

# Assessment and management practices of urinary incontinence in Australian rehabilitation services

---

## National Stroke Audit - Rehabilitation Services

Tara Purvis<sup>1</sup>, Jo Maxwell<sup>2</sup>, Kelvin Hill<sup>2,3</sup>, Monique Kilkenny<sup>1,3</sup>,  
Megan Reyneke<sup>1</sup>, Dominique Cadilhac<sup>1,3</sup>

1. Stroke and Ageing Research, School of Clinical Sciences at Monash Health, Monash University, Victoria, Australia
2. Stroke Foundation, Victoria, Australia
3. Stroke Division, The Florey Institute of Neuroscience and Mental Health, Victoria, Australia

# Background

---

- **Urinary incontinence** is common in stroke (Stroke Foundation Audit 2014, 2016, 2018)
- Incontinence is a strong predictor of functional outcome (Meijer 2003)
- Incontinence has a **negative effect** on the quality of life of both patients and their caregivers (Thomas 2019).

## Aim

---

To describe:

- the assessment and management practices of urinary incontinence in Australian rehabilitation hospitals
- the influence of specialist nurses on these clinical practices

## Method

---

- National Stroke Audit Rehabilitation Services 2018:
  - Organisational survey
  - Clinical audit data
- Descriptive statistics and mixed-effects logistic regression for adherence to processes related to incontinence included patient characteristics, hospital rurality and presence of a specialist nurse

## Results – site participation

---

- Total of 109 hospitals contributed 3651 audited cases:

Gender	55% male
Age (median)	76 years
Stroke type	72% ischaemic

- Organisational survey: 69% of services reported having CNC &/or CNS nurses

## Results – clinical audit data

---

**83%** (3022) Patients assessed within 72 hours of admission (all)

**41%** (1497) Incontinent of urine during rehab admission (all)

**52%** (782) Urinary incontinence management plan (*if incontinent*)

## Results – influence of specialist nurses

---

Patients were **more likely** to:

- have their **continence assessed** if treated in a hospital with access to **specialist nurses** (OR 4.46, 95%CI 1.85, 10.77)
- have an **incontinence management plan** documented with access to **specialist nurses** (OR 2.16, 95%CI 1.00, 4.67)

## Results – urge incontinence

---

- Of those found incontinent:
  - **428 had urge incontinence (51%)**
- Of those with urge incontinence:
  - **240 had a scheduled voiding regime documented (56%)**
- Patients were **more likely** to have documentation of a voiding regime if treated in a hospital with access to **specialist nurses** (OR 2.43, 95% CI 1.22, 5.25)



## Results – complications

---

- **14% (511)** of all patients developed a urinary tract infection (UTI) during admission
- **No** association found between UTI rates and specialist nurses (OR 1.07, 95%CI 0.79, 1.48)

# Strengths and limitations

---

## Strengths

- Large sample and representation from metropolitan and rural hospitals in all states of Australia
- Standardised data collection tool and data definitions

## Limitations

- Audit cohort may not be representative of all cases
- Potential for reporting bias

## Conclusion

---

- The management of incontinence requires greater focus in rehabilitation hospitals
- Access to specialist nurses seems to positively influence management of incontinence

### **BUT...**

- Specialist nurses are not associated with fewer UTIs in this cohort

# Acknowledgements

Hospitals participating in the National Stroke Audit and  
clinicians who contributed to data collection

---

## National Stroke Audit

Jo Maxwell (Data & Quality Co-ordinator)

Ph: 07 3084 6377

Email: [audit@strokefoundation.org.au](mailto:audit@strokefoundation.org.au)

Download the audit report from: [informme.org.au/stroke-data](http://informme.org.au/stroke-data)