PREVENTing re-admissions through medication review

Jaclyn Costello[1,2] BPharm, GradDipClinPharm, PhD Student; Geoffrey Grima[1] BPharm, GradDipClinPharm
Queensland Health (1), University of Queensland (2).

AIM

Demonstrate a reduction in 28-day re-admission in patients at high risk of medication misadventure who attend a Pharmacist Review and EValuation of New and Existing Therapies (PREVENT) clinic following hospital discharge.

BACKGROUND

Studies have shown that pharmacist-led medication reconciliation at hospital transitions of care decreases adverse drug event-related hospital re-admissions or ED presentations.[1] A recent review by Roughead et al, describes between 2-3% of all hospital admissions being medication-related, costing over AU$1billion annually.[2] Yet there is currently no studies to show that a hospital-based post-discharge pharmacist-led medication review clinic may impact on hospital re-admission or patient health outcomes. This study describes the first four months of PREVENT clinic operation and 198 patient referrals, 163 of whom were referred due to a recent hospital admission.

METHODS

Patients referred to PREVENT for post-discharge follow-up

Re-admission data collected from hospital database systems. Collated using Microsoft Excel

28-day re-admission rates compared for patients who attended PREVENT

Data analysed using Chi square statistic

RESULTS

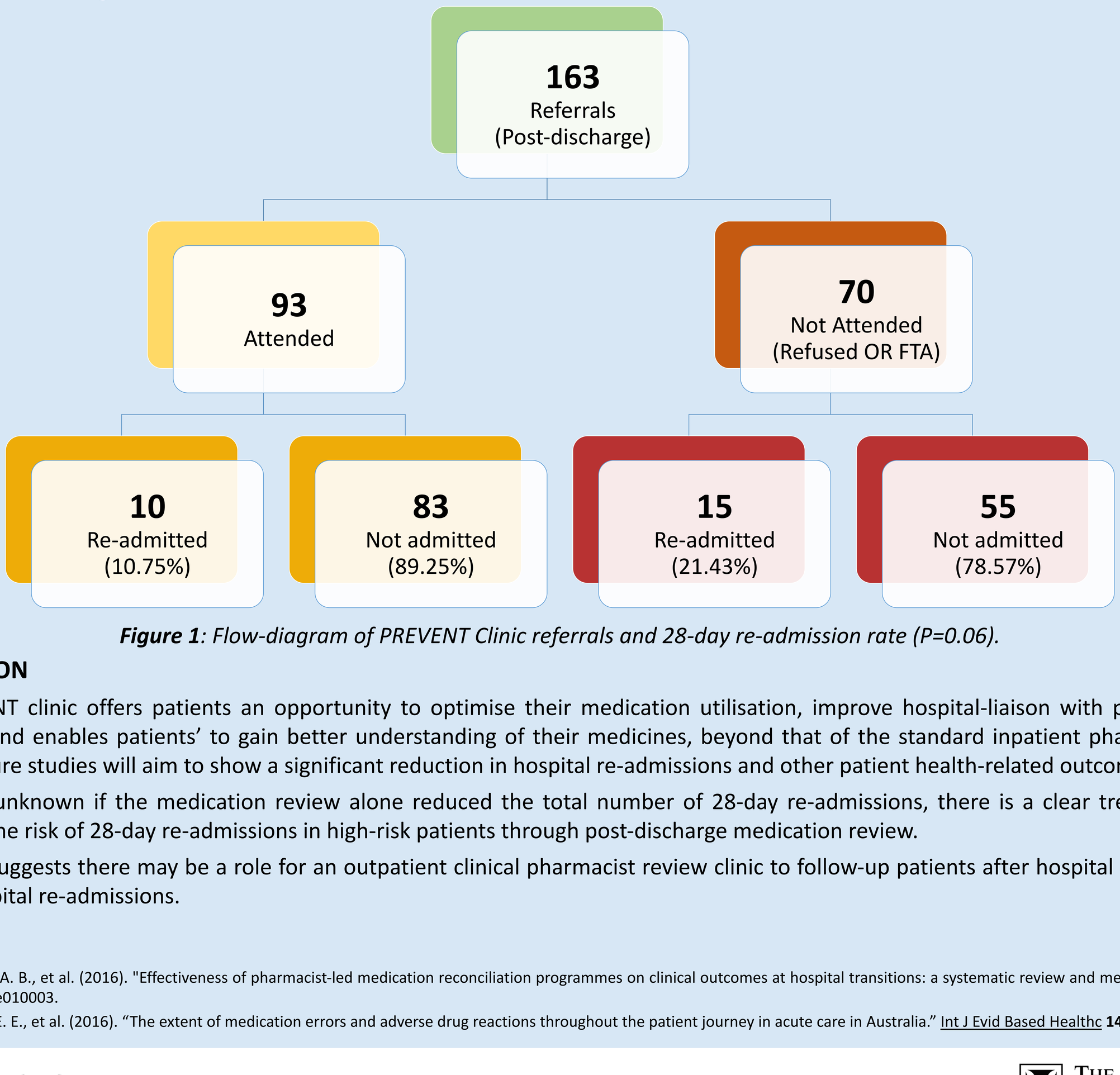

***Figure 1**: Flow-diagram of PREVENT Clinic referrals and 28-day re-admission rate (P=0.06).*

CONCLUSION

Our PREVENT clinic offers patients an opportunity to optimise their medication utilisation, improve hospital-liaison with primary care providers, and enables patients' to gain better understanding of their medicines, beyond that of the standard inpatient pharmaceutical review. Future studies will aim to show a significant reduction in hospital re-admissions and other patient health-related outcomes.

While it is unknown if the medication review alone reduced the total number of 28-day re-admissions, there is a clear trend towards improving the risk of 28-day re-admissions in high-risk patients through post-discharge medication review.

This study suggests there may be a role for an outpatient clinical pharmacist review clinic to follow-up patients after hospital discharge to reduce hospital re-admissions.

REFERENCES

1. Mekonnen, A. B., et al. (2016). "Effectiveness of pharmacist-led medication reconciliation programmes on clinical outcomes at hospital transitions: a systematic review and meta-analysis." BMJ Open **6**(2): e010003.
2. Roughead, E. E., et al. (2016). "The extent of medication errors and adverse drug reactions throughout the patient journey in acute care in Australia." Int J Evid Based Healthc **14**(3): 113-22.