Gloucestershire Safety and Quality Improvement Academy

Gloucestershire Hospitals NHS
NHS Foundation Trust

DC Cardioversion of Atrial Fibrillation and Atrial Flutter in the Emergency Department

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1. Aim

To ensure that all patients with atrial fibrillation or flutter are anticoagulated appropriately when electrically cardioverted.

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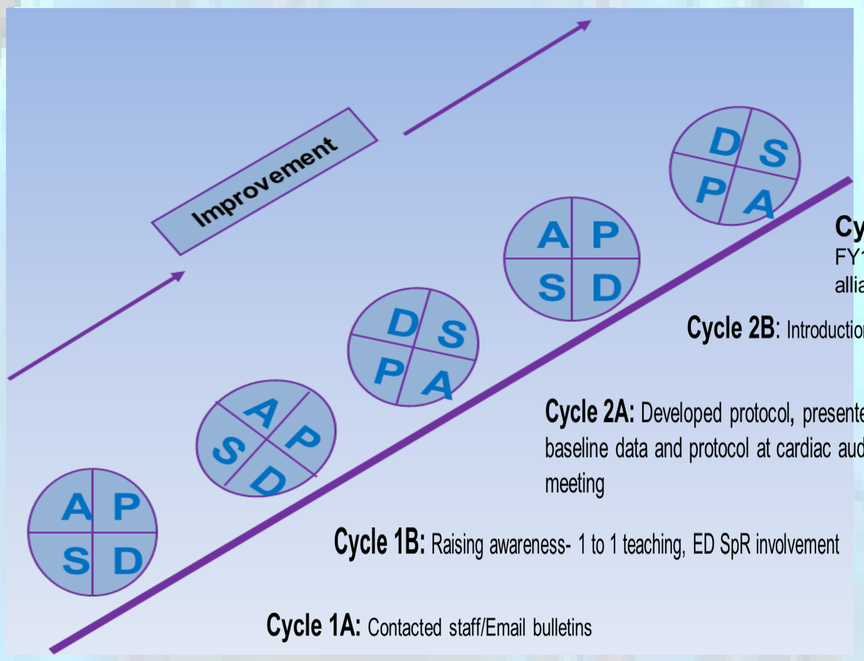
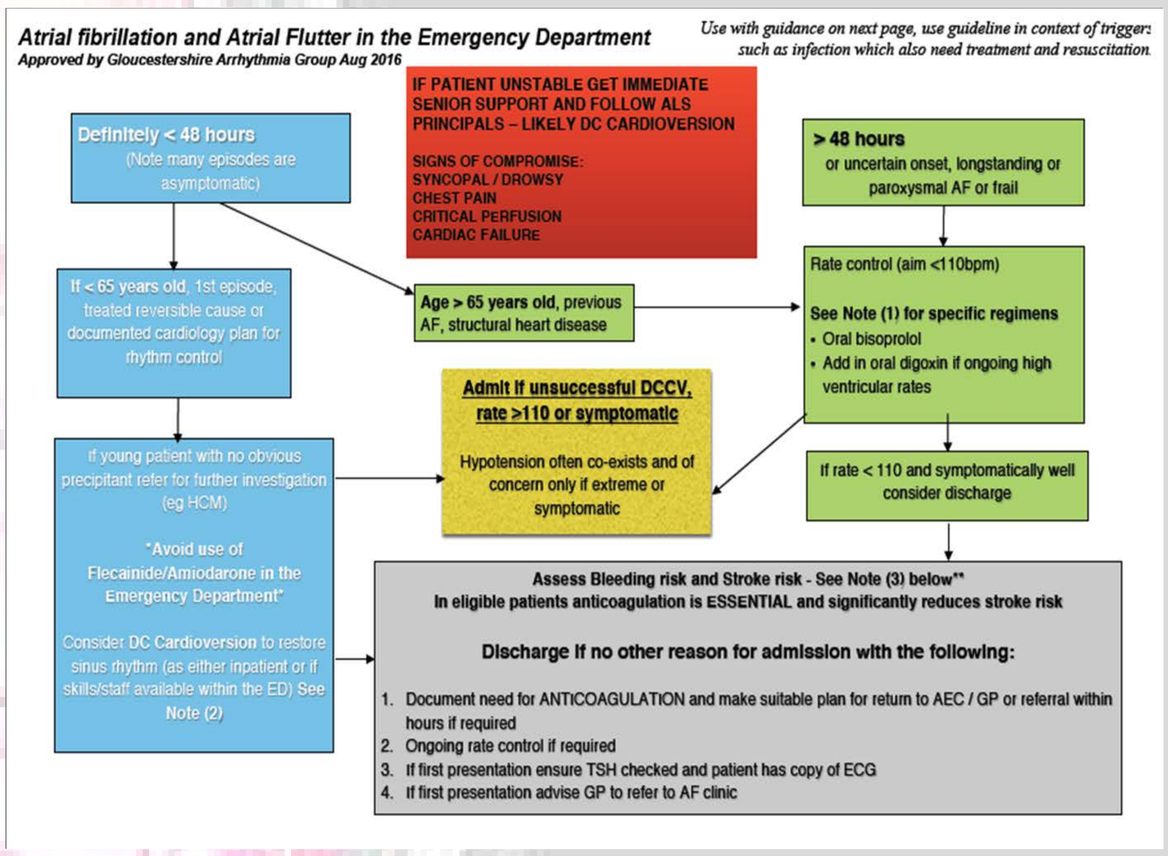
2. Background

- Atrial fibrillation and flutter are common presentations to the Emergency Department (ED) with atrial fibrillation being the most common sustained cardiac arrhythmia. Both atrial fibrillation and flutter account for significant healthcare expenditure, in particular, increased costs from hospital admission.
- Direct current (DC) cardioversion of these arrhythmias aims to restore sinus rhythm and often allows avoidance of admission.
- However, risk of thromboembolic disease can lead to significant morbidity and mortality including stroke, which is highest around the time of cardioversion.
- This risk can be mitigated by following new guidelines recommending anticoagulation during and after cardioversion for all patients with risk factors for stroke **regardless of time of onset.**

3. Method

- Data was collected retrospectively over a 1 year period for all patients cardioverted for atrial fibrillation or flutter
- We then prospectively recorded this data on a regular basis.
- At several stages we implemented interventions including group and individual-focused teaching interventions, widespread systems change with an updated Trust protocol, as well as awareness-raising strategies including email bulletins.





4. Results & Going Forward

- 92 patients were identified over a 2 year period
- Initial baseline data demonstrated a sub-optimal level of patient management with only 75% of cardioversion patients receiving appropriate peri-procedural anticoagulation. Over the study period, this rose steadily to 91%.
- Follow-up upon discharge remained steady increasing slightly from 75% to 78% post-intervention.
- As can be demonstrated by the run chart below, there seems to be an upward trend following our interventions (⬆) which is encouraging.
- Future opportunities to promote improvement include additional educational sessions with the ED staff through ‘’message of the week’’ and ‘’theme of the fortnight’’ where we will present our project in an interactive setting.