

Evidence from clinical studies of SpeediCath

Evidence from clinical studies showed that SpeediCath catheters have a number of benefits compared with uncoated PVC or other hydrophilic-coated catheters.^{15,16,20,22} Benefits of SpeediCath catheters include less urethral trauma and friction during withdrawal,¹⁵ and a reduced incidence of UTIs,¹⁶ compared with their uncoated counterparts. In addition, favourable characteristics associated with SpeediCath, such as greater speed-of-use, convenience, discretion and its ready-to-use nature, make it the preferred choice for intermittent catheterisation over uncoated or hydrophilic-coated catheters.^{15,20,22}

5.1. Specific benefits of using SpeediCath

Friction force and urethral trauma

In a randomised, crossover study in healthy male volunteers, conducted by Stensballe et al., (2005), the SpeediCath catheter exerted significantly less mean withdrawal friction force than a traditional hydrophilic-coated catheter, and an uncoated PVC catheter ($p < 0.05$ for both; Table 1).¹⁵ This study also showed that the SpeediCath catheter caused significantly less microscopic haematuria (the appearance of blood in the urine that represents a measure of urethral trauma) than the uncoated PVC catheter ($p = 0.006$).¹⁵ Therefore, the use of SpeediCath catheters may help reduce the risk of damage to the urethra over the long-term.

Table 1. The SpeediCath catheter exerted significantly less friction force than both a traditional hydrophilic-coated catheter and an uncoated PVC catheter.¹⁵

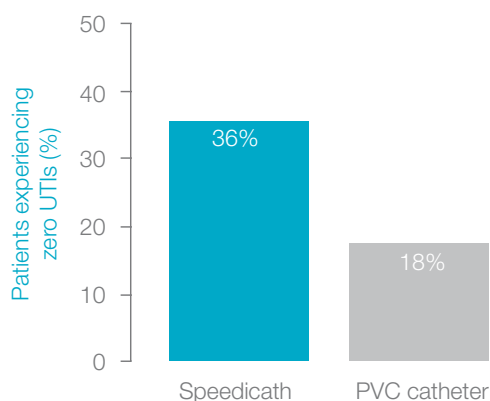
Catheter	n	Average friction force (Newtons)	
		Mean	SD
SpeediCath catheter	80	0.142*	0.029
Uncoated PVC catheter	80	0.204	0.055
Traditional hydrophilic catheter	80	0.284	0.129

* $p < 0.05$ compared with both the traditional hydrophilic-coated catheter and the uncoated PVC catheter

Urinary tract infection

The use of a SpeediCath hydrophilic-coated catheter for intermittent catheterisation has been associated with a beneficial effect in terms of minimising the incidence of symptomatic UTIs. De Ridder et al., (2005), reported results from a 1-year randomised study of 123 men with neurogenic bladder due to spinal cord injury, which showed that twice as many individuals using SpeediCath catheters were free of UTIs compared with those using uncoated PVC catheters (36% vs 18%; $p = 0.02$; Figure 2).¹⁶

Figure 2. The number of individuals reporting UTIs was significantly less in those using SpeediCath catheter versus an uncoated PVC catheter.¹⁶



Catheter characteristics

The favourable characteristics of SpeediCath catheter make it a preferred choice for intermittent catheterisation.^{15,20,22,57} Findings from the randomised study in healthy male volunteers, conducted by Stensballe et al., (2005), showed that SpeediCath was associated with significantly greater levels of preference, in terms of sensation during insertion ($p < 0.0001$) and withdrawal ($p = 0.012$), compared with an uncoated PVC catheter.¹⁵ Overall, 53% of patients preferred SpeediCath compared with only 2% for the uncoated catheter.¹⁵ Findings from another randomised study by Pascoe & Clovis (2001) showed that individuals preferred SpeediCath to a traditional hydrophilic-coated catheter, particularly in terms of speed-of-use (68% of patients reported 'shorter than usual' catheterisation time when using the SpeediCath catheter), convenience and discretion (Table 2).²⁰ Individuals also appreciated the concept of including water as an integral part of the packaging.²⁰

Table 2. The SpeediCath catheter was preferred to a traditional hydrophilic-coated catheter.²⁰

Parameter	% Preference		p-value
	SpeediCath	Traditional hydrophilic-coated catheter	
Convenience	88	12	0.000
Discretion	88	12	0.000
Speed-of-use	76	24	0.015
Overall	78	22	0.011

In another study by van Kuppevelt et al., (2004), 75% of patients expressed a preference for the ready-to-use aspect of the SpeediCath catheter, compared with two traditional hydrophilic-coated catheters.²² User friendliness (measured using a numerical scale between 1 and 10) of the SpeediCath catheter was ranked significantly higher than two traditional hydrophilic-coated catheters (7.76 vs 6.94 and 6.75, respectively; $p=0.003$).²²