INTERIM RESULTS FROM THE CARO STUDY AND THE MYRIAM REGISTRY COMPARED WITH DATA FROM ACADEMIC INSTITUTION

IMPLEMENTATION OF THE REVISED MYELOMA COMORBIDITY INDEX (R-MCI) IN PATIENTS WITH MULTIPLE MYELOMA IN REAL WORLD

BACKGROUND

Risk-adapted treatment strategies to further improve outcome in multiple myeloma (MM) are crucial, especially for elderly patients. The R-MCI is a validated prognostic risk tool for MM patients developed at the University Clinic Freiburg (UKF) based on 5 risk factors determined from multivariate analysis, being widely available in the clinics: impaired lung and kidney function, Karnofsky Performance Status, frailty, age and, if available, cytogenetics (Figure 1). Based on these risk factors and an easy-to-use webpage (www.myelomacomorbidityindex.org), patients can be classified into fit (R-MCI: 0-3), intermediate-fit (R-MCI: 4-6) or frail (R-MCI: 7-9) (Figure 2) with substantially different prognosis, PFS, OS, hematologic and non-hematologic side effects (SAEs) and treatment endurance. Whereas the R-MCI has been successfully performed and validated in a small multicenter validation in academic cohorts (other referral and university DSMM study group centers) in Germany, the external validation of the R-MCI in real world is missing, i.e., data on the feasibility of the R-MCI from secondary and primary sites. This was therefore performed in this analysis and compared to UKF data.

METHODS

The prospective, multicenter, non-interventional study CARO evaluates the combination of carfilzomib with a) lenalidomide/ dexamethasone, b) dexamethasone or c) dexamethasone (dara-tumab) in patients with at least one prior therapy, and the registry MYRIAM collects longitudinal data on routine clinical care of primary and secondary myeloma treatment in hospitals and private practices in Germany (Sponsor: iOMEDICO).

Both studies collect parameters to calculate the R-MCI and, therefore, can serve as external validation cohorts for the R-MCI. We here compared the frequency of R-MCI risk groups from CARO and MYRIAM with historical UKF data (>1,000 patients), thus from a tertiary referral center. Descriptive statistics were used for the analysis.

RESULTS

In CARO, 334 patients have been enrolled from 65 sites across Germany. Hereof, at database cut for this interim analysis, data of 312 (93%) patients were available for R-MCI assessment. In MYRIAM, at database cut for this interim analysis, 1,917 patients had been enrolled from 150 sites in Germany and for 1,236 (65%) patients the R-MCI could as yet be obtained (Table 1).

In order to implement the R-MCI in the real world setting, we did adapt two assessments to make its usage even more feasible. Firstly, the lung function was more easily defined as moderately or severely impaired and secondly, the frailty assessment according to Fried as exemplified for both in Table 2. These two minor adjustments made it possible to use the R-MCI in real world settings even more swiftly. Notably, the R-MCI results, as assessed from the webpage and exemplified in Fig. 1 & 2, revealed similar results in all 3 cohorts. In patients with evaluable R-MCI, the risk distribution in MYRIAM, CARO and UKF was similar with 31%, 31% and 27% of fit, 57%, 57% and 53% and of intermediate-fit and 11%, 16% and 18% of frail patients, respectively (Figure 3).