

Canadian Community Utilization of Stroke Prevention Pilot Study - Emergency Department (C-CUSP ED)

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Introduction

Oral anticoagulation (OAC) reduces stroke risk by 60-80% in atrial fibrillation (AF). Lack of OAC prescription in ED patients with AF is a significant care gap.

Methods

This was a multi-center, three-phase before-after study, in three Canadian sites. Patients who presented to the ED with documented nonvalvular AF and were discharged home were included. Phase 1 was a retrospective chart review examining rates of OAC prescription; Phase 2 was a low-intensity knowledge translation intervention using a simple prescription tool, patient education package and a letter to family physicians; phase 3 incorporated Phase 2 interventions, but added immediate follow-up in a community AF clinic. Follow-up occurred via telephone. The primary outcome was the rate of new OAC prescriptions at ED discharge.

Results

632 patients were included (Phase 1 n=360, Phase 2 n=146, Phase 3 n=126) from June, 2015-November, 2016. ED census ranged from 30000 – 68000 annual visits. Mean age was 71±15, 67±12, 67±13 years, respectively. 47.5% were women; most responsible ED diagnosis was AF in 75.8%. The mean CHA₂DS₂-VASc score was 2.6±1.8, with no difference amongst the three groups. There were 266 patients eligible for OAC who not on this at presentation. In this group, the prescription of new OAC was 15.8% in Phase 1 as compared to 54% and 47%, in Phases 2 and 3, respectively. After adjustment for center, components of the CHA₂DS₂-VASc score, prior risk of bleeding and most responsible ED diagnosis, the odds ratio for new OAC prescription was 8.0 (95%CI (3.5,18.3) p<0.001) for Phase 3 vs. 1, and 10.0 (95%CI (4.4,22.9) p<0.001), for Phase 2 vs. 1). No difference in OAC prescription in the ED was seen between Phases 2 and 3.

Conclusion

Use of a simple OAC-prescription tool was associated with an increase in new ED OAC prescriptions in eligible patients.