

## Prevalence of Incontinence and Use of Incontinence Devices in Acute Hospital Settings: a Cross-Sectional Study

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### Abstract:

**Research question (RQ):** What is the prevalence of incontinent patients in acute hospital settings? How do staff choose incontinence devices for patient care?

**Purpose:** The purpose of the study is to find out what proportion of incontinent patients are managed in acute hospital settings and to find out what incontinence devices are used by staff to care for incontinent patients and how. Based on the findings, we want to implement measures to improve the quality of care for patients with incontinence.

**Method:** We used a descriptive method to review the literature, developed a questionnaire for data collection, trained staff on how to conduct the survey, and measured the point prevalence of incontinence using a cross-sectional survey.

**Results:** Slightly more men (51.6%) than women (47.3%) were included in the survey, and for 1.1% of the patients, gender information was not available. Of the 1,277 patients included in the study, 750, or a good half (58.7%), were continent and did not use incontinence devices. A further 83, or 6.5%, were continent and used incontinence devices. 31.1% or 397 patients were incontinent and used incontinence devices, while 17 or 1.6% did not, despite being incontinent. For 2.3% of patients, no information was available. The point prevalence was 32.4%.

**Organisation:** Good organisation is essential for good quality care for incontinent patients, so it is important to improve the quality of care for incontinent patients based on the findings.

**Society:** Adequate patient awareness of incontinence is of paramount importance for the reduction and management of incontinence in the population.

**Originality:** This is the first study in Slovenia to report the prevalence of incontinence in acute hospital settings.

**Limitations/follow-up research:** The survey was conducted in a single tertiary care institution; we recommend that such a survey be conducted in the remaining hospitals in Slovenia.

**Keywords:** incontinence, urinary incontinence rate, incontinence dermatitis, incontinence devices, quality, management, dignity, prevalence, acute hospital management, nursing documentation.

## 1 Introduction

Urinary incontinence (UI) has been defined since 2002 by the International Continence Society (ICS) as any involuntary leakage of urine. The new definition thus replaced the older one, which defined the condition as urinary leakage that caused a social or hygienic problem for the affected person and which could be objectively demonstrated (Skuk & Blaganje, 2020).

Data on the prevalence of any type of UI in women ranges from 5% to 72%, with studies reporting an average prevalence of around 30% (Skuk & Blaganje, 2020).

Lee and colleagues (2021) found a high prevalence of urinary incontinence among a nationally representative population of women in the United States, with many reporting that UI affected their daily activities.

The prevalence of UI among women varies widely between studies due to the use of different definitions, the heterogeneity of the different study populations and the population sampling procedures. Population-based studies from several countries have reported UI prevalence ranging from approximately 5% to 70%, with most studies reporting UI prevalence ranging from 25% to 45%. The prevalence of UI increases with age, with more than 40% of women aged  $\geq 70$  years affected. The prevalence rate is even higher in the elderly and among patients in residential care facilities for the elderly. The prevalence of UI is strongly correlated with a woman's age, so as average life expectancy increases, the prevalence of UI in women is expected to increase in the future (Milsom & Gyhagen, 2018).

Urinary incontinence is more common in older adults, according to research (Suskind et al., 2022), occurring in 30%-40% of women and men over 65 years of age and in 60%-70% of those living in long-term care facilities.

In Spain, the population of adults aged 65 years and over represents 18.7%, and the prevalence of UI in this group is 50%. It is also reported that the prevalence of UI is higher in hospitalised patients or in those admitted to long-term care facilities (Martin-Losada et al., 2019).

In hospitals across Europe, the United States and Australia, the prevalence of UI is between 10% and 35%. UI increases with age, with studies suggesting that 30% to 40% of patients in geriatric wards in the United Kingdom and Japan have UI. Faecal incontinence (FI) is also more common in hospitalised patients, ranging from 6.5% to 33%. This difference may be due to the hospital environment, patient groups and the definition of incontinence itself (Condon et al., 2019).

Incontinence is more common in women, affecting about twice as many women as men. Combined incontinence (urinary and faecal) affects 10% of women and up to 6% of men in the community, rising to almost 50% in nursing home residents (Hall, 2019).

Identifying and managing incontinence is a challenge for all healthcare providers, both in Slovenia and internationally.

Choosing the right incontinence device is crucial for the well-being and quality of life of patients and their carers, enabling them to maintain their identity as a "whole person" and avoid the stigma associated with incontinence. Appropriate incontinence devices enable patients to have greater social and professional opportunities and reduce emotional and mental health problems (Cottenden et al., 2009).

There is a wide variety of products on the market, so there is a need for comprehensive and up-to-date information about them. The reason for that is so that the best ones from the plethora of products can be chosen, along with those that are accessible to health care providers and patients depending on available resources, health policy and logistics of care.

The aim of the study is to review the domestic and international literature on the management of patients with urinary incontinence in the hospital setting and to determine the prevalence of urinary incontinence in the acute hospital setting and the integrated management of incontinent patients.

## **2 Theoretical framework**

Incontinence, which is defined as any involuntary leakage of urine or faeces or both (ICS Glossary), is still a rather taboo topic in our society, as people who suffer from incontinence are reluctant to talk about it and are ashamed of their problems.

The prevalence of incontinence is likely to be underestimated due to social stigma and the assumption that incontinence is a normal part of ageing. Incontinence is still neglected in health care settings, under-reported and viewed by health professionals as a symptom rather than a health problem (De Maagd & Davenport, 2012).

Identifying and managing incontinence requires a thorough assessment of the patient's condition, determination of the aetiology of the incontinence, and the development of a comprehensive care plan. Treatment of reversible causes usually starts with non-invasive interventions in daily habits such as proper eating and drinking of fluids, and voiding techniques (Gray, 2014).

The knowledge of assessment and management of incontinence by nurses in acute inpatient settings was found to be limited or inadequate. It was also found that incontinence devices are used without identifying incontinence and without assessing the degree of incontinence (Colborne & Dahlke, 2017).

The degree of urinary incontinence tells how much urine a patient excretes uncontrollably in a given period of time, and depending on the degree of urinary incontinence, the appropriate incontinence device can then be chosen. The degree of urinary incontinence is assessed using various tests and questionnaires.

Among the simpler and shorter questionnaires to assess the degree of incontinence is the one developed by Sandvik et al. (Sandvik et al., 1993) and recommended by the National Guideline Clearinghouse. This questionnaire includes questions on the frequency of urine leakage and the amount of urine leakage.

The "gold standard" for determining urinary incontinence is the weighing of incontinence templates or the so-called "Pad test" (Sandvik et al., 1993), which provides the most reliable information on the degree of UI.

When using incontinence devices, great care needs to be taken to correctly assess the need for these devices. They are intended solely to help with elimination and voiding problems. These devices can be used only temporarily, during treatment, or as a long-term solution in cases when incontinence is irreversible. In the hospital setting, incontinence devices are also fitted to non-incontinent patients for various reasons. This is due to their reduced mobility or for therapeutic reasons. The lack of uniformity of practice in this area leads to problems that result in unforeseen patient outcomes, too frequent or incorrect use of incontinence devices and, consequently, unjustified costs (Brunner et al., 2012).

Datar et al. (2022) report that the average cost of both outpatient and inpatient treatment for urinary incontinence patients is significantly higher than it should be. In this study, they also found that patients with UI frequently used anxiolytics, antidepressants, tricyclic antidepressants and anticholinergic drugs, indicating a reduced quality of life. The findings of this study point to the need for effective management strategies that reduce the burden of UI on patients, payers and society.

Incontinence has a negative impact on economic policy, which is why protocols for the medical management of incontinent patients are of paramount importance, as they have been shown to be beneficial (Beeckman et al., 2015).

Higher healthcare costs and poorer treatment outcomes for patients in acute hospital care are associated with incontinence and incontinence dermatitis. Incontinent patients and patients with incontinent dermatitis have longer hospital length of stay, a higher number of readmissions in the first month after discharge, a higher number of pressure injury (PI) and overall higher total healthcare costs compared to continent patients. The average length of stay for incontinent patients was 6.4 days compared to 4.4 days for continent patients, and the 30-day readmission rate was 12.8% for incontinent patients compared to 8.8% for continent patients. Incontinent patients were 4.7 times more likely to have a PI on the coccyx on admission and 5.1 times more likely to acquire a PI on the coccyx during their hospital stay. Finally, total hospital costs were \$17,020 for incontinent patients and \$13,713 for continent patients (Kayser et al., 2021).

The use of incontinence devices must be properly monitored and recorded. This way, it can always be assured that the most appropriate devices for the case at hand are being used. The use of the correct incontinence devices can restore confidence and increase the quality of life for incontinent individuals (Independent Living, 2014). It is also important to work with the individual when selecting incontinence devices, considering their perspective of use as well as all their anthropometric characteristics. The type and degree of incontinence, gender, physical characteristics, mental state, hand and leg mobility, vision, lifestyle, level of independence and personal preferences need to be considered. Finally, the economic aspect must also be taken into account (Cottenden et al., 2008; Jelen, 2018), but the mere consideration of the price of a device cannot be the only criterion for its cost-effectiveness. Duplicate use of incontinence devices is quite common and can lead to unjustified use of large quantities of material.

The acute hospital environment is different from that of the long-term care environment. In acute hospital settings, barriers to quality patient care, such as inadequate lighting at night, bedrails that prevent safe movement from bed to toilet, lack of access to toilets, and physical constraints that often increase episodes of incontinence, are frequently mentioned in other research papers on this topic. Research findings have shown that older adults in acute hospital settings frequently defecated in their diapers and avoided asking for help to use the toilet because they felt like a burden to staff (Colborne & Dahlke, 2017).

In hospital acute care, priority is given to medical management according to the medical diagnosis and severity of the condition, while the recognition and management of incontinence with medical devices are neglected. Thus, patients are quickly given an incontinence device even though they are not incontinent. Prioritisation of medical interventions and lack of time in the acute hospital setting have led to healthcare providers using incontinence devices out of their own convenience rather than because of their assessment or patient needs (Colborne & Dahlke, 2017).

Failure to meet the patient's needs can lead to further health complications such as delirium, bladder problems, infections, skin damage and early admission to long-term care (Colborne & Dahlke, 2017).

The management of incontinent patients has a major impact on the overall quality of care and is also a mirror of the organisation. In the theoretical part, we reviewed how incontinent patients are cared for in acute hospital settings around the world. The research questions were formulated based on our own findings from our experience at work and from our reading of the professional and scientific literature. The essential research question was what the prevalence of incontinent patients in acute hospital care is. As we want to improve the quality of care for incontinent patients in the acute care setting, we asked some additional research questions:

- Do nurses diagnose continence or incontinence when admitting patients?
- Do nurses find out what incontinence devices patients use, if any?
- What are the reasons for nurses to fit incontinence devices to patients?

- Do nurses fit incontinence devices based on patients' measured physical characteristics (height, weight, abdominal circumference) and mental state?
- Do nurses determine the degree of urinary incontinence?
- Do nurses choose an incontinence device according to the level of urinary incontinence diagnosed?
- How many incontinent patients have problems with the skin of the anogenital area (incontinence dermatitis)?
- How is documentation of all necessary procedures for the management of incontinent patients carried out?

Due to the choice of incontinence devices based on the physical characteristics of patients and the degree of incontinence being essential for their quality management, we, therefore, assumed that nurses perform these interventions and hypothesised the following:

H1: Nurses select incontinence devices based on measured anthropometric characteristics.

H2: Nurses choose incontinence devices based on the level of incontinence they have been diagnosed with.

### 3 Methods

For the purposes of the research, the professional and scientific literature was searched and reviewed using the keywords listed in Table 1.

Table 1. Important keywords

<b>Slovenian</b>	<b>English</b>
Inkontinenca	Incontinence
Stopnja urinske inkontinence	Degree of urinary incontinence
Inkontinenčni dermatitis	Incontinence dermatitis
Inkontinenčni pripomočki	Incontinence devices
Kakovost	Quality
Menedžment	Management
Dostojanstvo	Dignity
Prevalenca	Prevalence
Akutna bolnišnična obravnava	Acute hospital setting
Dokumentacija zdravstvene nege	Documentation of nursing care

The questionnaire was designed by the authors of this article, based on research questions derived from their experience at work and a review of the professional and scientific literature.

The research process:

- Obtaining permission to carry out the research (ethics committee),
- Development of a data collection instrument (questionnaire),
- Training of staff on how to conduct the survey (presentation of the cross-sectional observational survey protocol),
- Measuring the point prevalence of incontinence, i.e. in one day in all clinics involved, showing the current situation. The prevalence was calculated using the following formula:

$$\text{Point prevalence of incontinence} = \frac{\text{number of patients with incontinence}}{\text{number of patients included in the sample}}$$

After obtaining the necessary consent, we conducted a cross-sectional observational study and followed the steps for using the data, as shown in Figure 1.

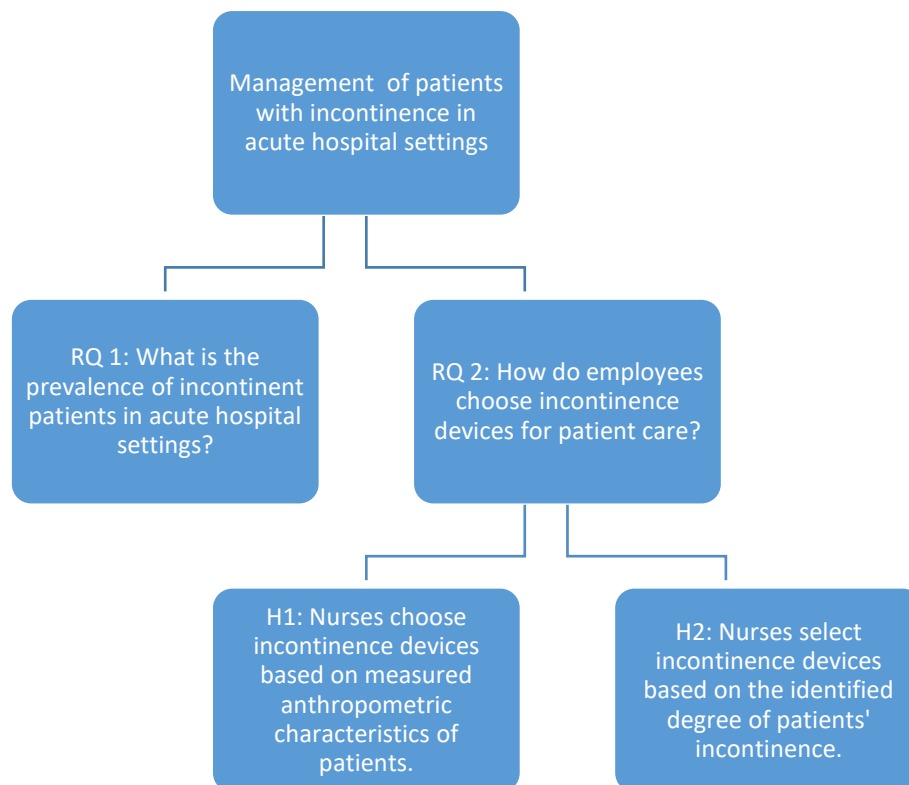


Figure 1. Survey model

## 4 Results

### 4.1 General information

The total number of observed treatments for patients with incontinence was 1277. The survey included slightly more males (51.6%) than females (47.3%). The vast majority of patients seen (81.9%) were over 50 years of age.

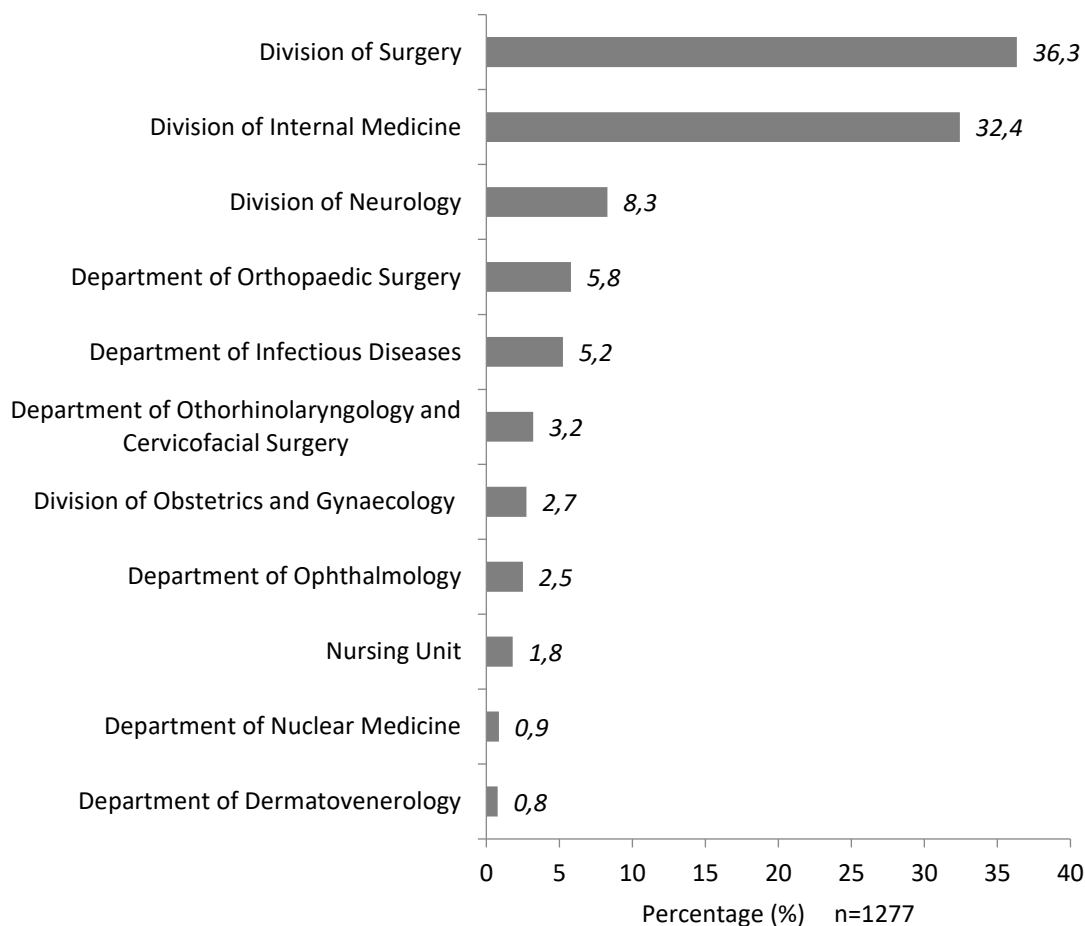


Figure 2. Percentage of patients treated by clinic

The largest proportion of patients came from the Division of Surgery (36.3%) and the Division of Internal Medicine (32.4%) (Figure 2). For 1,215 patients, it was indicated which ward or unit they were in. In total, there were 62 different locations.

For 1,030 patients, the ward they came from was indicated. The highest proportion, 11.6% of the total sample, was from the Department of Traumatology, 8.5% from the Department of Abdominal Surgery and 7.5% from the Department of Cardiology. Patients were located in 26 different clinical departments.

A good tenth of patients (11.0%) was in wards with up to 10 beds, a good third (34.7%) with 11 to 20 beds, four-tenths (39.1%) with 21 to 30 beds and 15.2% with more than 30 beds.



At the time of the survey, 14.0% of patients were in wards with up to 10 beds, 44.3% were in wards with 11 to 20 beds, a third (33.2%) were in wards with 21 to 30 beds, and 8.5% were in larger wards.

Most patients treated (81.9%) were over 50 years of age.

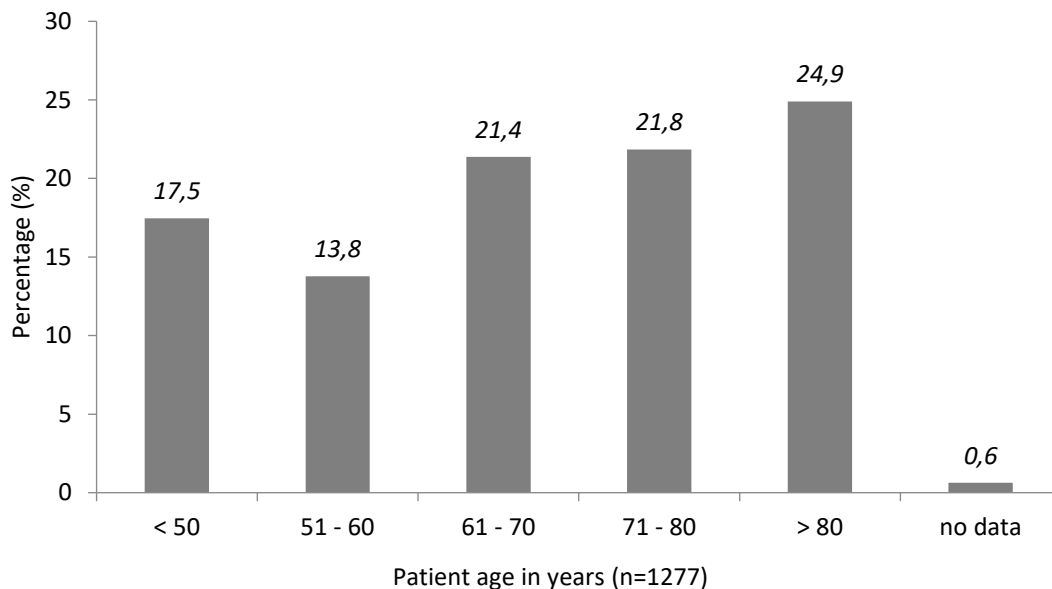


Figure 3. Age structure of patients

The largest age group was those aged 80 and over, with 24.9%. This was followed by patients aged 71-80 years (21.8%) and 61-70 years (21.4%). Patients aged 51-60 years accounted for 13.8% (Figure 3).

#### 4.2 Nursing documentation on incontinent patients

For 86.4% of the patients, the continence or incontinence status was documented in the nursing documentation (ND). For 52.0% (out of 771 patients) who used incontinence devices, the ND documentation indicated that they used them (Figure 4).

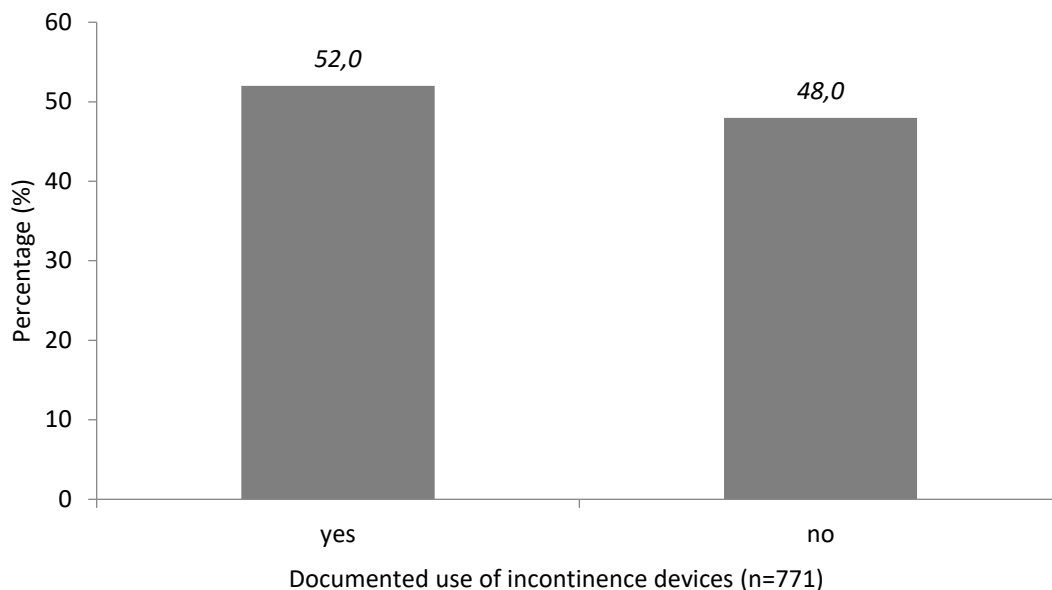


Figure 4. Nursing documentation of incontinence devices used

Among patients who needed incontinence devices, only a good third (35.1%) had the size and type of incontinence devices listed in their documentation. Among the patients who needed incontinence devices, only less than a quarter (23.1%) had the cutaneous condition of their anogenital area noted in the documentation.

#### 4.3 Actual incontinence status

Of the 1,277 patients included in the study, 750, or almost three-fifths (58.7%), were continent and did not use incontinence devices. A further 83, or 6.5%, were continent and used incontinence devices. A good three-tenths (31.1%), or 397 patients, were incontinent and used devices, while 17, or 1.6%, did not, despite being incontinent. For 2.3% of patients, no information was available (Figure 5). The point prevalence was 32.4%.

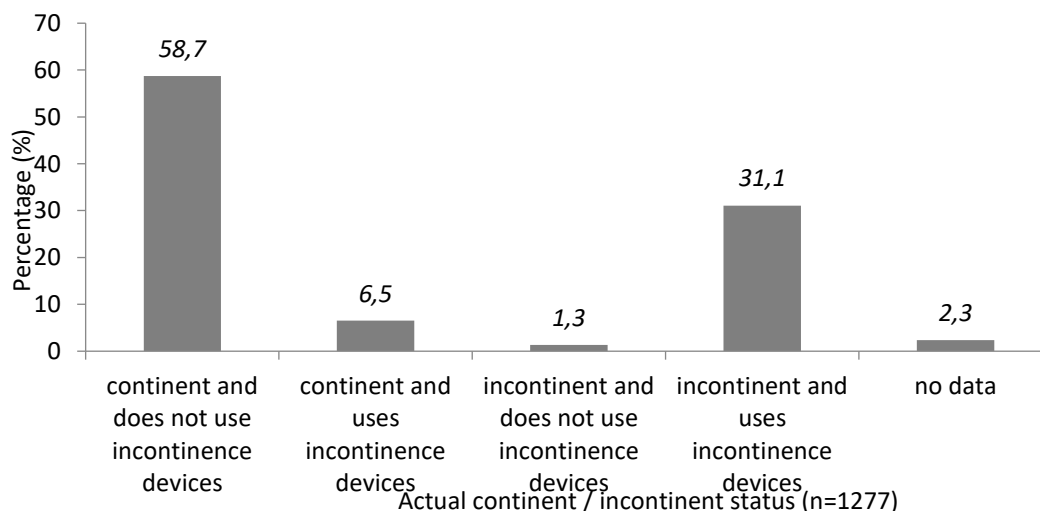


Figure 5. Actual continence/incontinent status

Among the patients who were incontinent but did not use devices (17), the vast majority (88.2%) had urinary incontinence, one patient had both urinary and faecal incontinence, and no information was given for one patient.

Among the incontinent patients (397), more than half (52.1%) had both urinary and faecal incontinence, 43.1% had urinary incontinence only, and 0.5% had faecal incontinence only. For 17 patients, no data were available.

#### 4.4 Reason for fitting an incontinence device

Incontinence was the most common reason for incontinence device placement (56.6%). Therapeutic placement was the next most commonly observed reason (24.2%). Much less common reasons were placement due to reduced mobility (7.4%) and previous surgery affecting the patient's continence status (2.7%). Other reasons accounted for 9.1% of the total number of citations (Figure 6).

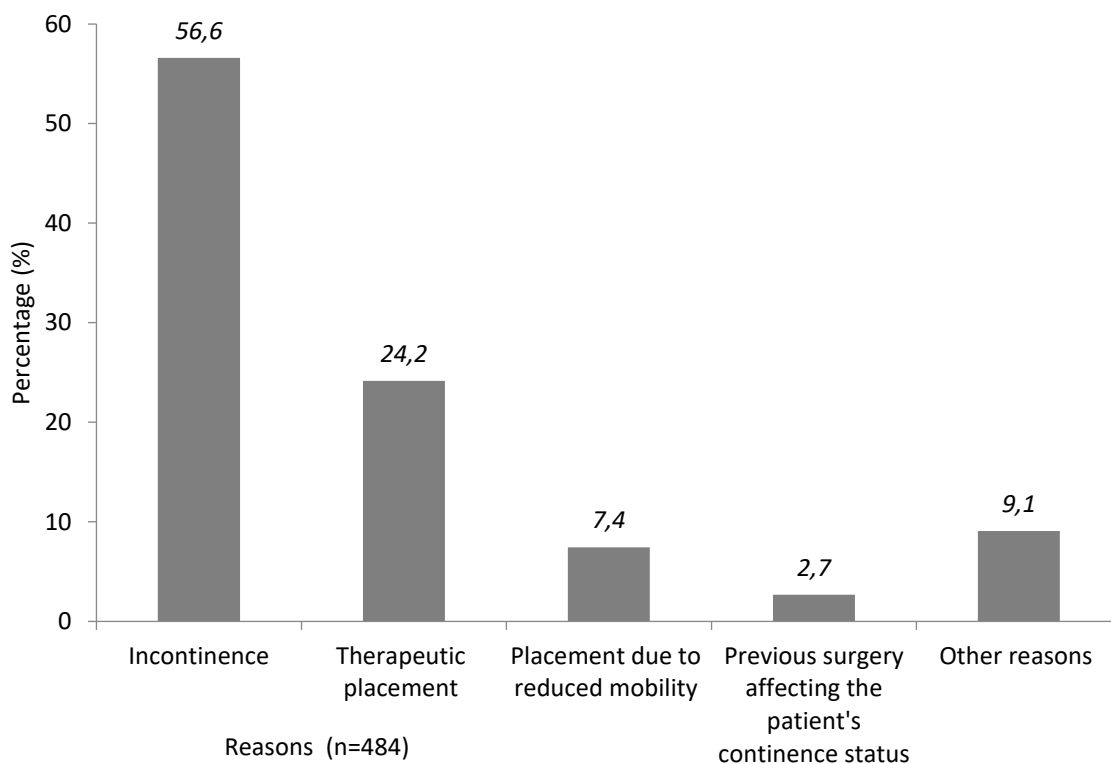


Figure 6. Most common reason for incontinence device placement

The second most common reason for incontinence device placement was stoma (12 citations), with bowel stoma being the most common (seven citations). Five citations were related to urinary retention, and six to patient preference.

#### 4.5 Type of incontinence devices fitted

The most commonly used incontinence device was a diaper, which was worn by 52.9% of patients. This was followed by a urinary catheter, which 45.7% of patients had. A disposable bed mat was used by 21.7% of patients. The following devices were less frequently mentioned: washable and absorbent textile bed mats (6.1%), self-adhesive lady pads (5.7%), fixation pants (3.9%), etc. (Figure 7).

Among patients who had incontinence devices, a good half (53.3%) had one, 40.2% had two and 2.5% had more than two but not more than four incontinence devices.

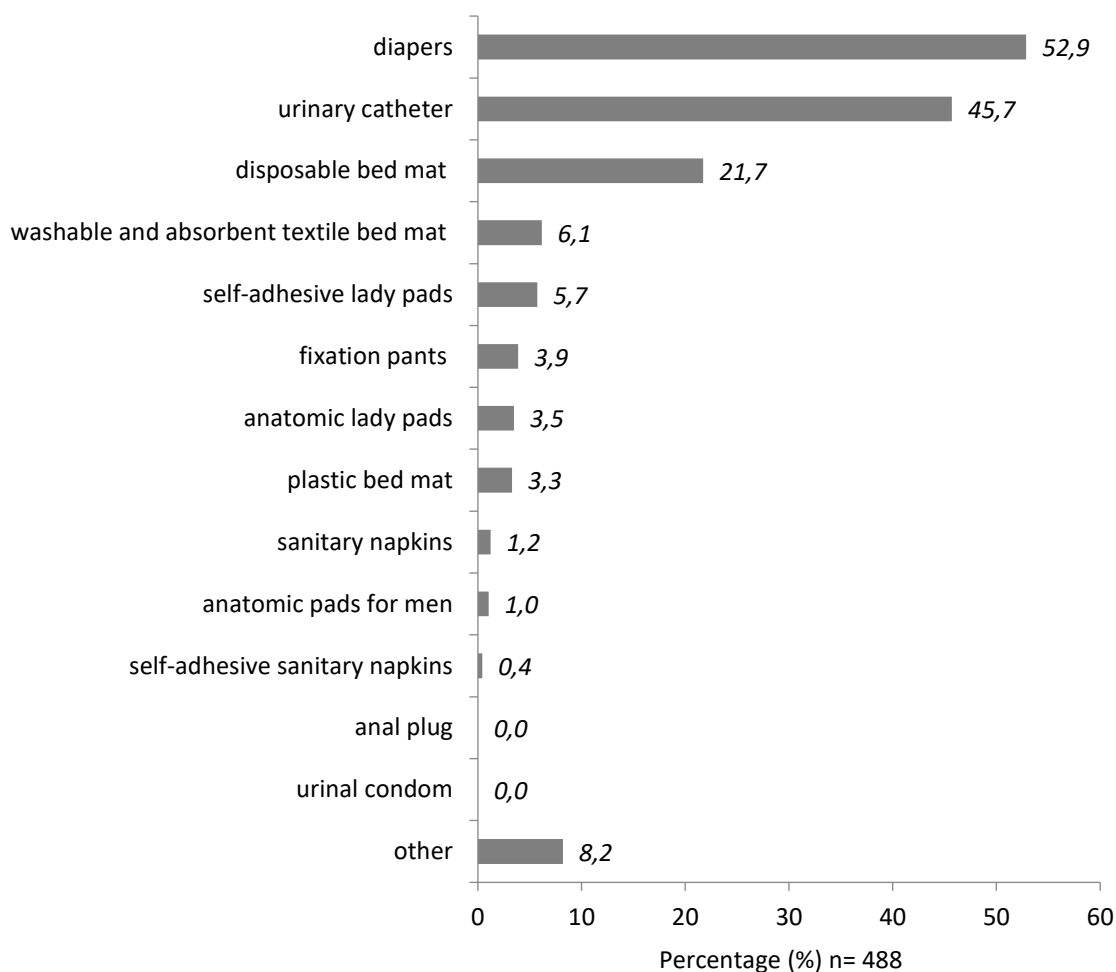


Figure 7. Type of incontinence devices fitted

Among the other types of incontinence devices mentioned, intestinal tubes (3) and nephrostomes (3) were the most frequently observed.

The most common incontinence device sizes and labels were diapers M (medium), L (large) and XL (extra-large), and UC (urinary catheter) Ch (Charrière)16. Seventy-seven different labels and sizes were listed.

Of the 484 patients who needed incontinence devices, only 11.4% had abdominal circumference in their records, and 12.4% had no information.

Almost three-fifths of the patients (58.3%) used the correct incontinence device according to their physical characteristics, 27.3% used the wrong device, and for 14.5%, there was no information.

The most frequently mentioned devices that should be used by the patient are size L, M and S (small) diapers.

#### 4.6 Degree of incontinence

The degree of incontinence was recorded in the nurse documentation in only three-tenths of the 414 patients with incontinence (30.4%). For 4.8% of the patients, no recording information was available.

In patients where the degree of their incontinence was indicated (131), 16.8% had mild, 18.3% moderate, 35.1% severe, and 29.8% had very severe incontinence (Figure 8).

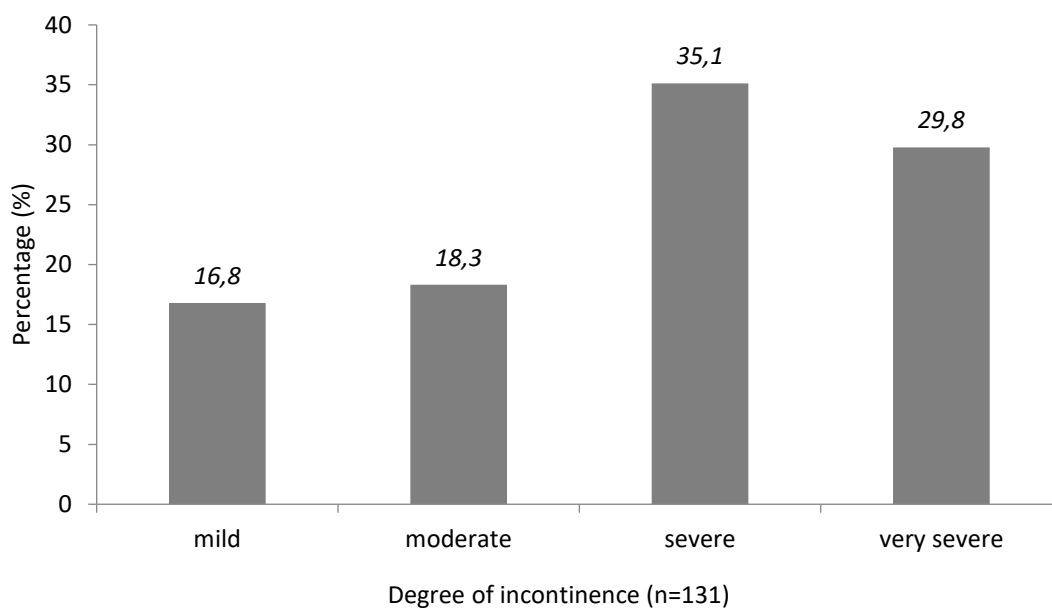


Figure 8. Degree of incontinence

If all incontinent patients in our study had their Sandvik urinary incontinence degree determined, 43.5% would have a very severe, 29.0% a severe, 15.8% a moderate and 11.7% a mild degree of UI.

In 86.5% of the patients, the correct incontinence device was chosen according to their diagnosed incontinence.

In most patients, the skin of the anogenital (AG) area was unaffected. Incontinence dermatitis occurred in 3.6% of patients, and pressure injury (PI) in 3.4%. Other changes occurred in the remaining 3.0%.

Other changes of the AG area, which can also occur in a smaller proportion, are:

- inflammation of the AG area
- inflamed skin of the gluteus
- Vacuum Assisted Closure® (V.A.C.®) on the sinister gluteus
- redness on the coccyx with return
- redness on the coccyx
- wound after vulvectomy
- excision wound
- slight redness around the stoma - the patient reports it on their own
- hot water burn of the AG area -> washing in the bidet
- scab on the glans
- inguinal herpes zoster
- inguinal dermatomycosis
- an oedematous patient

#### 4.7 Hypothesis testing

Both hypotheses were tested using a chi-square test for equality of proportions. If the proportion of respondents choosing incontinence devices based on measured anthropometric characteristics or diagnosed incontinence is greater than 50%, the hypothesis is confirmed.

Table 2. Employees' choice of incontinence devices based on measured anthropometric characteristics - chi-square test for equality of proportions

	Observed number	Expected number	Observed share	Expected share
<b>Yes</b>	282	207	68,12%	50,00%
<b>No</b>	132	207	31,88%	50,00%
<b>Total</b>	414	414	100,0%	100,0%

**hi-square = 54,35**  
**g = 1**  
**p = 0,000**

The proportion of employees surveyed who choose incontinence devices based on measured anthropometric characteristics is 68.1%, which is statistically significantly higher than 50%, suggesting that the majority of employees do so (Table 2). We confirmed our hypothesis.

Table 3. Employees' choice of incontinence devices based on the degree of incontinence observed - chi-square test for equality of proportions

	Observed number	Expected number	Observed share	Expected share
<b>Yes</b>	262	151,5	86,5%	50,0%
<b>No</b>	41	151,5	13,5%	50,0%
<b>Total</b>	303	303	100,0%	100,0%
<b>hi-square = 161,19</b>				
<b>g = 1</b>				
<b>p = 0,000</b>				

The proportion of employees surveyed who choose incontinence devices based on their diagnosed level of incontinence is 68.5%, which is statistically significantly higher than 50% (Table 3). This also confirms the second hypothesis.

## 5 Discussion

Our study showed that the prevalence of incontinence in hospitalised patients in our organisation is comparable to many hospitals abroad. Also, recent studies report that the prevalence of UI in the inpatient setting ranges from 13% to 26%, and in the FI setting between 6% and 16.3% (Condon et al., 2019; Kayser et al., 2021), whereas US hospitals report a 32% prevalence of incontinence (Koloms et al., 2022).

Urinary and faecal incontinence was confirmed in 52.1% of patients, UI in 43.1% of patients, and faecal incontinence in only 0.5% of patients. In US hospitals, the figure is similar for urinary and faecal incontinence, which is 55%, with fewer patients with UI only (33%) and significantly more with faecal incontinence (12%) (Koloms et al., 2022).

Patients with incontinence are more likely to have longer hospital stays, which also means higher hospital costs, to be discharged to a nursing home and to have a higher mortality rate (Koloms et al., 2022).

Our study showed that the majority of incontinent patients are aged 70 years and older, which is also comparable to the US study by Koloms et al. (2022), where the majority of incontinent patients were aged between 69 and 74 years.

Documenting of nursing data on patients' continence status was performed in a high percentage (86.4%), which is very good compared to surveys worldwide. Condon et al. (2019) report that incontinence is still stigmatised, not talked about by patients, and under-assessed and under-documented by healthcare professionals.

More than half of the incontinent patients (52.1%) in our study had incontinence devices recorded in their nursing care records, but only a good third of these (35.1%) had the type and size recorded.

Incontinence was the most common reason for incontinence device placement (56.6%). Therapeutic placement was the next most common reason (24.2%), placement due to reduced mobility was much less common (7.4%), along with a previous surgical procedure affecting the patient's continence status (2.7%).

Research findings have shown that older adults in acute inpatient care often defecated in their diapers despite being non-incontinent and avoided asking for help to use the toilet because they felt a burden to staff (Colborne & Dahlke, 2017). In our study, 6.5% of patients were found to be continent and yet used incontinence devices.

The most commonly used incontinence device was a diaper, followed by the urinary catheter and the disposable bed mat. The high usage of the urinary catheter in our study is quite worrying as this device is not recommended for incontinence management, and research also shows that more than half of urinary catheters inserted are unnecessary (Born & Levinson, 2019).

Almost three-fifths of the patients had the correct incontinence device for their physical characteristics (58.3%), while some had the wrong device (27.3%). No information was given in 14.5% of the cases.

If we take into account the patient's Sandvik incontinence degree, there would be one-tenth more patients with severe and very severe incontinence. The vast majority of patients had the correct choice of incontinence device for their incontinence, and the anogenital skin was also unchanged.

We also confirmed the two hypotheses, namely that a proportion of the employees surveyed choose incontinence devices based on measured anthropometric characteristics and that they also choose incontinence devices based on the degree of incontinence, despite the fact that abdominal circumference and degree of incontinence were documented in smaller percentages. The survey shows that staff overwhelmingly measure abdominal circumference and determine the degree of incontinence but do not record or document this, which is confirmed by the majority of patients having the correct choice of incontinence device.

## **6 Conclusion**

The results showed that the prevalence of incontinence in the organisation is comparable to surveys elsewhere in the world. This is the first major prevalence study of incontinence in acute hospital settings in Slovenia and, as such, is of great importance for the profession.

Choosing the right incontinence device is crucial for the well-being and quality of life of patients and their careers, allowing them to maintain their identity as a "whole person" and avoid the stigma associated with incontinence. Appropriate incontinence devices enable patients to have greater social and professional opportunities and reduce emotional and mental health problems (Cottenden et al., 2009).



There is a wide variety of products on the market, and we need to have comprehensive and up-to-date information to be able to choose the best products from the plethora of products, and of course, those that are accessible to users according to available resources, health policy and logistics of care.

As incontinence is also associated with significantly higher hospitalisation costs, protocols for the medical management of incontinent patients are of paramount importance, as they are proven to bring benefits.

The survey also has some limitations. The first is that we analysed all incontinent patients who were hospitalised in the organisation in question, but we do not have a comparison from other hospitals in the Republic of Slovenia. Another such limitation was due to the limited financial capacity to expand the study.

On the other hand, our study has some important advantages for both nursing staff and incontinent patients, as it provides a detailed investigation of the prevalence of incontinence, how staff document their nursing care and how they choose incontinence devices.

The results of the research will influence the management and organisation of nursing work, and we have identified where our opportunities are to improve practice and, as a result, quality and safety.

The survey has shed light on many questions and areas for future research. In addition to protocols, standards and clinical pathways, the knowledge of healthcare professionals and their high ethical and moral principles are also important for the quality management of incontinent patients. To care for incontinent patients with dignity, we need a model that will help us make decisions and plan individualised care for incontinent patients, especially those who are most vulnerable, such as the elderly or those with dementia.

## Reference

1. Beeckman, D., et al. (2015). *Proceedings of the Global IAD Expert Panel. Incontinence associated dermatitis: moving prevention forward. Wounds International* 2015.
2. Born, K. & Levinson, W. (2019). *Do not Place, or Leave in Place, Urinary Catheters for Incontinence, Convenience, or Monitoring in Noncritically Ill Patients. Choosing Wisely recommendation* 9.
3. Brunner, M., Droegemueller, C., Rivers, S., Deuser, E.W. (2012). Prevention of Incontinence Related Skin Breakdown for Acute and Critical Care Patients: Comparison Of Two Products. *Urologic nursing* 32(3), 2.
4. Colborne, M. & Dahlke, S. (2017). Nurses' Perceptions and Management of Urinary Incontinence in Hospitalized Older Adults. *Journal of Gerontological Nursing*, 43(10), 46-55.

5. Condon, M., Mannion, E., Molloy, D.w., O Caoimh, R., (2019). Urinary and Faecal Incontinence: Point Prevalence and Predictors in a University Hospital. *Int. J. Environ. Res. Public Health*, 16, 194; doi:10.3390/ijerph16020194.
6. Cottenden, et al. (2009). *Management Using Continence Products*. Pridobljeno na [http://www.ics.org/Publications/ICI\\_4/files-book/comite-20.pdf](http://www.ics.org/Publications/ICI_4/files-book/comite-20.pdf).
7. Datar, M., Pan, L-C., McKinney, J.L., Goss, T.F., Pulliam, S.J. (2022). Healthcare Resource Use and Cost Burden of Urinary Incontinence to United States Payers. *Neurourol Urodyn*, 41, 1553- 1562. doi:10.1002/nau.24989.
8. De Maagd, G.A. & Davenport, T.C. (2012). Management of urinary incontinence. *P T.*, 37(6), 345-361H.
9. Gray, M. (2014). Incontinence associated dermatitis in the elderly patient: Assessment, prevention and management. *Aging Life Care Association*. Pridobljeno na <http://www.aginglifecarejournal.org/incontinence-associated-dermatitis-in-the-elderly-patient-assessment-prevention-and-management/>.
10. Hall, S. (2019). *What Percentage Of The Population Are Affected By Incontinence?* Pridobljeno na <https://www.incontinence.co.uk/what-percentage-of-the-population-are-affected-by-incontinence>.
11. *Independent Living*. (2014). Pridobljeno na <http://ilcmc.com.au/product-library/continence-aids>.
12. Jelen, A. (2018). Pacient z inkontinenco v bolnišnični obravnavi. In: *Batas R., ed., Inkontinenca in rane - od preventivne do kurative [Elektronski vir] : zbornik prispevkov z recenzijo, Zreče*, 6. in 7. aprila 2018 / Zbornica zdravstvene in babiške nege Slovenije - Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije, Sekcija medicinskih sester v enterostomalni terapiji, 68-77.
13. Kayser, S.A., Koloms, K., Murray, A., Khawar, W., Gray, M. (2021). Incontinence and Incontinence-Associated Dermatitis in Acute Care: A Retrospective Analysis of Total Cost of Care and Patient Outcomes From the Premier Healthcare Database. *Journal of Wound, Ostomy and Continence Nursing: November/December 2021*, 48(6), 545-552. doi: 10.1097/WON.0000000000000818.
14. Lee, U.J., Feinstein, L., Ward, J.B., et al. (2021). Prevalence of Urinary Incontinence among a Nationally Representative Sample of Women, 2005-2016: Findings from the Urologic Diseases in America Project. *J Urol*. 2021 Jun, 205(6),1718-1724. doi: 10.1097/JU.0000000000001634. Epub 2021 Feb 19. PMID: 33605795.
15. Martin-Losada, L., Huerta, M., Gonzalez, N., Ortega, I.,Cuenca, J.N. (2019). Managing urinary incontinence in older people in hospital: a best practice implementation project. *JBI Database System Rev Implement Rep*, 17(0), 1-13.
16. Milsom, I. & Gyhagen, M. (2019). The prevalence of urinary incontinence. *Climacteric*. 2019 Jun; 22(3), 217-222. doi: 10.1080/13697137.2018.1543263. Epub 2018 Dec 21. PMID: 30572737.
17. Rajnar, R. (2016). *Uporaba inkontinenčnih pripomočkov na Nevrološki kliniki Univerzitetnega kliničnega centra Ljubljana - presečna študija : magistrsko delo [online]. magistrsko delo. Ljubljana : Univerza v Ljubljani. [Dostopano 27. junija 2023]. Pridobljeno iz: <https://repozitorij.uni-lj.si/IzpisGradiva.php?lang=eng&id=85632>*
18. Sandvik, H., Hunskaar, S., Siem, A., et al. (1993). Validation of a severity index in female urinary incontinence and its implementation in an epidemiological survey. *J of Epidemiol Community Health*, 47, 497-99.
19. Skuk, E & Blaganje, M. (2020). Urinska inkontinenca pri ženski: pregled področja. *Javno zdravje*, številka 12, 1-18. Pridobljeno na [https://nijz.si/wp,content/uploads/2022/11/skuk\\_et\\_al.\\_jz\\_2020\\_12.pdf](https://nijz.si/wp,content/uploads/2022/11/skuk_et_al._jz_2020_12.pdf)

20. Suskind, A.M., Vaittinen, T., et.al. (2022). International Continence Society white paper on ethical considerations in older adults with urinary incontinence. *Neurourology and Urodynamics*, 41, 14-30.

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### **Povzetek:**

### **Prevalenca inkontinence in uporaba inkontinenčnih pripomočkov v akutni bolnišnični obravnavi: presečna študija**

**Raziskovalno vprašanje (RV):** Kakšna je prevalenca inkontinentnih pacientov v akutni bolnišnični obravnavi? Na kakšen način zaposleni izbirajo inkontinenčne pripomočke za oskrbo pacientov?

**Namen:** Namen raziskave je ugotoviti kolikšen delež pacientov z inkontinenco obravnavamo v akutni bolnišnični obravnavi. Ugotoviti želimo tudi, kakšne inkontinenčne pripomočke uporabljajo zaposleni za oskrbo inkontinentnih pacientov in na kakšen način. Na podlagi ugotovitev želimo izvesti ukrepe, ki bodo pripomogli k bolj kakovostni obravnavi pacientov z inkontinenco.

**Metoda:** V raziskavi smo uporabili deskriptivno metodo za pregled literature, izdelali smo vprašalnik za zbiranje podatkov, izvedli izobraževanje zaposlenih o načinu in izvedbi raziskave ter izmerili točkovno prevalenco inkontinence s presečno raziskavo.

**Rezultati:** Raziskava je zajela nekoliko več moških (51,6 %) kot žensk (47,3 %), za 1,1 % pacientov pa podatek o spolu ni bil na voljo. Izmed 1.277 pacientov, vključenih v raziskavo, jih je bilo 750 oziroma dobra polovica (58,7 %) kontinentnih in niso uporabljali inkontinenčnih pripomočkov. Nadaljnjih 83 oziroma 6,5 % pacientov je bilo kontinentnih in so uporabljali inkontinenčne pripomočke. 31,1 % oziroma 397 pacientov je bilo inkontinentnih in so uporabljali inkontinenčne pripomočke, 17 ali 1,6 % pa ne, kljub temu, da so bili inkontinentni. Za 2,3 % pacientov podatek ni bil na voljo. Točkovna prevalenca je znašala 32,4 %.

**Organizacija:** Dobra organizacija je bistvena za kakovostno oskrbo inkontinentnih pacientov, zato je pomembno na podlagi ugotovljenih rezultatov izboljševati kakovost oskrbe inkontinentnih pacientov.

**Družba:** Ustrezna ozaveščenost pacientov o inkontinenci je izredno pomembna za zmanjševanje in obvladovanje inkontinence v populaciji.

**Originalnost:** Takšne raziskave v Sloveniji še ni bilo, to so prvi pridobljeni rezultati o prevalenci inkontinence v akutni bolnišnični obravnavi.

**Omejitve/nadaljnje raziskovanje:** Raziskava je potekala v enem terciarnem zavodu, priporočamo, da se takšna raziskava izvede tudi v preostalih bolnišnicah v Sloveniji.

**Ključne besede:** inkontinenca, stopnja urinske inkontinence, inkontinenčni dermatitis, inkontinenčni pripomočki, kakovost, management, dostojanstvo, prevalenca, akutna bolnišnična obravnava, dokumentacija zdravstvene nege.

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