Robert Z. Orlowski, MD, PhD
Professor, Chair Ad Interim
Department of Lymphoma/Myeloma
Division of Cancer Medicine
The University of Texas MD Anderson Cancer Center
Houston, Texas

How should you choose between carfilzomib and ixazomib?

Hi, welcome to *Managing Myeloma*. I am Bob Orlowski, the Director of the Myeloma Section and the Acting Chair of the Department of Lymphoma/Myeloma at the University of Texas MD Anderson in sunny and humid Houston, Texas. One question that patients as well as referring physicians sometimes ask is how they should select between carfilzomib and ixazomib as a proteasome inhibitor, especially in the relapsed or refractory setting.

I am sure you know that carfilzomib is an intravenous agent and ixazomib is an oral agent. So, clearly, one of the best ways to choose between them is based on whether the patient is able to travel more frequently back and forth to the office or clinic setting for treatment. This is because right now, the approved dosing for carfilzomib is 2 days in a row for 3 weeks on and 1 week off IV, whereas ixazomib is approved as an oral agent once per week for 3 weeks on and 1 week off. What I often find is that some of my older patients who do not like to travel back and forth and want to spend as much time as possible at home prefer to go on ixazomib, whereas some of the patients, especially those that have more aggressive disease and may be a little bit younger, prefer to do carfilzomib.

There are other ways that you can think about deciding which of these agents is better than another. First of all, carfilzomib does have a little bit of neuropathy associated with its use, roughly 10%. Ixazomib also has some neuropathy associated with it, but it might be a little bit less. So, that is one way. Also, ixazomib with the first dose can occasionally cause a little bit of gastrointestinal upset. That typically resolves with later doses, but if somebody has a particularly sensitive gastrointestinal tract, it may be appropriate to think about using carfilzomib. And then, finally, with high-dose carfilzomib regimens, for example, when you're talking about 56 mg/m^2 or 72 mg/m^2, there are some data that suggest, especially in older patients, there may be a slightly increased risk of cardiac effects. So, again in those older patients, it may be appropriate to think about using either ixazomib or a more standard dose of carfilzomib like 20 mg/m^2 or 27 mg/m^2.

Those are some of the factors that I consider when I choose between carfilzomib and ixazomib, and usually I try to use them in combination if possible, for example with lenalidomide or with cyclophosphamide or with thalidomide. Thank you very much and I hope that this has been helpful to you when your turn comes to decide between these two proteasome inhibitors.