Improving the detection and management of atrial fibrillation after an ischaemic stroke in Glasgow (IMPROVE-AF): A Quality Improvement Project

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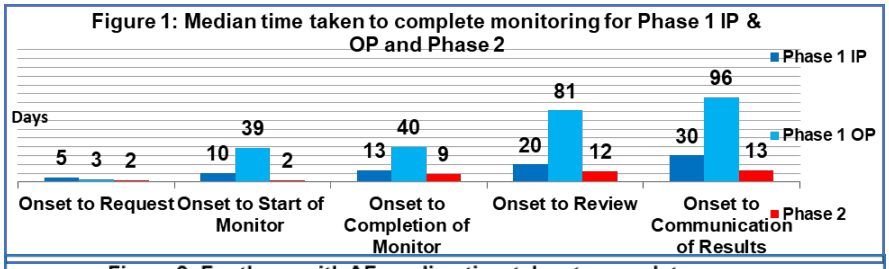
INTRODUCTION AND AIMS

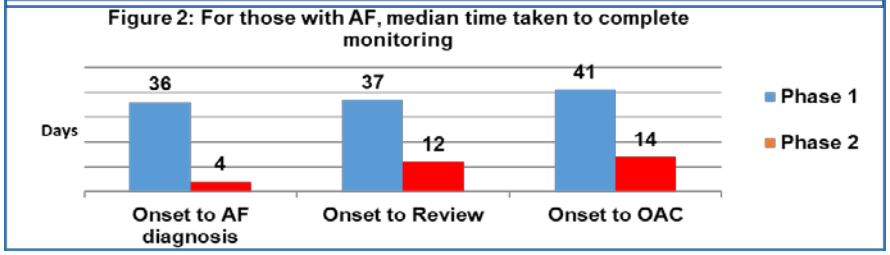
Atrial Fibrillation is a common but preventable cause of ischaemic stoke. Current cardiac monitoring post-stroke is sub-optimal leaving patients at high risk of recurrent stroke and lack of oral anticoagulation. Previous studies have shown that prolonged monitoring can produce better detection of AF and ensure prompt initiation of oral anticoagulation.

The project aim was to improve the identification of AF and ensure those with AF received appropriate oral anticoagulation. The project also aimed to deliver a sustainable service to detect AF and reform the prolonged cardiac monitoring pathway after acute stroke to an 'in-house' service.

METHODS

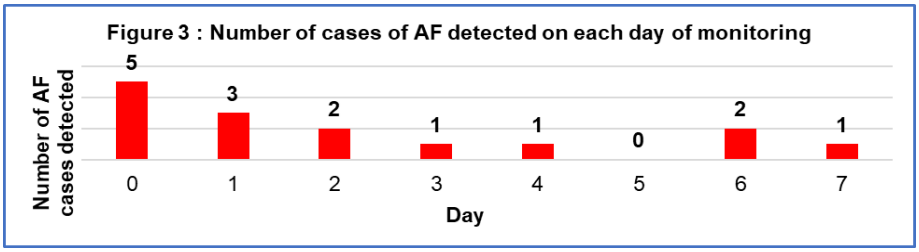
We collected 3 months data of consecutive people with acute stroke/TIA, but without AF, admitted to the local stroke unit, who underwent cardiac monitoring (Phase 1, pre-QIP). We then implemented a structured 'in-house' 7-day cardiac monitoring service using Novacor© R-test devices for 12 months (Phase 2, during QIP). We compared the performance data for both phases.





RESULTS

We included 244 people in Phase 1 and 172 in Phase 2. In Phase 1, 232 (95%) people completed cardiac monitoring of variable durations. Of these, new AF was detected in 10 (4%). Median time from stroke/TIA onset to the availability of the formal monitoring report in Phase 1 was 50 (IQR: 24-123) days [Figure 1]. In Phase 2, 166 (97%) people completed 7-day cardiac monitoring, with new AF detected in 17 (10%). Median time from onset to availability of the formal report in Phase 2 was 12 (IQR: 9-15) days [Figure1]. In people with new AF detected, the provision of 'in-house' monitoring reduced the time of stroke/TIA onset to oral anticoagulant commencement from 41 (Phase 1) to 14 days (Phase 2) [Figure 2]. Of 17 new cases in Phase 2, the majority (10) were detected between day 0 and 2[Figure 3].



CONCLUSIONS

The '*In-house' service:*

1. Improved AF detection
2. Reduced delays associated with conventional cardiac monitoring
3. Prompted early initiation of oral anticoagulation
4. Showed change to 'in-house' monitoring in the stroke unit is feasible

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