

### Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/project-oncology/optimizing-the-screening-of-precursor-diseases-in-multiple-myeloma/27008/>

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## Optimizing the Screening of Precursor Diseases in Multiple Myeloma

### Announcer Intro

Welcome to *Project Oncology* on ReachMD. On this episode, we'll learn about screening for multiple myeloma precursor diseases with Dr. Elizabeth O'Donnell. She's the Director of Early Detection and Prevention at Dana-Farber and an Assistant Professor of Medicine at Harvard Medical School. Let's hear from Dr. O'Donnell now.

### Dr. O'Donnell:

The diagnostic criteria for multiple myeloma include things like the presence of high calcium, kidney dysfunction, and anemia. So the basic labs that accompany a serum protein electrophoresis and serum free light chains are a complete blood count and a comprehensive chemistry panel, which gives us that overview not only of the amount of monoclonal protein, but what the impact might be on the organs of significance in this disease.

So we don't broadly screen for plasma cell disorders. There may be populations for whom it may make sense to begin to screen as we learn more about the incidence and risk of precursor disease, but typically, we find plasma cell dyscrasias when we're doing these labs for another reason, whether it be because someone has high calcium or new kidney dysfunction or peripheral neuropathy, and so we send these, and we discover that patients have plasma cell precursors. It's a very reactive rather than proactive approach to the discovery of plasma cell dyscrasias.

In terms of making sure that this is precursor versus symptomatic disease, the other piece of this is bone imaging, and so making sure that patients don't have lytic lesions of the bone; that can be subtle, particularly in early disease states. And so the types of imaging that we would use might be a bone marrow or whole body MRI versus a PET scan with a diagnostic level CT scan or a low-dose CT scan, which then enable us to say with some confidence that a patient does not have bone lesions and this is really precursor disease.

Whenever you do any type of screening test, you need to demonstrate that the benefits outweigh the risk and that you actually change outcomes, and that may mean—you know, improving overall survival is kind of the gold standard, so I think doing ongoing investigations can help us identify the overall prevalence and impact of screening in different populations. And it may not be a one-size-fits-all model. For example, we know that the risk of multiple myeloma is higher in African-Americans or potentially in people who have strong family histories. Is there an indication to screen different populations preferentially and to not screen other populations? So these are ongoing questions that I think the myeloma community at large is really trying to tackle. We've had large population studies coming out of Iceland that have been very informative, and so I think the hope of the next decade of my career at least is that we can better understand the screening and detection of precursor diseases so that we can refine our risk stratification so we can really start to identify who are the individuals that will benefit from intervention and who should we leave alone. And are there other things besides drugs? Are there lifestyle interventions? Are there things that we can learn about microbiome and diet for people who have these indolent conditions to mitigate their risk of progression? I think we've given tremendous attention and made tremendous progress in therapeutics, but let's take that same academic rigor, that same level of interest, and understand the biology of precursor disease and what makes sense to intervene upon.

### Announcer Close

That was Dr. Elizabeth O'Donnell talking about how we can screen for precursor diseases in multiple myeloma patients. To access this and other episodes in our series, visit *Project Oncology* on ReachMD dot com, where you can Be Part of the Knowledge. Thanks for listening!