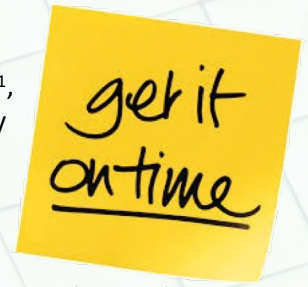# A novel way to improve the timely administration of Parkinson's medicines in the hospital setting

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Background

Parkinson's is a progressive neurological disease affecting approximately 145,000 people in the UK [1], with symptom control dependent on the <u>timely</u> administration of medication. In light of this, timely administration of Parkinson's medicine has been a prominent focus of patient safety campaigns for this patient group– such as the "Get it on time" initiative.

get it on time

System development

Despite significant efforts in staff training, ongoing monitoring using data from the NHS Ayrshire & Arran (NHSAA) hospital ePrescribing system showed that the timely administration of Parkinson's medicines remained a challenge. In a concerted effort to improve this, the NHSAA ePrescribing, Parkinson's nurse specialist and eHealth teams worked to develop a system of dynamic visual prompts. With this newly developed tool, these prompts now appear alongside relevant patient details on the ward electronic whiteboard.

Patient prescribed Parkinson's medication (not currently due for administration).

Patient due for administration of Parkinson's medication (within 30 minutes of scheduled administration) – flashing icon.

Patient overdue for administration of Parkinson's medication (more than 30 minutes late).

These icons display and continuously update for relevant inpatients on a near real time basis - with no input required from ward staff. As such, staff receive visual prompts whenever Parkinson's medicines become due for administration.

Trialling the change

Analysis of ePrescribing medicines administration data enabled the identification of a suitable pilot ward (based on prevalence of Parkinson's medication) and the whiteboard prompt was introduced on 1/10/2018. ePrescribing medicines administration data was subsequently reviewed for the ward – looking at 6 weeks pre and post introduction.

Results

Clear improvements were achieved in the proportion of administrations of Parkinson's medicines given on time –i.e. within 30 minutes of scheduled administration (Figure 1) - and an overall reduction in the average and median time difference between scheduled and administered time of these medicines (Table 1).

Tool implementation

Figure 1 –proportion of Parkinson's medicines administered within 30 minutes of scheduled administration time (Green) versus early/late administration (Red)

Week commencing	Reds (early/late admin.)	Greens (on time admin.)	Average difference between scheduled and actual administration (minutes)	Median difference between scheduled and actual administration (minutes)
20/8/18	19	2	78.4	78
27/8/18	18	2	93.6	77.5
3/9/18	17	3	56.6	56.5
10/9/18	19	12	52.3	48
17/9/18	29	20	53.6	55
24/9/18	29	18	58.9	54
1/10/18	17	32	36.9	21
8/10/18	14	35	27.9	24
15/10/18	16	51	20.8	17
22/10/18	23	47	24.9	24.5
29/10/18	21	52	23.3	15
5/11/18	22	104	18.8	14.5

Table 1- weekly breakdown of Parkinson's medicines administered in relation to scheduled time of administration (note: introduction of change occurred on 1/10/18)

Conclusion

The introduction of the whiteboard prompt has had a clear positive impact in improving the timely administration of Parkinson's medicines within the pilot ward. Further, this was achieved without the requirement for any additional ward resource.

Given the importance of patients with Parkinson's getting their medicines on time to best control their disease symptoms, we believe this will have a positive impact on their disease control whilst they are an inpatient.

This tool is now in the process of being rolled out across NHS Ayrshire & Arran's inpatient wards.

References : 1- *Parkinson's UK – www.parkinsons.org.uk (March 2019)*