IMPROVING MEDICINES MANAGEMENT OF INPATIENT PARKINSON'S DISEASE PATIENTS BY MAKING PHARMACY INTERVENTIONS (5PSQ-003)

Knipe, M[1,2], Conyard, E[2], Donovan, M[1]

[1]School of Pharmacy, University College Cork
[2]Pharmacy Department, Our Lady of Lourdes Hospital, Drogheda

Author contact: mark.knipe@hse.ie

N04 - ANTI-PARKINSON DRUGS

BACKGROUND

Parkinson's disease (PD) patients require the timely administration of medicines. **Admission of PD patients to hospital can disrupt patient's medication regimens, resulting in delayed or missed doses.** This can cause adverse effects such as, the loss of symptom control, permanent reductions in a patient's baseline condition and delays in discharge.

PD medicines management interventions can reduce the likelihood of medication errors and fewer administrations of contraindicated medicines.

AIM

The aim of this study was to assess the impact of pharmacy interventions (staff education, stock optimisation and priority pharmacist medicines reconciliation) on PD patient outcomes (medication errors, length of admission, prevalence of falls, delirium, rigidity and delays in 1st doses).

METHODS

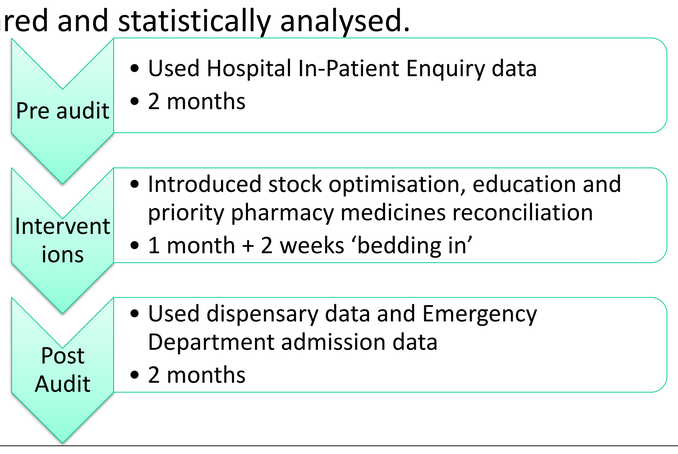
Three interventions were implemented over a 1 month period. These were:

1. Priority medicines reconciliation 2. Stock optimisation 3. Staff education

A 'baseline' audit was completed prior to interventions being implemented. This measured:

- Patient demographics
- Delay in 1st dose following admission
- Medication errors (omitted/missed/delayed doses)
- Contraindicated medicines administration
- Pharmacist medicines reviews and time until completion
- Patient outcome (prevalence of falls, delirium, rigidity)
- 'nil by mouth' (NPO) patient outcomes

A post-intervention audit identical to the 'baseline' audit was completed and both audits were compared and statistically analysed.



RESULTS

Demographics:

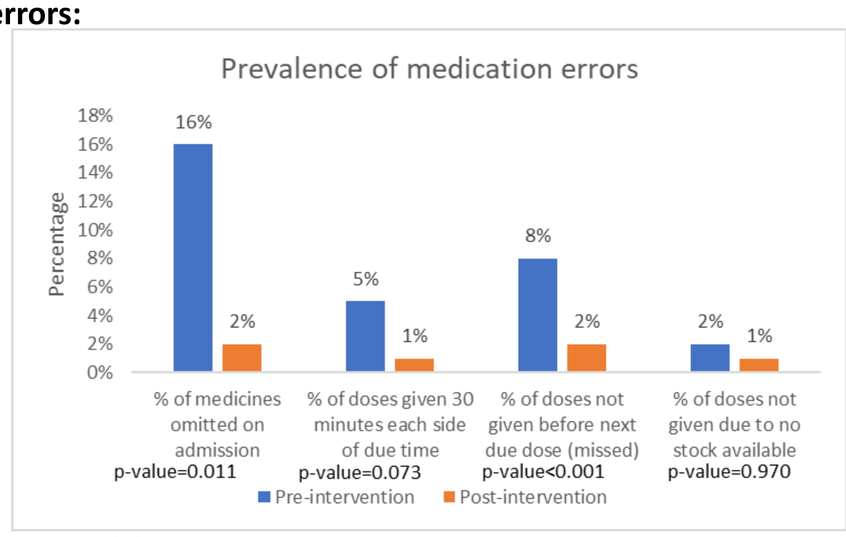
The 'baseline' audit included 24 patients, 59 PD medicines and 1611 doses.
The post-intervention audit included 30 patients, 58 PD medicines and 1840 doses.

Shorter lengths of admission in post-intervention group were seen (p-value=0.475)

	Pre-audit group n = 24	Post-audit group n = 30	p-value
Mean age (years)	81	80	0.727
Gender (M/F%)	71/29%	47/53%	
PD medicines prescribed	59	58	
Total doses due	1611	1840	
Mean length of admission (days)	19	15	0.475

M = Male F = Female

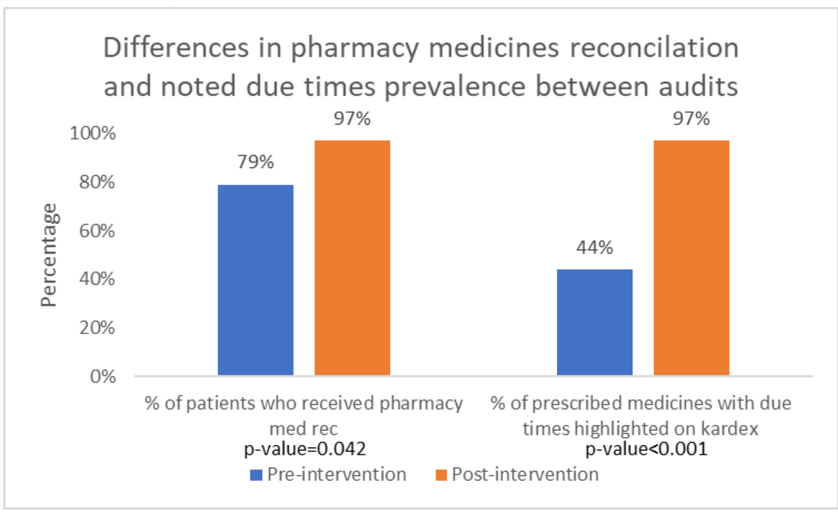
Medication errors:

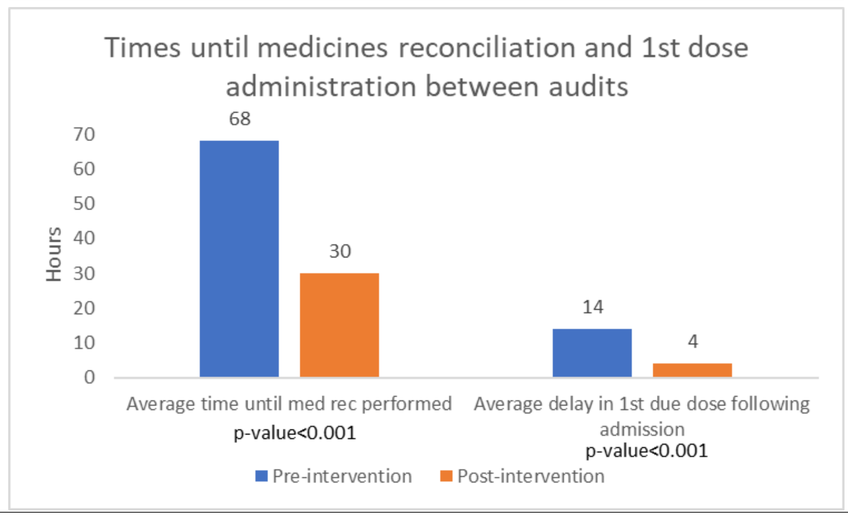


Contraindicated medicines:

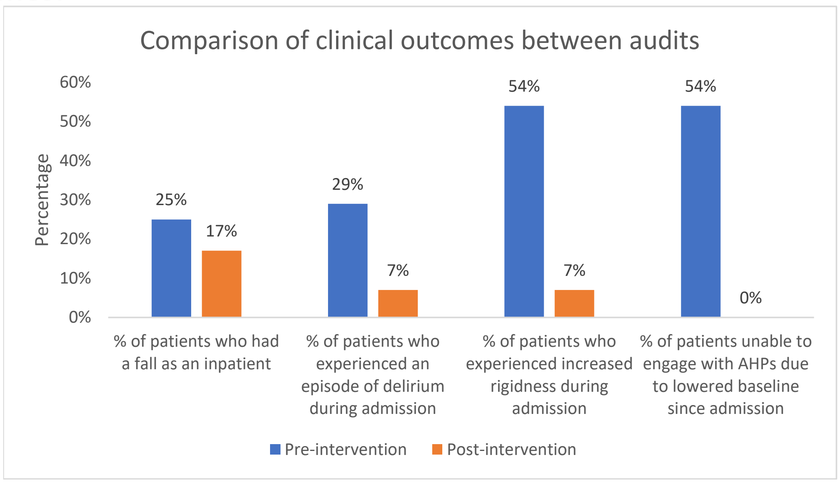
The post-intervention audit showed a higher proportion of patients being prescribed contraindicated medicines, 17% compared to 13% in the pre-intervention group. However, a higher number of doses of contraindicated medicines were given in the pre-intervention group, 7 doses, whilst 1 dose was given in the post-intervention group.

Medicines reconciliations, noted due times and 1st dose administration:





Patient outcomes:



More NPO patients correctly converted to non-oral PD medicines in post-intervention group

CONCLUSIONS

This study showed that the introduction of the pharmacist-led interventions (staff education, priority medicines reconciliation and stock optimisation) can improve PD patient outcomes of inpatients, by reducing medication errors, decreasing the administration of contraindicated medicines and preventing delays in the administration of PD drugs. There is the possibility of cost-saving potential from reduced length of admission of PD patients. Further, longer term studies with larger samples of PD patients should be undertaken to complement the findings of this study and help with the development of an inpatient PD guideline going forward.