I. Introduction

Urinary retention is a frequently occurring complication of hospitalized patients. While patients under urologic care are under close observation for voiding difficulties, equal care cannot be expected of patients receiving treatment for other morbidities. Despite the variety of causes, usually little else can be done besides immediate decompression of the bladder. However, recovery time from bladder dysfunction is often unpredictable, and no literature describes how long a patient may expect to be catheterized.

The current study attempts to identify the requisite period of catheterization following bladder distention in sudden idiopathic urinary retention.

II. Methods

Patients were enrolled once consultation for urinary retention was reported.

Retention amount, patient age, recent surgical history, presence of hypertension, diabetes, CVA and spinal injury history.

Prostate volumes were measured for male patients; prostates larger than 30g were excluded.

Patients were catheterized and the managing department was instructed to keep the catheter open, allowing unobstructed flow.

Voiding Trial:
Every half week (3 to 4 days) patients were given a voiding trial.
A voiding trial consisted of infusing the catheter with 300ml of saline before removal and performing a uroflowmetry and residual voiding measurement by ultrasonography.
Successful voiding was determined as a residual urine of less than 100ml. Failing the voiding trial meant recatheterization and attempting a voiding trial at the next period.

Logistic regression models were created and compared to predict recovery from retention within 14 days.

III. Results

Retention amounts varied from as low as 200ml to as high as 1400 ml. Median retention volume was at 470 ml.

Outcome predictors of good recovery
- age (below 70) OR 4.11 ± 2.18, p=0.008
- retention volume (over 450) OR 0.22 ± 0.14, p=0.017
- recent operation (vs. spontaneous) OR 4.38 ± 2.26, p=0.004
- sex (females were less likely) OR 0.11 ± 0.06, p<0.001

Logistic Regression Model predicted Recovery (within 14 days) as a function of age, volume, PostOp state and Sex

IV. Conclusions

Current study presents a standardized method to investigate urinary retention within the in-hospital patient group

Distinct Retention groups to consider include PostOP vs. Spontaneous retention, Male vs Female and Retentions by severity and patient age.