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Perspectives of single-center community hematologists/ oncologists on minimal residual disease testing among patients with multiple myeloma

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Key takeaway message

- Practices and opinions on the use of minimal residual disease (MRD) results in multiple myeloma (MM), particularly to inform clinical decisions, varied among hematologists/ oncologists using MRD testing.

Conclusions

- Most hematologists/oncologists who took part in this survey were comfortable with MRD testing and used MRD test results to monitor disease and make treatment decisions.
- Opinion on optimal MRD testing frequency and best course of action based on MRD test results varied.
- An opportunity remains to decrease barriers for MRD testing and to generate data on the appropriate testing frequency and outcomes of patients treated with an MRD-guided treatment strategy.

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Disclosures

Lucio N. Gordan: Employed by and has a leadership role at Florida Cancer Specialists and Research Institute. Has stock or other ownership in Florida Cancer Specialists and Research Institute and American Oncology Network. Received honoraria from Ameris Pharma. Consulting or advisory role with Illumina, IntegraConnect, Tolmar, and Janssen Oncology.

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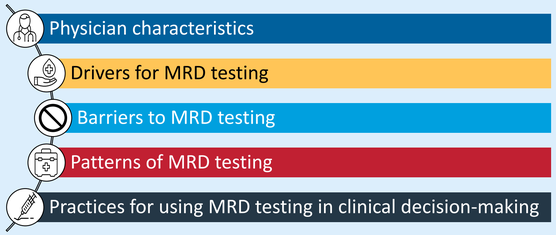
Niodita Gupta-Werner, Shuchita Kaila, and Annelore Cortoos: Has stock or other ownership in Johnson & Johnson. Employed by Johnson & Johnson.

Introduction

- Minimal residual disease (MRD) is defined as a minimal number of myeloma cells that may remain in the bone marrow of a patient after treatment. MRD positivity indicates residual disease detection, while MRD negativity indicates no residual disease detection. Thus, MRD testing is important for monitoring remission status and relapse.[1]
- MRD negativity is an independent prognostic factor for survival in multiple myeloma (MM),[2] and the FDA's ODAC recently accepted MRD testing as an accelerated approval endpoint in MM. However, optimal use of MRD testing remains unclear for healthcare professionals.[3]
- This study aimed to understand hematologist/oncologist perspectives on patterns, drivers, and barriers for MRD testing, and current practices in clinical decision-making based on MRD results.

Methods

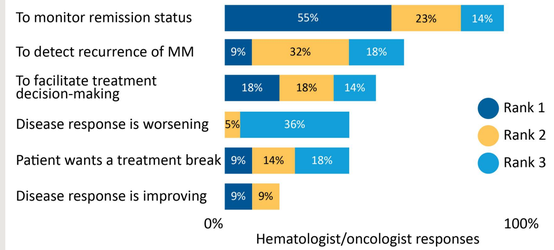
- This was a prospective, double-blind survey of hematologists/oncologists with experience of treating MM patients and using MRD testing in their clinical practice, practicing at Florida Cancer Specialists & Research Institute, a large community oncology practice network with multiple locations throughout Florida, USA.
- Eligible hematologists/oncologists were sent a link to the survey via email, and by continuing past the disclaimer they provided consent to answer the survey.
- For continuous measures, mean, standard deviation, median, 25th and 75th percentile, minimum and maximum were reported, and for categorical measures, the number and percentage were reported.
- The five main themes of the survey questionnaire were:



Results

- Twenty-two hematologists/oncologists participated in the study with a median of 2.5 MRD tests ordered per hematologist/oncologist between September 2019-October 2023.
  - 86.4% had >5 years of experience treating MM patients and 72.7% reported being comfortable/very comfortable with MRD testing. 86.4% had experience with blood based MRD assessment.
  - 77.3% of responders considered MRD negativity as an acceptable endpoint in clinical trials, while 18.2% and 4.5% preferred overall survival and progression-free survival, respectively.
- 91% of responders ranked monitoring patient remission status as one of the top three drivers for conducting MRD testing (Figure 1).

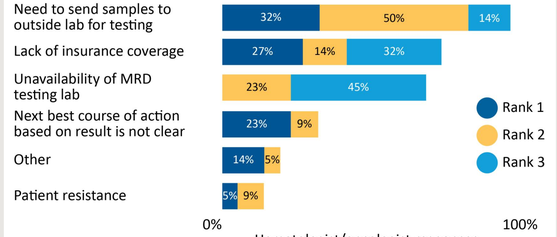
Figure 1. Drivers for conducting MRD testing



Responders ranked the top three drivers for conducting MRD testing in order of importance. MM, multiple myeloma. MRD, minimal residual disease.

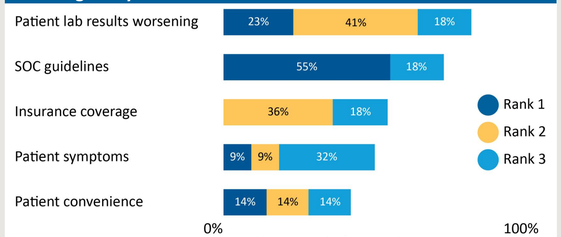
- 96% of responders ranked the logistics of sending samples to testing facilities among the top three barriers for MRD testing (Figure 2).
- Most (81.8%) hematologists/oncologists only conduct MRD testing if covered by insurance.
- 45.5% of responders test for MRD at treatment initiation and 31.8% test for MRD every 6 months during the treatment.
  - The most frequent testing interval period to monitor for sustained MRD negativity is every 6 months (68.2%) followed by every 12 months (9.1%), while 22.7% do not monitor after one MRD negative result.
  - The most frequent reasons for testing intervals are due to patient lab results worsening (82%) and standard of care (SOC) guidelines (73%) (Figure 3).

Figure 2. Barriers to MRD testing



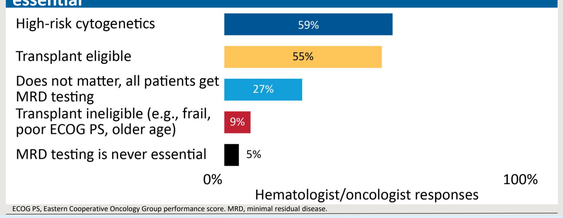
Responders ranked the top three barriers to MRD testing in order of importance. Other responses: concern with cost to the system and patients, difficulties communicating with the local hospital to request specimen for MRD testing, the need for bone marrow specimen, and the requirement to test at diagnosis using a bone marrow biopsy. MRD, minimal residual disease.

Figure 3. Reason for MRD testing intervals to monitor for sustained MRD negativity



Responders ranked the top three reasons for MRD testing intervals to monitor for sustained MRD negativity in order of importance. MRD, minimal residual disease. SOC, standard of care.

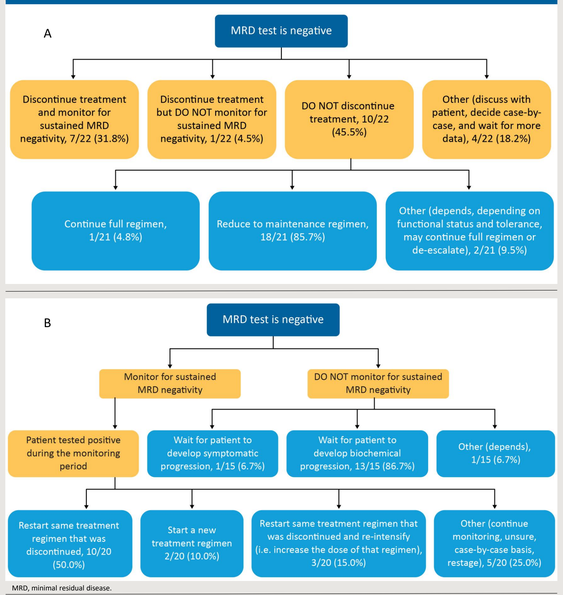
Figure 4. Patient subgroups for whom MRD testing is considered essential



ECOG PS, Eastern Cooperative Oncology Group performance score. MRD, minimal residual disease.

- Perspectives on the best course of action following MRD negativity varied. 36.3% of responders reported that they would discontinue treatment, whereas 45.5% reported that they would not (Figure 5A).
- Most (86.7%) responders who do not monitor for sustained MRD negativity wait for lab results to show disease progression, and of those who do monitor for sustained MRD negativity, 50.0% restart the same treatment regimen that was discontinued if resurgence of MRD occurs (Figure 5B).

Figure 5. Treatment decisions following an initial negative MRD test result



MRD, minimal residual disease.

- The most frequent strategy after a positive MRD test result after 1 year is to change the entire regimen (27.3%), while after 2 years it is to augment the current regimen with another drug (40.9%).

References

1. Kostopoulos IV, Ntanasis-Stathopoulos I, Gavriatopoulou M, Tsitsilonis OE, Terpos E. Minimal residual disease in multiple myeloma: current landscape and future applications with immunotherapeutic approaches. *Front Oncol 2020*;10:860.
2. Rustad EH, Boyle EM. Monitoring minimal residual disease in the bone marrow using next generation sequencing. *Best Pract Res Clin Haematol 2020*;33(1):101149.
3. Ramasamy K, Avet-Loiseau H, Hveding Blimark C, Delforge M, Gay F, Manier S, et al. Measurable residual disease testing in multiple myeloma routine clinical practice: a modified Delphi study. *Hemasphere 2023*;7(9):e942.

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