

UROLOGY WAIVERS

CONDITION: RENAL STONES (ICD9 592.0)

Revised January 2002

AEROMEDICAL CONCERNS: The pain resulting from renal colic can be very severe and disabling. In-flight incapacitation is the main concern. There has been one reported USAF mishap secondary to renal colic.

WAIVER :

Initial Applicants:

Class 1A/1W: A history of kidney stone is disqualifying. Exceptions to policy are sometimes granted for initial flight applicants and require the information listed below.

Class 2, 3, & 4: A history of kidney stone is disqualifying on initial physical. Waivers are possible and require information listed below.

Rated Aviation Personnel (All Classes): For rated aircrew members with a history of a solitary unilateral kidney stone that has resolved and a normal metabolic work-up, no waiver is generally required and condition may be coded as Information Only.

A history of multiple stone formation is usually granted a waiver unless there is a history of 3 or more episodes of stone formation within a 2 year time span.

Waivers are granted for the presence of retained stones provided they are in the renal parenchyma, the metabolic work-up and renal function are normal, and the patient is asymptomatic. Retained stones within the calyx must be too large to pass into the ureter. If the metabolic work-up is abnormal, a waiver may be requested granted the metabolic condition can be controlled with approved medication. Difficulty in controlling a metabolic abnormality may result in a permanent disqualification.

INFORMATION REQUIRED :

- ❖ Renal Stone worksheet- urinalysis should be negative for hematuria, granular casts, or proteinuria.
- ❖ Urine Culture and sensitivity- reflecting no bacterial growth
- ❖ CBC with differential
- ❖ Initial AMS requires:
 - One set of blood chemistries collected when asymptomatic
 - 24-hour urine chemistry
 - IVP (after stone passage/removal)
 - Stone analysis (if possible)

The IVP is required as a functional study of the kidney as well as to rule out any evidence of obstruction or residual dilatation after stone passage.

FOLLOW-UP: Continued waiver will require blood chemistries and CBC with differential submitted with each annual FDME. A 24-hour urine should also be performed if the patient has had an abnormal 24-hour urine in the past or is currently on medication for their abnormality. If there is a prior retained stone, a KUB or CT should be done to confirm any increase in size or change in position. Any doubts must be confirmed by an IVP or CT. A urologist should review CT scan results.

Note: Annual KUBs or CTs are no longer required as follow-up for the history of solitary kidney stone that has been passed and provided the individual has a normal 24 hour urine collection. These studies may be required for individuals with a history of multiple stones, retained stones, or hypercalciuria. The presence of microhematuria in a patient with a prior history of stones will require imaging of the urinary tracts with either an IVP or CT to rule out an asymptomatic stone. A CT would be the preferred initial study. Consultation with a urologist will be required.

TREATMENT: Conservative management aimed at encouraging natural passage of the stone, surgery, or extracorporeal shock wave lithotripsy (ESWL) will result in grounding until fully recovered. For those individuals with recurrent stones or those with metabolic abnormality, providing dietary advice and maintenance of adequate hydration with or without thiazides will normally allow for favorable waiver consideration. Patients requiring placement of a temporary ureteral stent will be grounded until the stent has been removed and the stone condition resolved.

DISCUSSION: The peak incidence of urinary calculi occurs in the twenties to forties, with a 3: 1 male to female ratio. Dehydration is one of the contributing factors. There is usually a gradual onset of flank, abdominal or back pain over an hour or more before the acute colic episode. The patient can also present with micro or gross hematuria. The lifetime risk for stone formation in adult white men approaches 20%, while it is only 5-10% for women. In general, stone disease in adult white males is one-fourth to one-third more common than in black men. The recurrence rate of urolithiasis is reported to be as high as 50% within five years of the initial stone occurrence. Despite the less invasive nature of ESWL, there still remains a relatively high incidence of retained stone fragments and retreatment.

REFERENCE: American Urological Association, Clinical Practice Guidelines, *Management of Ureteral Calculi*, 1997

www.auanet.org Go to Publications/Catalog and click on "Clinical Practice Guidelines"

Lifshitz DA, Shalhav AL, Lingeman JE, and Evan AP: Metabolic evaluation of stone disease patients: a practical approach, J Endourol 13: 669-678, 1999.

Rivers K, Shetty S, and Menon M: When and how to evaluate a patient with nephrolithiasis. *Urological Clinics of North America* 27: 203-213, 2000.

Menon M, Parulkar B, Drach G: Urinary Lithiasis: Etiology, Diagnosis, and Medical Management, *Campbell's Urology*, 7th Edition, Chapter 91, 2661-2734