**Presenter:** Ronnie Sebro  

**Title of Abstract:** Value of true whole-body FDG-PET/CT scanning protocol in oncology and optimization of its use based on primary malignancy.  

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**Modality:** PET  

**Organ System:** Multi  

**Purpose:** We hypothesize that true-WB FOV studies may be most effective for staging and surveillance for some, but not all primary malignancies.  

**Methods Used:** True-WB FDG-PET/CT studies performed for staging and restaging of pathology-proven oncology patients between November 2009 and September 2011 at the San Francisco VA Medical Center were retrospectively reviewed. Non-contrast CT imaging was used for attenuation correction and anatomic localization. Lesions were considered suspicious if: standardized uptake value (SUVmax) > 2.5, not part of normal biodistribution, and not a normal variant. All suspicious lesions identified from the vertex to base of skull (outside WB-A), and from the level of the lesser trochanter of the femurs to the toes (outside WB-B) were documented.  

**Results of Abstract:** 556 patients met the inclusion criteria (804 examinations). 137 patients had at least one follow-up examination. 48/556 (8.6%) of patients had findings outside the limited FOVs. Disease extended into the supratentorial brain/calvarium in 26 patients (4.7%), and below the lesser trochanter of the femurs in 38 patients (6.8%). The most common primary malignancies with disease extending beyond the limited FOVs were: melanoma, multiple myeloma, lymphoma, and stage IV renal cell, lung cancer, bladder, gallbladder and colorectal cancer. Six patients had PET/CTs that demonstrated new or recurrent brain lesions, which resulted in MRI imaging, radiation or change in management to palliative care. True-WB PET/CT changed management in only 6/556 patients (1.1 %).Lesions found beyond WB-A and WB-B did not change the clinical staging/restaging of all but one patient, who was upstaged from stage IIIB to stage IV.  

**Discussion:** True-WB imaging in FDG-PET/CT oncology studies detects additional sites of disease in 8.6 % of the patients (48/556), providing more accurate information of disease burden and symptom management. Nevertheless, these findings didn’t change the staging/re  

**Scientific and/or Clinical Significance?** To save imaging time, true-WB may be limited to evaluation of multiple myeloma, lymphoma, melanoma, sarcomas, stage IV malignancies and when the primary lesion is outside the typical field of view.  

**Relationship to existing work** This research supports previously published papers that show true whole body PET/CT detects additional disease, however we find that the additionally detected sites of disease very rarely change clinical management.