Supplemental Table 1: Comparison of response assessment criteria

Criteria	Publication	Modality	Characteristics
WHO (World Health Organization)	WHO, 1979	Manual	• Originally relied on physical measurements made in two dimensions using calipers • Four response classifications (complete, partial, none, progressive) based on changes in tumor size
EORTC (European Organisation for Research and Treatment of Cancer)	Young et al, 1999	PET	• Among the first to utilize metabolic data from ^{18}F-FDG PET for response assessment • Four response classifications (complete, partial, stable, progressive) based on changes in tumor size and metabolic activity
RECIST (Response Criteria in Solid Tumors)	Therasse et al, 2000	CT	• Relied on unidimensional measurements made using CT imaging • Four response classifications (complete, partial, stable, progressive) based on changes in tumor size
PERCIST (PET Response Criteria in Solid Tumors)	Wahl et al, 2009	PET	• Utilized metabolic data from ^{18}F-FDG PET, but with different thresholds from the EORTC criteria • Four response classifications (complete, partial, stable, progressive) based on changes in metabolic activity
IWC (International Workshop Criteria)	Cheson et al, 1999	CT	• Dependent upon measurement made using CT imaging • Five response classifications (complete, unconfirmed complete, partial, stable, progressive) based on changes in tumor size and clinical signs of disease
IWC+PET (International Workshop Criteria + PET)	Juweid et al, 2005	PET/CT	• Incorporated functional PET data into the anatomical CT-based guidelines of IWC • Five response classifications (complete, unconfirmed complete, partial, stable, progressive) based on changes in tumor size and metabolic activity
IHP (International Harmonization Protocol)	Cheson et al, 2007	PET/CT	• Employs information from both PET and CT imaging • Four response classifications (complete, partial, stable, progressive) based on changes in tumor size and metabolic activity
Deauville	Meignan et al, 2009	PET	• Compares metabolism of tumor to that of background and reference organs on PET • Five-point scale based on relative level of metabolic activity in tumor
Lugano	Cheson et al, 2014	PET/CT or CT	• Provides distinct criteria utilizing PET/CT and CT for use in different settings • PET/CT criteria modifies the 5-point scale of the D5PS • Four response classification (complete, partial, stable, progressive) based on changes in tumor size and metabolic activity

Supplemental Table 2: Tumor response classifications of WHO criteria (1979)

Classification	**Criteria**
Complete response (CR)	Disappearance of tumor for over four weeks
Partial response (PR)	Shrinkage of tumor by at least 50% over four weeks
No response (NR)	Less than 50% reduction and 25% increase in tumor size
Progressive disease (PD)	Growth of tumor by at least 25%

Supplemental Table 3: Tumor response classifications of EORTC criteria (1999)

Classification	**Criteria**
Complete metabolic response (CMR)	Reduction in ^{18}F-FDG uptake in tumor volume to the level of background tissue
Partial metabolic response (PMR)	Reduction of at least 15%-25% in ^{18}F-FDG uptake in tumor volume after one cycle of chemotherapy
Stable metabolic disease (SMD)	Less than 15% reduction and 25% increase in ^{18}F-FDG uptake in tumor volume; less than 20% increase in the longest dimension of the tumor
Progressive metabolic disease (PMD)	Increase of at least 25% in ^{18}F-FDG uptake in tumor volume; greater than 20% increase in the longest dimension of the tumor

Supplemental Table 4: Tumor response classifications of the IWC+PET criteria (2005)

Classification	**Criteria**
Complete response (CR)	A CR by IWC with a completely negative PET scan
Unconfirmed complete response (CRu)	A CRu with a completely negative PET scan
Partial response (PR)	A CR, CRu, or PR by IWC with a positive PET finding at a previously involved site or a CR, CRu, PR, or SD by IWC with a positive PET finding at a previously uninvolved site
Stable disease (SD)	SD by IWC with a positive PET finding at a previously involved site
Progressive disease (PD)	PD by IWC with a positive PET finding corresponding to a CT abnormality or a PD by IWC with a CT abnormality larger than 1.5 cm