September 16, 2013

To: Chiefs of Service, Attending Physicians, Housestaff, Nurses and Other Concerned Personnel

From: Eberhard Fiebig, M.D.  Zane Amenhotep, MD  
        Director, Clinical Laboratory Division Chief, Hematology/Blood Bank

Re: Discontinuation of Reporting of Bacteria on Routine Urinalysis

Effective September 10th, 2013, the Clinical Laboratory has discontinued reporting the presence or absence of bacteria in conjunction with microscopic urinalysis. For those samples in which urinary tract infection is suspected on the basis of the screening tests, e.g., leukocyte esterase and nitrite, please submit a new urine sample for culture.

Background and Rationale:

Both automated and manual microscopic examination of urine sediment is performed using light microscopy on unstained wet preparations of urine sediment. The presence of bacteria was previously reported as a comment when identified on microscopic examination.

The detection of bacteria by automated microscopy has demonstrated insufficient reproducibility to reliably determine the presence or absence of bacteria by urine sediment microscopy or to correlate with the results of the gold standard of urine culture. Specifically, the current automated method has a sensitivity that is too low to achieve clinical significance as a method to reliably rule out UTI and the specificity is too low to reliably rule in UTI. As such, it is our perspective that the presence or absence of bacteria in urine sent for routine urinalysis should not be used to confirm or exclude diagnosis of a urinary tract infection. Positive tests for leukocyte esterase and nitrite may provide presumptive evidence of infection but should be confirmed by urine culture on a new urine sample.

This approach was discussed with our colleagues on the SFGH Clinical Infectious Disease Service and is also aligned with the current practice at the UCSF Clinical Laboratory.

For questions or concerns, please contact Dr. Eberhard Fiebig by phone (x68588) or e-mail (efiebig@ucsf.edu) or Dr. Zane Amenhotep by phone (x68240) or e-mail (zane.amenhotep@ucsf.edu).