



Improving the management of adult patients presenting to the Emergency Department at SWH Warrnambool with atrial fibrillation with rapid ventricular response, through the development of an evidence based clinical pathway.

Sue Anderton (NP/ANUM) Project Lead.

Project team:

Franco Schreve, Christine Hena, Megan Rielly, Cat Gervis, Bec Sheen, Laura Conn, Marg Bull, Emily Batt and Chris Barr.

The problem

- Atrial fibrillation is common in ED
- Despite published guidelines variation in practice is common
- AF-RVR was one of the topics available to ED in the 2013 ECICN evidence-based care improvement project cycle

Society Guidelines

Canadian Cardiovascular Society Atrial Fibrillation Guidelines 2010: Management of Recent-Onset Atrial Fibrillation and Flutter in the Emergency Department

Ian G. Stiell, MD, MSc,^a Laurent Macle, MD, FRCPC,^b and the CCS Atrial Fibrillation Guidelines Committee^c

^a Department of Emergency Medicine, Ottawa Hospital Research Institute, University of Ottawa, Ottawa, Ontario, Canada

^b Department of Medicine, Electrophysiology Service, Montreal Heart Institute, Université de Montréal, Montreal, Québec, Canada

^c For a complete listing of committee members, see Gillis AM, Skanes AC. Canadian Cardiovascular Society Atrial Fibrillation Guidelines 2010: Implementing GRADE and achieving consensus. *Can J Cardiol* 2011;27:27-30.

ABSTRACT

Atrial fibrillation (AF) is the most common arrhythmia managed by emergency physicians. There is increasing evidence that most patients with recent-onset AF or atrial flutter (AFL) can be safely managed in the emergency department (ED) without the need for hospital admission. The priorities for ED management of recent-onset AF/AFL include rapid assessment of potential hemodynamic instability and identification and treatment of the underlying or precipitating cause. A careful evaluation of the patient's history should be performed to determine the time of onset of the arrhythmia. All patients should be stratified using a predictive index for the risk of stroke (eg, CHADS₂). For stable patients with recent-onset AF/AFL, a strategy of either rate control or rhythm control could be selected based on multiple factors including the duration of AF and the severity of symptoms. If a strategy of rhythm control has been selected, either electrical or pharmacologic cardioversion may be used. Before proceeding to cardioversion in the absence of systemic anticoagulation, physicians must be confident that the duration of AF/AFL is clearly <48 hours and that the patient is not at a particularly high risk of stroke. When the duration of AF/AFL is >48 hours or uncertain, rate control should be optimized first and

RÉSUMÉ

La fibrillation auriculaire (FA) est la forme d'arythmie la plus fréquemment rencontrée à la salle d'urgence. La plupart des patients présentant une FA ou un flutter auriculaire d'apparition récente peuvent être traités en toute sécurité au service des urgences sans nécessiter d'hospitalisation. Les priorités du traitement à l'urgence incluent une évaluation rapide de l'état hémodynamique ainsi que l'identification et le traitement de la cause sous-jacente et/ou des facteurs précipitants. Le patient doit être soigneusement questionné sur ses symptômes, pour tenter de déterminer le début d'apparition de l'arythmie. Le risque d'accident vasculaire cérébral (AVC) doit être déterminé dans tous les cas, en utilisant, par exemple, le score de CHADS₂. Chez les patients hémodynamiquement stables et présentant une FA ou un flutter auriculaire d'apparition récente, une stratégie soit de contrôle de la fréquence ventriculaire soit de conversion et maintien du rythme sinusal doit être adoptée, en tenant compte de nombreux éléments comme la durée de la FA et la sévérité des symptômes. Si l'on retient une stratégie de conversion et maintien du rythme sinusal, la cardioversion pourra être électrique ou pharmacologique. Avant cardioversion chez les patients non anticoagulés, il faudra être certain que la durée de l'épisode de FA ou de flutter

Methods

- Multidisciplinary expert panel developed recommended treatment pathway, including drug recommendations
- Local implementation
- Before and after evaluation
- Evaluation endpoints
 - Proportion of patients managed according to a local pathway
 - Proportion with documented chronicity of AF
 - Proportion with documented rate or rhythm control strategy
 - Proportion with documented CHADS2 score (or similar)

About Warrnambool ED



About Warrnambool ED

- Only ED in a rural city, level 2 trauma centre, 15 beds including 2 resuscitation bays, 24,610 presentations 2013.
- Population approx. 34,000
- Location 348km southwest of Melbourne – on the coast
- Warrnambool is home to Female Southern Right Whales June –September (calving season).
- Tourism is a major driver of economy with the population exploding over summer and during the May Race carnival.
- Inpatient care for patients with AF-RVR provided by:
General Physicians.

The South West Healthcare Warrnambool Emergency Department approach

- Extremely enthusiastic project lead and project team.
- Known gaps in the management of this patient population.
- Pre data confirmed what we already knew.
- Expectation this would solve the issues surrounding the adhoc management of AF-RVR in the ED.
- A project plan was developed.
- There was no interest or engagement outside of the ED.
- The evidence was examined and a pathway was created.

Developing and implementing a pathway

- Challenging!
- Feedback initially minimal
- Pathway not being utilised
- Continued encouragement of champions
- Evident initial education did not reach stakeholders

Simulation to the rescue!

- We used simulation of the use of the AF-RVR pathway in multidisciplinary team environment.
- Marked increase in engagement.
- Feedback was flowing and was used to further the refine pathway.



Results

- Showed a more consistent approach to the management of AF-RVR in the ED.
 - Patients treated according to a pathway **improved from 0% to 41%**.
 - Patients where chronicity was recorded **improved from 63% to 82%**.
 - Documented treatment strategy was recorded **deteriorated a little 37% to 32%**.
 - Patients with CHADS score recorded also **deteriorated a little 23% to 17%**.

Success factors

- Dedicated project team
- Innovative education through the use of real time simulated scenarios to test and refine the evidenced based clinical pathway and
- The support of the ECICN.

Barriers

- Lack of buy-in from outside of the ED and
- Sustainability.

Discussion and Sustainability

- The wave
- Encouragement of champions
- A miracle
- Development of a policy based on evidenced based pathway.
- Development of Quality and Safety committee in the ED.

Conclusion

- Developing an evidence based clinical pathway for the management of adult patients presenting to the Emergency Department at South West Healthcare Warrnambool with AF-RVR improved the management of this population. We continue to work on external stakeholder acceptance and sustainability.

Thankyou / Recruitment

- I would like to thank the very supportive and enthusiastic project team, not that this is the end of the project (sorry guys) its just in the sustainability phase.

