

A retrospective analysis determining whether a significant proportion of new diagnoses of Atrial Fibrillation are made in the Emergency Department.

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Background

The vast majority of patients attending the Emergency department undergo an ECG as part of the initial investigations.

The recent new NICE guidelines on Atrial Fibrillation suggest that the baseline prevalence for Atrial Fibrillation is above 7% in the over 65 population and over 10% in the over 75. They suggested that targeted opportunistic screening may help identify these patients earlier.

Methods and Materials

Retrospective analysis of 1 randomly selected week in the Royal Berkshire Emergency Department was undertaken using anonymised data. Patients, of all ages above 16, were selected based on whether they had an ECG and then numbers of new diagnoses of Atrial fibrillation were calculated based on their admission ECG.

The pilot study included 206 patients. In addition, demographics, data about risk factors and current medication was collected.

The final study will be a prospective analysis of all patients who attend the Emergency department who have ECGs over a 1 month period.

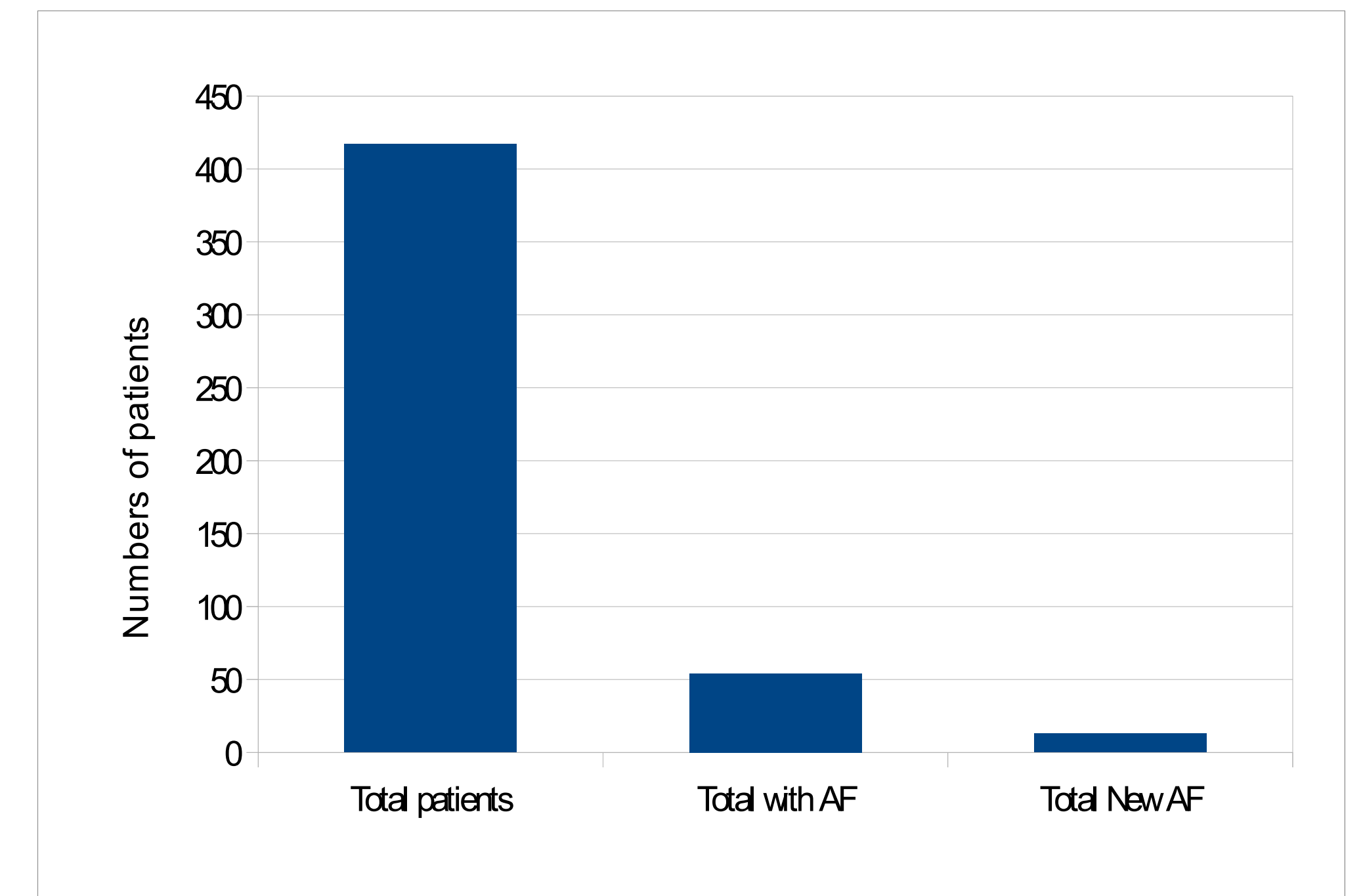


Chart 1. A Graph showing raw data

Introduction

Study question: Do we diagnose a significant proportion of patients with new Atrial Fibrillation or Flutter in the Emergency department?

Results

The total new diagnoses of Atrial Fibrillation in the pilot study population was 6 (2.9%) The average age of this population subset was 86 compared to the average age of those having an ECG in the Emergency department of 62 years. The prevalence of Atrial fibrillation during this pilot study period was 17%.

To date, the total number of new diagnoses of Atrial Fibrillation is 13 (3.1%) (n = 417) The average age of this subset of population is 78 compared to the average age of the total population of 62 years (95% CI 1.09). The prevalence of Atrial Fibrillation during the current total study period is 12.9%

Of the patients who had a new diagnosis of AF in the Emergency department, the average CHADsVaSc score was 2.5.

Discussion

This study suggests that we do diagnose new atrial fibrillation frequently in the population in Reading and these patients would benefit from anti-coagulation or anti-thrombotic therapy.

Our study is a retrospective cohort study and is subject to several limitations. Firstly, incomplete medical records will affect our findings, potentially increasing the number of new diagnoses. In addition, the study is limited to the Royal Berkshire Hospital Emergency department and the population here may not truly reflect that of the rest of the UK.

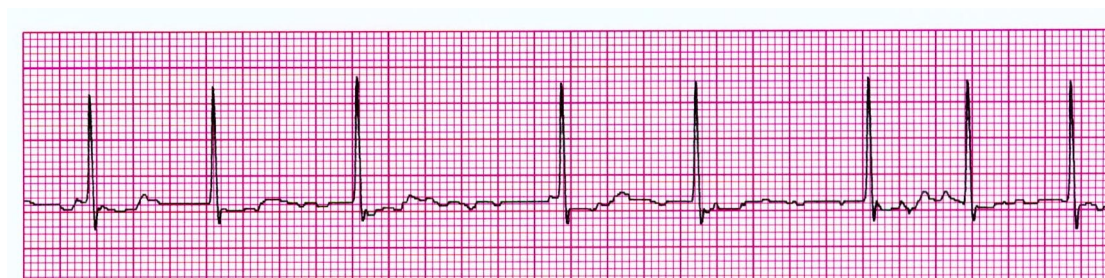
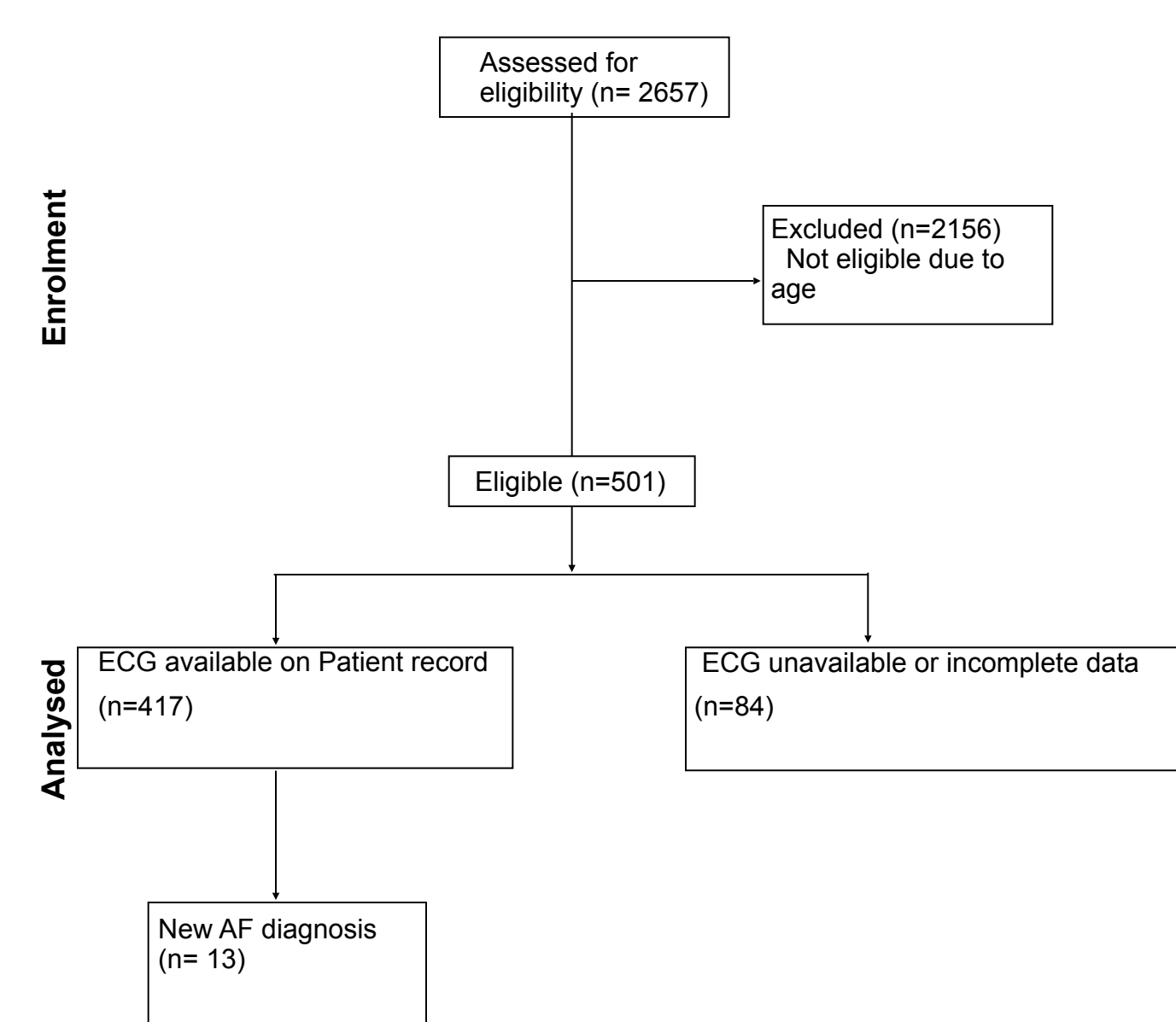
Conclusions

The results of this pilot study suggest that with target screening of patients above the age of 60, a potentially significant proportion of patients will have new diagnoses of Atrial Fibrillation made.

Some of these may be secondary to a reversible cause, however, highlighting these patients to be monitored by their General Practitioner, may ensure early diagnosis and treatment.

Further investigation with a larger study will be necessary to fully explore the objective.

Figure 1. CONSORT statement flow diagram



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