

Missed and delayed doses of Parkinson's medicines at North Bristol NHS Trust (NBT) (GB)

Kate Walker, Pharmacist; Southmead Hospital, Bristol, England

Introduction/Background

The NPSA alert 'reducing harm from omitted and delayed medicines in hospital' states Parkinson's medication should be on a 'critical list of medicines'¹ as timeliness of administration is crucial. Delays can significantly affect Parkinson symptoms and

increase length of hospital stay. Substantial work has been carried out at North Bristol Trust to improve missed doses, however particular groups of medicines such as for Parkinson's, have not been investigated. An audit was therefore completed to determine whether doses of Parkinson's medicines are given 'on time' and how this can be improved, by utilising the existing National campaign; 'Get it On Time'.²

Aim & Objectives

The aim was to improve the administration timing of Parkinson's medicines within hospital, to prevent a possible worsening of symptoms.

Objectives:

- I. Assess whether patients are receiving Parkinson's medication on time, every time.
- II. Discover whether Parkinson's medicines are endorsed with the times for administration.
- III. Identify the time frame of what constitutes a dose for Parkinson's received 'on time'.
- IV. Investigate whether 'Get it on Time' stickers and endorsing times on drug charts improve the punctual administration of Parkinson's medicines.

Audit Standards (1-4 from Parkinson's UK)

Audit Standard	Aim	Exception
1. *Delays in the administration of the 1 st dose do not occur	100%	None
2. Further dose delays*/omissions do not occur	90%	Refusal or Absence - 10%
3. A 'critical list' contains Parkinson's medicines	100%	None
4. Parkinson's medicines are clearly endorsed with administration times	100%	None
5. Parkinson's medicines should be given ≤30minutes of the time stated on the drug chart	90%	Refusal or Absence - 10%

*No specification stated for the timing of a dose delayed, therefore for the purpose of the audit this was >30minutes.

Methodology

Stage 1

- Identify whether Parkinson's medicines are endorsed with the times for administration.
- Record the number of doses missed, delayed and on time by comparing the time the drug was administered, to when this should occur as prescribed.
- Where appropriate conduct a patient questionnaire related to Parkinson's medicines management.

Re-audit

- Apply 'Get it On Time' stickers to the front of drug charts.
- Endorse times for administration of Parkinson's medicines on drug charts.
- Display posters on wards to encourage tests of change and re-audit.

Results

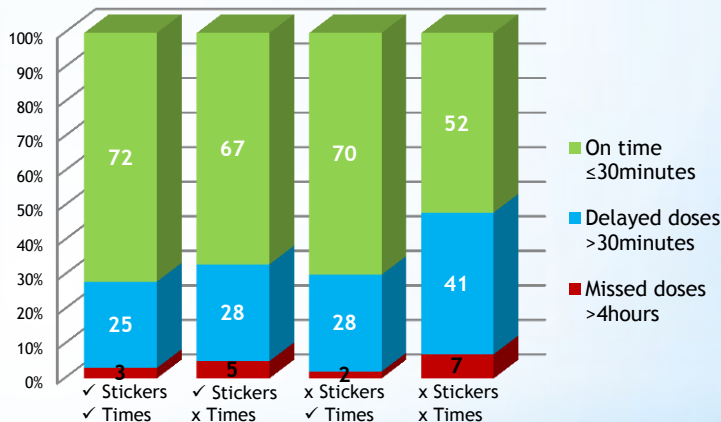
> Total number of doses audited: stage 1 = 436 and re-audit = 202.

- Delays in the administration of the 1st dose did not occur 99.5% before tests of change and 99% thereafter.
- Further dose delays/omissions did not occur 70% before and 62% thereafter.
- No 'critical list' of medicines are recommended by North Bristol Trust.
- Administration times were endorsed on 52% drug charts before tests of change and 92% thereafter in the re-audit.

Five Patient questionnaires were completed which revealed all regular Parkinson's medicines were reconciled on admission, with no dose delays or omissions reported to worsen symptoms.

- 3/5 believed self-administration would help improve medicines received on time
- 2/5 were unaware of the specialist Parkinson's nurse at NBT
- 3/5 felt staff awareness of Parkinson's disease and the importance of medicine timing could be improved

Graph 1. The percentage of doses administered on time ≤30 minutes comparing drug charts with times and stickers and without.



STICKER + TIMES

72%

274/379

STICKER + NO TIMES

67%

37/55

NO STICKER + NO TIMES

52%

55/107

NO STICKER + TIMES

70%

92/132

Number of drug charts with:	Stage 1	Re-audit
1. 'Get it on time' stickers	(11/21) 52%	(12/13) 92%
2. Times endorsed	(16/21) 76%	(12/13) 92%

ENDORSE TIMES

+

"GET IT ON TIME" STICKER

=

GOLD STANDARD

72% doses on time

≤ 30minutes

Discussion

No standards set by Parkinson's UK 'Get it On Time' (audit standards 1 - 4) were adhered to by North Bristol Trust. A dose 'on time' for the purpose of the audit was considered to be within or equal to 30 minutes, as there is no existing National guideline for this. Doses 'on time' did not improve after the tests of change; (before 70%, after 62%), however less re-audit data was collected and several delayed doses greater than 2 hours skewed the overall results. Delays in the 1st dose was near 100%

achieved, however this was difficult to measure due to the admission time not consistently documented and therefore may be less. No 'critical list' of medicines are recommended by North Bristol Trust, as the Medicines Governance group agreed each medicine should be considered important to be received on time. Endorsing times of administration and applying 'Get it On Time' stickers to drug charts increased the doses 'on time' i.e. 72% doses within 30 minutes; compared to only 52% of doses 'on time' without these tests of change.

Conclusion & Recommendations

Further developments are required to improve the timing of Parkinson's medicines to achieve the audit standards set from Parkinson's UK. 'Get it On Time' stickers and endorsing the times of administration increase doses administered 'on time' by 20% and should be recommended in the 'NBT Medicines Management Policy - CP51'. Future re-audits should focus on collecting more data and comparisons to any National standards made for doses 'on time'. Pill timers on wards to aid specific timing of

administration may be useful tests of change and have been trialled at Norfolk and Norwich University Hospitals. It is also important to continually reinforce strict timing for Parkinson drugs with effective ward handover and staff education.

Acknowledgements: Parkinson's UK, Specialist Parkinson's Nurse at NBT Kathryn Prout, Principal Pharmacist and Specialist Neurology Pharmacist at NBT; Jane Smith and Heidi Burniston.



References

- National Patient Safety Agency. (2010). Reducing harm from omitted and delayed medicines in hospital. Rapid Response Report. RRR009
- Parkinson's Get it On Time campaign. Available at: www.parkinsons.org.uk