

“The difference in the presence of microhematuria between the two groups was statistically significant (p= .0001) in favor of the hydrophilic-coated catheter.”

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)

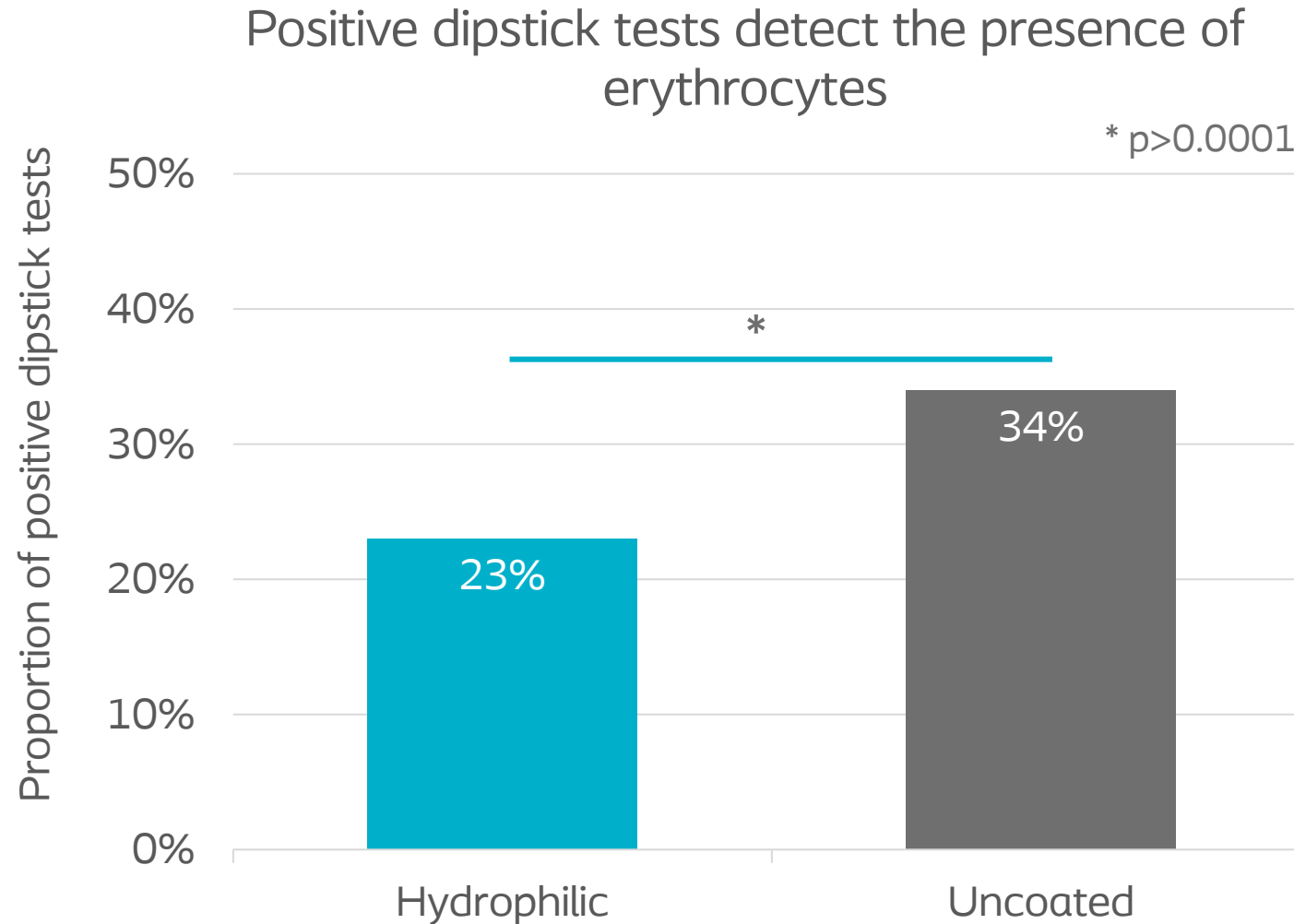
Strengths

- 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

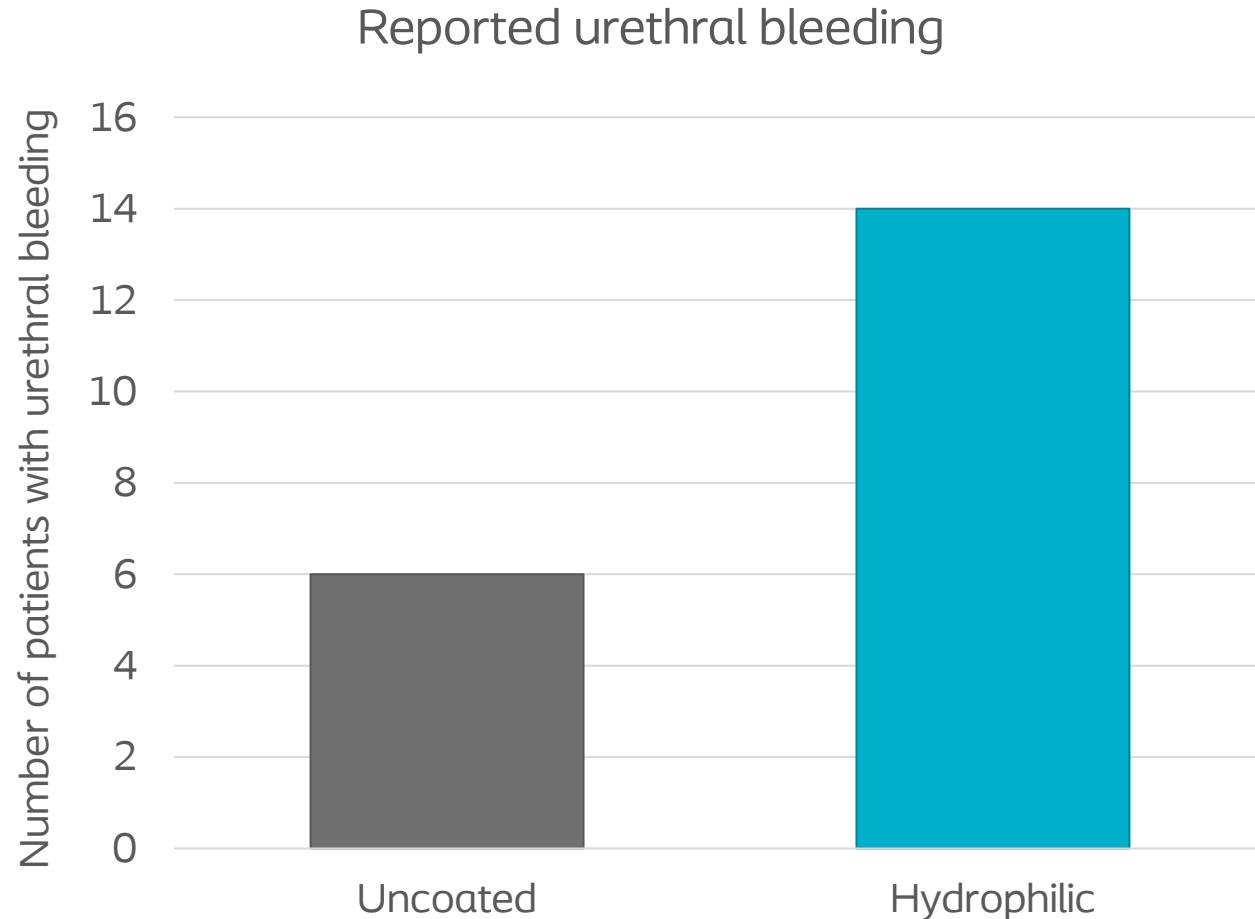
Limitations

- 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)

Fewer erythrocytes were found after the use of hydrophilic catheters than uncoated catheters during the institutional period

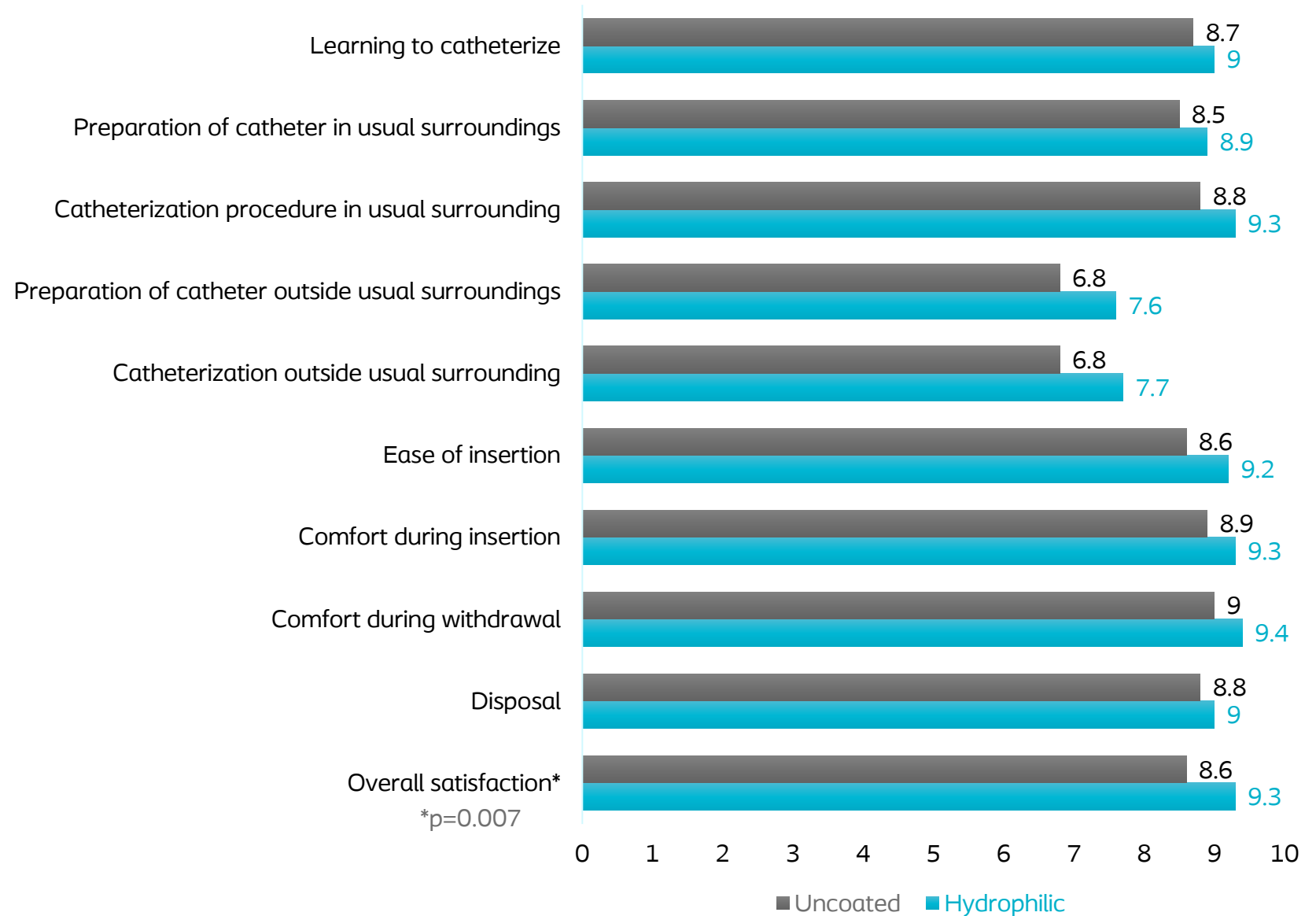


Hydrophilic catheter users experienced more urethral bleeding than the uncoated catheter group with 71% reported during the first 8 days of catheterization



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

Subjective Evaluation of Catheter Usage



Conclusions:

- **Less erythrocytes were found after using hydrophilic catheters as compared to uncoated catheters; however more urethral bleeding was reported, especially during the first 8 days following initiation due to self-catheterization inexperience**
- **Patients and caregivers were more satisfied with hydrophilic catheters than with uncoated catheters**