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# MULTIDISCIPLINARY APPROACHES TO URINARY INCONTINENCE MANAGEMENT: A CASE STUDY

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**Abstract**

**Background:** Urinary incontinence (UI) is a prevalent issue with significant social and economic consequences. Prevalence estimates vary widely, affecting individuals across different age groups, with a notable impact on postmenopausal women and those with neurological conditions.

**Objective:** This review aims to explore the epidemiology of UI, identify its socioeconomic implications, highlight gaps in healthcare professional training, and discuss strategies for improving UI management through multidisciplinary collaboration.

**Methods:** A survey targeting healthcare professionals at Niazi Medical College Sargodha (HUG) was conducted to assess knowledge, attitudes, and practices regarding UI management. Subsequently, a multidisciplinary reference group was formed to address identified challenges and improve care quality.

**Results:** Findings from the survey revealed disparities in UI training and knowledge among healthcare professionals. However, there was a consensus on the importance of prioritizing UI care. The establishment of a multidisciplinary reference group aimed to bridge these gaps through evidence-based recommendations, integrated assessment tools, and enhanced training initiatives.

**Conclusion:** With the adoption of standardized assessment tools and comprehensive evaluation strategies, alongside multidisciplinary collaboration, healthcare professionals can effectively manage UI, thereby improving patient outcomes and quality of life

## INTRODUCTION

Urinary incontinence (UI) is a common problem. He has a considerable social and economic impact on individuals and the society. Prevalence estimates vary between 5 and 54% according to the populations studied and the evaluation methods used.[1] On these bases, we can roughly estimate that

at least 400,000 people in Switzerland suffer from a UTI. The costs generated include, in addition to medical care (consultations, medications, physiotherapy and surgery), care provided to dependent people, and incontinence materials (absorbents, condoms, probes and bags, etc.). The overall cost in France was estimated at 4.6 billion euros in 2003.[2] The clinical impact of incontinence includes difficulties with schooling in children, as well as feelings of shame and withdrawal at any age (Allen, Jones et al. 2024).

Although UI can occur throughout the lifespan, its frequency and severity increase with age in both sexes. However, its prevalence remains higher in postmenopausal women.[3] Severely incontinent subjects are generally older and have a poorer perception of their quality of life, greater disability and more depressive symptoms.[4] In patients with neurological pathologies (stroke, multiple sclerosis, spinal cord trauma, Parkinson's disease, etc.), vesico-sphincter dysfunction is also common and often a source of morbidity and impaired quality of life. .[5] The issue of incontinence in dependent subjects (mainly older people and those suffering from neurological pathologies) is particularly important because it increases the burden of care provided by a third person; it is thus one of the main reasons for institutionalization. [Six,] because of the general ageing of the population, hospitals are called upon to accommodate increasingly elderly and dependent people. At the Niazi Medical College Sargodha (HUG), 47% of patients are over 70.[7.] As a result, the various services will increasingly need to take care of people who are incontinent or at high risk of becoming so (Arroyo-Huidobro, de la Fuente et al. 2024).

**investigation on the theme of urinary incontinence**

A 34-item questionnaire was sent to the 3,300 health professionals at HUG most affected by UI (nurses, nurses, doctors and midwives), targeting employees of departments, services or units. Most affected by this problem (are rehabilitation and geriatrics, internal medicine, clinical neuroscience, surgery, gynaecology and obstetrics, geriatric psychiatry, community care and care management). The average response rate was 55%(figure 1). Part of the results of this investigation are summarized in the following lines. Seventeen per cent of professionals surveyed say they have received additional training on UI, most lasting between one hour and two days. Two-thirds of the collective declare that IU care is a priority for their service and for them (only 50% among doctors). Concerning knowledge of the factors favouring UTI, 78% of the collective recognizes childbirth and 77% urinary infection (Daryanto, Kustono et al. 2024).

On the other hand, only 54% say they know about prostate diseases, 48% about reduced mobility and 29% about constipation. Concerning care practices, 59% of caregivers in rehabilitation and geriatrics say they approach the theme always or often with patients, 58% in geriatric psychiatry, and 47% in gynaecology and obstetrics. Medical (27%) and surgical (22%) caregivers say they mention this topic the least. The Department of Neuroscience, which has a hybrid composition of acute medicine and rehabilitation, is between the two exes (Geraghty, Keane et al. 2024).

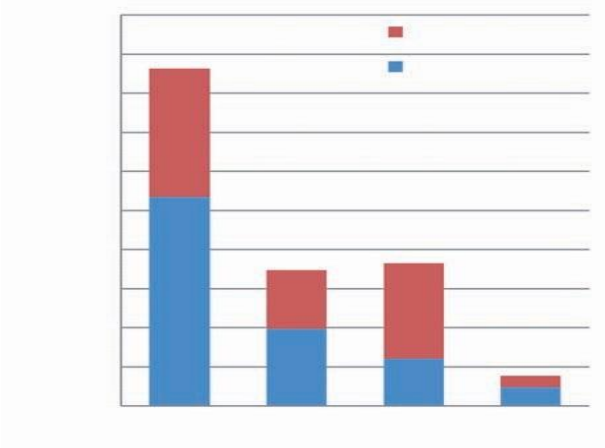

**Figure 1. Absolute number and response rate by profession**

Times, at 41%. Caregivers with additional training in UI are more likely to discuss the topic with patients (pm0.0001). Nearly two-thirds of caregivers say they never use assessment tools. Four out of ten never contact specialists or consultants, while 71% say they are involved in the specific care of patients suffering from urinary incontinence. The satisfaction of caregivers in the care of incontinent patients is positively correlated with their involvement, the use of assessment instruments and consultation with specialists (Spearman's rho=0.36, pm0.0001). Caregivers in departments where improvement and training actions have been implemented have better knowledge. They are more likely to discuss the topic of UI with patients, use more UI assessment instruments and seek help from specialist consultants. They have more positive attitudes and feel concerned by this theme (Grigoriadis, Kalantzis et al. 2024).

**project improving the quality of care related to hug incontinence**

Following this survey, a multidisciplinary and transdepartmental reference group was created within HUG to address this vast issue. It aims to 1) develop and disseminate recommendations for good practices based on evidence, 2) select and make UI assessment tools available to all departments in the patient's computerized file, 3) develop internal training, and 4) create a care guide for improving urinary continence in elderly patients. Another important parallel problem is faecal incontinence, which remains a fundamental concern of this group, although not the subject of questions in the survey.[10] On a practical level, the first stages of care have been targeted so that caregivers from the different services provide them (Kairambayev, Bulegenov et al. 2024).

**Screening and assessing urinary incontinenc**e: The cross-sectional group adopted the ICIQ SF score (International Consultation on Incontinence Questionnaire – Short Form), validated in French. In four questions, it assesses the presence and severity of incontinence, as well as the impact of incontinence on quality of life (Kusin, Carrol et al. 2024).
(figure 2).[11]

The deployment of a common voiding catalogue was promoted, respecting the recommendations of the ICS (International Continence Society). Three levels of data collection complexity can be used depending on the situation:[12]
• level 1*(Micturition time chart)*: collection of urination schedules day and night;
• level 2*(Frequency volume chart)*: collection of urination schedules and day and night urination volumes. • level 3*(Bladder diary)*: collection of urination schedules and day and night urination volumes, frequency and importance of incontinence episodes, the number of protections used, and episodes of your century (Kusin, Carrol et al. 2024).
This calendar is a remarkably useful and simple tool for characterizing the patient's bladder function, which is one of the essential parameters of any UI.

**Looking for reversible contributing factors** is recommended to identify so-called transient and reversible incontinence by looking for the contributing factors. In older adults, this reversibility is greater, reported around 30%.[13] These factors are summarized by the acronym DIAPERS (table 1), which, in English with a single p, means baby diaper **(Kusin, Carrol et al. 2024).**

| **Table 1. Reversible factors favoring income** |
|---|
| **Urinary nance: DIAPERS** |
| • **D**elect: or confusional state or all cognitive disorders limiting the |
| ability of the patient to go to the toilet or to seek help before |
| to urinate schedule scheduled urination |
| • **I**urinary infection: allow for a sedimentInculture and treat so positive, |
| then evaluate if this makes the incontinence disappear (symptom bacteriuria |
| Tomato is common in older people) |
| • **A**vaginal trophy: due to hormonal deficiency. It is never the cause alone, but treatment could improve the symptoms |

| |
|---|
| • **P**sychological: for example, depression in the elderly |
| • **P**harmacological: sedatives, hypnotics, diuretics and anticholinergic |
| Pics |
| • **AND**excess diuresis: for example, hyperglycemia or hypercalcemia or |
| excessive fluid intake |
| • **R**estriction of mobility: which relieves urgent urination |
| Nelle. Simple solutions such as providing a urinal, |
| a commode or even scheduled urination may |
| Suffice |
| • **S**them: constipation, especially terminal (rectum) |

**Differentiate the type of incontinence and initiate basic support**

The history and voiding catalogue help to differentiate the type of incontinence (effort, urgency or mixed, etc.). Without elements justifying an in-depth assessment, it is possible to initiate basic care. For stress incontinence, physiotherapy is useful as a first-line treatment. For urgent incontinence, an anticholinergic prescription can be introduced with caution in older adults due to the cognitive risk. It is also important that the patient does not present symptoms suggesting the presence of urinary retention or intravesical obstruction. Measuring postvoid bladder residual may be useful in patients at high retention risk (in particular, older males), as the latter could aggravate a UTI or be expressed by a UTI.(table 2).[15] The evaluation of post-void bladder residue is now facilitated by using a portable ultrasound scanner whose use has been simplified (for example, BladderScan) (Matovelle, Olivan-Blázquez et al. 2024).

**Identify patients requiring assessment in-depth**

In addition to cases where previous measures have failed, it is important to refer to a specialist for further assistance. tual in-depth assessment in certain situations(table 3).[15,16] Depending on the diagnosis, the therapeutic range will broaden to include behavioural, pharmacological, neuromodulative or surgical therapies .

| **Table 2. Situations in which measuring postvoid residual may be useful** |
|---|
| • older people and diabetics, especially long-term diabetics • History of prostatism |
| • History of episodes of urinary retention or significant postvoid residue |
| • Recurrent urinary infections |
| • Taking medications that impair bladder emptying (for example, anticholinergics) |
| • Chronic constipation |
| • Persistent or worsening urinary incontinence despite anticholinergic treatment |
| • Previous urodynamic examination showing a hypoactive detrusor and an intravesical obstacle |

| **Table 3. Situations requiring an in-depth assessment** |
|---|
| • Bladder pain |
| • Significant symptoms of the micturition phase (voiding symptoms): weakness of the stream, stream in a watering can, choppy, hesitant or urination by pushing • Hematuria |
| • Recurrent urinary infections |
| • Postrenal renal insufficiency |
| • History of surgery and pelvic radiotherapy • Pathology or neurological signs |

**Conclusion**

As UI is common but rarely discussed spontaneously, the healthcare professional must discuss it systematically with their patient. This is even more important in postmenopausal women or older people. Since UI is a symptom, it is important to specify its origin to offer adequate treatment. Current

treatment options often make it possible to improve or eliminate the symptoms, thus increasing the quality of life. In healthcare settings, the basic concepts of UI must be widely disseminated. The use of specific instruments and scales can be of great help. A certain number of patients will need to be referred to different specialists. When urinary incontinence (UI) is suspected, it can be definitively detected by using the ICIQ-SF score, which, in four questions, lists the problem in terms of frequency, quantity, circumstances and impact on quality of life. The voiding calendar, detailing the amount and frequency of urination over 24 hours, makes it easy to assess bladder function, an essential parameter of any UTI. The acronym DIAPERS (table 1)summarizes the reversible factors of UI Treatment of uncomplicated IUI, which begins with physiotherapy (exercise IU) or anticholinergic drug treatment (emergency IU). If UI is associated with lower pelvic pain, significant voiding symptoms, hematuria, recurrent urinary tract infections, postrenal renal insufficiency, history of pelvic surgery or radiotherapy or neuropathy, a thorough work-up is necessary (Trapani, Villa et al. 2024).

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