Warfarin Patient Safety: free analysis tool for GP practices

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The authors describe how the freely available Warfarin Patient Safety audit tool can help GP practices manage their warfarin patients more safely and effectively.

Warfarin Patient Safety is an audit tool developed by PRIMIS and funded by Boehringer Ingelheim. It is available to GP practices in England for free. The tool enables practices to audit their clinical data in order to look at the appropriateness of warfarin prescribing.

In particular, the tool assists in examining whether patients are benefitting from taking warfarin by calculating the amount of time their international normalised ratio (INR) is within therapeutic range (TTR).

What does the audit do?
The audit tool is concerned with patients who are established on warfarin, and it is based on patients who are currently registered at the practice who have had an issue with warfarin both recently (in the last three months) and historically (in the last 12 months). This produces a cohort that is more relevant for the analyses.

The audit tool:
• calculates the percentage of TTR from the INRs recorded in the patient’s electronic record
• identifies patients with out-of-range INRs as recommended in the British Committee for Standards in Haematology (BCSH) guidelines on oral anticoagulation
• calculates the HAS-BLED bleeding risk score (patients with atrial fibrillation only) and compares it with the patient’s CHADS2 score
• reports on patients with or without an identified coded reason for being on warfarin and patients with or without a coded annual warfarin assessment.

How does the audit work?
The audit tool operates in conjunction with the Care and Health Analysis in Real Time (CHART) software tool, also produced by PRIMIS (see Prescriber 5 November 2013:24[21]:15–18). CHART is a Microsoft Excel-based program designed to support GP practices in carrying out clinical audit and data quality reviews.

GP practices use the various displays within CHART to review clinical data at both patient and practice level, enabling them to maintain an overall picture of how they are managing patients at a population level but at the same time look in detail at the care of individual patients.

The Warfarin Patient Safety audit tool produces a practice report summarising the outcome, together with some suggested actions.

The results are displayed in a user-friendly format with easy-to-read graphs,
Audit examples

**TTR**

It is critical that patients prescribed warfarin achieve their desired INR for anticoagulation to be effective. The audit tool uses the Rosendaal method to calculate the TTR percentage.

Evidence from a study on patients with atrial fibrillation indicates that only patients with a TTR greater than 70 per cent have a significantly reduced risk of stroke, and only those with control in excess of 40 per cent have significantly improved outcomes in terms of overall mortality compared to treatment without warfarin. The data are grouped as such within the audit tool (see Figure 1 and 2).

**HAS-BLED score**

HAS-BLED is a bleeding risk assessment tool used for patients with atrial fibrillation. The new guidance from NICE on the management of atrial fibrillation recommends that GPs should use the HAS-BLED score to assess the risk of bleeding both when initiating anticoagulation therapy and monitoring patients.

A HAS-BLED score of 3 or more is generally considered high risk but this alone should not stop the use of anticoagulation therapy (see Figure 4).

**Future plans**

CHART works in conjunction with CHART Online, a secure web-enabled tool allowing non-identifiable practice data to be shared for comparative analysis. PRIMIS plans to develop a CHART Online version of the Warfarin Patient Safety audit tool so that practices can compare their care with that of other practices nationally, locally or at CCG level.

**References**