Impact of Pharmacist-led Anticoagulation Clinic at Pamela Youde Nethersole Eastern Hospital on Patients' Anticoagulation Control and Clinical Outcomes

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Background

Anticoagulants:

- Have narrow therapeutic ranges
- Have high potential for complications
- Numerous factors influence drug effects

Benefits of Pharmacist-led anticoagulation management

- Reduce bleeding and thromboembolic events
- 2. Improve INR control
- 3. Shorten hospital stay and reduce healthcare cost

Ellis RF, Stephens MA, Sharp GB. Am J Hosp Pharm 1992;49:387-94 Wilt VM, Gums JG, Ahmed OI et al. Pharmacotherapy 1995;15:732-9.



Pharmacist-led Anticoagulation Clinic in PYNEH



Results

Workload	
No. of new cases referred in	80
No. of appointments seen	175
No. of cases referred back to physicians	18

Bleeding events	No.
Anticoagulation related AE visits	3
Anticoagulation related hospital admission	3
No. of bleeding events	3

INR results	No. (%)
Total number of INR ordered	168
Percentage of INRs within target range ± 0.2	122 (72.62)

3 related AE visits

- 1. Post menopausal PV bleed at INR: 2.4
- 2. Subconjunctival haemorrhage at INR: 3.4

3 related admission

 2 patient admitted for observation due to supratherapeutic INR

1 Fatal Bleeding

A 82 y/o male suffered ICH at INR: 3



Conclusions

- Anticoagulation Control in our clinic:
 - Time-in therapeutic Range (TTR): 63.23%
 - Expanded TTR (INR range+0.2): <u>78.41%</u>

Comparable with local prospective randomized trial in 2006:

• TTR: 61% Expanded TTR: 77%

Chan FWH, et al. Br J Clin Pharmacol 2006; 62: 601-9

Comparable with overseas study

TTR: 40-64% Expanded TTR: >75%

Chiquette E, et al. Arch Intern Med 1998; 158: 1641-7.

Garabedian-Ruffalo SM, et al. Am J Hosp Pharm 1985; 42: 304–8.

