved clinical outcomes (reduced recurrence, pain relief), enhanced patient-reported outcomes (better quality of life, reduced anxiety), and optimized healthcare utilization across diverse settings from primary care to specialized urology and hospital environments.
   - The guideline showed the detailed summary of the treatment modalities needed with the corresponding level of evidence for each subset of patients we may encounter in the clinics. The guideline also presented easy to follow flowcharts when and what kind of

treatment armamentarium are we going to use for each type of patient considering the favorable and unfavorable factors met at the time of diagnosis.
- Health questions are implicit within each heading and subsection but are not explicitly stated

3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.
   Average Score: 6.33
   Reference: Ref 1 Page 6-38
   Comments:
   - It provides recommendations from initial presentation to complex cases requiring surgery. The guideline considers comorbidities such as metabolic disorders and renal insufficiency that may affect treatment decisions. It also specifies populations where certain recommendations may not apply, such as pregnant women or individuals with specific contraindications to certain treatments.
   - As stated in the previous questions, the specificity of the subset of patients whom intervention is warranted was well covered. From the initial workups done to determine if what type of stone are we dealing with as well as the steps before we proceed with the endoscopic treatment we must perform after the initial workups done.
   - Although the general 'stone' population is stratified according to risk group (low/high), there is no statement in the beginning of the text detailing exclusion criteria.

Domain 2 : Stakeholder Involvement
Over-all Domain Score: 91.48%

1. The guideline development group includesindividualsfrom all relevant professional groups.
   Average Score: 6.0
   Reference: Ref 1, Page 1, 6, 75-116
   Comments:
   - The guidelines only stated that the panel consists of an international group with expertise in the area. No other information like institutions, geographical location, and members role were included in the online PDF
   - In this guideline, the specific name, discipline and or content expertise, institution, geographical location and a detailed description of the member´s role in the guideline developmental group were not shown specifically, however the detailed summary of the outcome including the references from various contributors for the guidelines were included.
2. The views and preferences of the target population (patients, public, etc.) have been sought.
   Average Score: 6.0
   Reference: Ref 1, Page 5-39
   - Development process likely incorporated patient and public views and preferences through participation of advocacy groups, literature reviews on patient values, and preferences related to urolithiasis. Methods included surveys, focus groups, and qualitative studies to gather information on treatment preferences, quality of life impacts, and patient concerns. This information informed guideline recommendations by integrating patient preferences, promoting shared decision-making, and enhancing guideline relevance for patients and caregiversinvolved in urolithiasis management.
   - The statement type of strategies used in capturing the public views and preferences as well as the methodologies, evidences from literatures, surveys and focus groups were all included. The use of percentages for the results such as stone free rates and overall complication rates for each treatment modality used was clearly stated.
   - The inclusion of a patient advocate in the Panel was not mentioned explicitly, unlike in other EAU guidelines. Panel composition explicitly states consisting of clinicians.
3. Target users of the guideline are clearly defined.
   Average Score: 7.0
   Reference: Ref 1, Page 6
   Comments:
   - Opening paragraph states that the guidelines are intended to help UROLOGISTS on evidence based management
   - The guideline clearly defined and outlined the algorithms and recommended treatments and work-up for each subset of patients showing the intended urologists who will encounter patients with urolithiasis.

Domain 3 : Rigour of Development
Over-all Domain Score: 96.4%

1. Systematic methods were used to search for evidence.
   Average Score: 6.67
   References: Ref 1, Page 15, 6, 75-116 Ref 7
   Comments:
   - Named evidence source where the search was performed, however no fullsearch strategy or search terms used was published in the PDF copy
   - The guideline gave a detailed list of the summary of the publications, citations and documents used to complete the paper. All documents are accessible through the EAU website and the links for the papers were provided.
   - Full search strategy available online as supplementary material (Ref 7)

2. The criteria for selecting the evidence are clearly described.
   Average Score: 6.67
   Reference: Ref 1, Page 6
   Comments:
   - Inclusion criteria encompass individuals of all ages and genders affected by urolithiasis, with specific attention to pediatric patients, pregnant women, and those with metabolic disorders predisposing to stone formation. Studies included range from systematic reviews of randomized controlled trials (RCTs) to meta-analyses and observational studies, evaluating various treatment modalities such as pharmacological versus surgical interventions and conservative versus invasive management.
   - The guideline clearly defines the various inclusion and exclusion criteria for each of the population defined including the study designs used, the overall quality

of the evidence which exists for the recommendation, the magnitude of the individual and combined effects to the patients, the certainty of the results, the balance between the desirable and undesirable outcomes as well as the impact and certainty of patient values and preferences on the intervention. Additional information regarding the general methodology link was also provided in the guideline presented.

3. The strengths and limitations of the body of evidence are clearly described.
   Average Score: 6.67
   Reference: Ref 1, Page 6
   Comments:
   - EAU explained well the strength of each recommendation however no description of how the body of evidence was evaluated for bias and how it was interpreted by members of the guideline development group was written
   - As previously mentioned above, the guideline provided frame descriptions of the study designs used, methodology and its limitations as done to come up with the guideline, the desirable and undesirable outcomes encountered, the consistency of results as reflected in the recommendations and evidences of such, the magnitude of the benefit vs. harm and the applicability of the guideline in the context of private practice were all written in the paper.
4. The methodsfor formulating the recommendations are clearly described.
   Average Score: 7.0
   Reference: Ref 1, Page 16
   Comments:
   - The process ensured recommendations are grounded in current evidence, addressed clinical gaps, tailored to diverse patient needs, and established a framework for regular updates to incorporate new evidence and clinical practices.
   - The guideline clearly described the developmental process of the recommendations and how did the paper come up with the detailed description of the processes that influenced the summary of recommendations for each subset of patient presenting with urolithiasis.
5. The health benefits, side effects, and risks have been considered in formulating the recommendations.
   Average Score: 7.0
   Reference: Ref 1, Page 11-64
   Comments:
   - It provides clinicians with evidence-based recommendations that prioritize patient safety and optimize clinical outcomes while acknowledging the potential risks of treatment options.
   - The guideline clearly laid out the detailed data and reports of the benefits, risks, side effects as well as the recommended work-up and treatment modality appropriate for each clinical scenario and subset of patients in the form of a summary table showing the level and strength of evidence for each domain involved.
6. There is an explicit link between the recommendations and the supporting evidence.
   Average Score: 6.67
   Reference: Ref 1, Page 11-64, Table 3.4.1
   Comments:
   - Summaries and tables provide a clear overview of the evidence base supporting each recommendation, including study designs, outcomes assessed, and quality assessments. This approach enhances the guideline by facilitating easy access to supporting evidence for healthcare providers and stakeholders.
   - the guideline clearly defined the links for each evidence summaries in the form of summary tables showing the strength of evidence and recommendations for each subset of patients presenting with Cystolithiasis, Ureterolithiasis, and Nephrolithiasis under each subset of patient category as described. The summary of evidences was placed after the end of every section for each cases discussed.
7. The guideline has been externally reviewed by experts prior to its publication.
   Average Score: 6.67
   Reference: Ref 1, Page 6
   Comments:
   - It is clearly stated in Section 2 (METHODS) particularly in Section 2.2 (REVIEW) that: "The 2015 Urolithiasis Guidelines were subjected to peer review prior publication. Chapter 6…was peer-reviewed in 2019."
   - Unlike other guidelines, it contains an explicit statement on Peer Review, also detailing which sections were reviewed on a different timeline(Section 2.2) Online version links to previous peer-reviewed versions of the text (Ref 9). But no description on External Review results and how it informed recent updates.
8. A procedure for updating the guideline is provided.
   Average Score: 6.67
   References: Ref 1, Page 6 , Ref 3
   Comments:
   - Guideline commits to regular updates, outlines criteria for update decisions, and describes a structured methodology for updating procedures.
   - The following statements were included:
     - 1.4 Publication history and summary of changes
     - 1.4.1 Publication history
     - The EAU Guidelines on Urolithiasis were first published in 2000. Standard procedure for EAU Guidelines includes an annual assessment of newly published literature in the field to guide future updates. This 2024 Urolithiasis Guidelines present a limited update of the 2023 publication.
     - 1.4.2 Summary of changes
     - The 2024 Urolithiasis Guidelines have undergone a major revision and restructuring of text, as well as a review of all recommendations.

Domain 4 : Clarity of Presentation
Over-all Domain Score: 100%

1. The recommendations are specific and unambiguous.
   Average Score: 7.0
   Reference: Ref 1, Page 7-74
   Comments:
   - It includes clear intents, identifies relevant populations, and guide clinicians in delivering evidence-based care for urolithiasis.
   - Recommendations are presented in tables and are specific as to category (i.e. diagnostics, non-medical/ medical management, surgical management)
2. The different options for management of the condition or health issue are clearly presented.
   Average Score: 7.0
   Reference: Ref 1, Page 7-74
   Comment:
   - EAU recommends alternative modalities and management based on specific populations • As presented in the guideline recommendation summarized in tables, all treatment options are presented and are assigned with corresponding strength ratings and levels of evidence. Moreover, "best clinical practice" statements are also included for specific subsets of patients.
3. Key recommendations are easily identifiable.
   Average Score: 7.0
   Reference: Ref 1, pages 11-104; Related Contents
   Comments:
   - Organized form of data presentation in the guideline.
   - Recommendations are presented in summarized tables after each section and include strength ratings as well as levels of evidence; thereby facilitating easy identification of key recommendations.

Domain 5 : Applicability
Over-all Domain Score: 61.9%

1. The guideline describesfacilitators and barriersto its application.
   Average Score: 4.0
   Reference: Ref 1, Page 6
   Comments:
   - Multiple mentions of level of evidence and strength rating of the recommendation across the guideline
   - Not indicated or mentioned
   - Some mention of variation in practice as an application barrier
2. The guideline provides advice and/or tools on how the recommendations can be put into practice.
   Average Score: 6.3
   Reference: Ref 1, Page 29, 31, 47
   Comments:
   - On the guidelines, there are multiple sections with algorithms, summaries, and other tools that can help application in practice
   - Specific details are given on how to use certain guidelines and apply in practice • The Guideline presents various treatment algorithms available for clinicians.
3. The potential resource implications of applying the implications have been considered.
   Average Score: 3.33
   Reference: Ref 1, Page 16, 20-21
   Comments:
   - Not much cost information is mentioned in the guidelines
   - Unfortunately, detail/s regarding cost/medical economics were not included. • Costs are mentioned when various interventions are compared. Some studies on cost effectiveness informed recommendations
4. The guideline presents monitoring and/or audit criteria.
   Average Score: 3.67
   References: Ref 1, Page 65, Ref 3
   Comments:
   - Not included
   - Ref 4 mentions monitoring of guidelines and adherence as a goal and several projects towards the goal such as EAU GO IMAGINE, PIONEER and OPTIMA. Most of these were not elaborated specifically for UROLITHIASIS

Domain 6. Editorial Independence
Over-all Domain Score: 50%

1. The views of the funding body have not influenced the content of the guideline.
   Average Score: 4.67
   Reference: Ref 1, page 117
   Comments:
   - The guideline includes a clear statement affirming that the funding body or source of financial support did not have any role in shaping or influencing the content, recommendations, or conclusions of the guideline.
   - Not indicated
2. Competing interests of guideline development group members have been recorded and addressed.
   Average Score: 4.33
   Reference: Ref 5
   Comments:
   - Guidelines published online have accessible links to complete Guidelines Panel, with each member's COI linked accordingly
     - Physical copies contain a Conflict Of Interest section that links to the above
     - However, some members have COIs indicated as 'Others, please indicate', some have not been updated as per COI updating policy (updated annually, at the minimum). Unclear whether this is because the website has not been updated, or the COI update has not been submitted
   - COI management is published in detail, accessible as a linked file on the website

Guideline: The UAA Clinical Guideline for Urinary Stone Disease
Guideline Developer: Urological Association of Asia inc
Guideline Date: 2019
Assessors: Soliman NPC, Alip SKL
References / Source Documents Reviewed:

1. (As pamphlet, and online copy) Taguchi K, Cho SY, Ng ACF, Usawachintachit M, Tan YK, Deng YL, Shen CH, Gyawali P, Alenezi H, Basiri A, Bou S, Djojodemedjo T, Sarica K, Shi L, Singam P, Singh SK & Yasui T. (n.d.). The UAA Clinical Guideline For Urinary Stone Disease. https://uaanet.org/uploads/pdf/UAACGL.pdf
2. (As published in JUrol) Taguchi K, Cho SY, Ng ACF, Usawachintachit M, Tan YK, Deng YL, Shen CH, Gyawali P, Alenezi H, Basiri A, Bou S, Djojodemedjo T, Sarica K, Shi L, Singam P, Singh SK & Yasui T. The Urological Association of Asia clinical guideline for urinary stone disease. Int J Urol 2019; 26(7): 688–709). Blackwell Publishing. https://doi.org/10.1111/iju.13957

An exhaustive online search in public databases for associated documents was done

Domain 1. Scope and Purpose
Over-all Domain Score: 80.95%

1. The overall objective(s) of the guideline is(are)specifically described.
   Average Score: 7
   Reference: Ref 1 Page 2/ Paragraph No.: Aims and scope, first and third paragraph
   Comments:
   - The UAA guidelines on urolithiasis clearly defined their aims and scope, as stated on their subheading that can easily be seen in the initial parts of the document.
   - As they have stated, this guideline has been prepared to help urologists apply evidence-based management to stones/calculi and incorporate recommendations into clinical practice. Furthermore, they provided statements that although this guideline has been developed, it does not mean that this guideline will be the sole basis for the decision of management, rather the choice of treatment still depends on individual patients and other variables such as socioeconomic and environmental factors.
   - The item was well written and can easily be found in their opening statement.
2. The health question(s) covered by the guideline is(are) specifically described.
   Average Score: 6
   Reference: Ref 1 Page 3-5 / Paragraph No.: (tables)
   Comments:
   - The guideline specifically stated that AUA and EAU are the backbone guidelines that the working group used for the development of this guideline. However, they stated that due to the different climate, social, economic, and ethnic environments that is present among Asian countries, there is a huge diversity in clinical practice for urinary stone diseases as compared to American and European population.
   - Since the UAA is comprised of different Asian countries, and clinical practice somehow differed among each country, they have included in this document in tabular form the differences of the management among the different countries.
   - With this kind of data presentation, it is easier to grasp the information that the working group is trying to convey among the urologists that will use this guideline as their guide for providing care to their patients.
   - For their document review, they have clearly defined how were they able to collate the different journals and guidelines that they used for the development of this guideline. It can also be seen in this document the other guidelines that they referred to.
3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.
   Average Score: 4
   Reference: Ref 1 Page
   Comment:
   - The guideline is supposed to be utilized by practicing urologists. The criteria that were provided above to appraise this guideline is not applicable.

Domain 2 : Stakeholder Involvement
Over-all Domain Score: 78.57%

1. The guideline development group includes individuals from all relevant professional groups.
   Average Score: 4.5
   Reference: Ref 1 Page 2
   Comments:
   - In the title page of the document, we can see that the authors all came from the department of urology among different institutions across the Asian countries. With this, we can assume that the authors/working group/ committee were all urologists, and no interdisciplinary contribution was made.
   - In page 6, they have declared the Work Group composition under sub header 1.4, stating that 'the Work group consists of an international group of clinicians with specific expertise in this area. All experts in the production of this document have submitted declarations of potential conflict of interest.'
   - In page 7 - 8, under the sub header 'Guideline development group', they have stated the roles of each contributor of this guideline development. Further, they also specified the contributions of everyone, as stated, 'Etiology section', 'Diagnosis section', 'Metabolic evaluation section'. 'Medical management section', 'Surgical management section', 'Recurrence prevention section'.
   - They also stated that this guidelines was peer reviewed by representatives in the AUA and EAU, which can increase the reliability of this guideline.
   - The material was well written and easy to understand.
   - Surveillance study to collect information regarding the health climate in constituent countries was done in the first phase of guideline development
   - Ref 1 directed reader to CPG working group composition in website, but an exhaustive search of the website yielded no such information
   - Presumably all MDs in committee (No roles stated)
2. The views and preferences of the target population (patients, public, etc.) have been sought.
   Average Score: 6
   Reference: Ref 1 Page

Comments
- Since this is a clinical practice guideline, it can be implied that the goal of this guideline is to address the more prevalent concerns of the public who are diagnosed to have urolithiases, but this guideline did not clearly state that they have sought the views and preferences of the target population.
- However, the clinical questions that this guideline presented were very relevant and these were the usual questions that the patients are usually asking.
- Surveillance study to collect information regarding the health climate in constituent countries was done in the first phase of guideline development

3. Target users of the guideline are clearly defined.
   Average Score: 6
   Reference: Ref 1 Page
   Comments:
   - The target audience of this guideline are the urologists that are in clinical practice. As stated in page 2 under Aims and Scope, 'the UAA Clinical Guidelines for Stone Disease has been prepared to help urologists apply evidence-based management to stones/calculi and incorporate recommendations into clinical practice.'
   - In page 2, sub header Aims and scope, paragraph 2, 'it must be emphasized that clincal guidelines present the best evidence available to experts (urologists), but guidelines can never replace clinical expertise when making treatment decisions for individual patients, but rather help to focus these decisions, which also should take into account personal values and preferences/ individual circumstances of patients.'
   - The target users of this guideline is very appropriate and the material stating this is well written.

Domain 3 : Rigour of Development
Over-all Domain Score: 81.25%

1. Systematic methods were used to search for evidence.
   Average Score: 7
   Reference: Ref 1 Page 6
   Comments:
   - In page 6, sub header 'Methodology', they have clearly defined their methods on how they searched and evaluated each document for providing evidence in the development of this guideline.
   - As stated, 'The members meticulously reviewed the relevant references retrieved via the PubMed and MEDLINE databases published between 1966 and July 31 2017.'
   - Furthermore, 'the search strategy included the following MeSH for stone disease: stone, urolithiasis, nephrolithiasis, and calculi. Other keywords for searching references were selected by each committee.'
   - 'Other sources of information were also clearly defined in this guideline.
2. The criteria for selecting the evidence are clearly described.
   Average Score: 6
   Reference: Ref 1 Page 6-7
   Comments:
   - Under methodology, they only defined the key words that they used to search for online sources of evidence for the development of this guideline. They did not specifically state what the exclusion criteria were.
   - However, they did use level of evidence and grade of recommendation in evaluating each treatment suggestion for any given scenario in clinical practice.
3. The strengths and limitations of the body of evidence are clearly described.
   Average Score: 4.5
   Reference: Ref 1 Page 2
   Comments:
   - Strengths and limitations of the body of evidence were not clearly defined within this guideline. However, they used LE and GR for each treatment based on the following strategy. The recommendations for treatment were based on a non-structured literature search, which has been previously published, and labelled with an LE score according to a classification system modified from the Oxford Centre for Evidence-based Medicine Levels of Evidence.
   - Cost and diversity mentioned as limitations in passing
4. The methods for formulating the recommendations are clearly described.
   Average Score: 4
   Reference: Ref 1
   Comments:
   - The 'process' on how they developed the recommendations within this guideline were not explained. In addition, the development of the clinical questions that were presented in this guideline, or how they chose which questions to answer were not defined in their methodology.
   - As a reader, it can be puzzling on what could be the working group's bases were to formulate their clinical questions.
   - Although as it can be read within the guideline, the development of these clinical questions was backed up by the 'Commentary' section after each question.
   - For example, under Etiology, the clinical question is 'Is the prevalence of urinary stone disease increasing?'
   - In this example, the clinical question was backed up by evidence/s that the prevalence of urinary stone disease was indeed increasing.
   - What's good in this document is that their commentary on each clinical question is very relevant and how they presented the statements were easy to understand.
5. The health benefits, side effects, and risks have been considered in formulating the recommendations.
   Average Score: 7
   Reference: Ref 1
   Comments:
   - The guideline states, under the medical management and surgical management for stone diseases, the safety and benefits of each treatment option and well backed up by evidence. Furthermore, under surgical management in page 27 (Topic: shockwave lithotripsy),

they included certain contraindications for SWL, which can be added to the safety profile of this guideline.
- Complications for each surgical management were also discussed in this guideline.
- The recommended treatment options (Medical and Surgical) were clearly written and can easily be found in the guideline. They are well categorized and easy to read.
- The commentary portion of each treatment option serves as the primary discussion of the guideline backing up their recommendation.
- Figures and tables were also included which can further enhance the understanding of readers.

6. There is an explicit link between the recommendations and the supporting evidence.
   Average Score: 6
   Reference: Ref 1
   Comments:
   - For each recommendation in this guideline, it was backed up by evidence under their commentary section. How they explained the concepts in the commentary were easy to understand and well written. Level of evidence and grade of recommendation were also provided for each recommendation statement.
   - No evidence to decision tables available
7. The guideline has been externally reviewed by experts prior to its publication.
   Average Score: 7
   Reference: Ref 1 Page
   Comment:
   - Yes. Peer review was done with this guideline by representatives from EAU and AUA. However, their notes were not stated in this document.
8. A procedure for updating the guideline is provided.
   Average Score: 4
   Reference: Ref 1
   Comment:
   - No section under this document was seen stating the limitations of this guideline and subsequent necessary steps in order to improve this guideline.

Domain 4 : Clarity of Presentation
Over-all Domain Score: 100%

1. The recommendations are specific and unambiguous.
   Average Score: 7
   Reference: Ref 1
   Comments:
   - The recommendations within this guideline is well written and easy to understand.
   - Each recommendation was well backed up by evidence in order to guide the urologist in providing treatment for patients who are suffering from urolithiasis.
   - There is also a section under this guideline that provided recommendation in cases of asymptomatic stone disease.
2. The different options for management of the condition or health issue are clearly presented.
   Average Score: 7
   Reference: Ref 1
   Comments:
   - Each recommendation, from etiology to management to prevention of recurrence, was all clearly stated and in a manner that can be easily understood. Furthermore, diagrams of algorithms were also provided to have a clearer picture or summary that can aid to grasp the information of this guideline.
3. Key recommendations are easily identifiable.
   Average Score: 7
   Reference: Ref 1
   Comments:
   - Key recommendations were clearly stated within this guideline.
   - For each clinical question, bulleted form of key recommendations with level of evidence and grade of recommendation was included – this makes the guideline easy to read because you can already have the concise answer for each question.

Domain 5 : Applicability
Over-all Domain Score: 78.57%

1. The guideline describes facilitators and barriers to its application.
   Average Score: 5
   Reference: Ref 1
   Comments:
   - Based on the criteria provided, this guideline does not provide information regarding the facilitators and barriers that they encountered. However, since this guideline was specifically developed in great consideration of the diversity among Asian countries, this guideline is very applicable in our clinical setting.
   - Cost and diversity mentioned in passing as limitations
2. The guideline provides advice and/or tools on how the recommendations can be put into practice.
   Average Score: 7
   Reference: Ref 1 Page 42
   Comments:
   - The guideline provides algorithms and tables on when and how their recommended treatment option can be utilized in clinical scenarios. For example, in page 36 of this document, they provided a flowchart for the treatment of adult patients with symptomatic renal stones, considering the recommended surgical treatment for varying stone sizes.
   - In page 42, they provided a table for general preventive measures for the development of urinary stones. It was written in a clear and easy to understand manner and can easily be grasped by the urologist.
3. The potential resource implications of applying the implications have been considered.
   Average Score: 6
   Reference: Ref 1 Page 1
   Comment:
   - In the beginning of this guideline, they already stated the major references that they used. Under methodology – data identification, they stated 'other sources of information included the Japanes Urological Association Clinical Guidelines for Urolithiasis, EAU

guidelines on Urolithiasis 2017, Medical Management of Kidney Stones: AUA Guidelines, and Surgical Management of Stones: AUA/Endourological Society Guidelines'

4. The guideline presents monitoring and/or audit criteria.
   Average Score: 4
   Reference: Ref 1
   Comment:
   - Monitoring and auditing criteria for the implementation of this guideline was not defined. As this guideline stated, this UAA Guideline for Urinary Stone Disease only serves as a guide for offering treatment on patients, and not to be strictly adhering to their recommendations. Individual factors and differences among patients must be considered, and the treatment will be dependent on the expertise of the urologist.

Domain 6. Editorial Independence
Over-all Domain Score: 85.71%

1. The views of the funding body have not influenced the content of the guideline.
   Average Score: 7
   Reference: Ref 1
   Comments:
   - The name of the funding body was not stated in this guideline. However, they stated that in April 2018, the Work Group met as the UAA Congress in Kyoto which led to the drafting of the guidelines. Probably the funds that the UAA used for the development of this guideline and for providing the honorarium of the contributors of this guideline came from the monetary membership fees of the different members of the UAA, which consists of 25 member associations and 1 affiliated member. However, they did not specify in this document those members, but can be searched and identified within the UAA website.
   - As stated under Conflicts of Interest, 'This guideline document was developed with the financial support of the UAA. No external sources of funding and support have been involved.'
2. Competing interests of guideline development group members have been recorded and addressed.
   Average Score: 5
   Reference: Ref 1
   Comments:
   - At the latter part of the guideline, they provided a section for Conflicts of Interest of members. As stated, 'all members of the guideline development group have provided disclosure statements on all relationships that they have and that might be perceived to be a potential source of conflict of interest. This information is kept on file in the UAA Central Office database.'
   - No publicly available COIs

Appendix 3.
Philippine Urological Association – Clinical Practice Guideline Committee
Clinical Practice Guidelines on Urolithiasis

EVIDENCE TO DECISION FRAMEWORK WORKSHEET (THERAPY)

GUIDE to the Consensus Panelist : This worksheet is meant to help you to decide on how to craft the guideline recommendations and in the voting when the guideline questions are discussed during the enbanc consensus panel meeting. For each parameter, a summary of the supporting evidence has been inputted in the "RESEARCH EVIDENCE" section, when available.
Under the section "JUDGEMENT", please select your BEST judgement for each of the parameter based on your evaluation of the research evidence presented and/or your experience and expertise (especially when research evidence is not available). Please write on the "ADDITIONAL CONSIDERATIONS" portion any information or opinion you believe is important to be shared with the rest of the Panel that may help in making a judgement for the said parameter. Your experience and expertise are particularly valuable when research evidence is not available to make a judgement for the parameter.

Instruction to Evidence Reviewers : Please fill in the RESEARCH EVIDENCE SECTIONS for each parameter with information from your evidence review. If no evidence is available, please indicate "No evidence found". Personal opinion or experience should NOT be written here. DO NOT fill in the "Judgment" and "Additional Considerations" columns. Please fix the page breaks so that no parameter overflows to the next page. Please delete all instructions in red text before submitting. Thank you!

Guideline Question : Write your Guideline Question here
Patients/Population:
Treatment:
Comparison:
Outcome/s:

(1) Problem : Is the problem a priority?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ No ○ Probably no ○ Probably yes ○ Yes ○ Don't know	Describe the epidemiology of the disease as it relates to the target population, intervention/comparator and/or setting of interest. Describe why there might be uncertainty about the relative benefit and harms of the intervention of interest, or why it is important to answer the guideline question (eg. variability in practice, new evidence, substantial cost implications, etc)	Provide your reasons why the problem is a priority or not or why is the guideline question important to address

(2) Desirable Effects : How substantial are the desirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Small ○ Moderate ○ Large ○ Don't know	Describe type and no. of study/-ies considered in the evidence presented Present an abbreviated SoF (without the certainty of evidence column) including only the critical outcomes on Effectiveness	Provide your insights and/or concerns, if any, on the evidence presented (research methods, effect size) to explain your judgement.

ıtcomes	**Relative Effect (95% CI)**	**Absolute Effe (95% CI)**
ectiveness Outcome 1		
ectiveness Outcome 2	-	
ectiveness Outcome 3		-

(3) Undesirable Effects : How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Large ○ Moderate ○ Small ○ Don't know	Describe type and no. of study/-ies considered in the evidence presented Present an abbreviated SoF (without the certainty of evidence column) including only the critical outcomes on adverse events/ harm	Provide your insights and/or concerns, if any, on the evidence presented (research methods, effect size) to explain your judgement.

utcomes	**Relative Effect (95% CI)**	**Absolute Effec (95% CI)**
arm Outcome 1		
arm Outcome 2	-	
arm Outcome 3		-

(4) Certainty of effects : What is the overall certainty of the evidence of effects of the intervention?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ○ Moderate ○ High ○ No included studies	Present the COE for each outcome (effectiveness and harm) indicated in your SoF	Provide your reasons for downgrading /upgrading the evidence, if any.

Outcomes	**Certainty of the evidence (GRADE)**
Effectiveness Outcome 1	
Effectiveness Outcome 2…etc	
Harm Outcome 1	
Harm Outcome 2…etc	

Describe the reason for downgrading, if done, for which outcomes. And then state the overall CoE : *"The evidence was downgraded/upgraded due to ..xxx, for the various outcomes. Overall, the certainty is XXX for the <outcome>"*

	OR "The evidence was not downgraded for the various outcomes. Overall, the certainty is high for all the outcomes."	
(5) Balance of effects **Does the balance between desirable and undesirable effects favor the intervention or the comparison?**		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Favors the comparison ○ Probably favors the comparison ○ Does not favor either the intervention or the comparison ○ Probably favors the intervention ○ Favors the intervention ○ Don't know	Provide a short summary including certainty (quality) of evidence, # of studies and whether results favor the intervention/treatment or the comparison **Desirable effects** . **Undesirable effects** *Eg. "The balance of effects probably favors/do not favor the intervention"*	Provide additional information not presented in the previous sections that contributed to your judgement on the balance of effects.
(6) Resources required : How large are the resource requirements (costs)?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Large costs ○ Moderate costs ○ Negligible costs and savings ○ Moderate savings ○ Large savings ○ Don't know	Describe research (stating the design/methods) that provide information on the cost/resource use associated with the intervention in the target population, and how it compares with other treatment options. Eg *"Research from <study design/s> suggests/shows that the cost/resource use associated with <treatment> in <study population> is <cost of treatment> compared to <cost of comparator> with <comparator>".*	Provide details, based on your professional judgement or experience, on the cost/resource use associated with the intervention in relation to the cost/resource use of not using the intervention/using the comparator in the target population.
(7) Cost effectiveness : Does the cost-effectiveness of the intervention favor the intervention or the comparison?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Favors the comparison ○ Probably favors the comparison ○ Does not favor either the intervention or the comparison ○ Probably favors the intervention ○ Favors the intervention ○ No included studies	Describe the results of cost-effectiveness / cost-analysis / cost-utility studies. Prioritize studies performed in the Philippines. Include studies done outside the Philipines only if local studies are not available. If none were found, indicate "No cost-effectiveness studies were found."	

(8) Values : Is there important uncertainty about or variability in how much people value the main outcomes?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Important uncertainty or variability ○ Probably no important uncertainty or variability ○ No important uncertainty or variability	Describe evidence that provides information on the variability on the of the values or relative importance that the affected population places on the outcomes. If none, indicate "No evidence found".	Describe your own experience on the expressed patient values and preferences on the intervention and the outcomes considered in assessing the intervention, particularly if it is not consistent with the evidence provided, if any.
(9) Equity : What would be the impact on health equity?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Reduced ○ Probably reduced ○ Probably no impact ○ Probably increased ○ Increased ○ Don't know	Describe results of studies that shows that utilizing/implementing/not utilizing the intervention disadvantages a particular population group. List the disadvantaged group, making reference to place of residence, race, ethnicity, culture, language, occupation, gender, sec, religion, education, socioeconomic status, age, disability, relationships with people/organization. If none, indicate "No evidence found".	Provide additional information on how utilizing/implementing/not utilizing the intervention could disadvantages particular population group. List the disadvantaged group, making reference to place of residence, race, ethnicity, culture, language, occupation, gender, sec, religion, education, socioeconomic status, age, disability, relationships with people/organization.
(10) Acceptability : Is the intervention acceptable to key stakeholders?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ No ○ Probably no ○ Probably yes ○ Yes ○ Don't know	Describe studies that describe the views, capabilities and circumstances of patients, health care provider, relatives, payers and healthcare institution administrator that prevent the intervention/comparator from being received/accepted by patients or offered by healthcare providers. If none, indicate "No evidence found".	Provide the basis for your judgement such as items/situations that could affect acceptability of the intervention /comparator (whether increased or decreased) to patients, healthcare providers, relatives, payers and healthcare institution administrators.
(11) Feasibility : Is the intervention feasible to implement?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ No ○ Probably no ○ Probably yes ○ Yes ○ Don't know	Describe studies that presents evidence that the use of the intervention can be negatively impacted by feasibility issues relating to the ability of healthcare providers to offer the intervention adequately. List these issues. May provide the same for the comparator.	Provide the basis for your judgement such as issues or situations that facilitate or prevent the implementation of the intervention/comparator in different settings or subpopulations, based on your experience.

Conclusions

Direction of the recommendation

○ Recommend against the intervention ○ Suggest against the intervention
○ Suggest the intervention ○ Recommend the intervention

Justification

Appendix 4.
Philippine Urological Association – Clinical Practice Guideline Committee
Clinical Practice Guidelines on Urolithiasis

EVIDENCE TO DECISION FRAMEWORK WORKSHEET (DIAGNOSTICS)

GUIDE to the Consensus Panelist : This worksheet is meant to help you to decide on how to craft the guideline recommendations and in the voting when the guideline questions are discussed during the enbanc consensus panel meeting. For each parameter, a summary of the supporting evidence has been inputted in the "RESEARCH EVIDENCE" section, when available.

Under the section "JUDGEMENT", please select your BEST judgement for each of the parameter based on your evaluation of the research evidence presented and/or your experience and expertise (especially when research evidence is not available). Please write on the "ADDITIONAL CONSIDERATIONS" portion any information or opinion you believe is important to be shared with the rest of the Panel that may help in making a judgement for the said parameter. Your experience and expertise are particularly valuable when research evidence is not available to make a judgement for the parameter.

Instruction to Evidence Reviewers : Please fill in the RESEARCH EVIDENCE SECTIONS for each parameter with information from your evidence review. If no evidence is available, please indicate "No evidence found". Personal opinion or experience should NOT be written here. DO NOT fill in the "Judgment" and "Additional Considerations" columns. Please fix the page breaks so that no parameter overflows to the next page. Please delete all instructions in red text before submitting. Thank you!

Guideline Question : Write your Guideline Question here
Patients/Population:
Diagnostic Intervention / Index Test:
Comparison / Reference Test or Gold Standard:
Purpose: to diagnose <condition>
Linked treatment/s: if applicable, if none, delete this line
Anticipated outcomes: (for the linked treatments), if no linked treatment delete this line

<table>
<tr><th colspan="3">(1) Problem : Is the problem a priority?</th></tr>
<tr><th>JUDGEMENT</th><th>RESEARCH EVIDENCE</th><th>ADDITIONAL CONSIDERATIONS</th></tr>
<tr><td>o No
o Probably no
o Probably yes
o Yes
o Don't know</td><td>Describe the epidemiology of the disease as it relates to the target population, the test/comparison and/or setting of interest
Describe why there might be uncertainty about the relative benefit and harms of the index test, or why it is important to answer the guideline question (eg. variability in practice, new evidence, substantial cost implications, etc)</td><td>Provide your reasons why the problem is a priority or not or why is the guideline question important to address</td></tr>
<tr><th colspan="3">(2) Test accuracy : How accurate is the test in diagnosing the disease?</th></tr>
<tr><th>JUDGEMENT</th><th>RESEARCH EVIDENCE</th><th>ADDITIONAL CONSIDERATIONS</th></tr>
<tr><td>o Very in accurate
o Inaccurate
o Accurate
o Very accurate
o Varies
o Don't know</td><td>Index test: (eg. Urinalysis)
Reference standard: (eg. Urine culture and sensitivity)<table><tr><th>Outcomes</th><th>Pooled estimate (95% CI)</th></tr><tr><td>Sensitivity</td><td></td></tr><tr><td>Specificity</td><td></td></tr><tr><td>Positive likelihood ratio</td><td></td></tr><tr><td>Negative likelihood ratio</td><td></td></tr></table></td><td>Provide your insights and/or concerns, if any, on the evidence presented (research methods, diagnostic accuracy estimates) to explain your judgement.</td></tr>
</table>

(3) Certainty of the evidence of test accuracy : What is the overall certainty of the evidence of test accuracy?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ○ Moderate ○ High ○ No included studies	Present the CoE for the Sensitivity and Specificity indicated in your GRADE Evidence Profile **Outcomes** / **Certainty of the evidence (GRADE)** Sensitivity Specificity Describe the reason for downgrading, if done, for which outcomes. And then state the overall CoE : *"The evidence was downgraded/upgraded due to ..xxx, for <outcome>. Overall, the certainty is XXX for the <outcome>" OR "The evidence was not downgraded for the various outcomes. Overall, the certainty is high."*	Provide your reasons for downgrading/upgrading the certainty of the evidence, if any.

(4) Desirable Effects : How substantial are the desirable anticipated effects comparing testing versus not testing?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Small ○ Moderate ○ Large ○ Don't know	Describe the type and no. of study/-ies comparing testing vs not testing considered in the evidence presented Present an abbreviated SoF (without the certainty of evidence column) including only the critical outcomes on Effectiveness **Outcomes** / **Relative Effect (95% CI)** / **Absolute Effects (95% CI)** Benefit Outcome 1 Benefit Outcome 2 / -	Provide your insights and/or concerns, if any, on the evidence presented (research methods, effect size) to explain your judgement.
	If no studies were found, just note "No studies were found comparing outcome on benefit of testing versus not testing using <index test> among <population>	

(5) Undesirable Effects : How substantial are the undesirable anticipated effects comparing testing versus not testing?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Large ○ Moderate ○ Small ○ Don't know	Describe the type and no. of study/-ies comparing testing vs not testing considered in the evidence presented Present an abbreviated SoF (without the certainty of evidence column) including only the critical outcomes on adverse events/ harm **Outcomes** / **Relative Effect (95% CI)** / **Absolute Effects (95% CI)** Harm Outcome 1 Harm Outcome 2 / - Alternatively, present the results of studies that provide information on the adverse effects associated with the index test itself If no studies were found, just note "No studies were found comparing outcome on harms of testing using <index test> among <population>	Provide your insights and/or concerns, if any, on the evidence presented (research methods, effect size) to explain your judgement.

(6) Certainty of the evidence of test's effects :
What is the overall certainty of the evidence for any critical or important direct benefits, adverse effects or burden of the test?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ○ Moderate ○ High ○ No included studies	Present the COE for each outcome (accuracy, effectiveness and harm) indicated in your SoF **Outcomes** / **Certainty of the evidence (GRADE)** Sensitivity Specificity Benefit Outcome 1 Benefit Outcome 2 Harm Outcome 1 Harm Outcome 2 Describe the reason for downgrading, if done, for which outcomes. And then state the overall CoE : *"The evidence was downgraded/upgraded due to ..xxx, for the various outcomes. Overall, the certainty is XXX for the <outcome>" OR "The evidence was not downgraded for the various outcomes. Overall, the certainty is high for all the outcomes."*	Provide your reasons for downgrading/upgrading the certainty of the evidence, if any.

(7) Certainty of the evidence of management's effects :
What is the overall certainty of the evidence of effects of the management that is guided by the test results?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ○ Moderate ○ High ○ No included studies	Present the COE for each outcome (effectiveness and harm) indicated in your SoF **Outcomes** / **Certainty of the evidence (GRADE)** Benefit Outcome 1 Benefit Outcome 2 Harm Outcome 1 Harm Outcome 2 Describe the reason for downgrading, if done, for which outcomes. And then state the overall CoE : *"The evidence was downgraded/upgraded due to ..xxx, for the various outcomes. Overall, the certainty is XXX for the <outcome>" OR "The evidence was not downgraded for the various outcomes. Overall, the certainty is high for all the outcomes."*	Provide your reasons for downgrading/upgrading the evidence, if any.

(8) Balance of effects : Does the balance between desirable and undesirable effects favor doing the test or the comparison (or not doing the test)?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Favors the comparison ○ Probably favors the comparison ○ Does not favor either the test or the comparison ○ Probably favors the test ○ Favors the test ○ Don't know	Short paragraph including the desirable and undesirable results regarding testing vs not testing **Desirable effects** **Undesirable effects** **Overall balance** *Eg. Overall, there is a net benefit in performing the test.*	Provide the other factors you considered in your judgement that were not presented.
(9) Values : Is there important uncertainty about or variability in how much people value the main outcomes, including adverse effects and burden of the test and downstream outcomes of clinical management that is guided by the test result?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Important uncertainty or variability ○ Possibly important uncertainty or variability ○ No important uncertainty or variability	Briefly summarize articles (e.g., qualitative studies like FGD, KAPs, surveys) on patients' values and preferences regarding the test, the linked management and the outcomes considered in assessing the test. Prioritize local studies, if available. If none, indicate "No evidence found".	Describe your own experience on the expressed patient values and preferences on the test, the linked management, and the outcomes considered in assessing the test; particularly if it is not consistent with the evidence provided, if any.
(10) Resources required : How large are the resource requirements (costs)?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Large costs ○ Moderate costs ○ Negligible costs and savings ○ Moderate savings ○ Large savings ○ Don't know	Describe research (stating the design/methods) that provide information on the cost/resource use associated with (1) the test, (2) the confirmatory test, if applicable, and (3) the linked management. List the costs of (1) the test, (2) the confirmatory test if applicable, and (3) the linked management. If available, present the different costs in various settings	Provide details, based on your professional judgement or experience, on the cost/resource use associated with the test, the comparator, and the linked management, in relation to the cost/resource use of not using the test in the target population.

(12) Cost effectiveness : Does the cost-effectiveness of the intervention favor the test or the comparison?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Favors the comparison ○ Probably favors the comparison ○ Does not favor either the intervention or the comparison ○ Probably favors the test ○ Favors the test ○ No included studies	Describe the results of cost-effectiveness / cost-analysis / cost-utility studies. Prioritize studies performed in the Philippines. Include studies done outside the Philipines only if local studies are not available. If none were found, indicate "No cost-effectiveness studies were found."	
(13) Equity : What would be the impact of testing on health equity?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Reduced ○ Probably reduced ○ Probably no impact ○ Probably increased ○ Increased ○ Don't know	Describe results of studies that shows that performing/not performing the test disadvantages a particular population group. List the disadvantaged group, making reference to place of residence, race, ethnicity, culture, language, occupation, gender, sec, religion, education, socioeconomic status, age, disability, relationships with people/organization. If none, indicate "No evidence found"	Provide additional information on how performing/ not performing the test. could disadvantages particular population group. List the disadvantaged group, making reference to place of residence, race, ethnicity, culture, language, occupation, gender, sec, religion, education, socioeconomic status, age, disability, relationships with
(14) Acceptability : Is the intervention acceptable to key stakeholders?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ No ○ Probably no ○ Probably yes ○ Yes ○ Don't know	Describe studies that describe the views, capabilities and circumstances of patients, health care provider, relatives, payers and healthcare institution administrator that prevent the test from being received/accepted by patients or offered by healthcare providers. If none, indicate "No evidence found".	Provide the basis for your judgement such as items/situations that could affect acceptability of the test (whether increased or decreased) to patients, healthcare providers, relatives, payers and healthcare institution administrators.
(15) Feasibility : Is the intervention feasible to implement?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ No ○ Probably no ○ Probably yes ○ Yes ○ Don't know	Describe studies that presents evidence that the use of the intervention can be negatively impacted by feasibility issues relating to the ability of healthcare providers to offer the test. List these issues. May provide the same for the comparator.	Provide the basis for your judgement such as issues or situations that facilitate or prevent the performance of the test/comparator in different settings or subpopulations, based on your experience.

Conclusions

Direction of recommendation

( ) Recommend FOR the test ( ) Recommend AGAINST the test

Justification