

Evaluation of the impact of bone fractures on survival in multiple myeloma patients



The Swedish Cancer Registry



14013 Multiple myeloma patients, median age was 72 years (range 20-99 years)



1990-1999> **Before** the introduction of novel treatment options for MM



2000-2013> **After** the introduction of novel treatment options for MM



Cox models	Fracture at the same day or after MM diagnosis	NO fracture at the same day or after MM diagnosis	Median overall survival
MM patients	3,235 (23.1%)	10,778 (76.9%)	
1990-1999	1,211 (22.2%)	4,251 (77.8%)	2.6 years
2000-2013	2,024 (23.7%)	6,527 (76.3%)	3.3 years

Risk of death	Significantly increased (28% higher)	HR=2.00; 95% CI: 1.90-2.10
1990-1999	HR=2.26; 95% CI: 2.10-2.42	The interaction effect of a fracture and calendar period was significant for 2000-2013 compared to 1990-1999 (HR=0.85; 95% CI: 0.77-0.93, p<0.01)
2000-2013	HR=1.79; 95% CI: 1.67-1.91	

Preventing bone disease in MM is of high importance