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

27 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

Oberle et al., Haematologica, 2017