

Start	End	Topic	Speakers
11:00	11:05	Introduction and overview of workshop	Diane Newman
11:05	11:25	Current use of urinary catheters in patients with NULTD with differentiation of techniques, indications, and complications	Diane Newman
11:25	11:45	Catheter (indwelling and intermittent) technology, materials and design	Gina Porter
11:45	12:05	Current recommendations for single versus reuse with intermittent catheterization	Corey Knott
12:05	12:20	Review of research in use of intermittent catheterization	Diane Newman
12:20	12:30	Questions	All

### **Description**

The overall purpose of this workshop is to address the Continence nurse's management of people with urinary catheters and to address best practices based on a combination of expert clinical knowledge and expertise and current evidence in the literature. Urinary catheters (indwelling [Foley] or IUCs and catheters inserted intermittently [IC]) are used in men and women with NLUTD as part of overall bladder management. These devices are used for short or long-term urine drainage depending on the reason for their use. IUCs are indicated in people who cannot perform IC, have no one to do it for them, or cannot manage any other way. However, the use of an IUC puts the person at risk for persistent catheter-related problems. Long term IUC use is associated with significant complications, in particular, infection and encrustation of the catheter by biofilms which in turn can result in, urethral trauma, and bladder stone formation causing blockage of the catheter.

Intermittent self-catheterization (ISC) is the gold standard for management of patients with chronic neurogenic or non-neurogenic urinary retention. ISC is a readily performed and minimally invasive intervention, and for those with NLUTD, proven to be effective in long term protection of the urinary tract. However, like an IUC, long-term IC is also associated with complications including urethral trauma and recurrent urinary tract infections. These complications have significant impact on the person's quality of life and research is suggesting that many turn to alternative bladder management strategies (e.g. IUC). According to the International Consultation on Incontinence, to prevent and reduce IC-related complications, a non-traumatizing technique can prevent and reduce complications, making patient education most important. As these complications increase morbidity and mortality, presenters will discuss ways to prevent their occurrence.

Internationally, and in most clinical settings, the Continence nurse is the educator for both IUCs and ICs. To excel as that educator, Continence nurses should be knowledgeable about the various design features and surface material for IUCs or ICs in order to select the best catheter for an individual patient. Features to be considered include catheter size, catheter tip, balloon size, and catheter material. Initial assessment of the person's ability to manage a urinary catheter is integral to the role of a Continence nurse. This assessment includes multiple factors such as: determining a person's previous experience with catheterization (e.g. fears, discomfort, etc); identifying of barriers to catheterizing or managing a catheter; current cognition, motivation and ability to comply with catheterization; mobility (e.g. hand dexterity, fine motor skills); capacity to follow verbal and non-verbal instructions; and the person's environment and lifestyle. Catheter surface material and properties may be of importance when it comes to catheter-associated urinary tract infections (CAUTIs), urethral complications, patient satisfaction and preference. Being able to differentiate the various catheterization techniques, indications, and complications is integral to clinical practice and workshop speakers will describe their approaches in these areas.

Key learning points include

- 1) a comprehensive review of the indications and guidelines for use of IUCs and ICs;
- 2) details on current research on new technology (e.g. catheter coating);
- 3) progress of an international registry documenting "real-world" practices of individuals performing IC;
- 4) an understanding of Canadian and USA guidance on single and multi-use (re-use) of catheters used intermittently and
- 5) presentation of case studies highlighting commonly seen complications and approaches to address or resolve the problem.

Speakers will discuss inadequacies of patient education on the use of ISC and lack of knowledge expressed by the "Intermittent Catheterization Support Group" (social media group on Facebook). An IC Patient Education Checklist will be discussed.

Attendees will become knowledgeable about “best practices” when caring for patients with an IUC or IC and ways to prevent problems in those with long-term catheters. The workshop will provide research that can be translated and incorporated into clinical practice.

Additional references include:

- Clean Intermittent Urethral Catheterization in Adults – Canadian Best Practice Recommendations for Nurses. Developed by Nurses Specialized in Wound, Ostomy and Continence Canada, Canadian Nurse Continence Advisors, Urology Nurses of Canada, and Infection Prevention and Control. 1st Ed. 2020
- Engberg, S., Clapper, J., McNichol, L., Thompson, D., Welch, V.W., & Gray, M. (2020). Current evidence related to intermittent catheterization: A scoping review. *J Wound Ostomy Continence Nurs.* 47(2):140-165.
- Gamé, X, Phé, V, Castel-Lacanal, E, Forin, V, de Sèze, M, Lam, O, Chartier-Kastler, E, ... et al. (2020). Intermittent catheterization: Clinical practice guidelines from Association Française d'Urologie (AFU), Groupe de Neuro-urologie de Langue Française (GENULF), Société Française de Médecine Physique et de Réadaptation (SOFMER) and Société Interdisciplinaire Francophone d'UroDynamique et de Pelvi-Périnéologie (SIFUD-PP). *Prog Urol.* 30(5):232-251. doi: 10.1016/j.purol.2020.02.009.
- Ginsberg DA, Boone TB, Cameron AP, Gousse A, Kaufman MR, Keays E, Kennelly MJ, Lemack GE, Rovner ES, Souter LH, Yang CC, Kraus SR. (2021). The AUA/SUFU Guideline on Adult Neurogenic Lower Urinary Tract Dysfunction: Treatment and Follow-up. *J Urol.* Nov;206(5):1106-1113. doi: 10.1097/JU.0000000000002239
- Hall, S.J., Harrison, S., Harding, C., Reid, S., & Parkinson, R. (2020). British Association of Urological Surgeons’ suprapubic catheter practice guidelines – revised. *BJU International.* Oct;126(4):416-422. doi: 10.1111/bju.15123.
- Newman, D.K. (2021). Intermittent self-catheterization patient education checklist. *Urologic Nursing,* March-April, 41(2); 97-109.
- Newman, D.K. (2021). Methods and types of urinary catheters used for indwelling or intermittent catheterization. *Urologic Nursing,* March-April, 41(2); 111-117.
- Reid S, Brocksom J, Hamid R et al. (2021) British Association of Urological Surgeons (BAUS) and nurses (BAUN) consensus document: management of the complications of long-term indwelling catheters. *BJU Int.* 128:667–77.

### **Aims of Workshop**

This workshop will provide a comprehensive review of urologic catheters (indwelling and intermittent) in individuals with neurogenic lower urinary tract dysfunction (NLUTD). Reviews of current catheter technology and evidence-based guidelines with translation to recommended clinical practice will be presented. Identification of world-wide problems with catheter-related complications including urethral trauma and catheter-associated UTIs will be detailed. Workshop educational value for the proposed ICS audience of nurses, physicians, researchers is broad as it addresses current gaps in clinician knowledge, new or recent changes in guidelines that can inform clinical practice and future research.

### **Educational Objectives**

This workshop will provide a review of types of catheters, current indications, complications associated with urinary catheters, provide recent regulatory changes on their use, and detail examples of innovative and new technology. The controversy and debate over single or multi-reuse of catheters when performing intermittent self-catheterization will be discussed. This area of bladder management is rapidly evolving as new technology in catheter design and material has been introduced and evidence-based guidelines and recommendations developed. It is important that clinicians remain current and informed on how these may impact practice. This workshop has significant value to nurses and other ICS members as a workshop on catheters is needed and of interest. The use of a device for bladder management is an important topic for the ICS as most encounter these patients in clinical practice. There is also a need to increase and expand research in this area, so highlighting current research and identifying where research is lacking will be part of the discussion. The speakers in this workshop have extensive knowledge in this area and have experience as continence advisors and researchers.

### **Learning Objectives**

1. To differentiate the various catheterization techniques, indications, and complications.
  2. To understand the differences in material and design of catheters used for indwelling or intermittent use.
  3. To present Canadian and USA guidance on single and multi-use (re-use) catheters used intermittently.
- To review current research (e.g. IC registry, hydrophilic coating) on the use of urinary catheters in the NLUTD population.

### **Target Audience**

Urology, Urogynaecology and Female & Functional Urology, Bowel Dysfunction, Pure and Applied Science, Conservative Management

### **Advanced/Basic**

Intermediate

### **Suggested Learning before Workshop Attendance**

- Clean Intermittent Urethral Catheterization in Adults – Canadian Best Practice Recommendations for

Nurses. Developed by Nurses Specialized in Wound, Ostomy and Continence Canada, Canadian Nurse Continence Advisors, Urology Nurses of Canada, and Infection Prevention and Control. 1st Ed. 2020

- Engberg, S., Clapper, J., McNichol, L., Thompson, D., Welch, V.W., & Gray, M. (2020). Current evidence related to intermittent catheterization: A scoping review. *J Wound Ostomy Continence Nurs.* 47(2):140-165.
- Feng D, Cheng L, Bai Y, Yang Y, Han P. (2020) Outcomes comparison of hydrophilic and non-hydrophilic catheters for patients with intermittent catheterization: An updated meta-analysis. *Asian J Surg.* 43(5):633-635.
- Gamé, X, Phé, V, Castel-Lacanal, E, Forin, V, de Sèze, M, Lam, O, Chartier-Kastler, E, .... et al. (2020). Intermittent catheterization: Clinical practice guidelines from Association Française d'Urologie (AFU), Groupe de Neuro-urologie de Langue Française (GENULF), Société Française de Médecine Physique et de Réadaptation (SOFMER) and Société Interdisciplinaire Francophone d'UroDynamique et de Pelvi-Périnéologie (SIFUD-PP). *Prog Urol.* 30(5):232-251. doi: 10.1016/j.purol.2020.02.009.
- Ginsberg DA, Boone TB, Cameron AP, Gousse A, Kaufman MR, Keays E, Kennelly MJ, Lemack GE, Rovner ES, Souter LH, Yang CC, Kraus SR. (2021). The AUA/SUFU Guideline on Adult Neurogenic Lower Urinary Tract Dysfunction: Treatment and Follow-up. *J Urol.* Nov;206(5):1106-1113. doi: 10.1097/JU.0000000000002239
- Hall, S.J., Harrison, S., Harding, C., Reid, S., & Parkinson, R. (2020). British Association of Urological Surgeons' suprapubic catheter practice guidelines – revised. *BJU International.* Oct;126(4):416-422. doi: 10.1111/bju.15123.
- Kinnear N, Barnett D, O'Callaghan M, Horsell K, Gani J, Hennessey D. (2020) The impact of catheter-based bladder drainage method on urinary tract infection risk in spinal cord injury and neurogenic bladder: A systematic review. *Neurourol Urodyn.* Feb;39(2):854-862. doi: 10.1002/nau.24253
- Reid S, Brocksom J, Hamid R et al. (2021) British Association of Urological Surgeons (BAUS) and nurses (BAUN) consensus document: management of the complications of long-term indwelling catheters. *BJU Int.* 128:667–77.