



NO-TOUCH CATHETER/TECHNIQUE

Introduction of a no-touch catheter/technique for intermittent catheterization seems to be well accepted both by caregivers and patients and it is not necessarily associated with higher costs. On the contrary, it could potentially reduce costs, saving time and errors in the healthcare system and reduce infection complications in general. The clinical evidence level is low for using no-touch technique/catheter to reduce UTIs but current available studies suggest benefits of it.

Intermittent catheterization could be practiced using sterile technique (sterile material and handling), aseptic technique (sterile catheter, use of gloves and cleansing of genitals), no-touch technique (aseptic technique with a no-touch catheter) or a clean technique (sterile single-use or cleaned reusable catheter without gloves).¹

The no-touch technique includes use of a catheter constructed for introduction without touch by the user's hands. Different catheter types are described in the literature using a non-touch sleeve,²⁻⁶ insertion tip,^{2, 5-9} closed system¹⁰ and/or protective grip. A no-touch technique was first introduced by O'Neil et al. in 1982 who evaluated a catheter with sealed introducer in female patients admitted for laparoscopy and found it to reduce the risk for catheter-induced bacteriuria by bypassing the distal urethra.⁹ The no-touch concept has later been verified in pre-clinical^{2,4,7} and clinical studies.^{3,5,6,8,10}

Pre-clinical studies have concluded that a no-touch catheter could contribute to fewer sterility errors when catheterization is performed by healthcare personnel on models² and less bacteria contamination when tested in vitro in the laboratory.^{4,7} Both aspects could potentially reduce the risk of developing UTI but need to be verified in clinical settings.

Clinical studies propose that use of a no-touch catheter is associated with a 30% UTI reduction and general low UTI rates of 0.68% in a spinal cord injured population.^{5,6}

Hospitals have also been reported to implement a no-touch catheter and technique after concluding it to be the preferred choice for personnel and by showing 35% less infections per admission when compared to a retrospective control group.⁸

Preference of both care giver and patient has been further investigated and two studies have shown that management of a no-touch catheter is easier and that it save time in the hospital setting.^{2,8} Other studies have documented positive patient responses related to introduction of a no-touch catheter due to perceived ease of use, reliability and comfort.^{3,10} For instance Denys et al. 2012 concluded that more than one third of the patients studied wanted to continue using a no-touch catheter and more than half would recommend it to other patients.³

Introduction of a no-touch catheter would not necessarily introduce more costs as proposed by Goessaert et al. 2013 who concluded that the average cost for the no-touch method was €3.19 for women and €3.22 for male while the cost for the classic method was €2.99 for women and €4.07 for male (up to €19.41) when taking into account costs for catheter, lubricants, gloves, sets and nurse time spent.²

Published literature proposes benefits of using and implementing a no-touch catheter/technique. However, it should be noted that all available studies are compromised by design issues lowering the level of evidence.

REFERENCES

1. Vahr S, Cobussen-Boekhorst H, Eikenboom J, Geng V, Holroyd S, Lester M, Pearce I, Vandewinkel C. Evidence-based guideline for best practice in urological health care. Catheterisation. Urethral intermittent in adults. Dilatation, urethral intermittent in adults. EAUN guideline 2013. [EAUN Guideline](#)
2. Goessaert AS, Antoons S, Van Den Driessche M, Tourchi A, Pieters R, Everaert K. No-touch intermittent catheterization: caregiver point of view on sterility errors, duration, comfort and costs. J Adv Nurs. 2013 Sep;69(9):2000-7 [Abstract](#)
3. Denys P, Prévinaire JG, Aegerter P, de Sèze M, Karsenty G, Amarenco G. Intermittent self-catheterization habits and opinions on aseptic VaPro catheter in French neurogenic bladder population. Spinal Cord. 2012 Nov;50(11):853-8 [Abstract](#)
4. Hudson E, Murahata RI. The 'no-touch' method of intermittent urinary catheter insertion: can it reduce the risk of bacteria entering the bladder? Spinal Cord. 2005 Oct;43(10):611-4 [Abstract](#)
5. Bennett CJ, Young MN and Darrington H. Differences in urinary tract infection in male and female spinal cord injury patients on intermittent catheterization. Paraplegia 1995;33:69-71 [Abstract](#)
6. Bennett CJ, Young MN, Razi SS, Adkins R, Diaz F, McCrary A. The effect of urethral introducer tip catheters on the incidence of urinary tract infection outcomes in spinal cord injured patients. J Urol 1997;158(2):519-521 [Abstract](#)
7. Murahata R, Nichols T. Benefits of hygienic design as demonstrated by laboratory testing. International Urogynecology Journal and Pelvic Floor Dysfunction 2011;22 Suppl. (2):S803-S805 [Abstract](#)
8. Charbonneau-Smith R. No-touch catheterization and infection rates in a select spinal cord injured population. Rehabil Nurs. 1993;18(5):296-9, 305 [Abstract](#)
9. O'Neil AG, Jenkins DT and Wells JI. A new catheter for the female patient. Aust NZ J Obstet Gynaecol 1982;22:151-152 [Abstract](#)
10. Quigley PA, Riggin OZ. A comparison of open and closed catheterization techniques in rehabilitation patients. Rehabil Nurs 1993;18(1):26-29, 33 [Abstract](#)