

Can we improve risk assessment for anticoagulation in atrial fibrillation?



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Background & Rationale

Atrial fibrillation (AF) is one of the leading causes of stroke in the UK with 24.2% of acute cerebral and peripheral vascular events being related to AF. People with AF who have a stroke are more likely to suffer serious long-term disability than other stroke patients. CHA2DS2-VASC is a risk stratification scoring system which determines the risk of a patient with AF having a stroke. ORBIT and HASBLED are scoring systems which determine the risk of bleeding in AF patients on anticoagulation. We looked at the data for all patients admitted to CAU with new AF in August 2023 - this included patients discharged from CAU and patients who were transferred down stream. We only looked at their admission document and CAU notes. We defined appropriate risk assessment for anticoagulation using 5 criteria*.

The problem: August 2023

Completed CHA2DS2-VASC: 22%

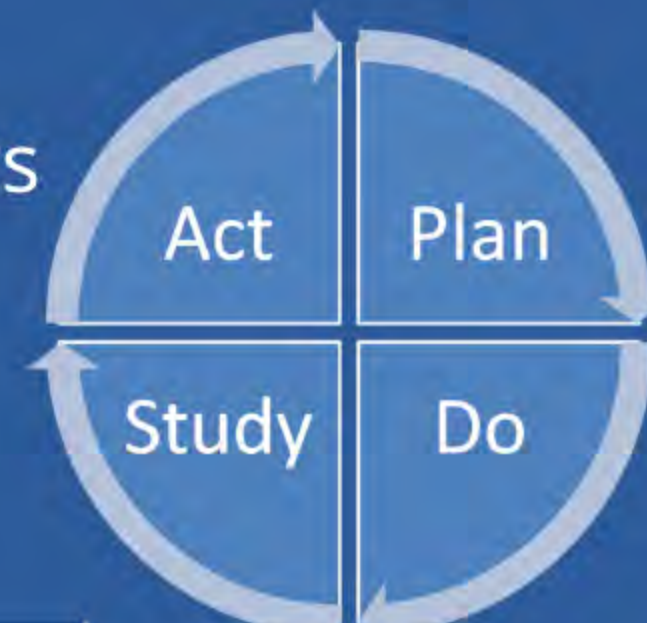
4% of patients admitted to CAU in new AF were appropriately risk assessed

Completed ORBIT/HASBLED: 4%

Methodology

NICE guidelines were used as a guide to best practice and Model for Improvement methodology to implement and measure 3 change ideas:

- 1: Informational poster
- 2: Informational email reminder
- 2: Educational session with FY2 doctors



*What is appropriate risk assessment for anticoagulation?

Based on NICE guideline for anticoagulation in AF:

- Documentation of CHA2DS2-VASC score in patient notes
- Documentation of bleeding risk with ORBIT or HASBLED
- Anticoagulation started if CHA2DS2-VASC >2 and ORBIT <2
- Anticoagulation not started in patients with CHA2DS2-VAS <2 or ORBIT >2
- Anticoagulation not withheld solely due to risk of falls

PATIENT WITH NEW AF?

REMEMBER TO CONSIDER ANTICOAGULATION

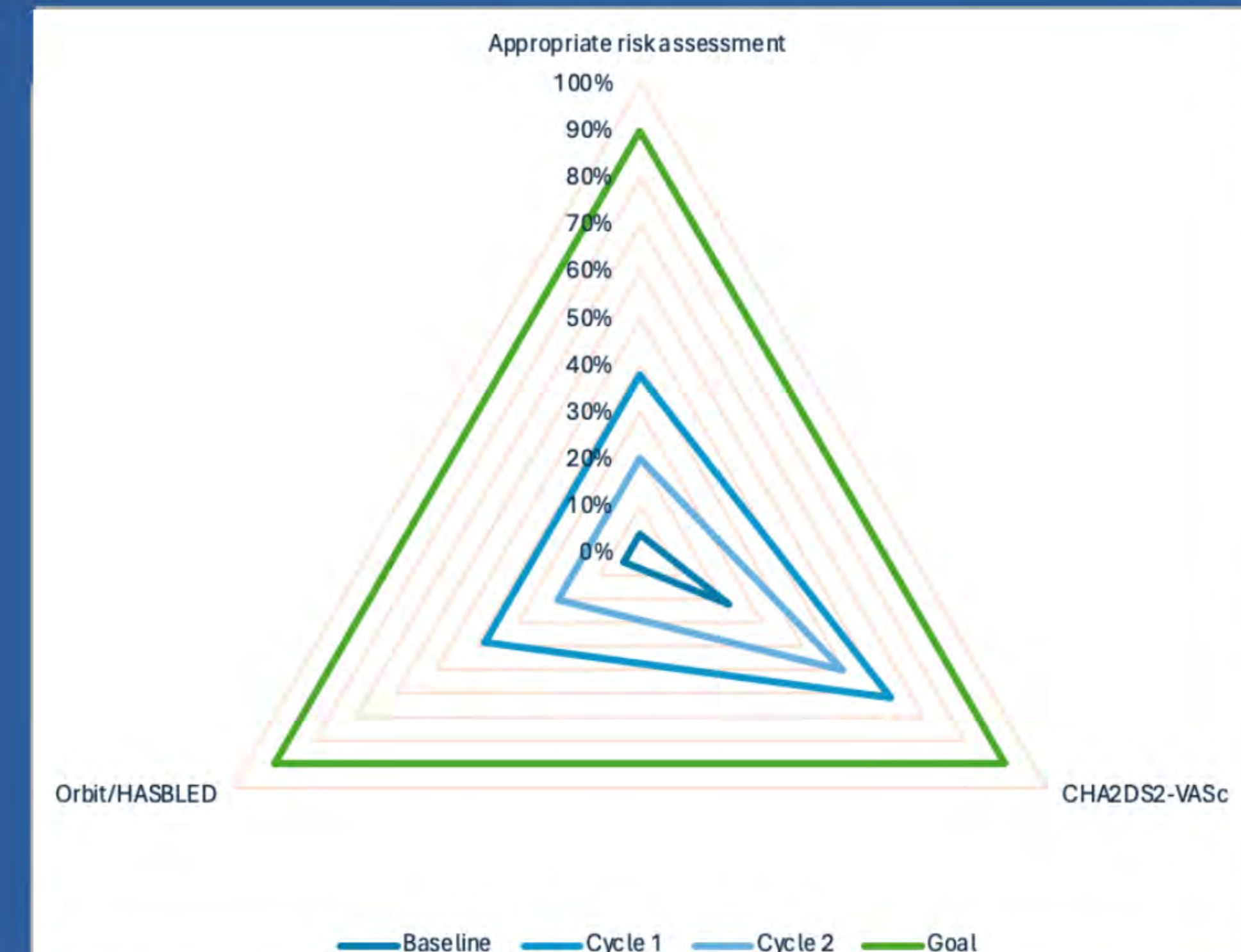
CHA2DS2-VASC

+

ORBIT SCORE

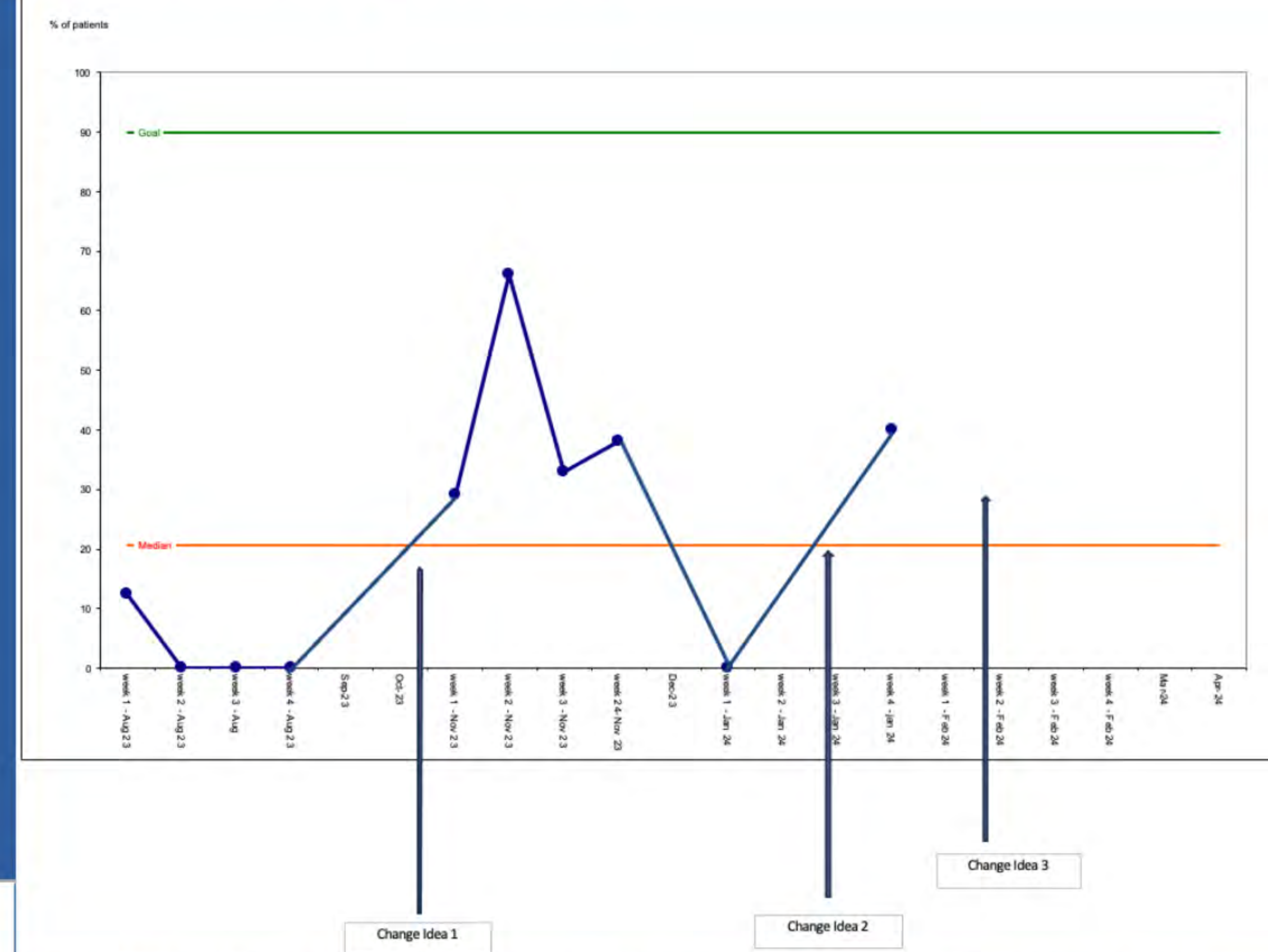
CHA2DS2-VASC > 2
ORBIT SCORE < 2

= LOW RISK OF BLEEDING & PATIENT WILL BENEFIT FROM ANTICOAGULATION TO PREVENT STROKE



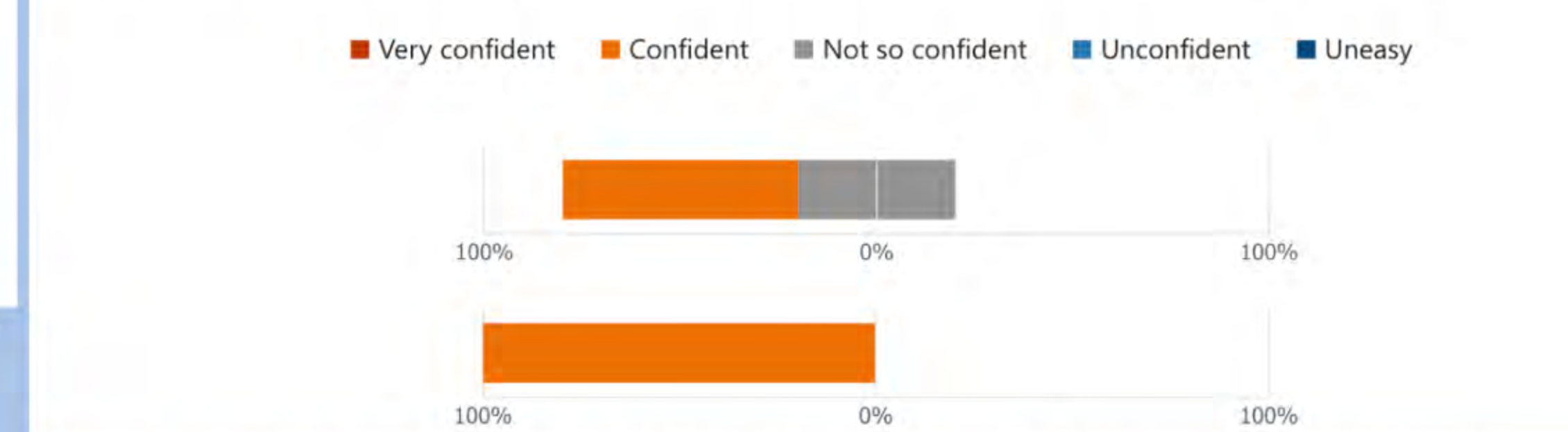
Graph 2. Radar chart demonstrating process measures (completion of CHA2DS2-VASC and ORBIT/HASBLED scores) and outcome measure of (appropriate risk assessment) per cycle. cycle represents

Results/findings



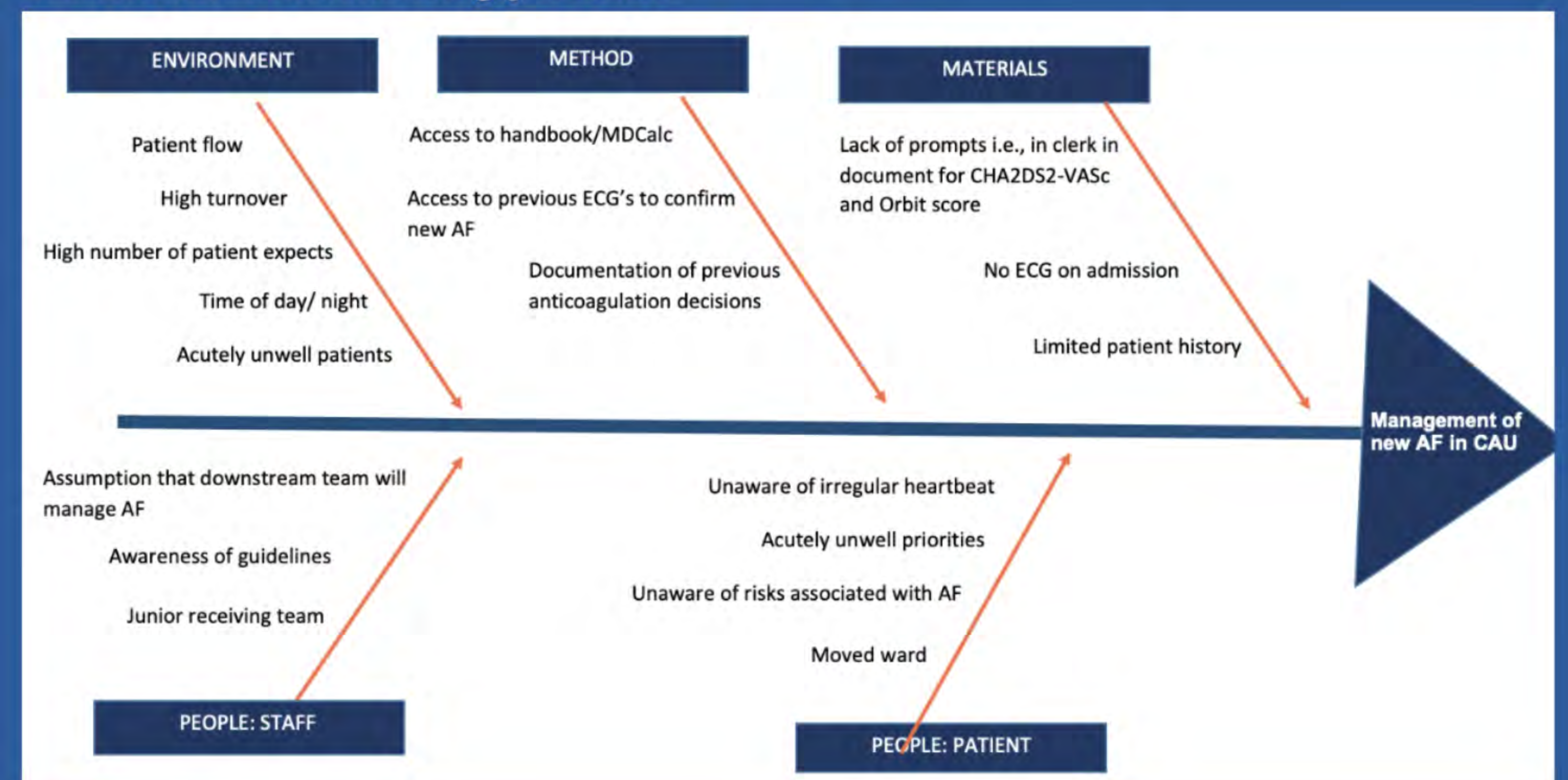
Graph 1. Run chart showing percentage of patients with new AF appropriately risk assessed for anticoagulation in AF.

How confident are you now at assessing and managing stroke risk in patients with new AF?



Graph 3. Likert scale reflecting confidence levels for assessing and managing stroke risk in patients with AF in FY2s before and after educational session.

Potential contributing factors:



ANALYSIS

Our aim to have 90% of patients admitted with new AF appropriately risk assessed for anticoagulated by April 2024 was not met by cycle 1 (Nov 23) or cycle 2 (Jan/Feb 24). However, we demonstrated an increase in the percentage of appropriate anticoagulation from 4% (1/23) at baseline to 38% (8/21) and 20% (2/10) in cycle 1 and 2, respectively. This may be as a result of poster introduction. However, confounding variables such as on-call team, number of admissions, and clerking doctor/consultant experience may impact this result.

Limitations

1. Volume of admissions to CAU with no clear identifier for patients with new AF made data collection timely and inefficient.
2. Project leads were not embedded in target department making key stakeholder engagement difficult.
3. FY2's, who were the target for educational session, only make up approx. one third of clerking in doctors.

CONCLUSION

Our project has identified that the majority of patients with new AF admitted to CAU were not appropriately risk assessed for anticoagulation in AF in August 2023 in line with best practice guidelines from NICE. This is likely to be related to poor documentation of risk scores.

Our aim to improve appropriate risk assessment practices for those with new AF to 90% by April 2024 has not been achieved. However, we demonstrated that there is a potential to achieve this aim by utilising the three proposed change ideas, especially the informational poster. The team plan to continue to collect data for April 2024 and August 2024 to continue to demonstrate the impact of our changes with potential for local protocol recommendations.

Aim: 90% of patients admitted to CAU DGRI with new AF will be appropriately risk assessed for anticoagulation* as per NICE guidelines by August 2024

REFERENCES:
1. Overview: Atrial fibrillation: Diagnosis and management: Guidance [Internet]. [cited 2024 May 20]. Available from: <https://www.nice.org.uk/guidance/ng196>
2. Yilm GS, Howard DP, Paul NL, Li L, Mehta Z, Rothwell PM. Recent time trends in incidence, outcome and pre-morbid treatment of atrial fibrillation-related stroke and other embolic vascular population-based study. *Journal of Neurology, Neurosurgery & Psychiatry*. 2015 Oct 20;88(11):12-8. doi:10.1136/jnnp-2015-311347
3. Corrigendum to: 2020 ESC guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association of Cardio-Thoracic Surgery (Heart Journal). 2020 Oct 8;42(5):507-507. doi:10.1093/eurheartj/ehaa798