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Authors
Mulcare, M R
Rosen, A
Viswanathan, K
et al.

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Educating Emergency Medicine Residents about Appropriate Indwelling Urinary Catheter Placement and Management in Older Adults

Mulcare MR, Rosen A, Viswanathan K, Clark S, Flomenbaum N, Stern ME/NewYork-Presbyterian Hospital/Weill Cornell Medical Center, New York, NY

**Background:** Indwelling Urinary Catheters (IUCs) are placed frequently in older adults in the ED and carry significant risks. To address this patient quality and safety issue, we developed a new evidence-based clinical protocol highlighting appropriate indications for placement, reassessment, and removal of IUCs in the ED.

**Objectives:** The purpose of this research is to evaluate education of EM residents in appropriate usage of IUCs in older adults.

**Methods:** We developed a comprehensive, evidence-based educational intervention at a large, university-based medical center, consisting of a 20-minute scripted slide presentation describing the components of the protocol. Written surveys, including 25 unique clinical scenarios each representing possible IUC placement, were administered before and immediately after the intervention.

**Results:** Forty-seven EM residents participated in this study. Ninety-four percent of residents reported that the intervention made them more comfortable with the appropriate indications for IUC placement. Eighty-five percent reported anticipating that this intervention would reduce rates of IUC use and increase patient safety. After the intervention, residents improved in correctly identifying the appropriate approach to IUC placement in the 25 clinical vignettes (33% before versus 58% after; p<0.001). There was an improvement in resident recognition that placement of an IUC is inappropriate in older adults with delirium (2% versus 40%; p<0.001) or dementia (6% versus 36%; p<0.001). After the intervention, 89% reported intent to increase frequency of IUC re-assessment, 76% reported intent to remove IUCs more frequently, and 89% anticipated that the protocol would be easy to incorporate into practice.

**Conclusions:** A brief educational intervention on IUC usage in older adults may have a significant impact on EM resident practice. Future research is needed to evaluate the long-term impact of this educational intervention and the evidence-based clinical protocol on patient centered outcomes.