# COST2CARE: Improving Visibility of Nursing Sensitive Adverse Events in Ireland

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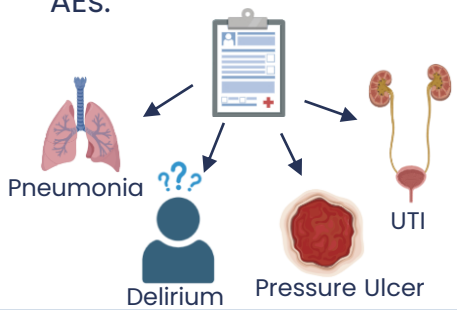
## Introduction

- Older patients make up the largest proportion of hospital inpatients across all countries.
- Common nursing-sensitive adverse events (AE) such as **pneumonia, delirium, urinary tract infections (UTIs)** and **pressure ulcers** contribute to higher healthcare costs, lower quality care, and less satisfactory patient experiences.
- Accurate measurement of AEs is key to improving patient safety and healthcare quality. Therefore, validation of administrative data such as the Hospital in-patient enquiry (HIPE) data in Ireland is required.
- Validation studies commonly use retrospective chart review as patients' charts are often considered a gold standard source of patient information.

## Methodology

- Co-production of protocol and data collection instrument used collect AE data.
- Two-stage retrospective chart review of 1000 admissions.
- Corresponding HIPE data validated by comparing the chart review data to Hospital Acquired Diagnosis (HADx) flags.
- Prediction models developed and used to calculate the predicted risk of national rates for AEs.




## Results

- 373 AEs were found in 231 (23.1%) admissions.
- 133 pressure ulcers, 101 cases of delirium, 84 cases of pneumonia and 55 UTIs identified by chart review in 71, 100, 79 and 52 admissions, respectively.
- HADx flag found for 96 (31.7%) of the 302 AEs.
- Predictive model indicated national prevalences of 5.5-6.1 % for pneumonia, 4.8-5 % for UTI, 6.7-7.2 % for pressure ulcers, 5.3-7.1 % for delirium and 19-19.7% for at least one AE occurring to an older patient while in hospital.

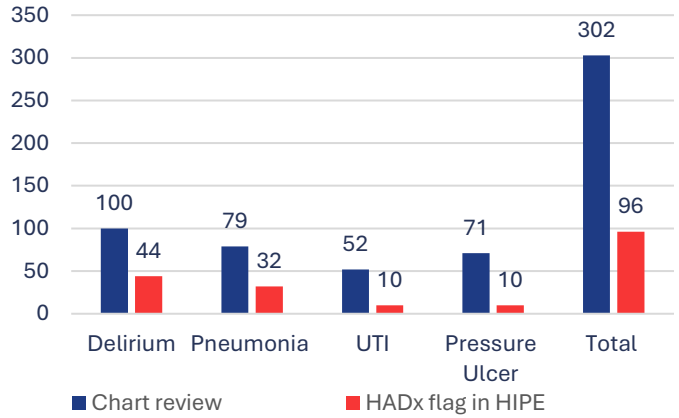



***Figure 1**: Admission level comparison between chart review data and HADx data*

## Conclusion

- HIPE data may not accurately represent these specific AEs as experienced by older patients
- Improved accuracy of administrative data may facilitate benchmarking of AEs across hospitals and countries and provide opportunities for improvements in patient safety.

## Recommendations

- Education of junior physicians on the importance of clear and accurate documentation.
- Enhance the coding and visibility of hospital-acquired AEs in HIPE data.
- Future research as part of COST2CARE will focus on addressing the economic cost of these AEs.

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