

“The use of a hydrophilic-coated catheter for IC is associated with a delay in the onset of the first antibiotic-treated symptomatic UTI and with a reduction in the incidence of symptomatic UTI in patients with acute SCI during the acute inpatient rehabilitation.”

Cardenas et al., 2011

Study Hypothesis

Primary hypothesis: Hydrophilic coating delays onset of 1st symptomatic UTI; hydrophilic coating reduces number of symptomatic UTI

Study Type and Methods

Randomized controlled trial of hydrophilic and uncoated catheter. Patients were in Institutional phase (IC administered by self or NP) followed by community phase (IC self-administered) for a total of 6 months.

Patient Population

114 adult acute SCI patients with no h/o IC use (<10d) completed the study

Catheters compared

Hydrophilic coated: SpeediCath (n= 108); Uncoated: Conveen (n= 116)

Outcomes Measured

Primary outcomes: UTI

Secondary outcomes: Microhematuria (measured as proportion of positive dipstick test for erythrocytes), Subjective evaluation (scale of 0 to 10)

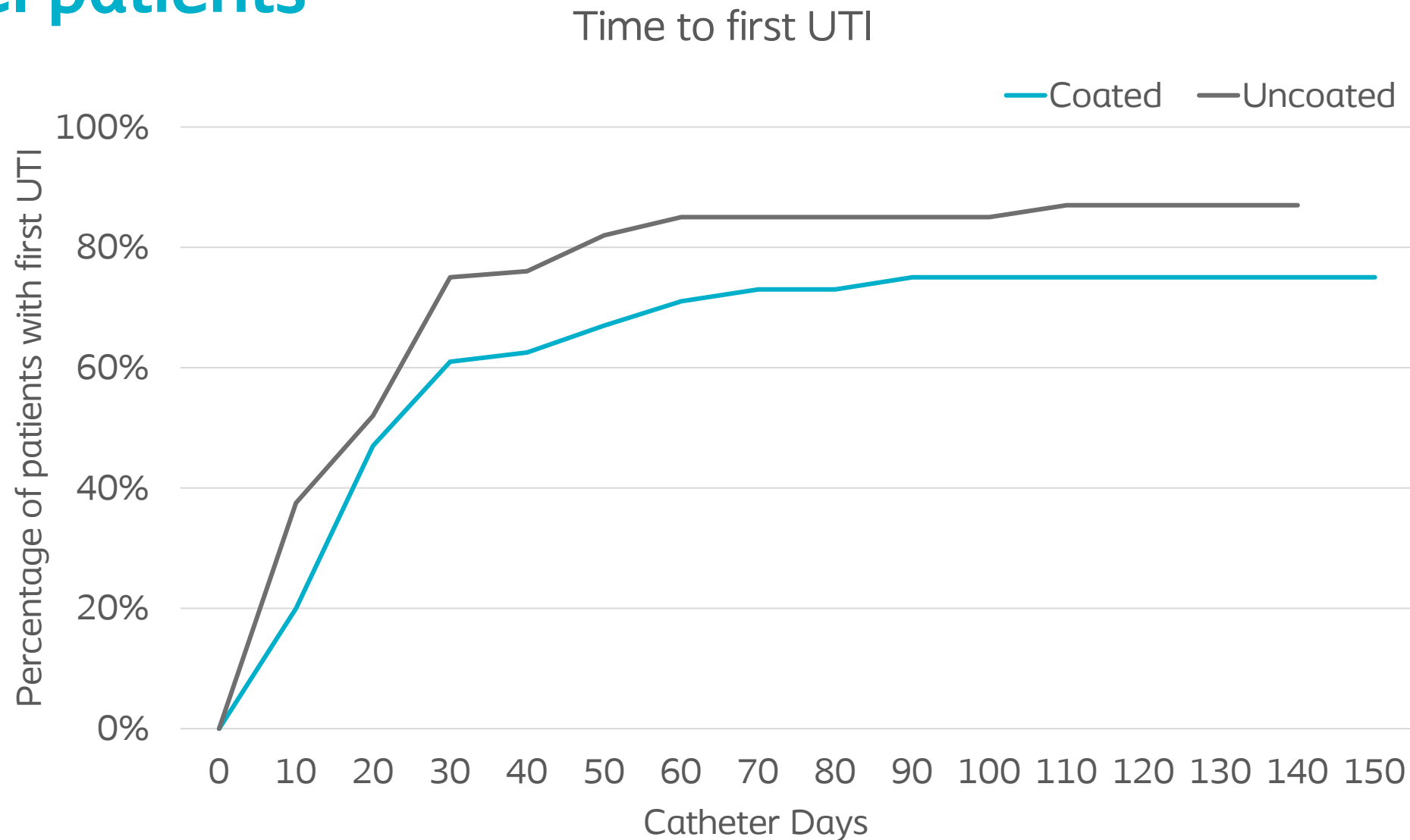
Strengths

- IC Naïve patients – unbiased to type of catheter or coating
- IC Naïve patients – similar urethral trauma due to prior IC use
- Moderately large sample size
- Study duration reasonable to allow for learning curve

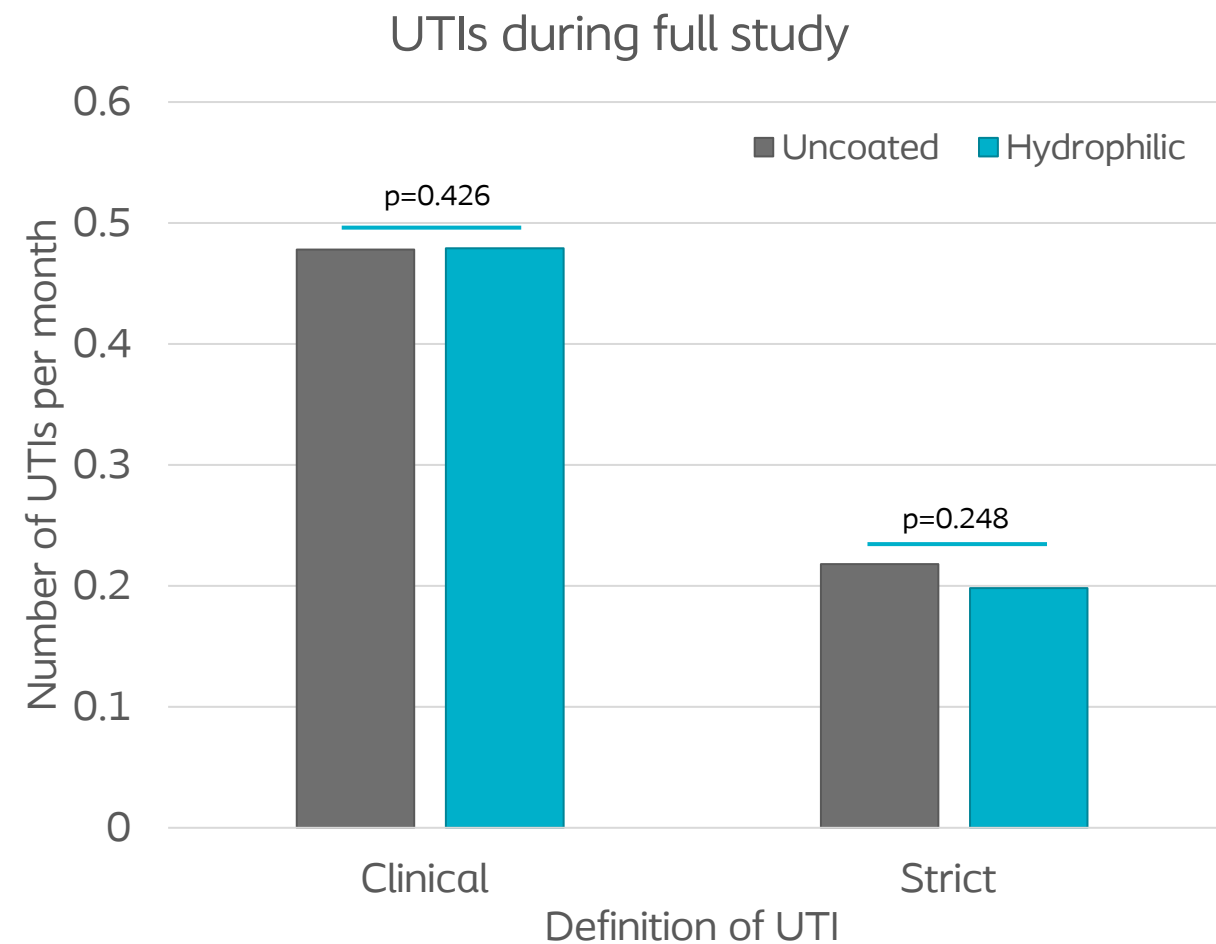
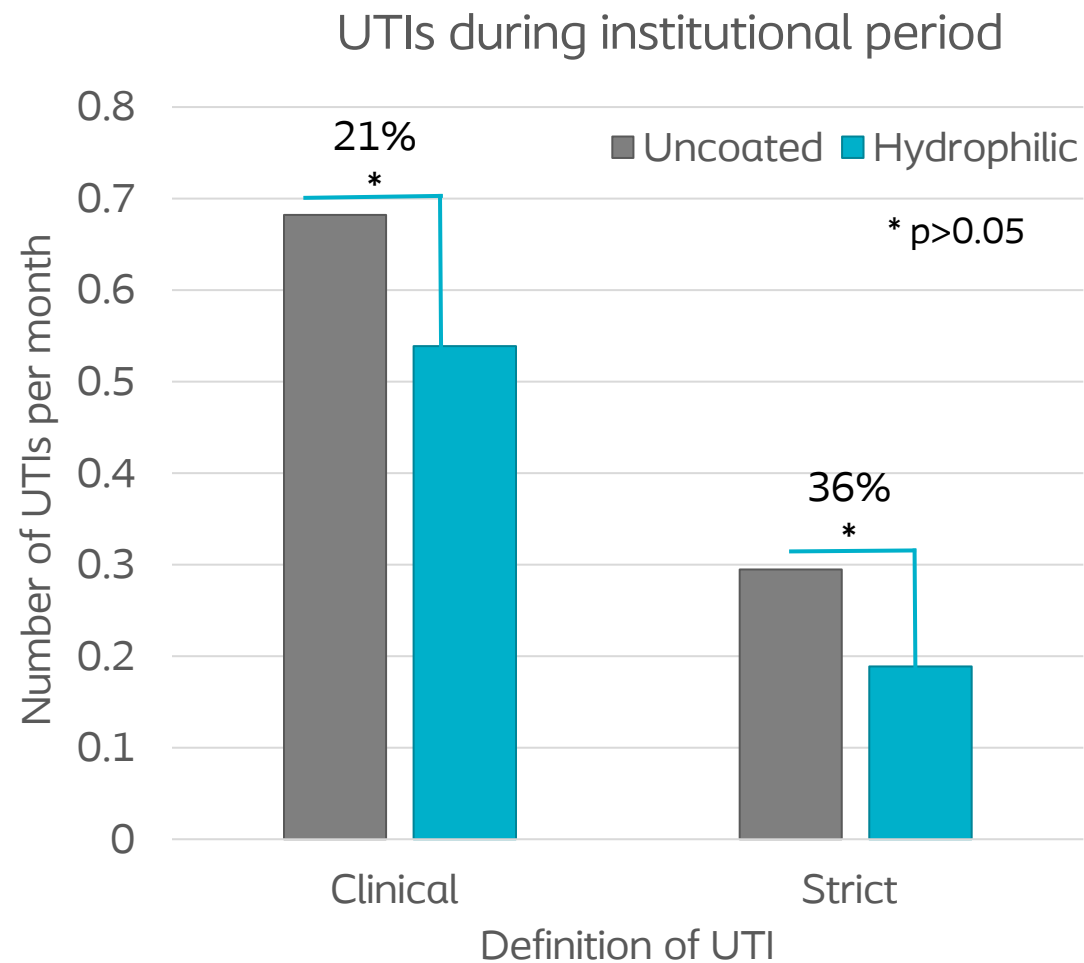
Limitations

- High drop out rates (56% dropped out in HC, 39% in uncoated)
- Number of urethral bleeding in HC group was significantly higher than uncoated ($P < 0.05$)

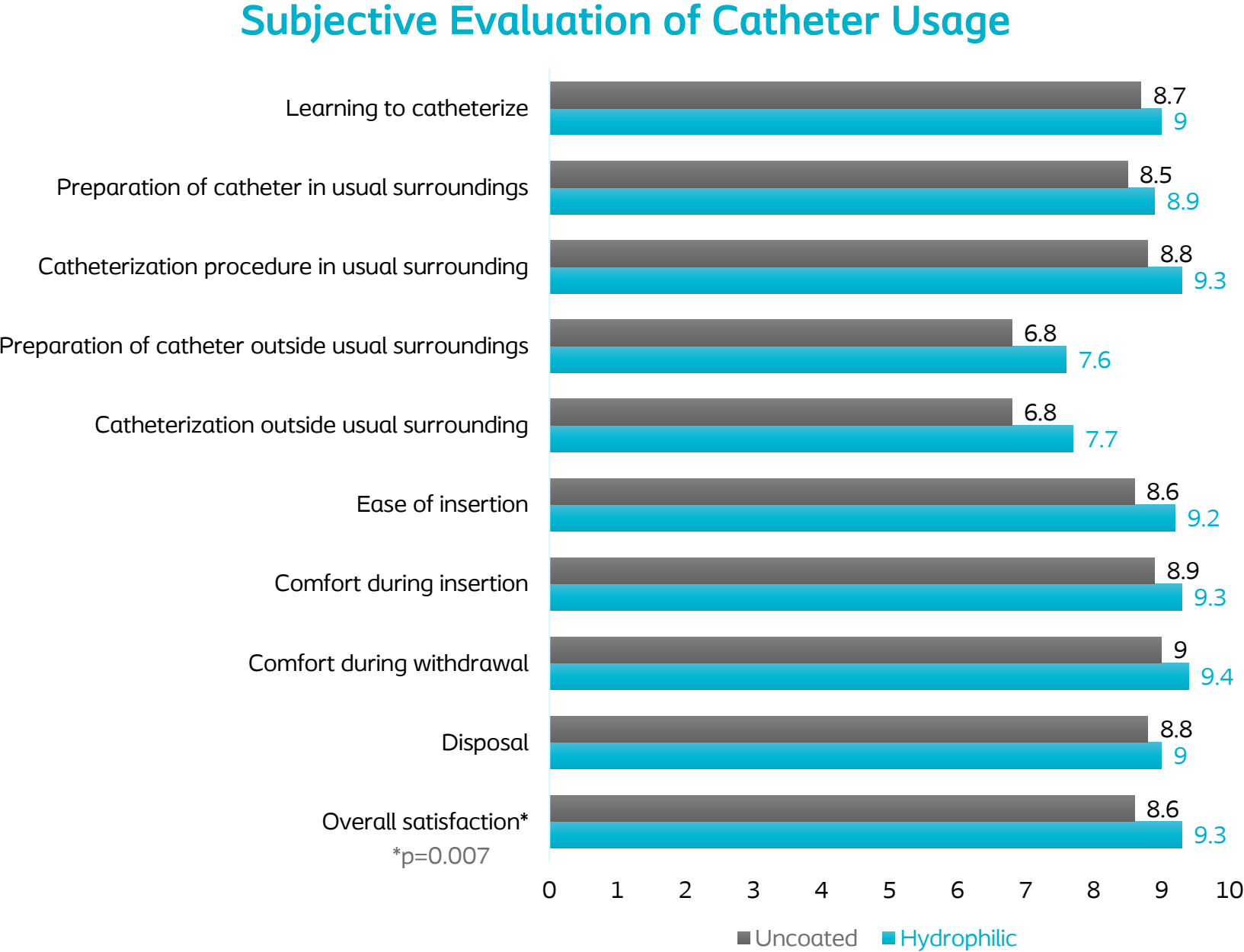
Use of hydrophilic catheters delay the onset of first UTI in SCI patients



During the institutional period, hydrophilic catheters reduced UTIs as compared to uncoated catheters; however, no difference was seen during the full study period



Patients and caregivers rated hydrophilic catheters higher in satisfaction than uncoated catheters.



Cardenas DD, Moore KN, Dannels-McClure A, et al. Intermittent catheterization with a hydrophilic-coated catheter delays urinary tract infections in acute spinal cord injury: a prospective, randomized, multicenter trial. *PM R.* 2011;3(5):408-417.

Conclusions:

- The onset of UTIs were delayed following the use of hydrophilic-coated catheters
- The number of UTIs were reduced in the hydrophilic group during the institutional period
- No difference was seen in the number of UTIs between groups during the whole study period
- Patients and caregivers were more satisfied with hydrophilic catheters than with uncoated catheters