

Can fluorescent stickers improve post-operative management of antiplatelets and anticoagulants?

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Introduction

At the Royal Victorian Eye and Ear Hospital, anticoagulants and antiplatelets (AA) are withheld for moderate to high bleeding risk ophthalmic and ENT (ear, nose and throat) procedures (Table 1). Recommencement plans for AA were not well documented or communicated by surgeons as part of clinical handover. Suboptimal post-operative management of AA can compromise patient safety by increasing risk of thromboembolic events. Fluorescent stickers (Diagram 1) applied by preadmission staff were used on operation reports to prompt surgeons to document recommencement plan for AA.

Diagram 1: Fluorescent sticker

Patient on anticoagulant/antiplatelet therapy. Please document plan in Operation report or MRI93

Aim

To determine if the implementation of fluorescent stickers on operation reports increase the rate of documentation of post-operative recommencement plan for AA.

Methods

- A retrospective audit was performed to compare the rate of AA documentation plans for month of November 2016 (pre-implementation) and May 2017 (post implementation).
- Data was retrieved from the hospital's digital health record (Bossnet®) and prescribing system (Cerner®).
- Table 2 summarises the inclusion and exclusion criteria
- Data was collected by a pharmacy student and validated by a pharmacist and a medical officer

Table 1: Moderate to high bleeding risk ophthalmic/ENT procedures

Ophthalmic
<ul style="list-style-type: none"> Eyelid surgery Anophthalmic socket surgery Minor lacrimal surgery Complex vitrectomy Glaucoma surgery Major lacrimal surgery Orbital surgery
ENT
<ul style="list-style-type: none"> Nasal operations Tonsillectomy Adenoidectomy Mastoidectomy Cochlear Implant Acoustic Neuroma Head & Neck Surgery Microlaryngoscopy with biopsy

Table 2: Summary of inclusion and exclusion criteria

Inclusion
<ul style="list-style-type: none"> Patients over the age of 16 Inpatients, day surgery and elective admission patients Moderate to High risk bleeding patients on AA therapy which have been withheld (Table 1)
Exclusion
<ul style="list-style-type: none"> Inpatients on AA and did not have a surgery Outpatient Low risk of bleeding

Results

A comparison of pre and post results are summarised in Table 3.

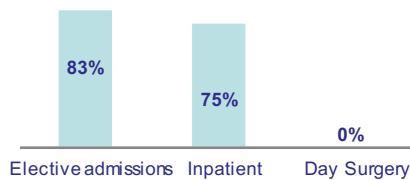
Pre-implementation period (November 2016)

- 28 patients included in the audit
- Compliance with documenting AA recommencement plan was 7% (2/28)

Post-implementation period (May 2017)

- 30 patients included in the audit
- 77% (23/30) of patients had the fluorescent stickers applied. Of these 67% (20/30) had a documented recommencement plan
- Compliance of nursing staff in applying fluorescent stickers varied between wards (Graph 1)

Graph 1: Compliance of applying stickers



- There was a marked increase in documentation of recommencement plan after the introduction of fluorescent stickers (from 7% to 67%). This shows that the fluorescent stickers are not only effective in flagging patients on AA but also provided prompt documentation by the surgeons.
- Documentation of recommencement plan has changed from progress notes to operation notes as suggested by fluorescent sticker.

Table 3: Summary of results from pre-implementation and post implementation period

	Nov- 16	May-17
Total number	28 patients	30 patients
Demographics		
Age	49 to 97 years (mean: 73)	50 to 90 years (mean: 70)
Gender	17 Male 11 Female	22 Male 8 Female
Ophthalmic	86% (24/28)	77% (23/30)
ENT	14% (4/28)	23% (7/30)
Results		
Stickers applied	N/A	77% (23/30)
Recommencement plan available	7% (2/28)	67 % (20/30)

Conclusion

- The implementation of fluorescent stickers on operation reports has significantly improved documentation of recommencement plans by surgeons. This enhanced patient safety by timely management of AA post operatively.
- Results of the audit was disseminated to clinical staff through e-mail and the Medication Safety Newsletter
- Compliance in documenting AA recommencement plan will be monitored with annual audits and medication incidents
- Ongoing education will continue to ensure awareness of this initiative amongst clinical staff

References

- The Royal Victorian Eye and Ear Hospital. (2017, August). Peri-operative Management of Patients on Anticoagulants Procedure . East Melbourne, Victoria, Australia .
- The Royal Victorian Eye and Ear Hospital. (2017, August). Peri-operative management of patients on Antiplatelets Procedure . East Melbourne, Victoria, Australia.

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