Abstract: PB2744

Title: REAL WORLD UTILISATION OF MINIMAL RESIDUAL DISEASE IN MULTIPLE MYELOMA ACROSS EUROPE: A FEASIBILITY ASSESSMENT FOR THE MERMAID STUDY

Abstract Type: Publication Only

Topic: Myeloma and other monoclonal gammopathies - Clinical

Background:

Minimal residual disease (MRD) status is a common endpoint in clinical trials for multiple myeloma (MM) that can provide a deeper and more sensitive assessment of treatment response when used alongside conventional response criteria. MRD status has prognosis significance for both newly diagnosed and relapsed refractory MM patients, and MRD negativity is significantly associated with prolonged progression-free survival and overall survival, two key objectives in the management of the disease.

MRD-driven clinical decision-making is not specified in current MM guidelines although MRD testing is being used for treatment individualization in modern clinical trials. As the value of MRD is being increasingly recognized across the MM treating community, there is a need to better understand how testing is currently used in the real world for disease management outside clinical trials. This remains a challenge with the current paucity of real world data on MRD testing, and there is requirement for more data generation on its accessibility and implementation in the clinic. The results presented here detail the feasibility of conducting such a study, MeRmaiD, into the real world utilization of MRD in MM across Europe.

Aims:

To recruit MM treatment centres and perform a preliminary feasibility assessment for an observational study that aims to explore the patterns of MRD usage outside clinical trials across Europe, including current usage, molecular methods and technologies, impact on clinical decision making and barriers to broader adoption.

Methods:

A pragmatic study feasibility assessment was conducted with MM treating centres across Europe (UK, France, Germany, Spain, Italy, Belgium, Czech Republic, Israel, Portugal). A targeted long list of MM treatment centres was identified based on the study team’s assessment of them possessing data on MRD. A feasibility questionnaire was shared with data sources to assess MRD usage in practice, MRD data availability, and barriers to MRD testing. Answers were synthesized to provide future study recommendations.

Results:

Of the 25 MM treating sites that completed the feasibility questionnaire, 17 (68%) reported using MRD assessments in the routine clinical management of multiple myeloma. Across these sites, MRD testing was reported more commonly in newly diagnosed transplant eligible populations (15 sites), most notably after intensification / before maintenance. MRD testing was reported to be less used for newly diagnosed transplant ineligible (NDTI) and relapsed and refractory (RRMM) populations at 6 sites and 4 sites respectively.

All MM treating sites, with or without MRD testing facilities, were asked about the potential emerging uses of MRD in the management of the disease. 20 out of 23 sites (87%) would like to see MRD used for guiding treatment decisions. The reported barriers to fully implementing MRD in disease management include lack of guidelines and evidence from clinical trials, a lack of standardization and limited reimbursement options.

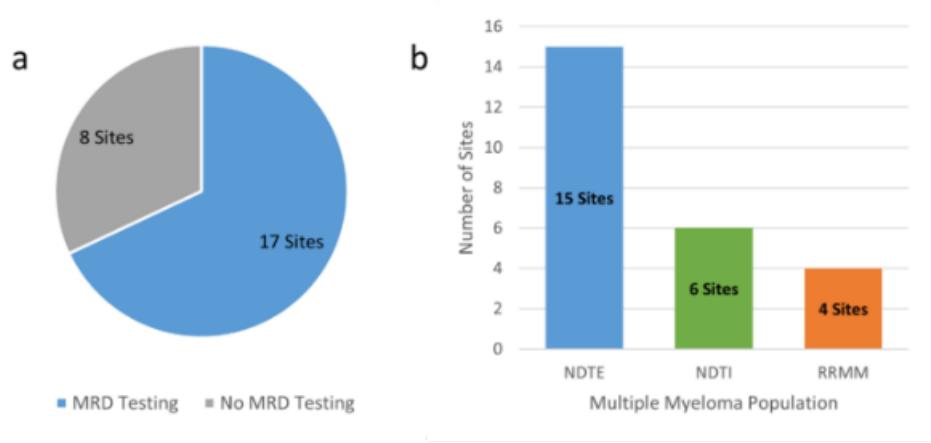

Figure 1: a) Multiple Myeloma clinical sites performing MRD testing. 25 clinical sites completed the feasibility questionnaire of which 17 reported using MRD testing **b)** Number of clinical sites using MRD testing in specific multiple myeloma populations. 15 sites, 6 sites and 4 sites reported using MRD in NDTE, NDTI and RRMM populations respectively.

Summary/Conclusion:

Gathering MRD data from routine clinical practice can support our understanding of its use for MM patients in the real world, including prognosis and its potential for clinical decision-making. In support of the rationale for conducting a real world MRD study, this pragmatic feasibility assessment identified several treatment centres that are already using MRD testing for MM in the clinic. The recruitment of further sites across Europe will help better establish patterns of MRD usage in a representative sample of centres.

Keywords: MRD, Minimal residual disease (MRD), Multiple myeloma, Real world data