Background

Increasingly the choice of medicines for patients in healthcare is guided by published national/regional guidelines. Rivaroxaban (XARELTO®) is a highly selective direct factor Xa inhibitor which inhibits thrombin formation and the development of thrombi. It was recommended as an option for treatment in NICE guidance published in May 2012. The Specialist Cohort Event Monitoring (SCEM) registry study design is a new methodology developed in parallel with the new legislative requirement for pharmaceutical companies to undertake a Risk Management Plan as part of post-authorisation safety monitoring.

The Rivaroxaban Observational Safety Evaluation (ROSE) SCEM registry study has been initiated by the DSRU as part of a broader Post-Authorisation Commitment requested by the CHMP to further investigate the safety of rivaroxaban in clinical practice.

Aims and Objectives

ROSE aims to monitor short-term (first 3 months) safety and drug utilisation of rivaroxaban prescribed to adult patients for medical conditions requiring anticoagulation (the prevention of stroke and systemic embolism in adults with non-valvar atrial fibrillation (AF) (with ≥1 stroke risk factors), and for the treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE) and prevention of recurrent DVT and PE) by specialists in the secondary care setting in England and Wales. The methodological considerations in choices of comparator cohort for this large pharmacoepidemiological study are presented here.

Methods

**Design:**

A new user observational based cohort design with internal comparator (Figure 1)

**Study objectives:**

Primary: to quantify the incidence of haemorrhage (which meets the criteria for major bleed).

Secondary: to describe the patient population, off-label use and the incidence of other safety outcomes.

**Data source and variables:**

Since this study is conducted under a naturalistic setting, open entry criteria are desirable to maximise external validity, thus there are no specific exclusion criteria. Patients will be identified via specialist networks and data obtained from existing medical records on prognostic/risk factors before and on the start of treatment, NOAC exposure and specific outcomes.

Results

The Comprehensive Clinical Research Network (CCRN): Non-malignant Haematology Specialty Group has adopted the study, supported by the Stroke Research Network and the CCRN: Cardiovascular Specialty Group. They will collaborate in multi-site enrolment of investigative sites and patient recruitment, plus maintain specialist engagement. Thus potential obstacles affecting recruitment are likely to be minimised (Figure 2).

A positive ethics opinion was received Nov 2012. Identification of investigators is ongoing.

Conclusions

The SCEM design provides a framework suitable to evaluate the safety of newly marketed medicines in the secondary care setting. By capturing data on a contextual cohort we hope to gain better understanding of the variability of, and influence on, treatment decisions and prescribing of novel treatments which appear to have some influence on, treatment decisions and prescribing

**Disclosure**

The Drug Safety Research Trust is a registered independent charity (No. 327206) operating in association with the University of Portsmouth and is the sponsor of the study. For this study, the DSRU receives support from Bayer, the manufacturer of XARELTO®.