Areas of Consensus and Differences Among a Panel of Experts on the Optimal Use of Newly Approved Agents to Treat Multiple Myeloma: Results From an Annually Updated Online Decision Support Tool

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In 2015, the FDA approved 5 new agents and/or combination regimens for the treatment of patients with relapsed/refractory (R/R) MM. This rapid expansion of available treatment options has greatly increased the complexity of treatment decisions for patients in this disease setting. Since 2013, we have developed and updated an MM online decision support tool designed to provide clinicians with treatment guidance for defined patient scenarios from recognized experts. An analysis of these tools over the years has shown that experts rapidly integrate new data and available agents into practice whereas intended treatment selections from clinicians using the tool suggest that they are not. Here we report data from the most recent version (2016) of this tool, capturing the impact of the rapid expansion of new therapies on expert treatment recommendations.

Study Components

- Faculty for the 2015 and 2016 online decision support tool:
  - Kenneth Anderson, MD; Shaji Kumar, MD; Suzanne Lentzsch, MD, PhD; Sagar Lonial, MD; and G. David Roodman, MD, PhD

- For the 2015 tool, expert recommendations were compiled in March 2015 for patient scenarios in induction, maintenance, and relapsed/refractory disease.

- For the 2016 tool, expert recommendations were compiled in June 2016 for patient scenarios.

- The 2016 tool included a total of 688 different pt scenarios based on variations of the following criteria: results of chromosome analysis, relapsed/refractory disease, cardiopulmonary dysfunction, as well as previous therapy and status, risk of renal insufficiency or peripheral neuropathy, cardiopulmonary dysharmony, as well as previous therapy and response to previous therapy.

Tool users were prompted to select patient information from pull down menus and then indicate their intended clinical approach:

- Recommendations from the 5 experts were displayed
- Users were asked to indicate whether the experts’ recommendation changed or confirmed their intended clinical approach
- Tool online at clinicaloptions.com/MyelomaTool

Results

Therapy for R/R Disease (n = 185)

- For induction therapy in patients with MM, overall intended treatment choice of online participants differed from experts for the majority of entered cases

- For transplant-eligible patients, the selection of VRd and KRd increased among the experts in 2016; participants in 2016 rarely selected KRd in contrast with a minority of participants

- For transplant-ineligible patients, the experts' selection of KRd increased and the recently approved agent ixazomib was recommended for the first time

Conclusions

- For induction therapy in patients with MM, overall intended treatment choice of online participants differed from experts for the majority of entered cases

- For transplant-eligible patients, the selection of VRd and KRd increased among the experts in 2016; participants in 2016 rarely selected KRd in contrast with a minority of participants

- In the setting of R/R MM, the use of recently approved therapies dramatically changed the treatment recommendations of the experts in the 2016 tool

- For patients with MM refractory to both lenalidomide and a PI, experts preferred therapy with daratumumab in combination with bortezomib or pomalidomide or as a single agent in contrast to the majority of participants

- For patients with MM refractory to a PI, experts recommended a regimen with daratumumab or elotuzumab in more than 50% of patient scenarios in contrast with a minority of participants

- Participants indicated that this tool and the expert recommendations affected treatment choice in the absence of barriers (eg. access to new therapies)

Acknowledgments and Disclosures

The CIOMS program that included this tool was supported by unrestricted educational grants from Amgen, Celgene, Janssen Biotech, Inc., administered by Janssen Scientific Affairs, LLC, and Takeda Oncology. Timothy A. Quill, PhD; Kristen A. Rosenthal, PhD; Shaji Kumar, MD; and Kenneth Anderson, MD, has disclosed that he has received consulting fees from Bristol-Myers Squibb, Celgene, Janssen Biotech, Inc., Merck, Millennium, Otsuka, and support for research support from Bristol-Myers Squibb, Celgene, Janssen Biotech, Inc., and Novartis. Kevin L. Obholz, PhD, has disclosed that he has received consulting fees from AbbVie, Celgene, Janssen, and Takeda. Kenneth Anderson, MD, has disclosed that he has received consulting fees from Amgen, Celgene, Janssen Biotech, Inc., and Novartis. G. David Roodman, MD, PhD, has disclosed that he has received consulting fees from Amgen, Celgene, Janssen Biotech, Inc., and Novartis. S. Suzanne Lentzsch, MD, PhD, has disclosed that she has received consulting fees from Bristol-Myers Squibb, Medivation, and Takeda. Sagar Lonial, MD, has disclosed that he has received consulting fees from Celgene and Janssen Biotech, Inc. All other authors have no real or apparent conflicts of interest to report.

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