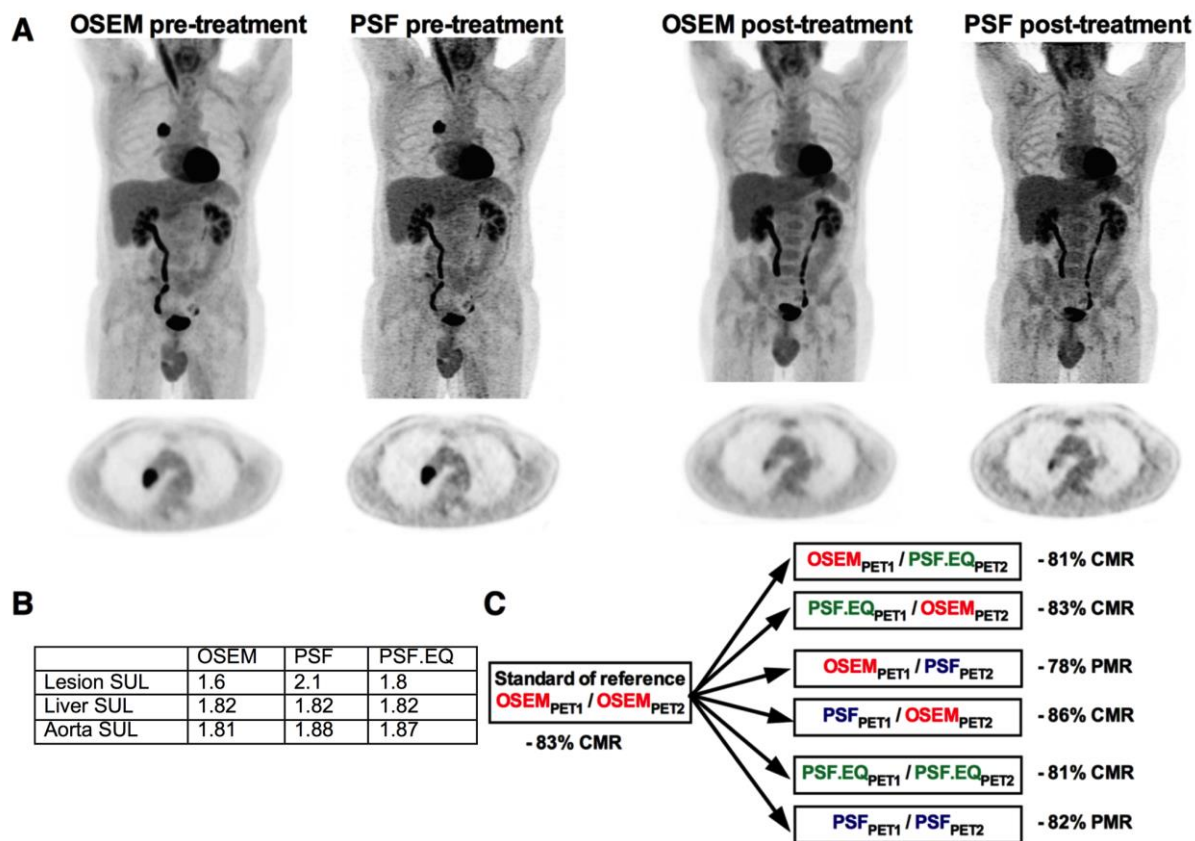


Supplemental Fig. 1



56-year-old male with non-small cell lung cancer treated by chemotherapy, classified as CMR according to the OSEM_{PET1}/OSEM_{PET2} standard of reference, while reconstruction inconsistency (OSEM_{PET1}/PSF_{PET2}, a scenario mimicking a system upgrade during a trial) led to a PMR classification. The use of the EQ.PET technology correctly classified the patient as CMR. A: MIP and transverse slices at the level of the liver metastasis for the OSEM and PSF reconstructions and for baseline and post-treatment scans ; B : Residual SUL in the lesion scan and background level in the liver and in the blood pool on post-treatment scan ; C : % change in SUL_{peak} and PERCIST classification according to the different scenarios. Note the discrepancy between scenarios involving reconstruction consistency but use of different reconstruction algorithms.

Supplemental Table 1.

All lesions

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	9	1	0	0
PMR	0	21	0	0
SMD	0	1	24	1
PMD	0	0	0	29

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	10	0	0	0
PMR	0	21	0	0
SMD	0	0	26	0
PMD	0	0	0	29

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	7	3	0	0
PMR	0	14	7	0
SMD	0	0	19	7
PMD	0	0	0	29

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	10	0	0	0
PMR	0	21	0	0
SMD	0	11	15	0
PMD	0	0	2	27

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	9	1	0	0
PMR	0	21	0	0
SMD	0	1	23	2
PMD	0	0	0	29

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	7	3	0	0
PMR	0	21	0	0
SMD	0	0	25	1
PMD	0	0	1	28

NSCLCC

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	6	1	0	0
PMR	0	10	0	0
SMD	0	1	13	0
PMD	0	0	0	20

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	7	0	0	0
PMR	0	10	0	0
SMD	0	0	14	0
PMD	0	0	0	20

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	5	2	0	0
PMR	0	5	5	0
SMD	0	0	12	2
PMD	0	0	0	20

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	7	0	0	0
PMR	0	10	0	0
SMD	0	0	7	7
PMD	0	0	2	18

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	6	1	0	0
PMR	0	10	0	0
SMD	0	1	12	1
PMD	0	0	0	20

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	5	2	0	0
PMR	0	10	0	0
SMD	0	0	14	0
PMD	0	0	1	19

Colorectal liver metastases

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	3	0	0	0
PMR	0	9	0	0
SMD	0	0	7	0
PMD	0	0	0	5

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	3	0	0	0
PMR	0	9	0	0
SMD	0	0	7	0
PMD	0	0	0	5

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	2	1	0	0
PMR	0	7	2	0
SMD	0	0	5	2
PMD	0	0	0	5

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	3	0	0	0
PMR	0	9	0	0
SMD	0	4	3	0
PMD	0	0	0	5

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	3	0	0	0
PMR	0	9	0	0
SMD	0	0	7	0
PMD	0	0	0	5

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	2	1	0	0
PMR	0	9	0	0
SMD	0	0	7	0
PMD	0	0	0	5

Melanoma

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	0	0	0	0
PMR	0	2	0	0
SMD	0	0	4	1
PMD	0	0	0	4

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	0	0	0	0
PMR	0	2	0	0
SMD	0	0	5	0
PMD	0	0	0	4

OSEM _{PET1} /OSEM _{PET2} versus OSEM _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	0	0	0	0
PMR	0	2	0	0
SMD	0	0	2	3
PMD	0	0	0	4

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /OSEM _{PET2}				
	CMR	PMR	SMD	PMD
CMR	0	0	0	0
PMR	0	2	0	0
SMD	0	0	5	0
PMD	0	0	0	4

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF.EQ _{PET1} /PSF±TOF.EQ _{PET2}				
	CMR	PMR	SMD	PMD
CMR	0	0	0	0
PMR	0	2	0	0
SMD	0	0	4	1
PMD	0	0	0	4

OSEM _{PET1} /OSEM _{PET2} versus PSF±TOF _{PET1} /PSF±TOF _{PET2}				
	CMR	PMR	SMD	PMD
CMR	0	0	0	0
PMR	0	2	0	0
SMD	0	0	4	1
PMD	0	0	0	4