ANTICOAGULANT PRIMARY PROPHYLAXIS

RADAR, UK-MRA MYELOMA XV - COMPARING MRD-GUIDED TREATMENT ESCALATION AND DE-ESCALATION STRATEGIES IN PATIENTS WITH NEWLY DIAGNOSED MYELOMA SUITABLE FOR STEM CELL TRANSPLANTATION: THROMBOPROPHYLAXIS SUBGROUP STUDY PROTOCOL

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Background. The Risk-Adapted therapy Directed According to Response (RADAR) trial compares treatment escalation and de-escalation strategies in newly diagnosed patients with multiple myeloma (NDMM) suitable for transplant. Thromboprophylactic (TP) guidelines risk stratify patients as high venous thromboembolism (VTE) risk (receive low-molecular-weight-heparin [LMWH]) or standard risk of VTE (receive aspirin) (Palumbo, A 2008). The use of direct oral anticoagulants (DOACs) has been adopted in some UK centres as an alternative to LMWH (Sayar, Z 2022). In the Myeloma IX trial, VTE occurred in 15.2% of patients receiving treatment. In the Myeloma XI trial, at least one thrombotic event occurred in 13.7% of patients receiving treatment (VTE 12.2%, arterial thrombosis 1.8%)(Bradbury, CA 2020). Myeloma chemotherapy regimens evolve rapidly without contemporaneous knowledge of thrombotic risk associated them.

Aims. A TP subgroup to the RADAR trial aims to understand thrombotic risk of chemotherapy regimens used to treat NDMM. It aims to investigate whether DOACs are a suitable alternative to LMWH for TP.

Materials and Methods. The UK-MRA RADAR study is a national, multi-centre, risk-adapted, response-guided multi--arm, multi-stage phase II/III trial which will recruit 1400 patients. The RADAR protocol states TP choice is based on assessment of the patient's underlying risks, clinical status and local practice. The trial opened to recruitment in May 2021 (due to close in May 2026) with the TP subgroup amendment made in June 2024.

Outcomes/Analysis. The hypothesis is DOACs are non-inferior to LMWH as primary TP in patients at high-risk of thrombosis with myeloma receiving out-patient chemotherapy. The primary efficacy outcome is the first episode of objectively documented venous or arterial thromboembolism. This will be categorised according to TP agent prescribed, chemotherapy regimen received and adjusted for demographic covariates and disease stage. The main safety outcome is bleeding as defined by the ISTH (Schulman, S 2005). This will be categorised according to TP agent prescribed. This novel and large data set will contribute to our understanding of which TP agents are prescribed, risk of thrombosis with different chemotherapy and TP regimens and bleeding events.

Conclusions. To our knowledge, this is the first TP subgroup of a myeloma trial collecting data contemporaneously so offering information of thrombosis risk and prevention in line with chemotherapy agent. □