Supplementary material for Farr et al., Loss of lung function after chemo-radiotherapy for NSCLC measured by perfusion SPECT/CT: Correlation with radiation dose and clinical morbidity, Acta Oncol, 2015; 54:1350–1354.

Appendix

The regional perfusion reduction (RPR) at each dose bin was calculated as:

$$\text{RPR} = \left(1 - \frac{\text{post}_x}{\text{pre}_x}\right) \times 100$$

in percent, where pre_x and post_x are SPECT total amount of counts in $\text{dose } x$ bin on the baseline and 3-months follow-up SPECT/CT scans, respectively.

Individual patient's perfusion changes were combined using weighted average technique adjusting for volume irradiated at each dose level:

$$\text{Composite RPR (dose } x) = \frac{\sum \text{RPR} \times W}{\sum W}$$

in percent, where composite RPR at each dose bin x is the population's percent reduction in perfusion, RPR is the patient's individual percentage reduction in perfusion, and W is percent perfused lung irradiated at the particular dose level x .

Supplementary Figure 1. SPECT/CT scan with perfusion (top) combined with CT (bottom). Dose bins contours (in colour) corresponding to 0–5, 6–20, 21–40, 41–60 and > 60 Gy are transferred from treatment planning CT. SPECT counts in each dose bin before and after RT was calculated.