



Effective Health Care

Medical Management of Urinary Stone Disease

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Medical management of urinary stone disease will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.
- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to <http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list1/>.

Topic Description

Nominator: Health care professional association

Nomination Summary: The nominator questions the effectiveness of medical and dietary therapy for the treatment of urinary stone disease and for the prevention of recurrence of stones.

Staff-Generated PICO

Population(s): Patients with stone disease (urolithiasis)

Intervention(s): Medical and dietary interventions for treatment and prevention of recurrence

Comparator(s): No treatment/other treatments

Outcome(s): Prevention of stone recurrence, reduced stone formation, quality of life (including suffering and anxiety), costs, complications

Key Questions from Nominator:

1. How does the etiology of stone disease impact treatment and outcomes?
2. What specific dietary measures reduce stone formation?
3. How does medical and dietary therapy for stone prevention impact quality of life overall and in specific patient populations?
4. What are the costs and outcomes of medical treatments for stone disease?
5. What are the complications associated with various types of medical treatments for stone disease?
6. Beyond the economic impact of stone disease, what are the non-monetary aspects of intangible suffering and anxiety? What approaches would help determine the intangible effects on patients with urinary calculi?

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Urinary tract stones are crystallizations of dissolved minerals that form in the duct of the urinary system and can travel to any point in the renal tract (kidney, renal pelvis, ureters, bladder, or urethra). Stone disease is a highly prevalent, painful, and costly condition that is accompanied by a high recurrence rate. A number of drugs and dietary measures have been shown to reduce the rate of stone recurrence. Preventive steps can include medications, increased fluid intake, and change in other dietary habits (increasing/decreasing intake of certain minerals, decreasing animal protein intake, reduced sodium, and increased fruits and vegetables, etc.). The specific prevention methods may differ with regard to the type of stone that the patient has had previously.
- Because no recent evidence-based guidelines for the management of urinary stone disease were identified from the US, it appears that a review on this topic could lead to more evidence-based treatment of the disease.