



# Evaluating the Effectiveness of a Multidimensional Bundle to Reduce Urinary Tract Infection in Long-term Spinal Cord Injury/Disordered Patients: A Retrospective Review



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## PROBLEM:

Urinary Tract Infections remain the most frequently encountered secondary health condition in the Spinal Cord Injury/Disorder population that adversely impacts overall health and quality of life. Efforts to reduce CAUTI/UTIs have historically been unsuccessful in this population.

### CAUTI/UTI definition:

- Fever >100.4°F
- Nausea/vomiting
- Positive Urine culture: 100,000CFU/ml
- Increased spasms/hematuria/ change in urine output
- Increased WBC

## METHODS:

A retrospective, pre- and post -implementation analysis of a multi-factorial bundle was piloted on twenty-eight (28) Spinal cord patients at a large midwestern veterans administration hospital. The impact of the nursing interventions was measured by calculating CAUTI/UTI incidence rates during a baseline period of October 2018 through May 2019. Baseline rates were then compared to CAUTI/UTI rates calculated from the intervention period of June 2019 through November 2019.

## PURPOSE:

Reduce Catheter Associated Urinary Tract Infections (CAUTI) and Urinary Tract Infections (UTI) in the SCI/D population in a Long-Term Care facility, through the implementation of a multi-factorial bundle.

## PROCESS:

### Five Nursing Intervention Bundle:

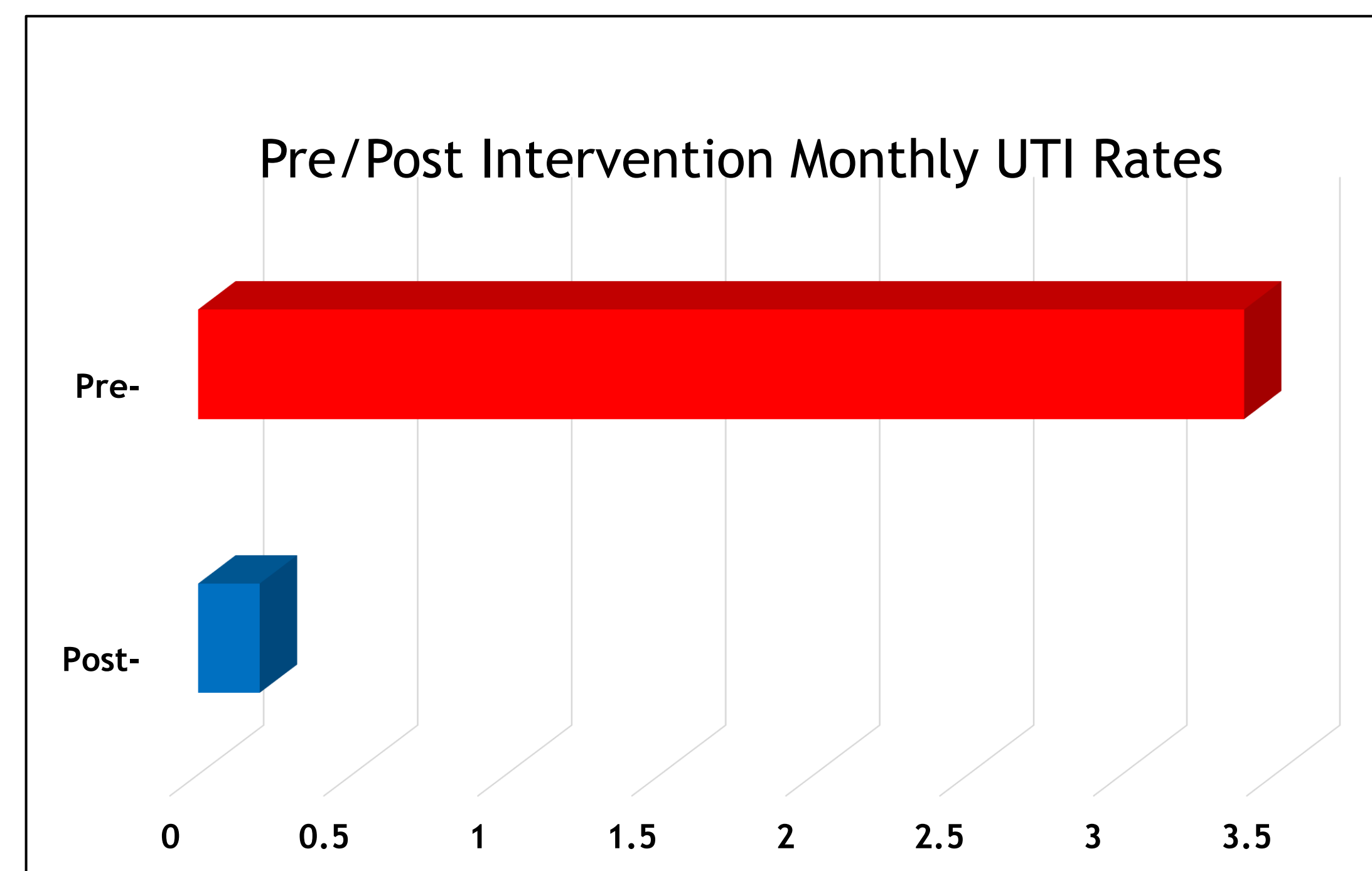
- ✓ Clean 2 times per day with a novel topical adjunctive therapy cleanser \*
- ✓ Removal of all bath basins for bathing
- ✓ Implementation of silicone catheters vs latex catheters to prevent leakage and prevent biofilm adherence
- ✓ Reduction of catheter flushing
- ✓ Standardized education



## OUTCOME:

CAUTI/UTI rates were substantially reduced from twenty-six (18 CAUTI & 8 UTI) to one (1 CAUTI and 0 UTI) after implementation of the quality improvement bundle.

The multifactorial bundle achieved the projects aim in reducing CAUTI/UTI rates by 96%.



\* Theraworx Protect foam and wipes