

URINARY CATHETERIZATION PRACTICES IN A COMMUNITY HOSPITAL: A COMPARISON OF AN ACUTE MEDICAL UNIT AND A GERIATRIC UNIT



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INTRODUCTION

- Urinary catheterization is one of the most common bedside procedures.
- The prevalence of urinary catheterizations ranges from 10% to 75% depending on the care setting.
- However, several studies have reported on inappropriate UCs, with rates of 13% to 54% among hospitalized patients and up to 62% among long-term care residents.

OBJECTIVE

To compare the urinary catheterization practices between a geriatric unit and acute medical care units among patients 65 years of age and older.

METHODS

Design: Cross-sectional study through chart review.

Sample: Patients ≥ 65 years of age admitted for nonsurgical conditions, for 3 days or more, at the Grey Nuns Community Hospital in Jan 2011-Jun 2014.

Reasons for classifying urinary catheterizations as inappropriate:

- No documented indication.
- No documented history/symptomatology requiring catheterization.
- No documented treatment requiring catheterization.
- No indication for re-insertion (i.e., after catheter removal).

Data Analysis: Descriptive statistics (mean, standard deviation, percentages); t-test; chi-square test.

RESULTS

Demographics

- Total Sample Size: 216
- Overall Mean Age: 82 ± 9 years
- Female-to-Male Ratio: 3:2

Geriatric Unit (n=96)	Acute Medical Units (n=120)
83 ± 7 years	81 ± 9 years ^{Sig}
62% Females	58% Females ^{NS}

40.7 % of patients had urinary catheterizations (88/216).

Geriatric Unit	Acute Medical Units
34.4% (33/96)	45.8% ^{Sig} (55/120)

Reasons for Appropriate Catheterization (n=49)

Retention/Obstruction (24/49)	48.9%
Input-Output Measurement (13/49)	26.5%
Perioperative (5/49)	10.2%
End-of-Life Care (4/49)	8.2%
Neurogenic Bladder (2/49)	4.1%

44.3 % of catheterizations were inappropriate (39/88).

Geriatric Unit	Acute Medical Units
42.4% (14/33)	45.5% ^{NS} (25/55)

56.0 % of catheterizations in females were inappropriate (28/50), in contrast to 28.9% of catheterizations in males (11/38) (p=0.006).

Legend: Sig, Significant (p<0.05); NS, Not significant (p>0.05)

38.6% of catheterized patients had complications (34/88).

Geriatric Unit	Acute Medical Units
42.4% (14/33)	36.4% ^{NS} (20/55)

Complications (n=34)

Urinary Tract Infection (21/34)	61.8%
Hematuria (7/34)	20.6%
Inability to Remove Catheter (4/34)	11.8%
Blockage (2/34)	5.9%

Device Utilization Ratio: Duration of catheterization relative to hospitalization

5.9 DAYS was the overall duration of catheterization.

Geriatric Unit	Acute Medical Units
5.7 days	8.55 days ^{NS}

22.2 DAYS was the overall duration of hospitalization.

Geriatric Unit	Acute Medical Units
30.7 days	15.4 days ^{Sig}

18.3% was the device utilization ratio for the geriatric unit, in contrast to 63.32% in the acute medical units (p<0.05).

Catheterized patients from the geriatric unit were on catheters 18.3% of the time, in contrast to the 63.3% of the time among patients from the acute medical units.

CONCLUSION

There is a need to review protocols on urinary catheterizations to ensure appropriateness of indication and duration.