

Quality improvement in perioperative medication management

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Background

The National Patient Safety Agency report: 'Reducing harm from omitted and delayed medication in hospital'¹ highlights the need for appropriate perioperative medicine management. Missing regular medication or administering medication which should be withheld can lead to patient harm².

Objectives

To assess and improve the accuracy of administration of 'safe to give' and 'withhold' medications for emergency and trauma admissions

Method

Data from electronic records over 4 separate 3-month periods.
 Inclusion criteria:

- emergency/trauma admissions to surgical triage unit (STU) and trauma assessment unit (TAU)
- had emergency surgery.

Method(cont)

Assessment of 'safe to give' or omission of 'withhold' drugs (see below) made against the trust guideline for perioperative medicine management⁴

SAFE TO GIVE	WITHHOLD
NSAIDs	Antacids
Anti-coagulants	Beta Blockers
Diabetic Medications	Calcium Channel Blocker
ACEi/ARBs	Diuretic
	Statin

Interventions:

- Educational multimedia presentations on appropriate perioperative administration
- Supplying posters to healthcare staff on the ward which advise the drugs that are safe to give and those to withhold (as above).
- Posters included on nursing medicine rounds
- MDT approach and supporting all staff members

Results

Included:

- STU – 34 preintervention, 52 patients postintervention group.
- TAU – 34 pre-intervention group, 10 patients postintervention group

Excluded:

- STU – 222 patients, TAU – 48 patients

Reasons for exclusion:

- no regular medications
- no electronic record
- regular medications not prescribed.

	STU		TAU	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Safe to Give				
Correctly administer	38(40%)	57(42.2%)	35(37%)	20(69%)
Incorrectly Omitted	26(27.3%)	26(19.2%)	33(35%)	6(20%)
Withhold				
Correctly Omitted	26(27.3%)	52 (38.5%)	23(24%)	3(10%)
Incorrectly Administer	5(5.2%)	0	3(3%)	0
Total	64/95	109/135	58/94	23/29
Correct	(67%)	(80%)	(61%)	(79%)

Table 1. Results for pre-intervention and post-intervention results for STU and TAU

Results(cont)

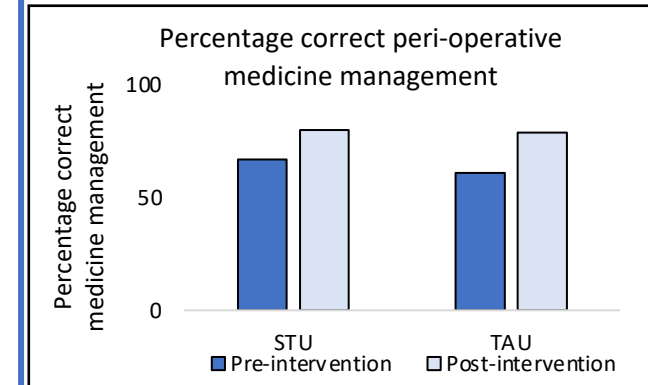


Table 2. Increase in accuracy of medication management from 67% to 80% on STU and from 61% to 79% on TAU.

Conclusion

Multimedia educational interventions with MDT support, can improve peri-operative medicine management which can reduce patient harm.

References:

1. National Patient Safety Agency. *Reducing harm from omitted and delayed medicines in hospital*. Rapid response report, London, 2010.
2. McCarthy F, Watson C, Phillips M, Gallagher CJ. Reducing missed medicine doses in preoperative surgical inpatients. *The Pharmaceutical Journal* 2013; 1.
3. Kennedy JM, Rij AM, Spears GF, Pettigrew RA, Tucker IG. Polypharmacy in a general surgical unit and consequences of drug withdrawal. *British Journal of Clinical Pharmacology* 2000; 49(4):353–62.
4. O'Connor D, Lehane D, Teale K, Field Alan, Whittam J. Medication on the Day of Surgery. *Northern Care Alliance* 2020.

Acknowledgement:

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