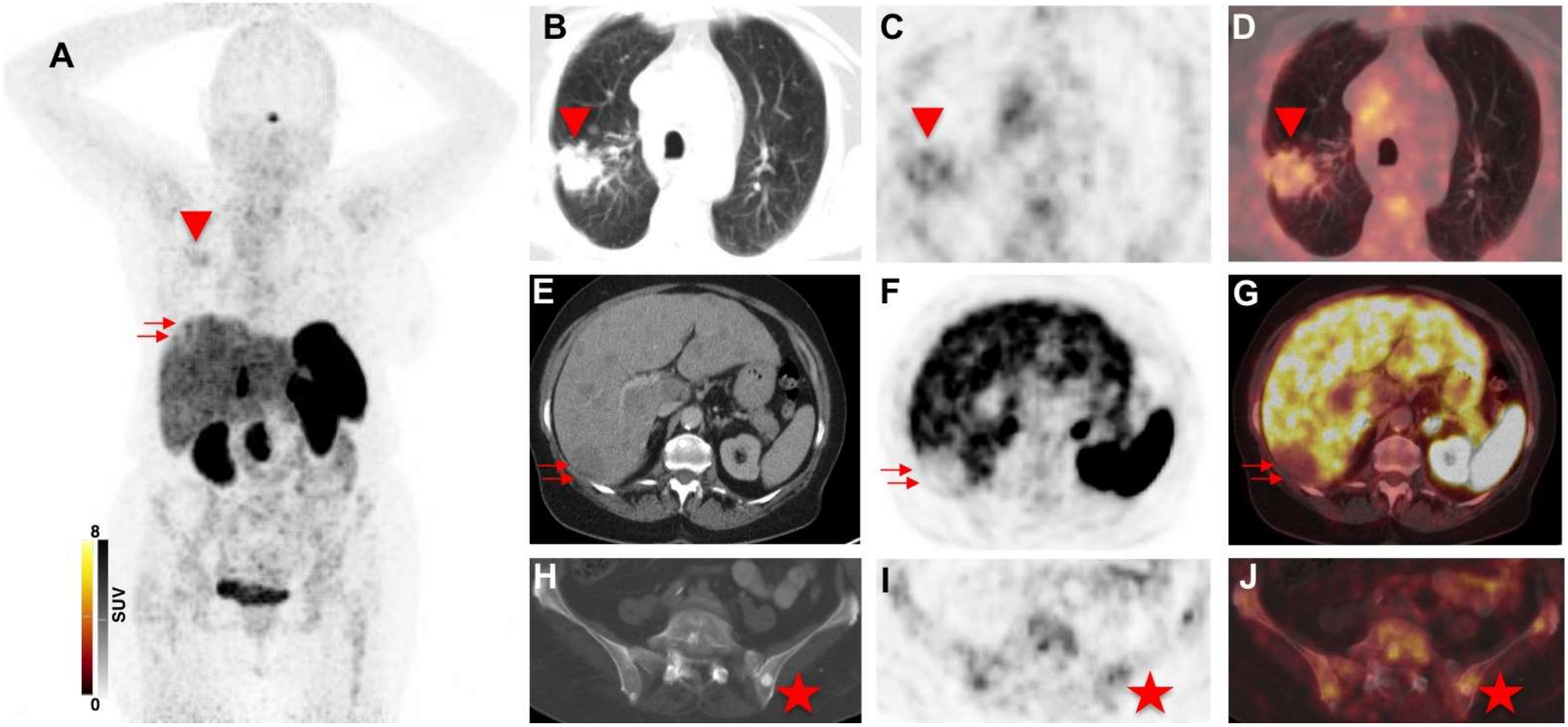
Supplemental Figure 1. Example of different SSTR-RADS classifications of experienced (ER) vs. inexperienced readers (IR). Images from a 76-year-old female patient undergoing restaging for a neuroendocrine tumor (NET) of the lung. (A) ^{68}Ga-DOTATOC whole body maximum intensity projection demonstrates faint radiotracer uptake in the primary (red arrowhead) and a photopenic area in the liver (double thin red arrows). (B) axial CT, (C) axial ^{68}Ga-DOTATOC PET and (D) axial ^{68}Ga-DOTATOC PET/CT demonstrate mild radiotracer uptake in the primary tumor. An IR rated this finding SSTR-RADS-3A, while an ER classified it SSTR-RADS-3D (i.e. high likelihood for malignant lesion, but negative on SSTR-PET). SSTR-RADS-3A describes low-level uptake in soft-tissue sites typical for NET metastases with normal findings on CT. However, the mild uptake in the space-occupying lung lesion renders a dedifferentiated NET highly likely. (E) axial CT, (F) axial ^{68}Ga-DOTATOC PET and (G) axial ^{68}Ga-DOTATOC PET/CT reveal a photopenic liver lesion (double thin red arrows). Similar findings were derived in a bone lesion in the left iliac bone with (H) axial CT representing a lesion highly suggestive of being malignant, with lack of uptake in (I) axial ^{68}Ga-DOTATOC PET and (J) axial ^{68}Ga-DOTATOC PET/CT (red star). Liver and bone lesions were rated SSTR-RADS-3D by all readers, with follow-up ^{18}F-FDG PET/CT demonstrating increased glucose metabolism in the SSTR-negative hepatic lesions. None of the readers recommended PRRT.



Supplemental Figure 1.