Panel – CIC; the Other Side of the Story

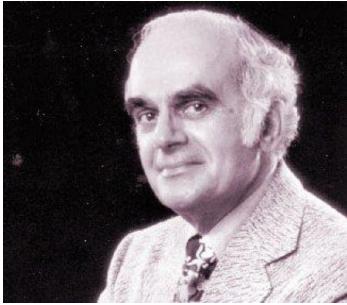
The Value of Intermittent Catheterization in the Early Management of Traumatic Paraplegia and Tetraplegia.

Sir Ludwig Guttmann, C.B.E., M.D., F.R.C.P., F.R.C.S., & H. Frankel, M.B., B.S., M.R.C.P. National Spinal Injuries Centre, Stoke Mandeville Hospital, Aylesbury, England Paraplegia. 1966 Aug;4(2):63-84. doi: 10.1038/sc.1966.7

Felt IC was superior to other forms of bladder drainage in paralyzed bladders to reduce UTIs, minimize stones & maintain bladder health, using no-touch, sterile technique performed by trained personnel (RNs)

Lapides J, Diokno AC, Silber SJ, and Lowe BS: Clean, intermittent self-catheterization, Trans Am Assoc Genitourin Surg 63: 92;1971.

Advanced the concept of **clean** intermittent catheterization so patients could perform technique at home





Panel – CIC; the Other Side of the Story

Moderators:

Maryellen Kelly, DNP, CPNP, MHSc, Duke University – Durham, NC Anka. J. Nieuwhof-Leppink, RN, Clinical Psychologist, Urotherapist, Ph.D – Utrecht, NL Stuart B. Bauer, MD, Professor of Surgery (Urology), Boston Children's Hospital

Panelists:

Mother - Sarah Richardson, Executive Director, Spina Bifida Assn of Kentucky – Louisville, KY

Nurse - Ann Roper, MSN, RN, CURN – Richmond, VA

School Administrator - Traci Earley, RN, DNP – Shelby County, KY

Clinical Psychologist - Lillian Hayes, Ph.D Instructor (Psychology), Boston Children's Hospital – Boston, MA

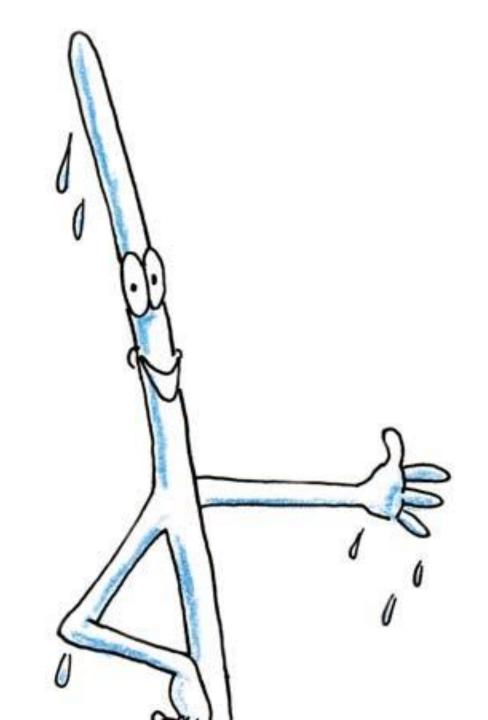
Occupational Therapist - Ronna Linroth, OT, Ph.D, CCCP, Chisago City, MN





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CIC what and when?





2. Indications

- Neurogenic bladder, Meningomyelocoele spina bifida Tethered cord
- Neuropathic bladder, Posterior urethral valves
- Lesions to spinal cord
- Tumoral process
- Post-bladder reconstruction
- Severe voiding dysfunction, infections
- Bladder dysfunction
- Behavioral issues





3. Goals of CIC procedure

- To prevent kidney deterioration
- Proper urine storage
- Reasonable volume
- Low intravesical pressure (>>>)
- Proper urine emptying
- at appropriate time intervals

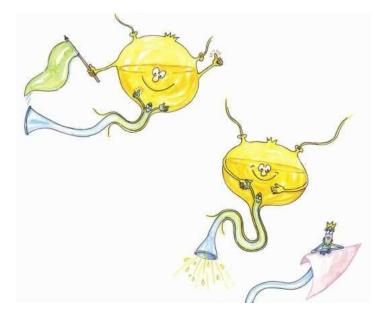
Pressure is the most important factor





3.Goals of CIC procedure

- To empty the bladder
- Avoid post void residual urine
- Control and prevention UTI







3. Goals of CIC procedure

To achieve

Urinary continence and maintaining dryness at an appropriate age

Social acceptability and adaptability: Independence Patient comfort, improved quality of life convenience





4. When to start CIC?

Individual assessment Collaboration: caregiver, parent and child (if able) Depends on underlying pathology

When the bladder problem arises

In newborns with SB Controversy optimal use and timing of urodynamic studies indications for initiation of CIC and AC in infants and children Proactive and expectant management*



*Snow-lisy et al. Update on urological mangement of spina bifida from prenatal diagnosis to adulthood, J Urology, 2015



4. When to start CIC?

In children with NB and anomalies

Benefit of early start of CIC

Child*: Maximal protection of lower and upper urinary tract No psychological impact Parents*: Easy to learn Part of normal nursery Fewer bladder augmentation**

*Level of evidence 2, grade of recommendation B **2Level of evidence 3







4. When to start CIC

Further considerations

- **Patient/Family motivation and mental fortitude** •
- •
- Dexterity and mobility Fine motor skill functional
- **Body habitus**
- Living situation
- **Access to caregivers** •
- Costs







5. CIC strategies for succes

Crucial role of healthcare workers, parents in the child's acceptance of CIC

- Age appropriate information
- Motivation
- Knowledge of the procedure
- Acknowledge patient/families shame, fear and anxiety
- Utilise resources (child life, psychologist)





but... now, let's listen to the real experts!



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