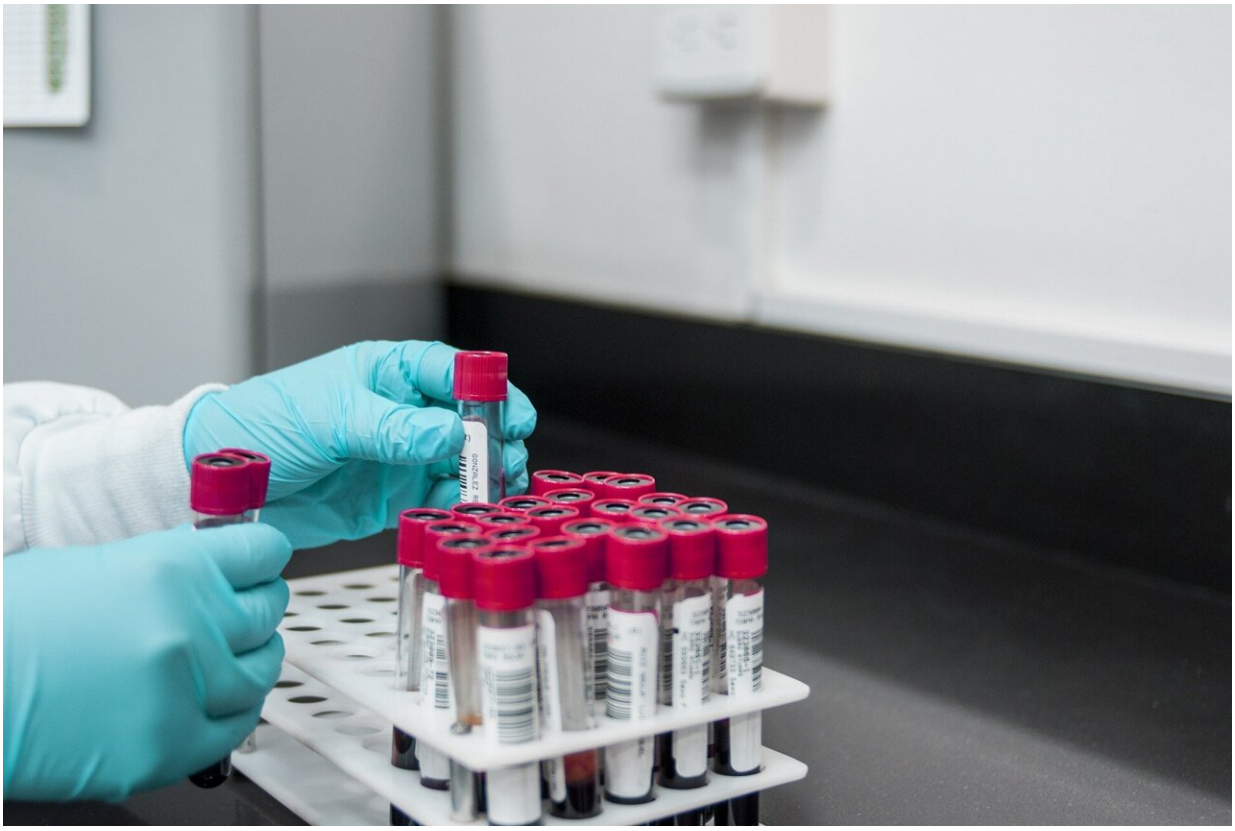
New optimism on myelodysplastic syndromes

November 2 2022



Credit: Pixabay/CC0 Public Domain

Physician scientists at Sylvester Comprehensive Cancer Center at the University of Miami Miller School of Medicine have published a review in the *Journal of the American Medical Association* that clarifies current treatment approaches for myelodysplastic syndromes (MDS), which are rare and often deadly bone marrow cancers.

For years, MDS was mischaracterized as precancerous. To help remedy this, the World Health Organization (WHO) recently reclassified MDS to acknowledge its severity.

"MDS is only rarely described as a cancer," said Mikkael Sekeres, M.D., chief of the Division of Hematology and co-author on the paper. "In the vast majority of cases, patients affected by MDS, who are mostly older adults, are told they have a blood disorder or a bone marrow condition. The WHO reclassification really emphasizes that this is not a precancerous condition—it's cancer."

Dr. Sekeres does not have to go far to prove his point. MDS and lung cancer survival curves are quite similar. "Nobody would dispute the seriousness of a lung cancer diagnosis," he said, "and no one should overlook the seriousness of MDS."

Patients with MDS experience a reduction in peripheral blood cells and are at higher risk for acute myeloid leukemia (AML). The disease is divided into subtypes based on the patient's risk of developing AML. Patients with low-risk disease have a three- to 10-year survival rate. For those with higher risk disease, the median survival is less than three years. The five-year survival for all MDS subtypes is 37%

Treatment approaches based on risk profiles

The review discusses the different treatment approaches, which are largely based on each person's unique disease, and is aimed at clinicians to help them better care for patients based on their MDS risk profiles.

"MDS is a diagnosis in older adults, so it is particularly relevant in South Florida's aging population," said Dr. Sekeres. "Because low blood counts can be a normal consequence of aging, the disease tends to be underdiagnosed. A specific patient may not have MDS, but if they have

low blood counts, they should be referred to a hematologist for further consultation."

This is doubly important because MDS is a highly complex disease. Precise diagnosis, preferably at an academic medical center, is critical to ensure patients are neither over- nor under-treated. "Because MDS is so heterogeneous, every patient's therapeutic plan should be tailored to that individual," said Dr. Sekeres. "There is no one-size-fits-all approach."

Dr. Sekeres and co-author Assistant Professor Justin Taylor, M.D., are both optimistic that emerging treatments and combinations will continue to improve MDS survivability.

"We've had a couple of new drugs that target the genetic underpinnings of MDS," said Dr. Sekeres. "I think we are on the cusp of having combination therapy to treat higher risk disease. MDS is one of the few cancers where we don't combine drugs to treat it, so that is a big deal."

Other MDS study

Dr. Sekeres recently collaborated on another study in the *New England Journal of Medicine*, led by researchers at MD Anderson Cancer Center in Houston, that produced encouraging results. The research showed that 67% of patients with low-risk disease responded well to low doses of decitabine, a drug that helps bone marrow produce healthy blood cells.

"This was an important study because it showed that less is more," said Dr. Sekeres. "Giving less chemotherapy led to more patients benefiting from treatment."

The study was conducted through the MDS Clinical Research Consortium, which is led by Dr. Sekeres, and is one in a series of recent studies that offer good news for MDS patients.

"To be an oncologist, I think you have to be optimistic," said Dr. Taylor. "But I see a bright future for medications being approved for MDS."

More information: Mikkael A. Sekeres et al, Diagnosis and Treatment of Myelodysplastic Syndromes, *JAMA* (2022). DOI: 10.1001/jama.2022.14578

Koji Sasaki et al, Low-Dose Decitabine versus Low-Dose Azacitidine in Lower-Risk MDS, *NEJM Evidence* (2022). DOI: 10.1056/EVIDoa2200034

Provided by Sylvester Comprehensive Cancer Center