

INTRODUCTION

- Incontinence-associated dermatitis (IAD) is a common skin condition caused by faecal/urinary incontinence
- Can result in: reduced QoL, loss of independence, depression, sleep disruption
- Reported prevalence in acute care hospitals of up to 47.5%
- Under-recognised condition: prevalence audits conducted irregularly
- **An important neglected clinical problem**



SETTING & PARTICIPANTS

- Multisite study: 5 health districts in New South Wales, Australia
- 6 hospitals; 18 participating wards (3 per hospital)
- Specialisms: subacute/rehabilitation medicine, acute geriatrics, palliative care, respiratory/gastroenterology, general medical, surgical, ICU
- Data collected Feb-April 2020 (pre-intervention implementation); July-Sept 2021 (post-intervention implementation)



- Final analysis conducted on **694** incontinent patients (1897 patients assessed in total)
 - **343** pre-intervention implementation
 - **351** post-intervention implementation

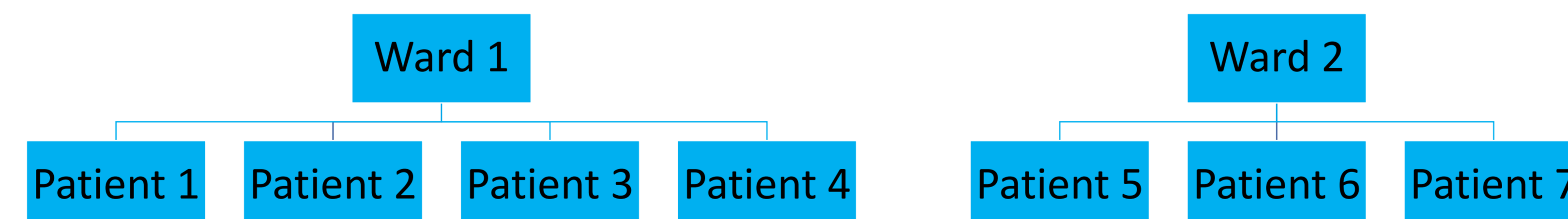
METHODS

- **Quasi-experimental study** with historical controls
- Clinical audits involving skin and continence assessments conducted pre-and post-implementation of an **evidence-based healthcare bundle** to prevent and manage IAD

THE HEATHCARE BUNDLE

- Staff IAD education
- Use of incontinence assessment tools: flow, record and product charts
- Education of patients, family and caregivers
- Development of practice guidelines and categorisation tool
- Implementation of patient skin protection measures

- Multilevel logistic regression analysis conducted on **IAD incidence** (primary outcome)
- Secondary outcomes of IAD severity and length of hospital stay (LoS) also assessed
- Propensity scoring used to control for confounding variables
 - Ward type, patient mobility, patient age, patient sex, patient outcome (i.e., whether died, discharged or transferred within/between hospitals), length of stay in hospital.
- Hierarchical data (patients clustered within wards)



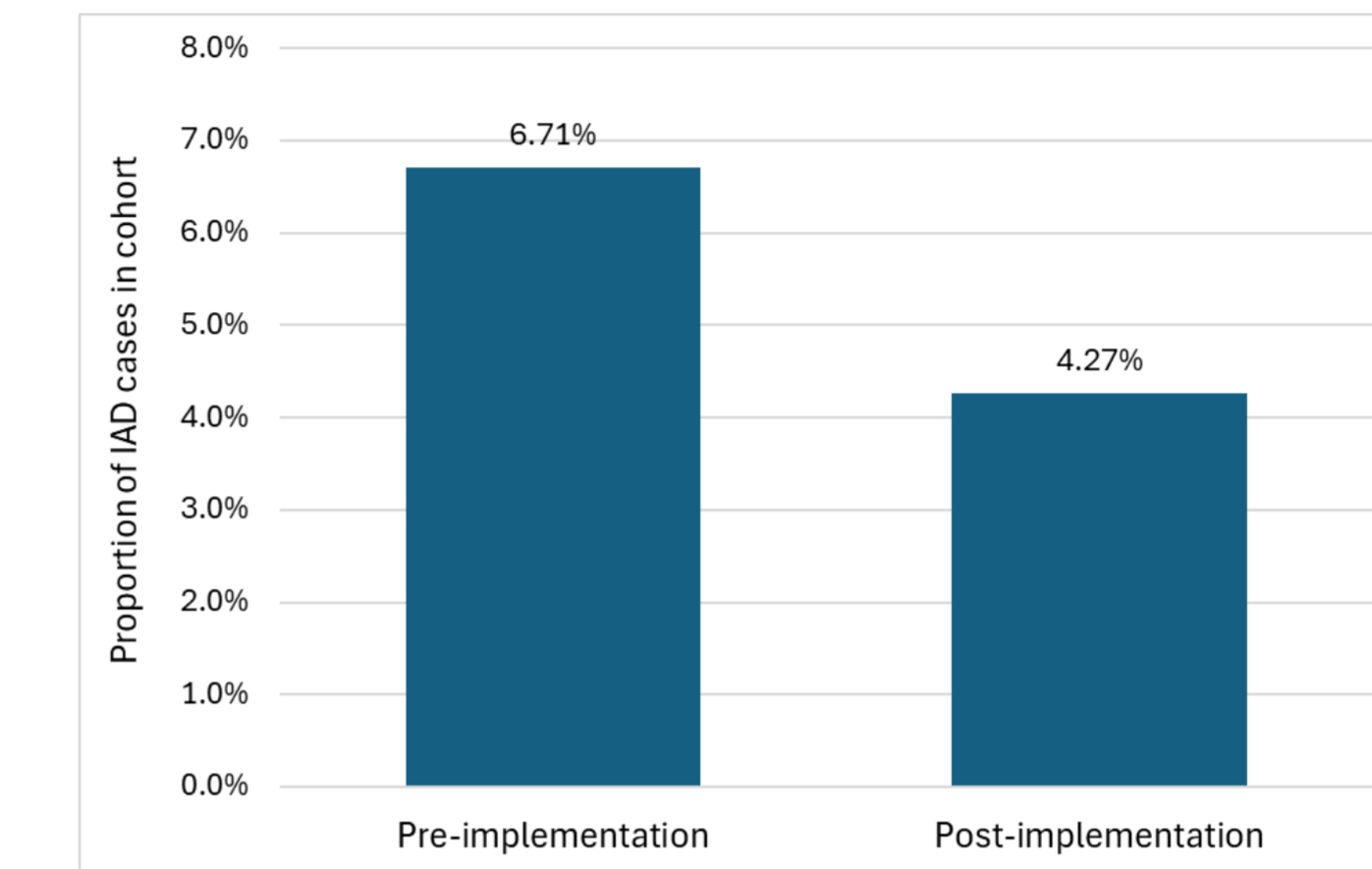
COHORT CHARACTERISTICS

- Similar age and gender profiles in pre- and post-implementation cohorts
- Higher levels of double incontinence and lower levels of acuity in post-implementation cohort
- Suggesting higher IAD incidence may be expected in post-implementation cohort

Status	Pre-implementation cohort (n=343)	Post-implementation cohort (n=351)
Double incontinence	173 (50.4%)	203 (57.8%)
Mobility		
Full/partial mobility	225 (65.6%)	203 (45.8%)
Bed-bound	118 (34.4%)	148 (42.2%)
Age (years) (Mean (SD))	80.2 (11.7)	79.5 (11.5)
Sex		
Female	187 (54.5%)	188 (53.6%)
Male	156 (45.5%)	163 (46.4%)

RESULTS

- 23 IAD cases in 343 patients in pre-intervention cohort (**6.71%**)
- 15 IAD cases in 351 patients in post-intervention cohort (**4.27%**)
- Adjusted odds ratio for IAD = 0.546 (rates about halved in post-intervention cohort)
- Higher IAD incidence also associated with double incontinence (1.95 adjusted odds ratio)



Variable	p-value	OR	95% CI for OR
Intervention status: Post-intervention (reference = pre-intervention)	0.086	0.546	(0.274, 1.09)
Incontinence status: More than one type of incontinence (reference = singly incontinent)	0.064	1.95	(0.962, 3.96)
Propensity score on covariates	0.392	1.22	(0.774, 1.93)

- IAD severity similar in both cohorts: most cases category 1A (mildest form)
- LoS for IAD patients significantly longer pre-implementation (44.5 days (SD 34.2 days)) than post-implementation (24.6 days (SD 18.2 days)); $p=0.03$
- LoS in all patients longer in post-implementation cohort

CONCLUSIONS

- Evidence-based healthcare bundle **substantively reduces IAD incidence** in large cohort of hospital patients with incontinence
- Length of hospital stay significantly reduced following implementation of intervention
- Improvement in outcomes despite higher acuity levels in post-intervention cohort

REFERENCES

- Barakat-Johnson et al. (2024). Impact of an evidence-based bundle on incontinence associated dermatitis prevalence in hospital patients: A quasi-experimental translational study. International Wound Journal. 2024;21:e14936. <https://doi.org/10.1111/iwj.14936>