

Clonotypic V(D)J rearrangement in circulating myeloma cells and DNA is a highly patient-specific detection marker for monitoring of multiple myeloma

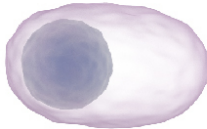
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Myeloma patients



NGS to determine Clonotypic V(D)J rearrangements in BM

Clonal tracking in PB



cmc-V(D)J

circulating myeloma cells



cfm-V(D)J

cell-free myeloma DNA

Timepoints



Before treatment initiation



After treatment initiation



Positivity for cmc-/cfm-V(D)J was associated with conventional remission status ($p < 0.001$)

Persistent cmc-/cfm-V(D)J

41%

responders

91%

nonresponders/
progressors

($p < 0.001$)

cmc-/cfm-V(D)J markers

are less inert than the M-protein

rely more on cell turnover

decline more rapidly after initiation of effective treatment