

EMBARGOED FOR RELEASE until August 7, 2014 – 5:00 PM (ET)

Contacts: Tracy Hampton • (312) 339-9067 • thampton@nasw.org
Adrienne Lea • (202) 503-6560 • alea@asn-online.org

NEW TEST PREDICTS INDIVIDUAL'S RISK OF A SECOND KIDNEY STONE

Results may help determine whether preventive measures are needed

Highlights

- A new tool uses 11 questions to accurately calculate the probability that a patient will have another symptomatic kidney stone at 2, 5, or 10 years after the first stone.
- Characteristics that predict a higher risk include younger age, male gender, white race, family history of kidney stones, blood seen in the urine, stone made of uric acid, obstructing stone in the kidney pelvis, any additional non-obstructing stone, and a past painful event attributed to a kidney stone that was not actually seen.

9% of men and 6% of women in the U.S. have experienced a painful kidney stone.

Washington, DC (August 7, 2014) — A new tool that takes multiple factors into account can accurately predict how likely a patient who experienced a painful kidney stone will develop another one in the future. The tool, which is described in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN), could help patients and their doctors determine whether preventive measures are needed.

Kidney stones are common and affect approximately 6% to 9% of the population. The greatest concern of patients who have experienced a kidney stone is whether this excruciating painful event will ever happen again. Certain dietary recommendations and medications can help prevent another kidney stone from forming, but these can be burdensome, expensive, or cause side effects. “If we knew which patients were at high risk for another symptomatic kidney stone, then we could better advise patients on whether to follow stone prevention diets or take medications,” said Andrew Rule, MD (Mayo Clinic). “At the same time, patients who are at low risk of having another kidney stone may not need restrictive diets and medications.”

Dr. Rule and his colleagues conducted a study to help them develop a prediction tool that could be used by patients and their doctors to determine the risk of having a second symptomatic kidney stone after the first. The team reviewed the medical records of all adult first-time symptomatic stone formers residing in Olmsted County, Minnesota, from

1984 to 2003. Of the 2239 individuals identified, 707 experienced a recurrence through 2012.

From the information they gathered, the researchers developed the Recurrence of Kidney Stone (ROKS) nomogram that uses 11 questions about the patient to accurately calculate the probability of having another symptomatic kidney stone at 2, 5, or 10 years after the first stone. Characteristics that predict a higher risk include younger age, male gender, white race, family history of kidney stones, blood seen in the urine, stone made of uric acid (rather than calcium), obstructing stone in the kidney pelvis, any additional non-obstructing stone, and any past painful event attributed to a kidney stone even though a stone was not seen.

The nomogram is available on the Internet at <http://www.qxmd.com/calculate-online/nephrology/recurrence-of-kidney-stone-roks>.

In an accompanying editorial, Brian Eisner, MD (Massachusetts General Hospital and Harvard Medical School) and David Goldfarb, MD (York Harbor VA Healthcare System and NYU School of Medicine) noted that for the nomogram to demonstrate value, it now should be tested prospectively in additional populations of stone formers. "Whether additional variables can be added to increase the usefulness of this tool will be of interest in the future," they added.

Study co-authors include John Lieske, MD, Xujian Li, MS, L Joseph Melton III, MD, Amy Krambeck, MD, and Eric J Bergstralh, MS.

Disclosures: The study was accomplished through the Mayo Clinic O'Brien Urology Research Center that is funded by the National Institute of Diabetes and Digestive and Kidney Diseases.

The article, entitled "The ROKS Nomogram for Predicting a Second Symptomatic Stone Episode," will appear online at <http://jasn.asnjournals.org/> on August 7, 2014.

The editorial, entitled, "A Nomogram for the Prediction of Kidney Stone Recurrence," will appear online at <http://jasn.asnjournals.org/> on August, 7, 2014.

The content of this article does not reflect the views or opinions of The American Society of Nephrology (ASN). Responsibility for the information and views expressed therein lies entirely with the author(s). ASN does not offer medical advice. All content in ASN publications is for informational purposes only, and is not intended to cover all possible uses, directions, precautions, drug interactions, or adverse effects. This content should not be used during a medical emergency or for the diagnosis or treatment of any medical condition. Please consult your doctor or other qualified health care provider if you have any questions about a medical condition, or before taking any drug, changing your diet or commencing or discontinuing any course of treatment. Do not

The American Society of Nephrology®, ASN®, Kidney Week®, CJASN®, JASN®, NephSAP®, and ASN Kidney News® are registered trademarks of ASN

ignore or delay obtaining professional medical advice because of information accessed through ASN. Call 911 or your doctor for all medical emergencies.

Founded in 1966, and with more than 14,000 members, the American Society of Nephrology (ASN) leads the fight against kidney disease by educating health professionals, sharing new knowledge, advancing research, and advocating the highest quality care for patients.

#

Tweet: A new test predicts individual's risk of developing a second kidney stone.
<http://www.bit.ly/ASN-XXXX>

Facebook: A new tool that takes multiple factors into account can accurately predict how likely a patient who experienced a painful kidney stone will develop another one in the future. The tool, which is described in a study published in the *Journal of the American Society of Nephrology*, could help patients and their doctors determine whether preventive measures are needed.

&&“

Rebecca F. Eisenman
(eisenman.rebecca@mayo.edu)