MD Anderson Cancer Network™

Diagnostic Imaging Metric Definitions

Operational Metrics

We will request that each site specifies whether these metrics are cancer only or if it encompasses all system data (cancer + non-cancer).

Metric	Data Input(s)	Definition
Rate of iodinated contrast reactions	1. Number of reactions to iodinated contrast 2. Total Number of CT scans performed using iodonated contrast	Number of reactions to iodinated contrast divided by total number of CT scans performed using iodinated contrast
Rate of gadolinium contrast reactions	1. Number of reactions of gadolinium 2. Total number of MRI scans performed using gadolinium	Number of reactions of gadolinium divided by total number of MRI scans performed using gadolinium
Rate of contrast extravasation	1. Number of extravasation to iodinated contrast 2. Total Number of CT scans performed using iodonated contrast 3. Number of extravasation to gadolinium contrast 4. Total Number of MRI scans performed using gadolinium contrast	Number of extravasation to iodinated contrast plus the number of extravasation to gadolinium contrast. Divide this by sum of number of CT scans performed using iodonated contrast plus total Number of MRI scans performed using gadolinium contrast
Rate of safety events reported in DI and IR.	1. Number of reported events from DI and IR 2. Total number of all radiology exams	Number of reported events from DI and IR divided by total number of all radiology exams

Breast Metrics

Metric	Data Input(s)	Definition
Recall rate	1. Number of screening mammograms given an assessment of “Incomplete: Need additional imaging evaluation.” 2. Total screening mammograms	The recall rate, is calculated as the percentage of screening mammograms given an assessment of “Incomplete: Need additional imaging evaluation.”

Positive predictive value	1. Number of positive mammograms (those with an assessment of either "Suspicious" or "Highly Suggestive of Malignancy"10) 2. Number of individuals diagnosed with breast cancer within 1 year of the date of the mammographic examination.	Percent of patients with positive mammograms (those with an assessment of either "Suspicious" or "Highly Suggestive of Malignancy") who are diagnosed with breast cancer within 1 year of the date of the mammographic examination. [1]
Cancer Detection Rate	1. Number of individuals diagnosed with breast cancer within 1 year of the date of the mammographic examination. 2. Total number of screening mammograms.	Cancer detected per all screening mammograms, expressed as a ratio per 1,000 patients.

Radiologist Metrics

We will request that each site specifies whether these metrics are cancer only or if it encompasses all system data (cancer + non-cancer).

Metric	Data Input(s)	Definition
Percent of subspecialty reads - Breast	1. Number of mammograms read by a breast radiologist 2. Total number of mammograms	Number of mammograms read by a breast radiologist divided by total number of mammograms.
Percent of subspecialty reads - Neuro	1. Number of neuro cross-sectional studies read by a neuro-radiologist 2. Total number of neuro cross-sectional studies	Number of neuro cross-sectional studies read by a neuro-radiologist divided by total number of neuro cross-sectional studies.
Percent of subspecialty reads - Body	1. Number of body cross-sectional studies read by a body radiologist 2. Total number of body cross-sectional studies	Number of body cross-sectional studies read by a body radiologist divided by total number of body cross-sectional studies.

[1] It can be noted that the PPV calculation requirement is essentially equivalent to a CDR calculation for diagnostic mammograms.