Clinical Information on Urinary Retention

Causes and Management in Women

Permanent urinary retention (PUR) has numerous causes, including obstruction, prolapse, overuse of anticholinergics or antidepressants, infection and aging.[1,2] However, PUR in women is most often the result of life-altering neurologic disease or injury, such as MS, spinal cord injury (SCI), stroke, multiple system atrophy, pelvic surgery, or diabetes, etc.[3] Due to its generally neurologic origin female PUR is typically a permanent condition for which the primary medical option remains use of urinary catheters.

Virtually all women requiring catheterization are urged to perform clean intermittent catheterization (CIC) as it has been found to result in significantly more favorable outcomes than indwelling catheter use.

The problem is that many of the women who need CIC cannot use it. Because CIC requires inserting a tube into the bladder 4-6+ times per day, it is usually practical only for those who can self-catheterize. Unfortunately, many women with UR cannot reliably perform this procedure due to limitations related to their primary neurologic condition. They may lack the necessary visual acuity, manual dexterity, or even the ability to properly position themselves.

Other women simply will not perform CIC, possibly due to a reluctance to repeatedly touch their genital area.[4] This includes some older women, those with certain cultural beliefs and women who have been sexually abused.

Even when they are initially successful with CIC, many women with find its procedural requirements demanding to maintain, resulting in long-term compliance as low as 20%.[5,6,7]

Those who cannot or will not perform CIC typically end up with an indwelling catheter and a leg bag, but this decreases their quality of life and increases their risk of infection, inflammation, bladder stones, subsequent urinary diversion, and even cancer over the long term.[8,9,10,11]

However, many women who cannot use CIC can use the inFlow. The device is inserted only once per month, and voiding requires only that the user be able to hold the Activator in position and push its button.

Intermittent catheters (CIC)
The Standard of Care



Indwelling catheters (usually a Foley)
The Only Alternative to CIC for Most



References Cited:

1. Rickey LM, Brubaker L, Eckler K. Chronic urinary retention in women. *UpToDate*. May 23, 2019. https://www.uptodate.com/contents/chronic-urinary-retention-in-women.
2. Yoshimura N, Chancellor MB. (2004). Differential diagnosis and treatment of impaired bladder emptying. *Reviews in Urology, 6* (Suppl. 1), S24.
3. Nakamura H, Sakakibara R, Sugiyama M, Tateno F, Yano M, Takahashi O, Kishi M, Tsuyusaki Y, Tateno H, Aiba Y, Ogata T, Yamamoto T, Yamanishi T, Uchiyama T, Suzuki H, Tateno A, Suzuki, Y. (2016). Neurologic diseases that cause female urinary retention. *Bladder,* 3(1), e20. https://doi.org/10.14440/bladder.2016.70
4. Crescenze, I.M., Myers, J.B., Lenherr, S.M., Elliott, S.P., Welk, B., O'Dell, D., Qin, Y., Presson, A.P., & Stoffel, J.T. (2019). Predictors of low urinary quality of life in spinal cord injury women on clean intermittent catheterization. *Neurourology and Urodynamics, 38*(5), 1332-1338. https://doi.org/10.1002/nau.23983
5. Cameron AP, Wallner LP, Tate DG, Sarma AV, Rodriguez GM, Clemens JQ. *Bladder management after spinal cord injury in the United States 1972 to 2005.* J Urol. 2010;184(1):213-217. https://doi.org/10.1016/j.juro.2010.03.008
6. Afsar SI, Yemisci OU, Cosar SNS, Cetin N. *Compliance with clean intermittent catheterization in spinal cord injury patients: a longterm follow-up study*. Spinal Cord. Nat Publishing Group. 2013;51: 645–649
7. Hentzen C, Haddad R, Ismael SS, et al. Predictive factors of adherence to urinary self-catheterization in older adults. Neurourology and Urodynamics. 2018;1–9. https://doi.org/10.1002/nau.23915
8. Feneley R, Hopley IB, Wells PN. (2015) Urinary catheters: history, current status, adverse events and research agenda, Journal of Medical Engineering & Technology, 39:8, 459-470, DOI: 10.3109/03091902.2015.1085600
9. Saint S, Trautner BW, Fowler KE, et al. A Multicenter Study of Patient-Reported Infectious and Noninfectious Complications Associated With Indwelling Urethral Catheters. *JAMA Intern Med.* 2018;178(8):1078–1085. doi:10.1001/jamainternmed.2018.2417
10. Ho CH, Sung KC, Lim SW, Liao CH, Liang FW, Wang J.J, Wu CC. (2015). Chronic Indwelling Urinary Catheter Increase the Risk of Bladder Cancer, Even in Patients Without Spinal Cord Injury. *Medicine*, *94*(43), e1736. https://doi.org/10.1097/MD.0000000000001736
11. Leuck AM, Wright D, Ellingson L, Kraemer L, Kuskowski MA, Johnson, JR. Complications of Foley catheters—is infection the greatest risk? *J Urol* 2012;187:1662–1666

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