**Lithotripsy**

**Background**

According to the American Urological Association, extracorporeal shock wave lithotripsy (ESWL) is one of the four choices for removing kidney stones. A machine called a lithotripter (or “stone machine”) creates shock waves that break a kidney stone into bits small enough to pass out with urination.

With ESWL, the patient is in a tub of water. A lithotripter makes waves and focuses them exactly on the kidney stone inside the patient’s body. These waves travel easily through both the water and the patient’s soft body tissues, and then hit the more compact kidney stone. Repeated shock waves cause increasing stress on the stone until it eventually crumbles into bits. Because of possible pain, the patient may need general or local anesthesia or some form of sedation. The chance of being stone free after treatment with ESWL alone is about 50 percent.

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**Involved specialists**

Urologists.

**Positions of societies and academies**

The American Lithotripsy Society (ALS) publishes the paper “Guideline for the Treatment of Urinary Tract Stones with Extracorporeal Lithotrippers.” In this paper, the ALS offers the following criteria:

a. A medical care facility providing renal lithotripsy may serve patients who present a wide range of medical fitness. Thorough preoperative assessment of a patient’s medical condition is essential to planning safe, effective lithotripsy. A facility should offer preoperative evaluation, including second opinions when required.

b. Treatment guidelines should be available, consistent with specific manufacturers’ recommendations and the state of the art as determined by experience and medical literature. The staff should meet standard requirements for training and certification. A Quality Assurance program must be in place and function regularly. Postoperative care must be available and meet urologic standards for surgical procedures. Data
collection is necessary for outcome analysis.

c. High quality, cost-effective stone treatment includes consideration of all methods including observation, medical management, open surgery, percutaneous and endoscopic technique, and alternative methods of lithotripsy. There should be reasonable availability of adjunctive and alternative techniques. Knowledge of the advantages and disadvantages of all alternatives is necessary for patient selection, safety, and efficacy.

d. Cognitive skills required for the successful management of stone disease are considerable, and must be coupled with the technical skills necessary for lithotripter treatment. Patient safety and effective outcome are the ultimate goals. The appropriate setting meets these parameters and goals.

The National Kidney Foundation (NKF) publishes a position paper on ESWL. In this paper, the NKF says the following about physician utilization and physician training:

- Physician utilization: Because of the complexity of the problems and the cost related to both the surgical management of urolithiasis and operation of an ESWL unit, all patients treated in the facility should be under the direct care of a physician. The physician should be board certified or qualified in urology and ESWL and have expertise in all areas of stone management (medical, surgical, percutaneous, and endoscopic). Additionally, the physician should be able to manage complications associated with the procedure and have appropriate back-up consultation available when required.

Physician involvement in an ESWL facility varies. A physician may refer patients to the facility after a careful evaluation and then follow the patient after stone fragmentation has been carried out by another physician operating the device. Because of the complicated technology and specialized training required, it is conceivable that not all qualified physicians will elect to be users of the facility. Under these circumstances, ESWL-trained urologists operate the facility and return the patient to his or her referring physician for post-operative care and follow-up. Physician involvement also occurs with individuals evaluating and treating patients with ESWL and participating in their follow-up care directly. Other types of involvement are conceivable based on physician desire and facility availability.

- Physician training: Training should be available to board certified or qualified urologists or urology residents in ap...
proved training programs. These individuals should be qualified in all areas of management of stone disease. Training in ESWL should occur in established ESWL units, and training criteria should be established by the American Board of Urology and the Residency Review Committee, which is currently responsible for the training and certification of competency in all other aspects of urologic practice. It would be the responsibility of the Urology Program Directors, Residency Review Committee, and the American Board of Urology to be sure that trainees receive adequate instruction in this technique; satisfying those criteria would satisfy the requirement for certification of competency.

Teaching should be in the traditional setting where a comprehensive educational program is in progress in all aspects of prevention and management of stone disease and there is no conflict of interest with competing technology. This allows the trainee to develop proficiency in a setting that exemplifies proficiency in all aspects of care related to urolithiasis.

AUA

The American Urological Association (AUA) does not publish credentialing information concerning ESWL but does state that "The AUA recommends that urologists be the treating physicians for genito-urinary stones because of their documented expertise in handling all aspects of the disease. And that privileges of ESWL treatment of kidney stones be granted at local levels.”

Positions of other interested parties

Lithotripters, Inc., in Fayetteville, NC, provides mobile lithotripsy units that service medical facilities nationwide. The company requires for certification to operate ESWL equipment that practitioners must do the following:

- be board certified in urology;
- hold a certificate indicating successful completion of an ESWL course from a training site approved by the American Urological Association;
- if the candidate has prior experience in operating ESWL equipment, he or she must participate in four cases with a trainer who is certified to perform ESWL;
- if the candidate has no prior experience in operating ESWL equipment, he or she must participate in eight cases with a trainer who is certified to perform ESWL; and
- take an exam based on a syllabus of the ESWL technique.

CRC draft criteria

The following draft criteria are intended to serve solely as a starting point for the development of an institution's policy regarding this procedure.
Minimum threshold criteria for requesting lithotripsy privileges

Education: MD or DO

Minimum formal training: The applicant must be able to demonstrate successful completion of a residency or fellowship program approved by the American Board of Urology. Or the applicant must hold a certificate indicating proper training in ESWL from a center approved by the American Urological Association. This training should involve management of 25 patients for five to 10 consecutive working days and include pre-treatment studies and post-treatment care of these patients.

Required previous experience: The applicant must be able to demonstrate that he or she is qualified to perform ESWL. Due to the complexity of ESWL technology, the following monitoring system should be employed.

a. For candidates who have previous ESWL experience, a minimum of four cases should be observed by a practitioner who is credentialed to perform ESWL.

b. For candidates who have no previous ESWL experience, a minimum of eight cases should be observed by a practitioner who is credentialed to perform ESWL.

Note: There should be a statement from the director of the training program, residency program, or fellowship program that the candidate is competent to carry out the ESWL procedure.

For more information

For more information regarding privileging this procedure, contact:

American Lithotripsy Society
13 Elm Street
Manchester, MA 01944
Telephone: 508/526-8330
Fax: 508/526-4018

American Urological Association
1120 North Charles Street
Baltimore, MD 21201
Telephone: 410/727-1100
Fax: 410/625-2390
Privilege Request Form
Lithotripsy

In order to be eligible to request clinical privileges for lithotripsy, a practitioner must meet the following minimum threshold criteria:

• Education: MD or DO

• Minimum formal training: The applicant must be able to demonstrate successful completion of a residency or fellowship program approved by the American Board of Urology. Or the applicant must hold a certificate indicating proper training in ESWL from a center approved by the American Urological Association. This training should involve management of 25 patients for five to 10 consecutive working days and include pre-treatment studies and post-treatment care of these patients.

• Required previous experience: The applicant must be able to demonstrate that he or she is qualified to perform ESWL. Due to the complexity of ESWL technology, the following monitoring system should be employed.
  a. For candidates who have previous ESWL experience, a minimum of four cases should be observed by a practitioner who is credentialed to perform ESWL.
  b. For candidates who have no previous ESWL experience, a minimum of eight cases should be observed by a practitioner who is credentialed to perform ESWL.

• References: Letters of reference must come from the director of the training program, residency program, or fellowship program.

I understand that in making this request I am bound by the applicable bylaws or policies of the hospital and hereby stipulate that I meet the minimum threshold criteria for this request.

Physician’s signature: ___________________________________________________________

Typed or printed name: ___________________________________________________________

Date: _______________________________________________________________________

The information contained in this document has been designed and is intended for use by hospitals and their credentialing committees in developing their own local approaches and policies for various credentialing issues. These materials, opinions, and draft criteria should not be adopted for use without careful consideration, discussion, and additional research by physicians in local settings. The Credentialing Resource Center does not provide legal or clinical advice; for such advice, the counsel of competent individuals in these fields must be obtained.

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