

Key updates in the management of bone disease in multiple myeloma

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Welcome to *Managing Myeloma*. My name is Dr. Matthew Drake and today, I would like to spend a few minutes providing you with some key updates in the management of bone disease in multiple myeloma. Significant change occurred in the United States in January 2018 when denosumab was approved for the treatment of multiple myeloma. Prior to that time, medications called bisphosphonates, primarily pamidronate and zoledronic acid, had been the mainstays. The important thing to recognize however is that bisphosphonates and denosumab work somewhat differently. Bisphosphonates caused the cells which remove bone which are called osteoclast to actually undergo apoptosis or cell death. Denosumab however works differently in that it prevents the cells from pre-osteoclast which are the precursors to active osteoclast from becoming active osteoclast and because of this, they work differently. So whereas bisphosphonates last at times many years in the skeleton, denosumab only lasts for several months and so when it is discontinued, the block from preventing these pre-osteoclast from becoming active osteoclast is removed. And so, in patients who are treated with denosumab, the important thing is to recognize that they either need to continue with denosumab, there is no real place for a denosumab holiday like there can be with bisphosphonate, so they either need to continue with the denosumab or alternatively if they're considering changing from denosumab to something else, then they need to actually be treated with likely several doses of the bisphosphonate, again to cause the apoptosis or death of these active osteoclasts which would occur if denosumab is removed because the block to their formation has been removed. These are important things for the management of bone disease in multiple myeloma, particularly because we've seen now probably upwards of 40% of patients in the United States being treated for bone disease for multiple myeloma are receiving denosumab. So its important that providers as well as patients recognize that denosumab cannot simply be discontinued. Thank you for viewing this activity.