Figure S1

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Axial, Coronal, and sagittal FDG-PET-CT images through the center of the CTV for all 12 patients

Patient 1	Axial 7 6 5 4 3 2 1 0	Coronal	Sagittal
Patient 2	Axial 7 6 5 4 3 2 1 0	Coronal	Sagittal
Patient 3	Axial 20 17 15 12 10 7 5 2 0	Coronal	Sagittal
Patient 4	Axial	Coronal	Sagittal

Patient 5	Axial 20 17 15 12 10 7 5 2 0	Coronal	Sagittal
Patient 6	Axial 26 22 19 15 11 7 4 0	Coronal	Sagittal
Patient 7	Axial 13 11 10 8 7 5 3 2 0	Coronal	Sagittal
Patient 8	Axial 16 14 12 10 8 6 4 2 0	Coronal	Sagittal

Patient 9	Axial	Coronal	Sagittal
Patient 10	Axial 19 16 14 12 9 7 5 2 0	Coronal	Sagittal
Patient 11	Axial 13 11 10 8 6 5 3 2 0	Coronal	Sagittal
Patient 12	Axial 7 6 5 4 3 2 1 0	Coronal	Sagittal

Figure S2

TCP values of the dose-painting by numbers plans (DPBN), non-selective dose escalation plans (NSDE) and the 60 Gy reference dose distributions for all 12 patients as function of the theoretical gain of DPBN. The different rows represent steep, moderate and shallow TCP relations (expressed by the differences between TD80 and TD50, ΔTD_{80-50}) and the columns, sensitive, moderate and resistant tumors (expressed by TD50). The thick black lines represent the averages over the 12 patients. For the most radio-resistant tumors (TD50 = 100 Gy) the TCP of the reference dose distribution was around 0, though still substantial for NSDE and DPBN

