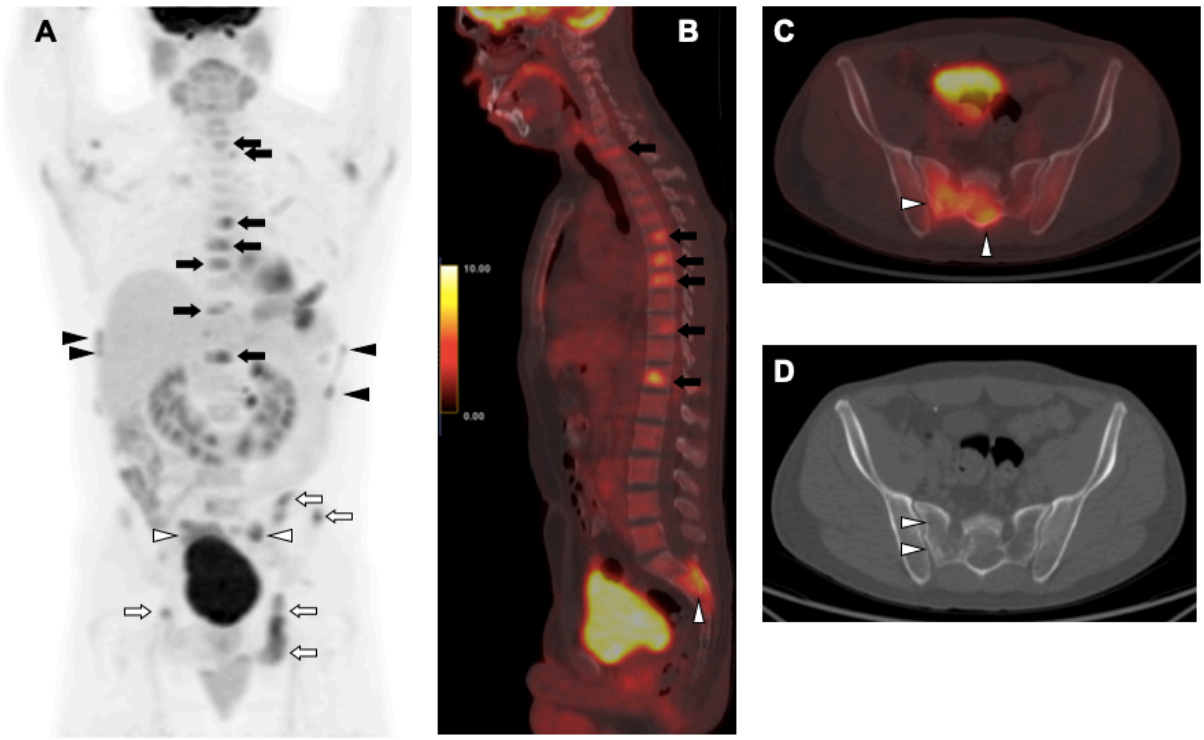
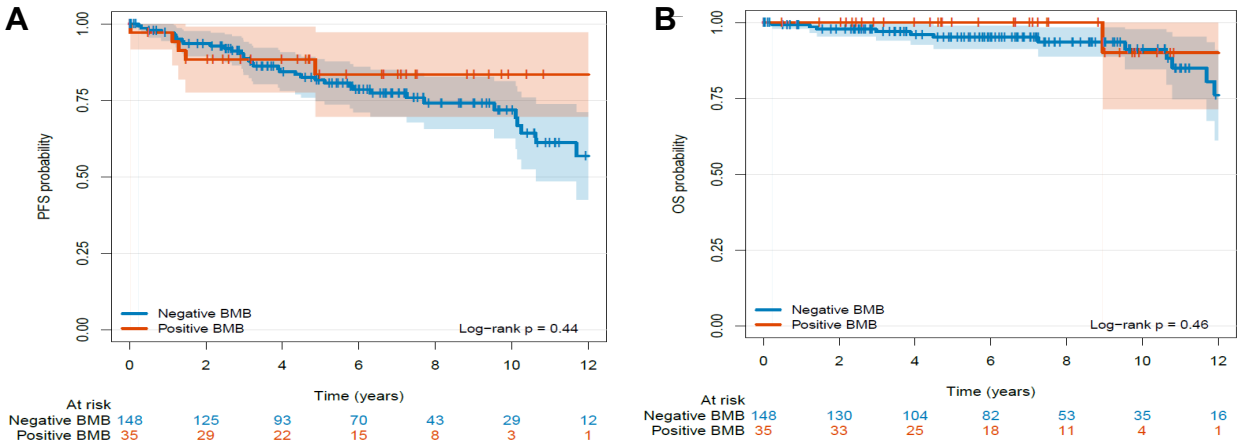
SUPPLEMENTAL DATA



Supplemental Figure 1. 45-year-old male diagnosed with follicular lymphoma involving bone marrow. FDG PET-CT (A; MIP) showed intensely increased FDG uptake at several vertebral bodies (arrows, B, C; Fused PET-CT images), multiple ribs (black arrowheads), pelvic bones (white arrows) and bilateral scapula (white arrowheads, D; CT axial). Patient underwent targeted biopsy of a PET/CT detected lesion (right sacrum), which confirmed bone marrow involvement (BMI), whereas routine iliac crest biopsy did not show BMI.



Supplemental Figure 2. Kaplan-Meier analysis (A: PFS, B: OS) for patients without evidence for BMI by PET. Color bands indicate 95% CI. There was no association between BMI by BMB alone and patient outcome (p = 0.44 and 0.46, respectively).

Supplemental Table 1. Clinical characteristics of patients upstaged to stage IV when additionally considering BMB findings

PET stage	Number of lymph node/ lesions	The longest diameter of largest involved node/ lesion (cm)	FLIPI score	Initial treatment regime	Progression -free survival (years)	Prognosis	Detected by BMI
Stage I							
Patient 1	1	3.6	Intermediate	R-CHOP	9.9	Alive	BMB
Patient 2	1	1.2	Intermediate	Rituximab	8.8	Alive	BMB
Patient 3	1	2.8	Low	Observation	4.7	Alive	BMB (< 5%)
Patient 4	None	Not available	Intermediate	Methotrexate	2.9	Alive	Flow cytometry
Stage II							
Patient 5	4	7.8	Intermediate	R-CHOP	5.7	Alive	Flow cytometry
Patient 6	6	2.4	Low	Rituximab	4.6	Alive	BMB (15%)

Supplemental Table 2. Role of PET for detecting BMI in FL. Summary of previous and current study findings.

Ref	N	**PET-positive criteria**	**CT criteria for BMI detection by PET**	**BMB and PET result (N)**	**Comments**	**Prognosis**
(24)	68	**Either** focal or diffuse	Not reported	BMB+/PET+, 16 BMB+/PET-, 0 BMB-/PET+,17 BMB-/PET-, 35	-Visual analysis: PPV 43% -Tested various SUV metrics (e.g. SUVmean > 2.7: sens 68%, PPV 100%)	-Median FU 46 mos -BM SUVmean > 2.7 associated with a lower treatment free probability
(25)	48 (Baseline PET)	**Either** focal or diffuse	Not specified	BMB+/PET+, 13 BMB+/PET-, 11 BMB-/PET+,20 BMB-/PET-, 4	-Visual analysis -PET sens 46%	Not reported
(20)	57	**Either** focal or diffuse	Exclude findings whose FDG uptake is explained by CT findings or clinical histology (e.g. GCFS)	BMB+/PET+, 16 BMB+/PET-, 8 BMB-/PET+,5 BMB-/PET-, 28	-Visual analysis Also included N=106 with other lymphoma entities -Most pts in whom PET failed to detect BMI were already in advanced stage	Not reported
(23)	41	**Either** focal or diffuse	"Bone involvement also assessed on concurrent contrast CT"	BMB+/PET+, 5 BMB+/PET-, 11 BMB-/PET+,2 BMB-/PET-, 23	-Small sample -CT criteria not entirely clear Tested various SUV metrics (e.g., SUVav*>2.0: sens 58%, spec 96%)	Not available
(26)	142	Not reported	Not reported	BMB+/PET+, 24 BMB+/PET-, 46 BMB-/PET+,10 BMB-/PET-, 62	-Visual analysis: PET sens 34.3%, PPV 70.6%	Not available
Current study	261	-Focal uptake (alone or in combination with diffuse) -Diffuse uptake *per se* NOT considered sufficient	Only considered focal uptake NOT explained by any concurrent CT abnormality *(such as benign bone lesion, fractures)*	BMB+/PET+, 46 BMB+/PET-, 35 BMB-/PET+,32 BMB-/PET-, 148	-Visual analysis	-Median FU 6.0 yrs -BMI+ by PET is an independent predictor of PFS and OS in multivariate analysis

[#] Only focal uptake pattern was considered positive at PET/CT, * Focally and diffuse uptake pattern were considered positive at PET/CT; BMB, bone marrow biopsy; NR, not reported; PPV, positive predictive value; NPV, negative predictive value.