

# Catheter-associated Urinary Tract Infection: Pathogenesis, Diagnosis, Risk Factors, and Prevention

Hataiwan Ratanabunjerdkul, M.D.\*,

Sanit Wichansawakun, M.D.\*,

Sasinuch Rutjanawech, M.D.\*,

Anucha Apisarntharak, M.D.\*\*

## ABSTRACT

With the increased use of Foley catheters, the incidence of catheter-associated urinary tract infection (CA-UTI) has increased dramatically. This increase may be attributed to prolonged use, inappropriate indications, and also poor host factors. Catheterization causes UTI by introducing microorganisms which are embedded in the catheter's surface biofilm at the insertion or ascend later. We summarize the infection control aspects of CA-UTI with the focusing on pathogenesis, diagnosis, risk factors, and prevention. (*J Infect Dis Antimicrob Agents* 2006;23:149-59.)

\*Department of Internal Medicine, Faculty of Medicine, Thammasat University Hospital, Patumthani 12120, Thailand.

\*\*Division of Infectious Diseases, Thammasat University Hospital, Patumthani 12120, Thailand.

Received for publication: August 8, 2006.

Reprint request: Anucha Apisarntharak, M.D., Division of Infectious Diseases, Thammasat University Hospital, Patumthani 12120, Thailand.

E-mail: anapisarn@yahoo.com

**Keywords:** Catheter-associated urinary tract infection (CA-UTI), pathogenesis, definition, risk factors, prevention.