


Background

This study was conducted to determine if online, case-based, ANCC-accredited NCPD could improve nurses' and nurse practitioners' skills related to the care of patients with myelodysplastic syndromes (MDS). Treatment selection in MDS is complicated by factors such as tumor heterogeneity, patient age, and comorbidities. In addition, the rapid pace of research has made it difficult for nurses and nurse practitioners to maintain a working knowledge of the latest treatment advances and the management strategies needed for these novel therapies. We evaluated whether online NCPD activities could address these learning gaps so that nurses and nurse practitioners could update and expand their knowledge, competence, and confidence related to the care of patients with MDS.


Methods

The learning gaps were addressed through an online NCPD- and CME-approved virtual symposium entitled *Diagnosis and Management of Myelodysplastic Syndromes*. Learners participated in a 1-hour asynchronous online activity in which faculty representing hematology/oncology, pathology, and oncology nursing discussed and debated best practices in diagnostic evaluation, treatment selection, and supportive care for patients with MDS. Three case studies were used to further explore patient and tumor characteristics that inform patient care, risk stratification, and personalized treatment. In addition, the discussion highlighted mechanisms of action and tolerability of newer therapeutic agents, along with management concerns for these agents. Prior to the activity and following its completion, learners were given a repeated pairs pre- and post-activity assessment consisting of case-based questions that gauged their ability to apply emerging data and guideline recommendations to clinical decision making for patients with lower-risk, higher-risk, and therapy-related MDS. Additionally, learners completed an evaluation of the educational content and self-reported the influence that they judged the activity would have on their future practice.


Faculty



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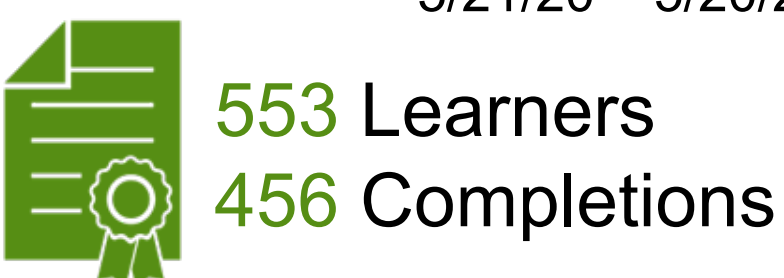
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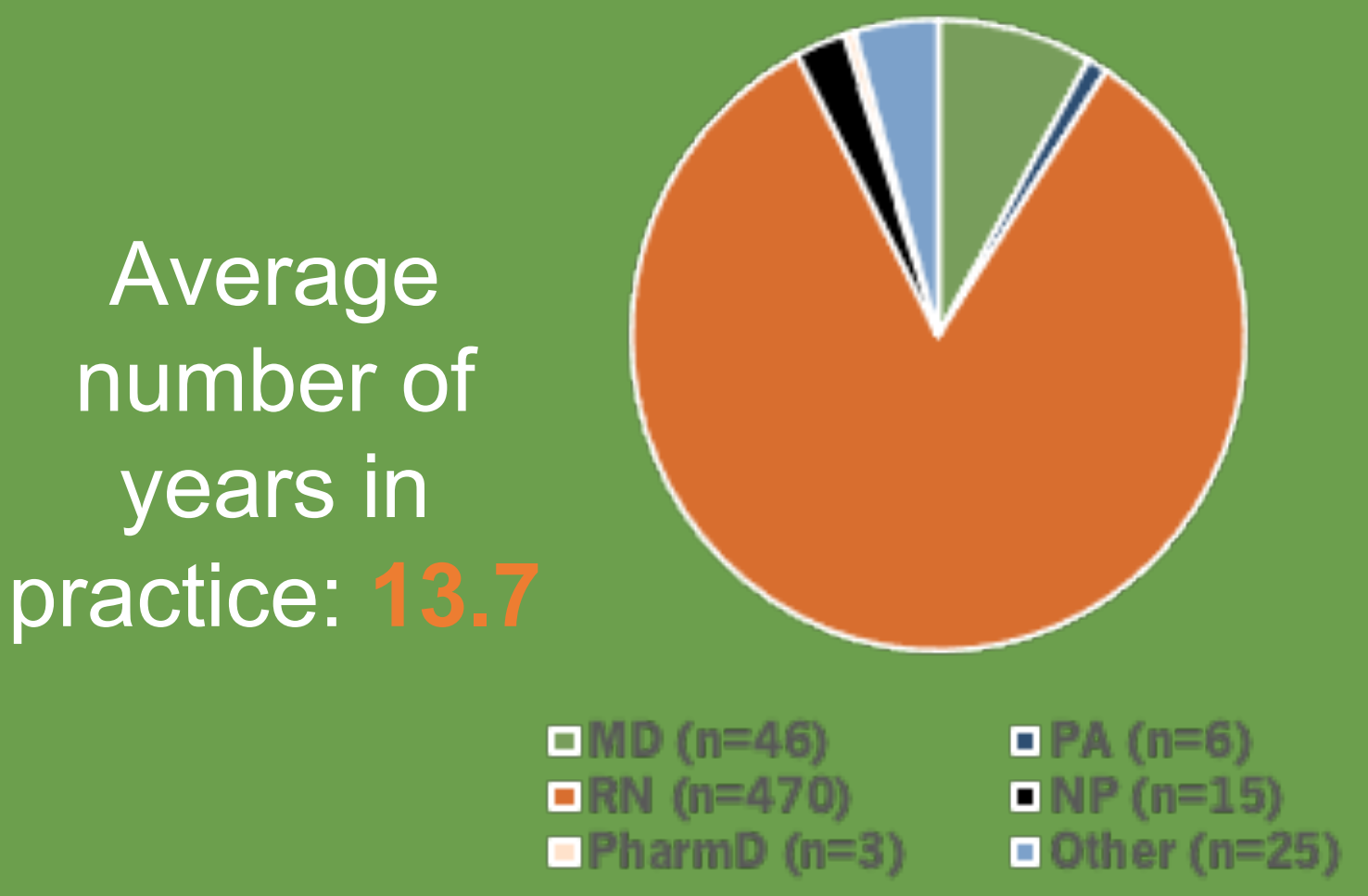
Reza Nejati, MD
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Learner Demographics

This CME/NCPD-approved virtual tumor board was available 5/21/20 – 5/20/21



Audience: nurses (RN), nurse practitioners (NP), hematology/oncology physicians (MD), pharmacists (PharmD), physician associates (PA), and other health care professionals involved in the treatment of patients with myelodysplastic syndromes (MDS)



Testimonials

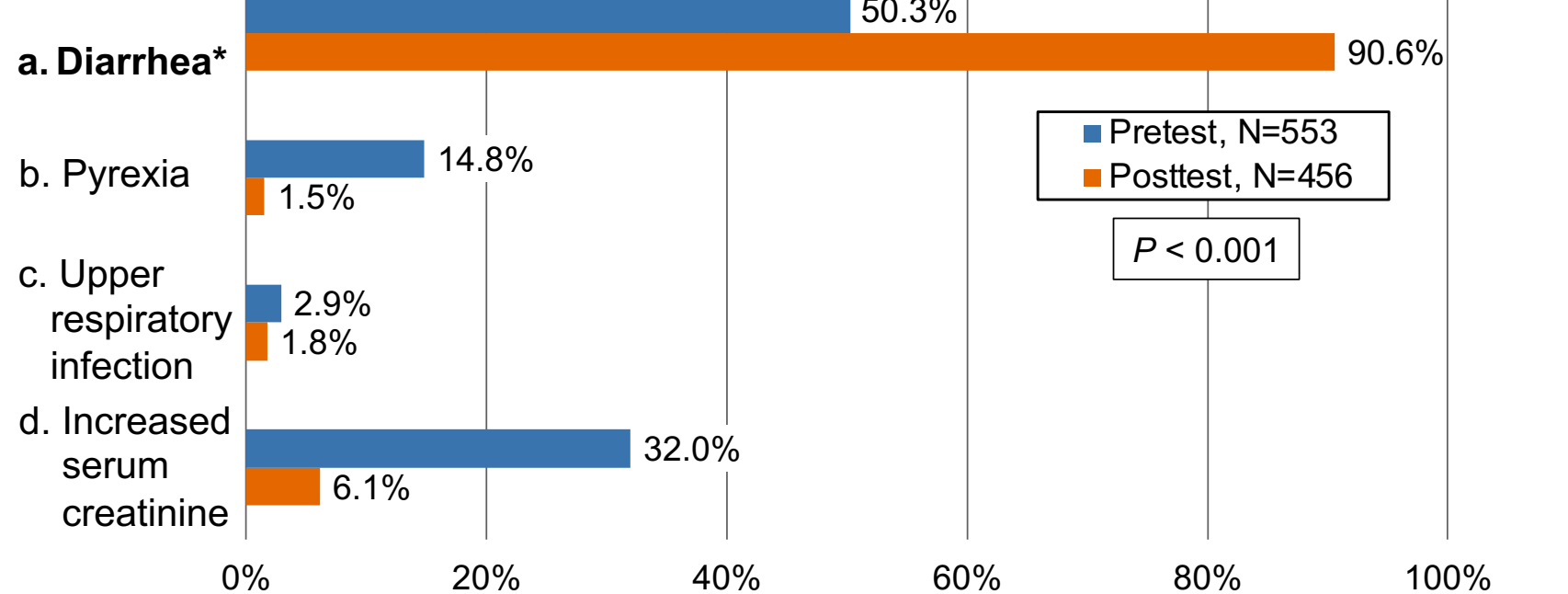
“● “Very **DYNAMIC** presentation with a lot of great info”
● “**EXCELLENT** lesson. I am very grateful for the course!”
● “As an inpatient oncology nurse, this was a **HELPFUL** learning activity”
● “This **EDUCATION** filled a gap for me. I do not frequently see information on this subject”
● “Case studies were an **EFFECTIVE** teaching approach for this subject”
● “Very good **INFORMATION** for a disease that is not well understood”
● “This activity helped me reevaluate how I **CARE** for my patients”

Results

Case 1: Deferasirox Adverse Event Profile

Ms. LS is a 69-year-old woman with SF3B1-mutated low-risk MDS with ring sideroblasts refractory to erythropoiesis stimulating agents. Due to frequent transfusions, she has iron overload. She receives deferasirox iron chelation therapy.

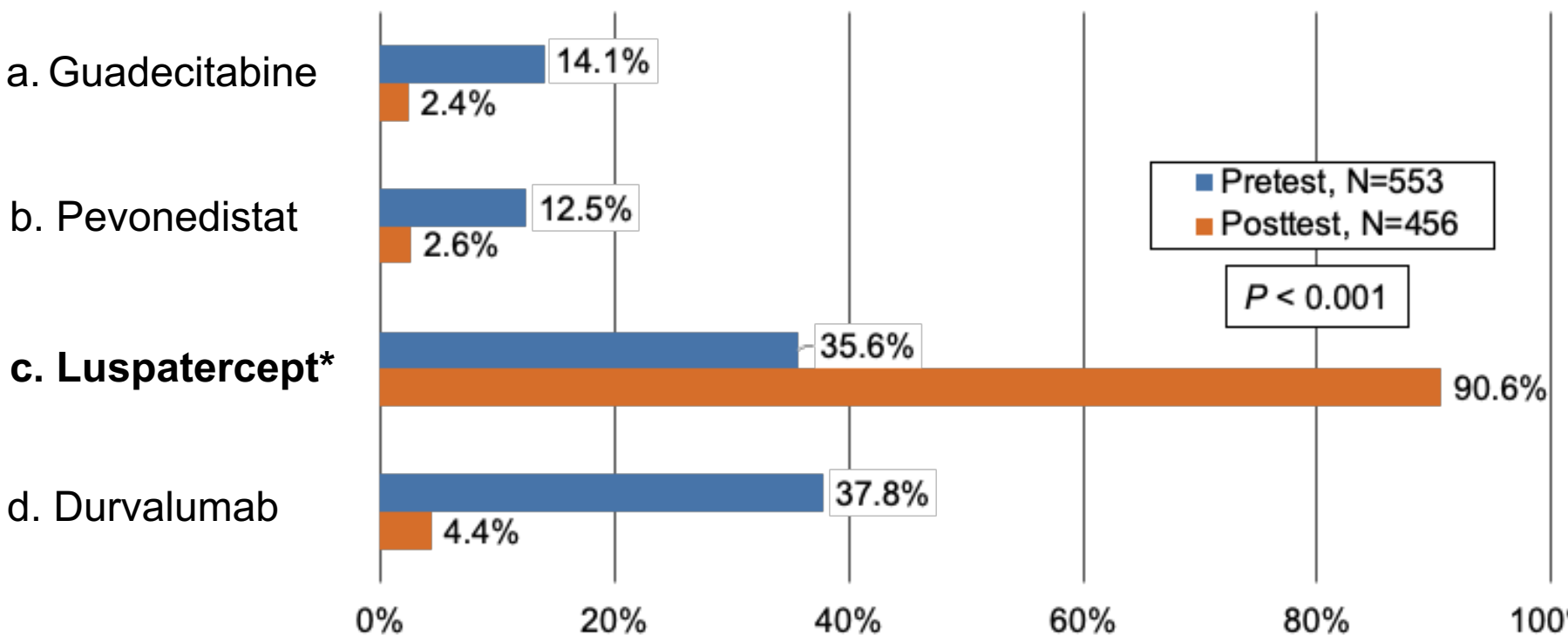
Which of the following adverse events is she most likely to experience?



Competence increased by 40.3%

Case 1 (cont.): Therapy for Transfusion Independence

Which option is an FDA-approved treatment that could help Ms. LS to achieve transfusion independence?

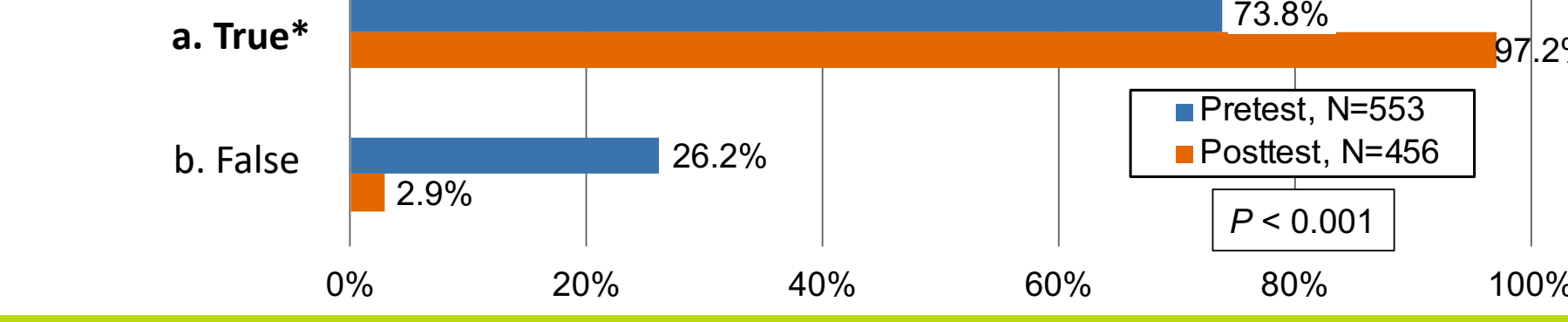


Competence increased by 55.0%

Case 2: Mutation Prognosis

Case 2: Mr. EL is a 51-year-old man with high-risk therapy-related MDS and a TP53 mutation.

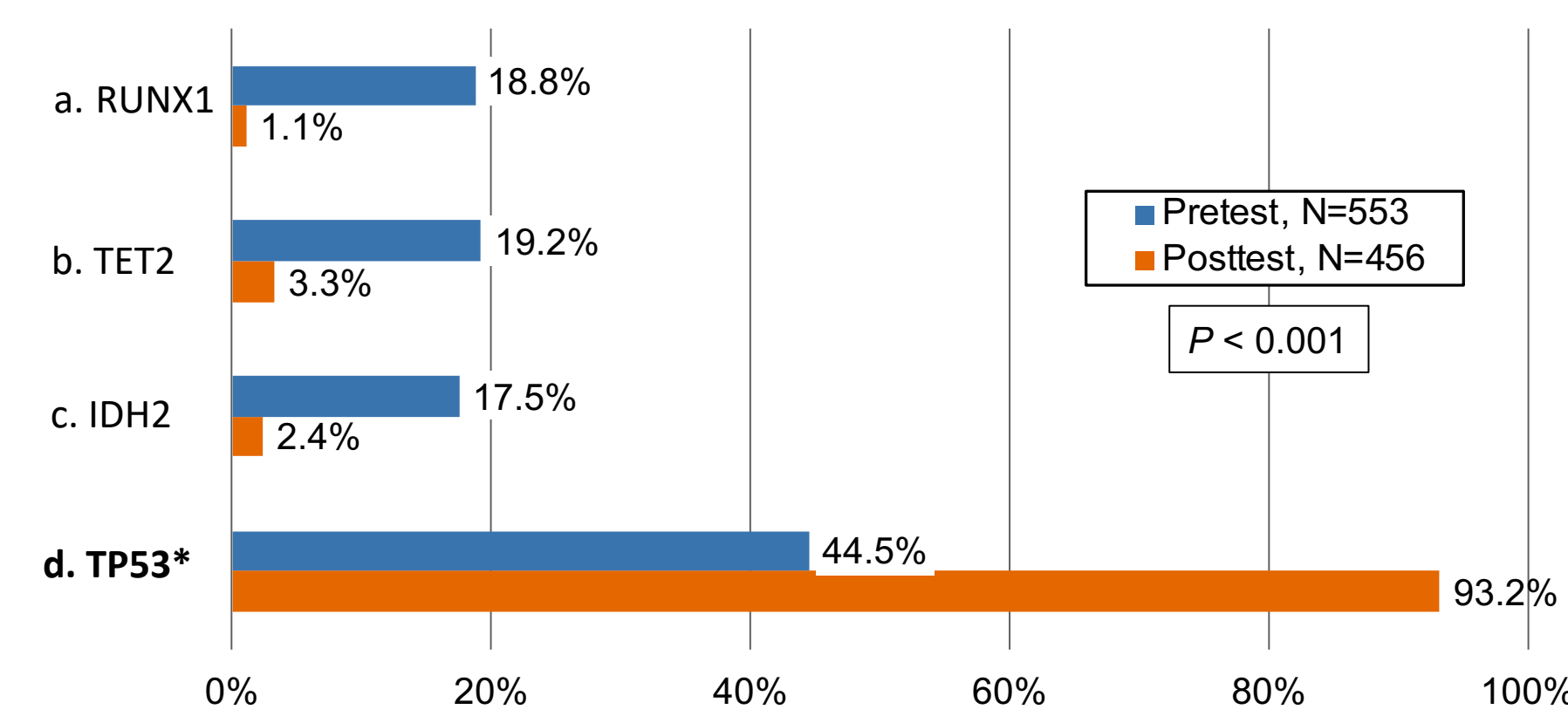
The TP53 mutation decreases Mr. EL's chance of surviving for 5 years following HSCT.



Competence increased by 23.4%

Case 3: Response to Decitabine

Mr. DW is a 67-year-old man with higher-risk MDS and a/a/ mutation, which makes him likely to respond to decitabine.

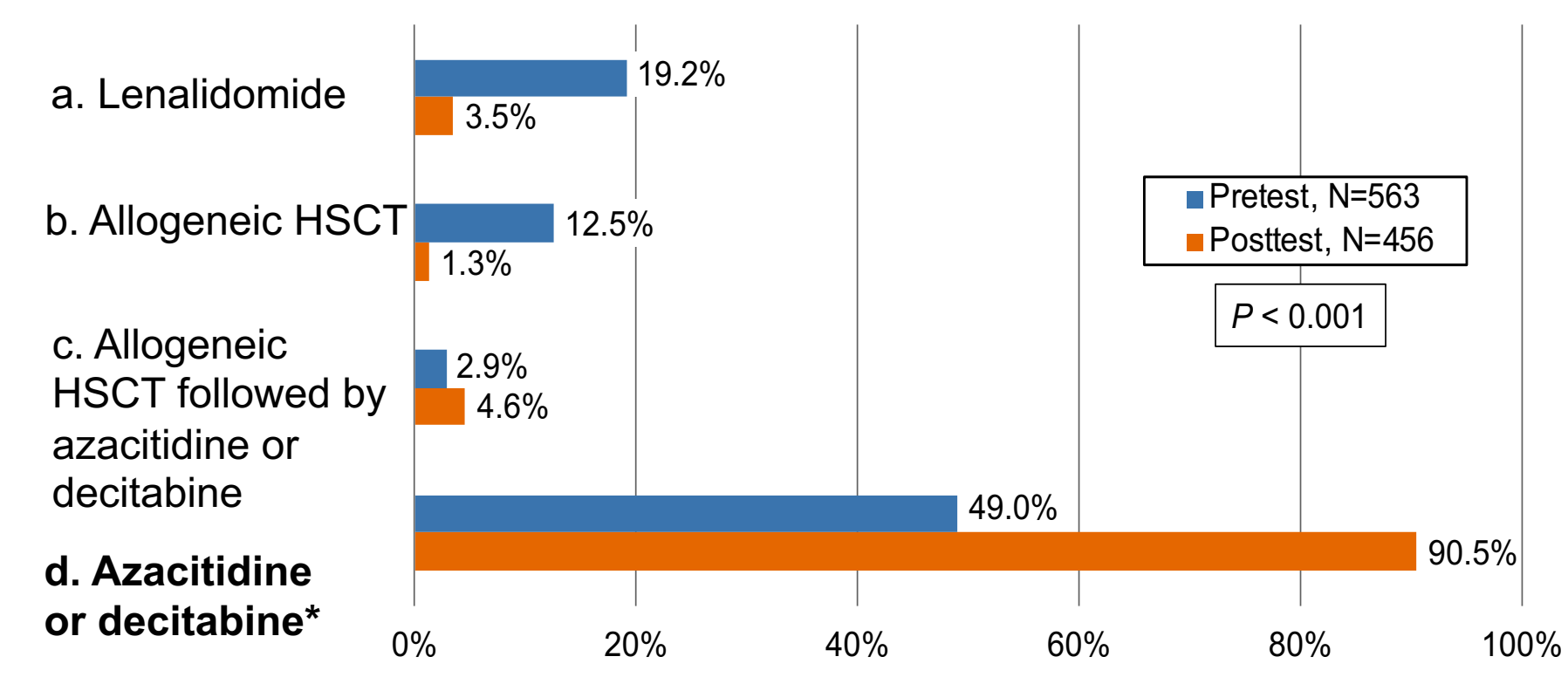


Competence increased by 48.7%

Case 4: Therapy for High-Risk MDS

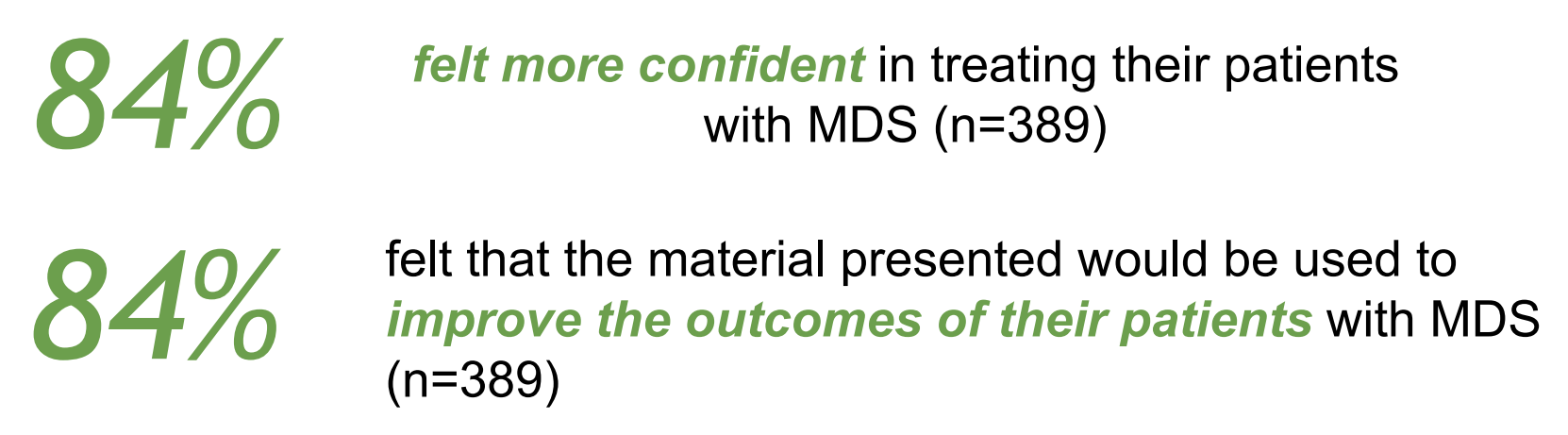
Mrs. DZ is a 78-year-old woman with high-risk MDS.

What would be an appropriate course of treatment?



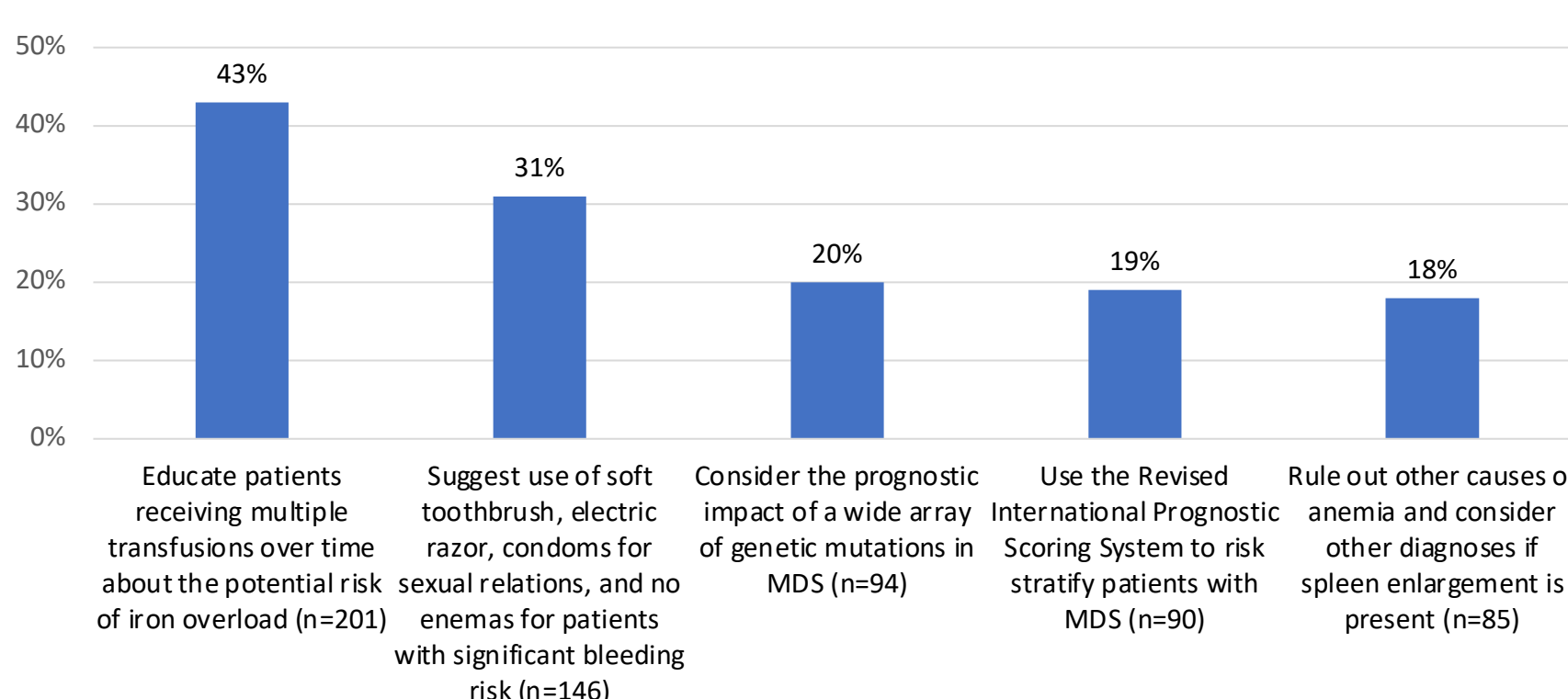
Competence increased by 41.5%

Impact on Clinical Practice



Learners' Intent to Change

As a result of engaging in the educational content, learners felt that they were **more likely** to consider the following:



Conclusions

Online case-based, ANCC-accredited learning can lead to statistically significant improvements in the clinical competence of nursing participants. There were significant gains in knowledge and competence, as seen on the case-based pre- and post-activity assessments. Nurses' and nurse practitioners' understanding improved regarding the roles of predictive and prognostic genetic mutations in MDS, the efficacy and safety of novel MDS therapies, and supportive care strategies to help patients with MDS achieve their goals of therapy. In addition, nursing participants achieved gains in self-perceived competence and confidence related to treating patients with MDS.

References

i3 Health. (2021). *Diagnosis and management of myelodysplastic syndromes: Activity outcomes report*. [Unpublished raw data.]

Acknowledgements

Amy Karfonta and Kathryn Cook assisted with editing. This activity was supported by independent educational grants from Takeda Oncology and Taiho Oncology.

Contact Information

For more information on i3 Health and to view available NCPD activities, visit [i3Health.com](https://i3health.com).
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