An audit on the monitoring of patients on new oral anticoagulant medication
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Introduction
Anticoagulation of patients with atrial fibrillation (AF) is vital to reduce the incidence of stroke [1]. Patients have generally been prescribed warfarin but the use of novel oral anticoagulants (NOACs) has been increasing. The are advantages and disadvantages of both warfarin and NOACs.

Why NOACs are attractive?
Some of the benefits of NOACs:
• INR does not need to be monitored
• Anticoagulant effect is almost immediate
• Wider therapeutic window means a fixed dose can be used
As NOACs do not need to be regularly monitored doctors/patients can forget that some monitoring is essential to ensure safety.

Some of the disadvantages of warfarin:
• Interactions with food and other drugs
• Requires regular INR monitoring
• Anticoagulant effect takes time to achieve

Aims and Standards
National guidelines have been published on NOAC prescribing [2,3,4].

Guidelines (TA 249, TA256 & TA 275)
The National Institute for Clinical Excellence (NICE) has published guidance on monitoring when prescribing NOACs. [2,3,4] Monitoring should occur:
At start of treatment:
• Baseline clotting screen, renal and liver function tests, and full blood count
Repeated at least yearly:
• Renal and liver function tests, full blood count

These guidelines were used to audit the monitoring of patients at a GP surgery, to:
• Assess the proportion of patients who have been correctly monitored on commencement of NOACs
• Assess the proportion of patients who have had ongoing monitoring of patients on NOACs (tests done yearly after starting)
Both criteria have been stated in the NICE guidance and therefore the target for the audit is 100%.

Methodology
• Retrospective audit of all of the patients prescribed a NOAC for the treatment of non-valvular AF between 19.01.2016 and 12.2.2016
• NOACs searched were dabigatran, rivaroxaban, apixaban & edoxaban
• Medium sized GP practice (7000 patients) in suburban North West England
• Records checked to confirm if baseline clotting test, full blood count, liver function test and renal function tests were done when treatment began
• Records checked if bloods were monitored during/ in the following year

Results and analysis
• 35 patients were prescribed NOACs during the period 17.04.2012-19.1.2016

Conclusions and recommendations
• The audit demonstrated the need for a method of flagging up tests required when a patient is prescribed a NOAC
• The results were presented at the monthly practice meeting
• Investigations required were summarised into a short document and given to each GP to use as an aide memoire.
• It was suggested the annual medication review was the ideal time to ensure monitoring bloods were checked
• Prescription software could be used to remind GP of necessary tests when NOACs were prescribed
• Vigilance was encouraged particularly when patients are commenced on NOACs during hospital admission
• The audit will be repeated in the future to measure change

References