

# Urinary Retention in Hospitalised Older Women

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## Abstract

**Introduction:** Information about urinary retention in women is scarce. We conducted a case-control study to identify the symptoms and risk factors associated with urinary retention in hospitalised older women. **Materials and Methods:** Targeted history (especially lower urinary tract symptoms) and physical examination of 60 women (65 years or older) who had post-void residual urine volume (PRUV) (determined using a portable ultrasound Bladder Scan BVI-2500) of more than 100 mL were studied and compared with 60 controls. **Results:** Symptoms of voiding difficulties had low positive predictive value (PPV) and negative predictive value (NPV), except for poor stream, which has a PPV of 100%. Only one-third of the patients with high PRUV had a palpable bladder. Associated with high PRUV were: 1) constipation [odds ratio (OR), 4.12; 95% confidence interval (CI), 1.90 - 8.91; P = 0.0004]; 2) urinary tract infection (UTI) (OR, 3.36; 95% CI, 1.58-7.12; P = 0.002); 3) impaired mobility (OR, 2.37; 95% CI, 1.12-4.97; P = 0.02); 4) past history of UTI (OR, 3.5; 95% CI, 1.34-9.14; P = 0.014); 5) past history of urinary retention (OR, 6.33; 95% CI, 1.72 - 23.33; P = 0.004); 6) stroke (OR, 2.5; 95% CI, 1.24-5.41; P = 0.017); 7) diabetes mellitus with microvascular complications (OR, 2.76; 95% CI, 1.08-7.04; P = 0.042). Applying logistic regression analysis, the three best predictive variables for high PRUV were constipation, UTI and past history of urinary retention. **Conclusion:** Symptoms (except for positive history of poor stream) and signs were unreliable in diagnosing urinary retention in hospitalised older women. Patients with the above risk factors should have their PRUV ascertained, which can be done reliably non-invasively. Early detection with appropriate intervention can potentially prevent the morbidity and mortality associated with urinary retention.

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**Key words:** Geriatric, Residual urine, Risk factors, Voiding dysfunction

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