Medical Xpress

Researchers say urine dipstick test is accurate predictor of renal failure in sepsis patients

May 14 2012

Henry Ford Hospital researchers have found that the presence of excess protein in a common urine test is an effective prognostic marker of acute renal failure in patients with severe sepsis.

Researchers analyzed data from 328 sepsis patients with no previous history of protein in the urine and found the urine dipstick test predicted the presence of renal failure in 55 percent of these patients.

A urine dipstick test is routinely done as part of a urinalysis to help diagnose urinary tract infections, kidney disease, diabetes and sepsis, the deadly bloodstream infection. After a urine sample is taken, a specially treated chemical strip is placed into the sample. Patches on the dipstick will change color to indicate the presence of such things as white blood cells, protein, or glucose.

Many studies have shown the dipstick test to be a rapid detector for identifying urinary tract infections. Henry Ford researchers evaluated for the first time the dipstick test for its accuracy of identifying renal failure in sepsis patients.

Results of the study were presented Thursday at the National Kidney Foundation's annual meeting in Washington, D.C.

"This is a useful test that is widely available and inexpensive," says

Javier Neyra, M.D., a third-year resident at Henry Ford and the study's lead author.

Dr. Neyra says the dipstick test excess protein, or proteinria, resulted in fewer false positives and a greater threshold for detecting more severe renal failure compared to other biomarkers. Ultimately, he says, the test may provide timely and early diagnosis of renal failure before substantial damage has already been done.

 Provided by Henry Ford Health System