

## TIME IN SOILED PADS: WHAT'S ACCEPTABLE TO OLDER PATIENTS AND WHAT DO DIRECT CAREGIVERS THINK?

### Hypothesis / aims of study

Urinary incontinence (UI) and faecal incontinence (FI) are common and distressing conditions that increase in prevalence with age and can lead to severe psychosocial morbidity in some individuals. Incontinence is associated with an increased risk of developing pressure ulcers (4.1% in continent patients vs. 16.3% in incontinent patients) [1]. Timely changing of incontinence products is important since patients are at risk of developing incontinence-associated dermatitis (IAD). In frail and acutely unwell hospitalized patients, containment with incontinence products such as pads is often an immediate management strategy [2]. Nurses and other healthcare providers must understand the impact of incontinence on elderly inpatients in order to maintain dignity and provide person-centred care, but there are very little quantitative data on what patients and providers view as an acceptable time to remain in a soiled pad. Without knowing how closely aligned patient and provider perspectives are in terms of "waiting times" with urinary and faecal soiling, it is difficult to deliver best possible continence care and minimize distress to patients. The primary objective of this study was to examine patient and direct care provider (DCP) views on the acceptable and actual lengths of time spent in a soiled pad during the day and the night. A secondary objective was to investigate patient- or DCP-related factors that might contribute to variation in acceptance of longer times spent with either urinary or faecal soiling.

### Study design, materials and methods

This was a cross-sectional survey of inpatients using incontinence products and their DCP in a single acute care hospital. Standardized, quantitative data collection forms asked patients and DCP for their views on acceptable wait times and estimated actual wait times (minutes) in the following circumstances: 1) soiled with urine during the day, 2) soiled with urine at night 3) soiled with faeces during the day, and 4) soiled with faeces at night. Data on previous continence status, pad use, use of mobility aids and place of residence (community, institution) were collected. Inclusion criteria were patients aged 65 years and older. Patients who were unable to provide consent due to underlying cognitive impairment and/or acute medical illness were excluded. DCP (registered nurses, licensed practical nurses, and nursing assistants) had a minimum of three months' inpatient care experience. Those who spent less than 25% of their working time providing direct patient care were excluded. A sample size of 50 patients and 50 DCP was planned to give a robust estimate of acceptability. Wait times were categorized into 0-30 (score 1), 31-60 (score 2), 61-90 (score 3), 91-120 (score 4), 121-150 (score 5), 151-180 (score 6), and >181 (score 7) for urine and 0-15 (score 1), 16-30 (score 2), 31-45 (score 3), and 46-60 (score 4) for faeces to examine the distributions. This allowed calculation of a composite "tolerance score" of patient and provider attitudes toward wait times by summing the categorical scores (range 4-22) to categorize each patient or provider as "low" tolerance (generally intolerant of incontinence; score  $\leq 8$ ) or "high" tolerance (generally tolerant of incontinence; score  $> 8$ ). Tolerance score cutoffs were defined by median score. Differences between groups were assessed using Student's t-test, correlations with Spearman's rank correlation coefficient. Patient- or DCP-related factors associated with tolerance to incontinence were analysed by univariate and multivariate binomial logistic regression. A p-value  $< 0.05$  was deemed statistically significant.

### Results

The mean (SD) age of the patient sample was 79.1 ( $\pm 9.2$ ) years and the majority was female (84%). Over half of patients (60%) were regular users of continence pads (either using them at night or on a 24-hour basis). Eighty per cent of patients lived at home, and 58% of patients used some form of walking aid (such as a cane or walker). The majority of patients (90%) felt that a wait time of up to 60 minutes in the case of daytime urinary incontinence was acceptable (66% less than 30 minutes). This was significantly shorter than DCPs (38.0 vs. 85.9 min for patients and DCPs, respectively;  $p < 0.0001$ ), nearly half of whom (44%) deemed daytime urinary incontinence wait times of an hour or more to be acceptable, 14% even considering wait times of two and half to three hours to be acceptable. At night, for urinary incontinence, 56% deemed wait times of over 60 minutes acceptable, although the distribution was more variable; 28% reported wait times of two and a half hours or more to be acceptable. This was mismatched with DCPs, who at night were slightly more intolerant of urinary incontinence (90.6 vs. 121.2 min for DCPs and patients, respectively;  $p = 0.021$ ), the majority (94%) deeming incontinence times of two hours or less acceptable. With respect to faecal incontinence 92% and 88% of patients and providers, respectively, felt that a waiting time of 15 minutes or less during the day was acceptable (6.6 vs. 6.4 min; t-test;  $p = 0.919$ ), with 86% and 80% reporting the same at night (11.1 vs. 10.3 min; t-test;  $p = 0.739$ ).

### Factors influencing tolerance of continence pad soiling, univariate analysis

Patient or provider factor	Odds ratio (OR), 95% CIs, p-value
<b>Patient</b>	
Age	OR 1.1, 95% CIs 0.97-1.1, $p = 0.35$
Sex	OR 1.1, 95% CIs 0.23-5.2, $p = 0.92$
Use of incontinence products prior to hospitalisation	<b>OR 2.0, 95% CIs 1.0-3.8; <math>p = 0.036</math></b>
Gait aids (cane/walker)	<b>OR 4.0, 95% CIs 1.1-14.7; <math>p = 0.039</math></b>
Lives in nursing home	<b>OR 6.2, 95% CIs 1.3-28.1; <math>p = 0.019</math></b>
<b>Provider</b>	
Duration on unit	OR 1.0, 95% CIs 0.83-1.2; $p = 0.97$
Level of training	OR 1.1, 95% CIs 0.46-2.4; $p = 0.89$

The age and sex of the patient were not associated with tolerance to soiling, and no variable was significant in multivariate analysis. The actual wait times reported by patients and DCPs were markedly different, with patients reporting generally shorter wait times than DCP during the day (74.6 vs. 148.8 min;  $p < 0.0001$ ). The majority of DCP (86%) reporting wait times of 91-120 minutes at night vs. a range of times by patients (155.4 vs. 128.4 min for patients and DCPs, respectively;  $p = 0.024$ ). Regardless of urinary or faecal incontinence or the time of day or night, the actual reported wait times were longer than the reported acceptable wait times for both patients and providers ( $p < 0.04$  in all cases)

#### Interpretation of results

There was considerable patient-provider mismatch for daytime UI, with patients mostly intolerant of urinary soiling of over an hour but DCPs reporting that they felt that longer wait times were acceptable. Both patients and DCPs reported that pads soiled by FI required changing within 15 mins during both day and night. The vast majority of both patients and providers reported that long wait times (over fifteen minutes) with FI were unacceptable, most likely reflecting cultural and societal differences in attitudes towards urine and faeces (the latter being regarded as "worse" than the former) [3]. These assumptions need revisiting both from the patient perspective (i.e., that they do not have to accept soiling due to UI) and the provider perspective (i.e., that patients only find FI distressing). Although patient- and DCP-reported "actual" wait times were consistently longer than those deemed acceptable, there were significant differences in the value reported between patients and DCPs. The reporting of actual times by the majority of DCPs at two or three hours may reflect predefined care round schedules and a lack of detailed knowledge (or direct questioning) about exactly how long patients had been soiled.

#### Concluding message

This study has reported significant gaps in patient-provider perspectives with respect to acceptable wait times in soiled incontinence products, especially for daytime UI. Patient factors, particularly markers of institutionalisation and healthcare exposure, influence tolerance to soiling. Patient perspectives are important to establish person-centred care.

#### References

1. J Wound Ostomy Continence Nurs. 2016;43(3):235-41.
2. J Adv Nurs. 1993;18(11):1734-46.
3. J Wound Ostomy Continence Nurs. 2004;31(2):85-94.

#### Disclosures

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