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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Background

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, eligibility for autologous stem cell transplantation, ECOG performance status, risk of renal insufficiency or peripheral neuropathy, cardiopulmonary dysfunction, 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**

MM Tool Screenshots (Examples)

1. Clinician enters information on pt and disease characteristics using drop-down menus

2. Clinician indicates his/her intended treatment approach

3. Clinician receives expert treatment recommendations for their specific pt scenario

4. Clinician is able to compare intended treatment vs expert recommendation

Results

2016 Tool Participant Demographics

- We analyzed 532 different patient cases entered by 325 healthcare practitioners (HCPs)

US (31%) / Non-US (69%)

Other HCP 21% / Physician 79%
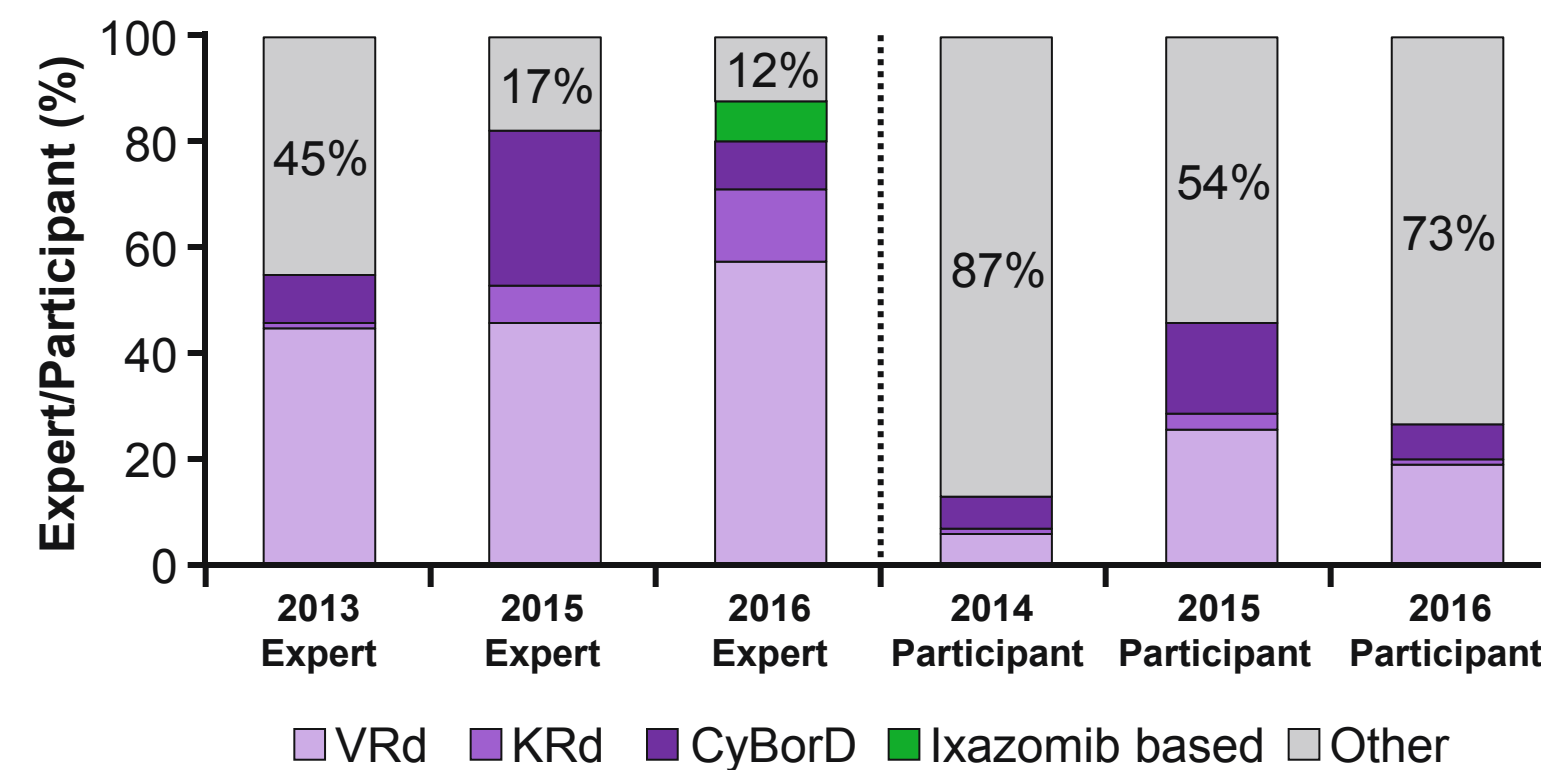
Other 21% / Heme and/or Onc, 79%
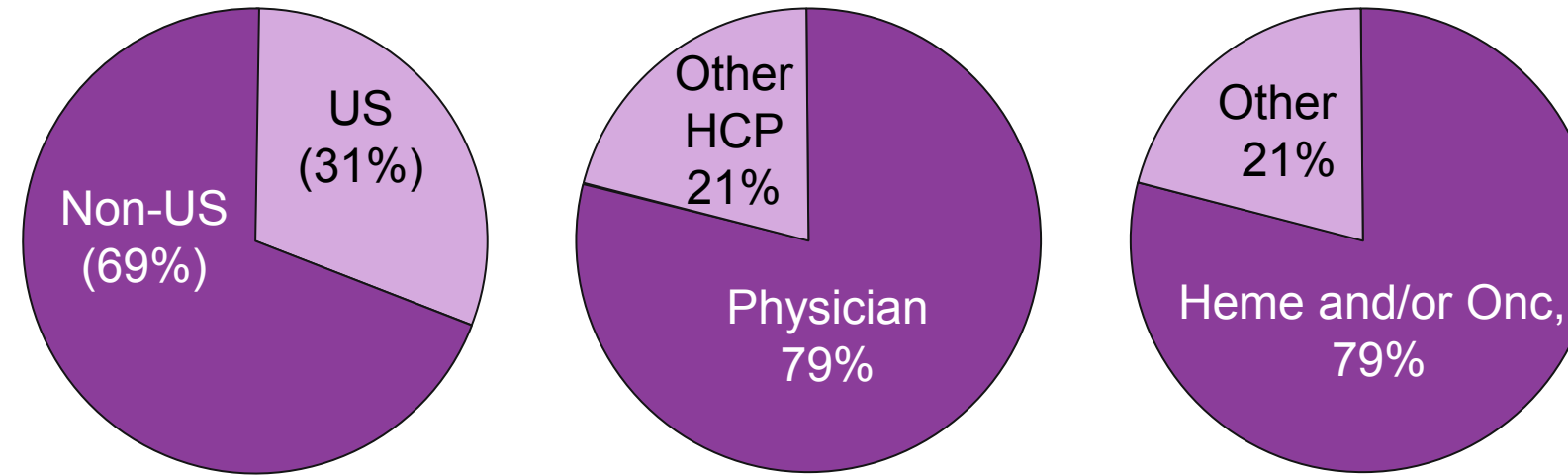
- Optional questions on intended use and tool impact shown after experts' recommendations
  - Answered for 159 of 532 cases (30%)

Intended Use of 2016 Tool, %	Cases
A hypothetical patient case	59
A specific patient in my practice	41

Self-Identified Clinical Impact, %	Induction	R/R
Confirmed or changed my treatment plan	64	46
Barriers to expert recommendations	21	33
Undecided	7	19
Disagree with expert recommendations	8	2

Induction Therapy (n = 282)

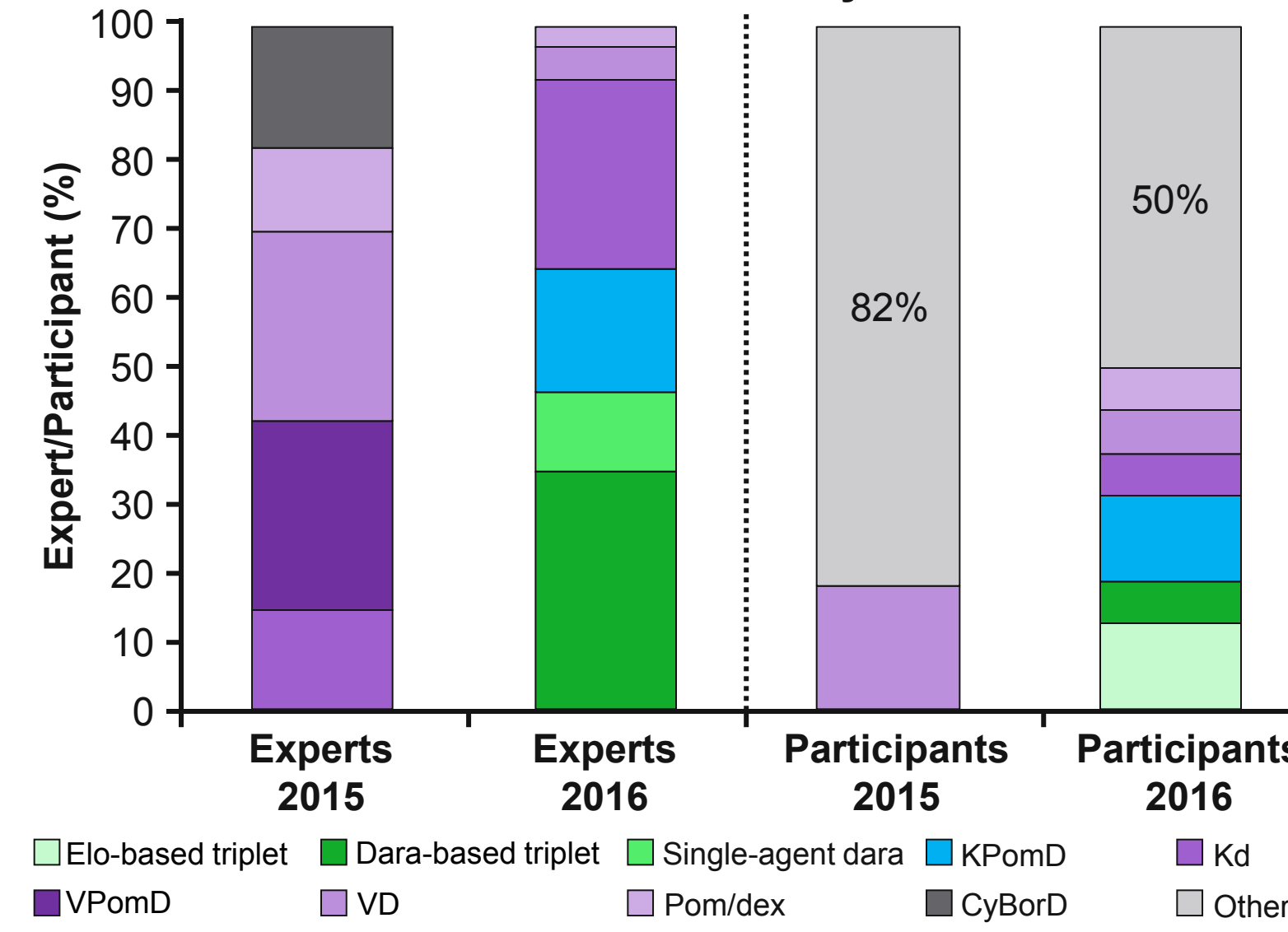**Induction Therapy for Transplant Eligible Patients With MM**

Legend: VRd, KRd, CyBorD, Ixazomib based, Other

Induction Therapy for Transplant Ineligible Patients With MM

Legend: VRd, KRd, CyBorD, Rd, Ixazomib based, Other
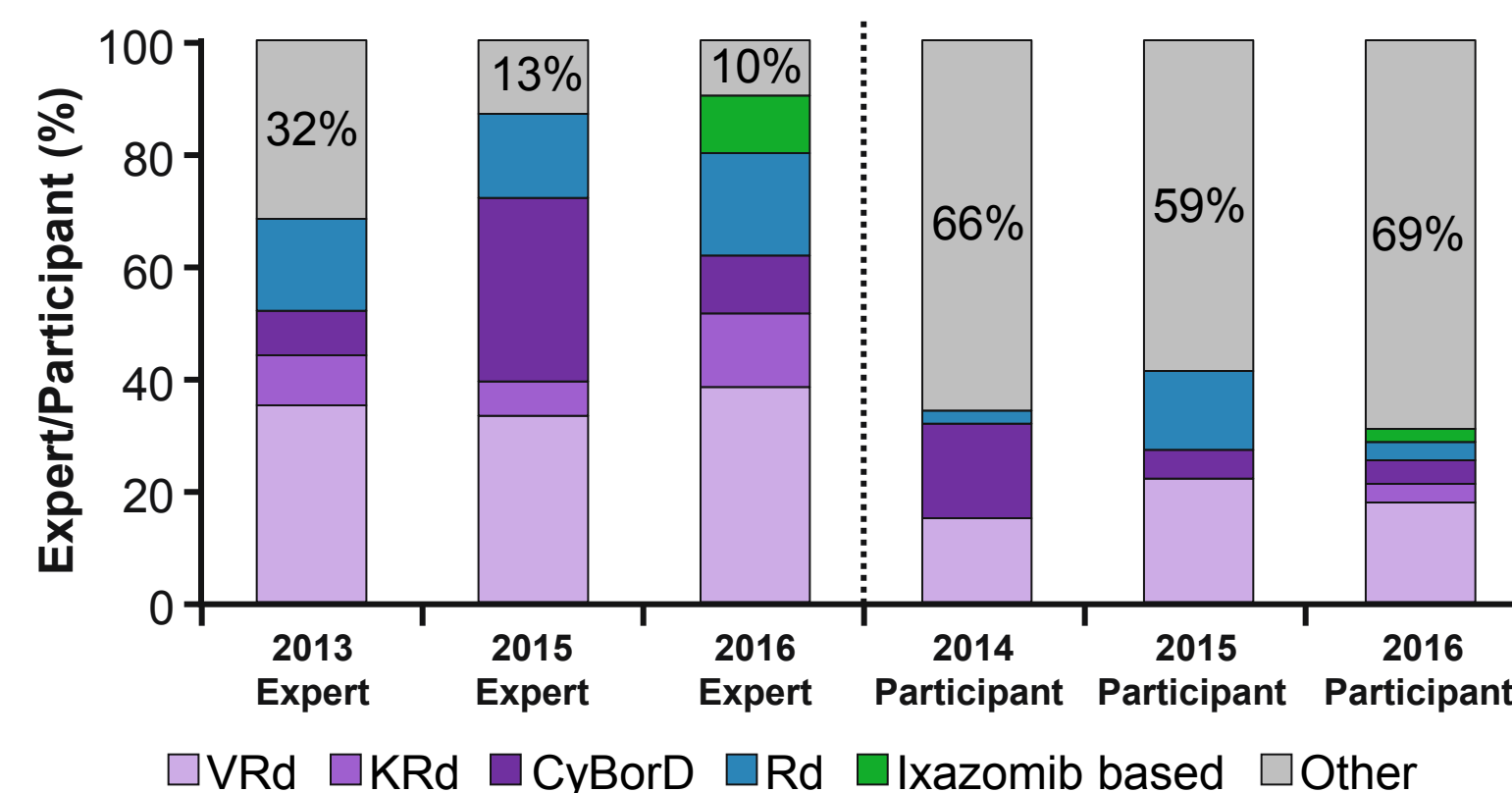
Therapy for R/R Disease (n = 185)

Treatment Recommendations for Len-Refractory Disease

Legend: Elo-based triplet, Dara-based triplet, Single-agent dara, KPomD, Kd, VPomD, VD, Pom/dex, CyBorD, Other

Treatment Recommendations for PI-Refractory Disease

Legend: Elo-based triplet, Dara-based triplet, Single-agent dara, KPomD, KRd, Rd, PomDex, Kd, CRd, Other
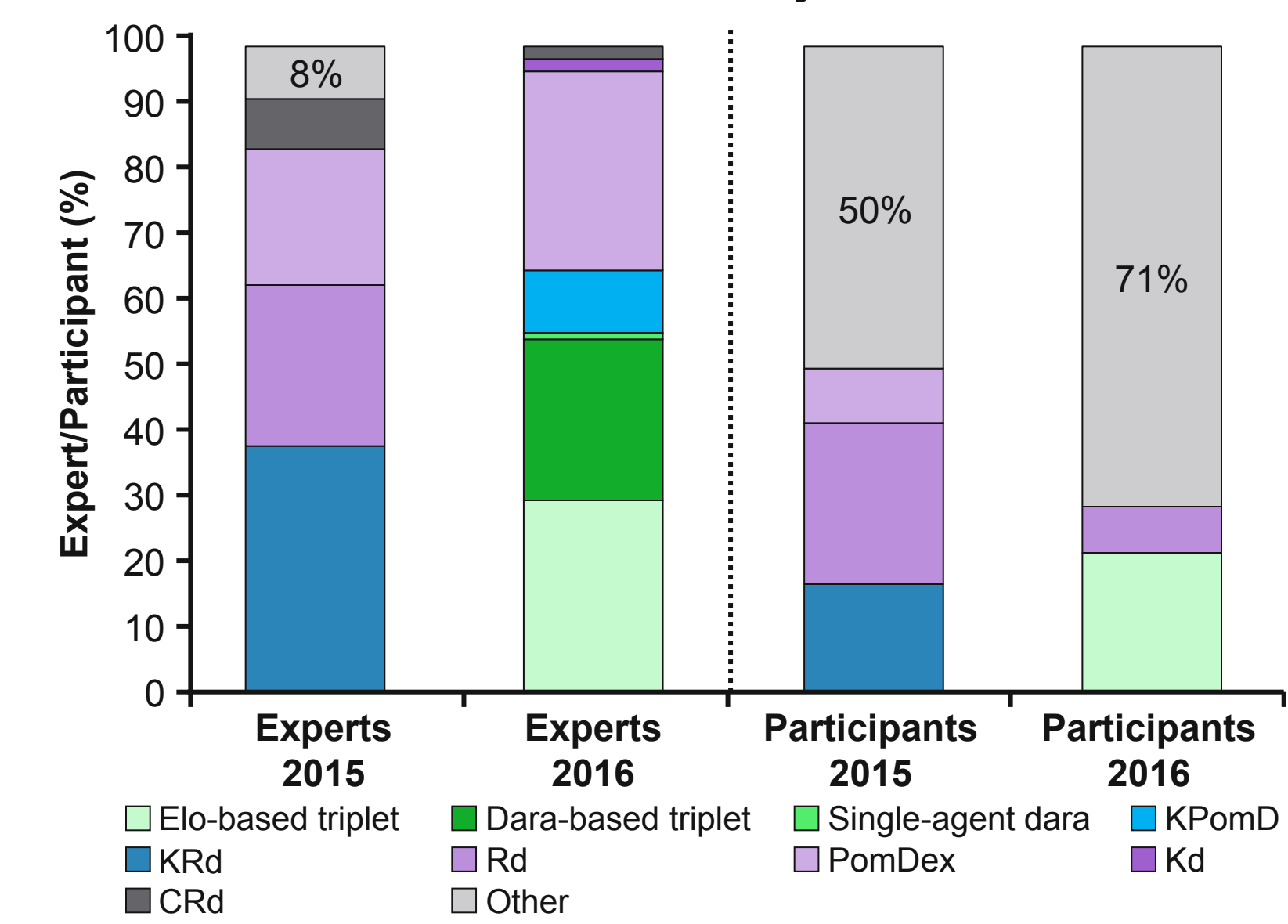
Treatment Recommendations for Len/PI-Refractory Disease

Legend: Dara-based triplet, Single-agent dara, KPomD, VPomD, Pom/dex, Kd, Other
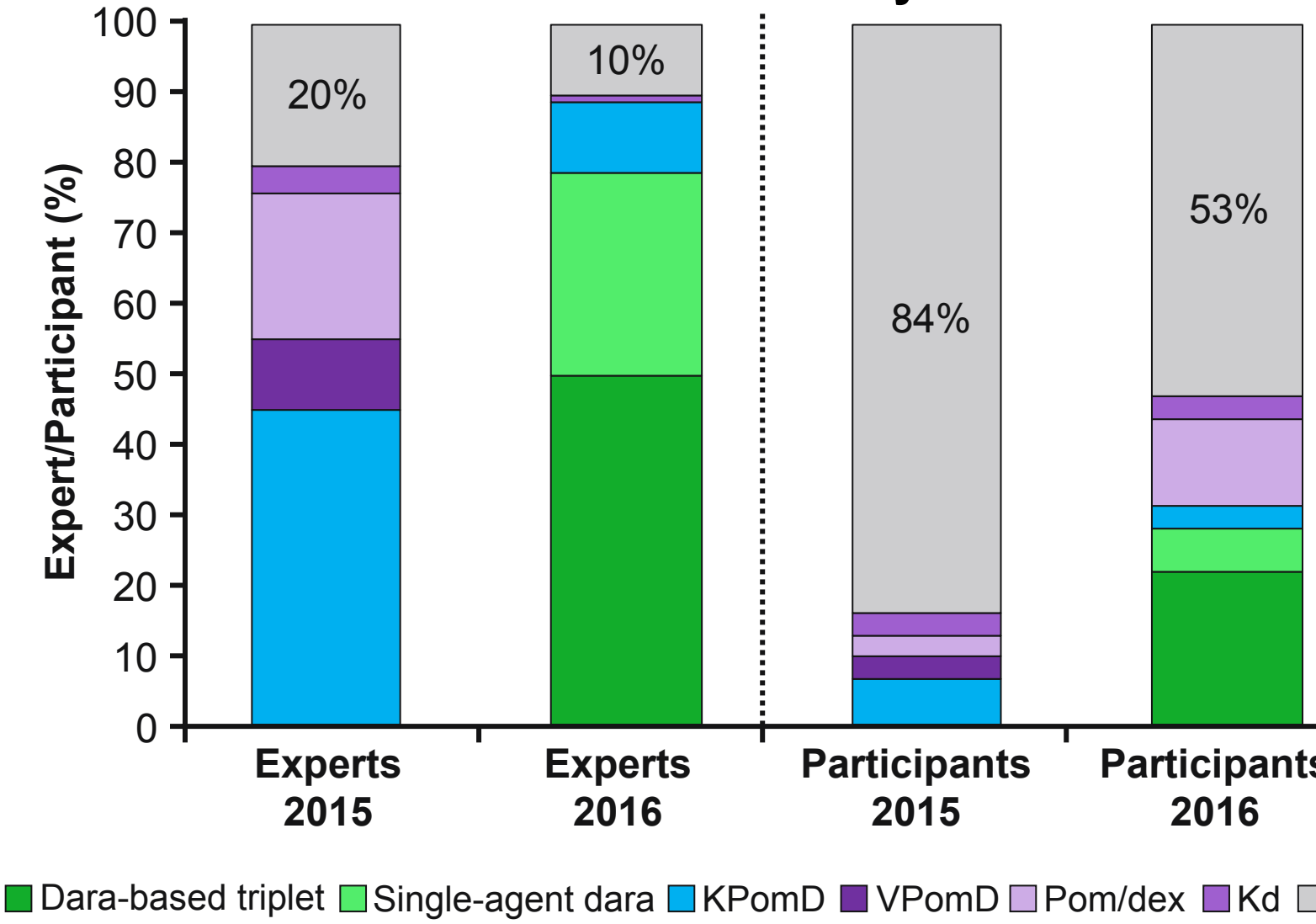
Treatment Recommendations for Len/PI/Alk Inhib–Refractory Disease

Legend: Dara/pom/dex, Single-agent dara, KPomD, Other
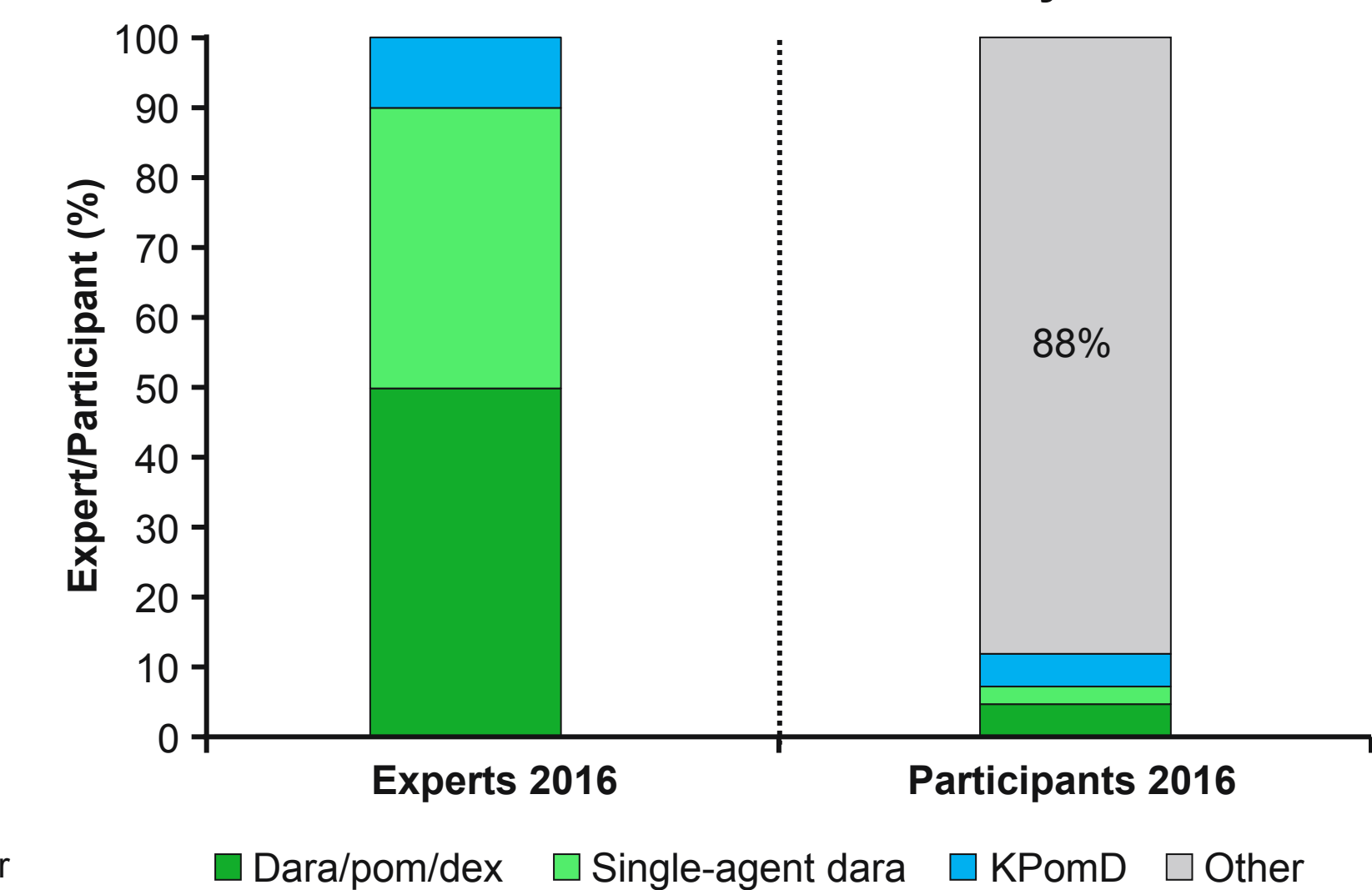
Conclusions

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