

Urinary tract infection

Urinary tract [infections](#) (UTIs) account for about 35% of all [nosocomial infections](#) and 75% are associated with the use of [urethral catheters](#).

[Escherichia coli](#) & [Proteus](#) spp. are common

Side effects of [Botulinum toxin](#) include [urinary tract infection](#) and [urinary retention](#).

Adult meningioma patients treated with craniotomy in US hospitals between 2002 and 2007 were queried from the Nationwide Inpatient Sample (NIS) database. Univariate and multivariate analyses that correct for sample survey design data were used to study the association of perioperative UTIs and outcomes.

In all, 46,344 patients were included. Women comprised the majority (70.0%), had lower mortality (1.2% vs 2.0%), shorter in-hospital stay (6.7 vs 7.5 days), lower hospital charges (US\$76,682 vs 87,220) and higher UTI rates (6.3% vs 3.9%) than men. In multivariate analysis, female gender (odds ratio: 2.2; $P < 0.0001$), older age (1.4; $P < 0.001$), emergency room admissions (1.8; $P < 0.0001$), total length of stay (1.08; $P < 0.0001$), comorbidity score (1.04; $P = 0.0147$), postoperative fluid abnormalities (1.96; $P < 0.0001$) and pulmonary complications (1.3; $P < 0.0011$) were associated with UTI. UTI was associated with an additional 2.3 days of hospital stay and an incremental US\$18,920 in hospital charges.

Perioperative UTIs are associated with specific comorbidities and postoperative complications. They significantly increase in-hospital length of stay and costs. Our data emphasize the need to support national efforts that are underway to reduce hospital-acquired UTIs within the neurosurgical population ¹⁾.

Prevention

[Urinary Tract Infection Prevention](#).

Risk factors

Children with [myelomeningocele](#) (MMC) qualifying for [fetal surgery](#) who underwent [cerebrospinal fluid shunt placement](#) were more likely to have recurrent UTIs, develop [kidney failure](#), and be hospitalized. Since approximately half of the shunt procedures could be avoided by fetal surgery, there is a clinical benefit and a possible financial benefit to the implementation of this technology ²⁾.

Treatment

The first-choice agents for treatment of uncomplicated acute cystitis in women include nitrofurantoin

monohydrate/macrocrystals, trimethoprim-sulfamethoxazole (TMP-SMX), or fosfomycin. Beta-lactam antibiotics may be used when other recommended agents cannot be used ^{3) 4)}.

Increasing resistance rates among uropathogens have complicated treatment of acute cystitis. Individualized assessment of risk factors for resistance and regimen tolerability is needed to choose the optimum empirical regimen ⁵⁾.

1)

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2)

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3)

Gupta K, Hooton TM, Naber KG, et al. International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases. Clin Infect Dis. Mar 2011;52(5):e103-20.

4)

Wagenlehner FM, Schmiemann G, Hoyme U, Fünfstück R, Hummers-Pradier E, Kaase M, et al. [National S3 guideline on uncomplicated urinary tract infection: recommendations for treatment and management of uncomplicated community-acquired bacterial urinary tract infections in adult patients]. Urologe A. Feb 2011;50(2):153-69

5)

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