QIW XX Session 3: Opportunities To Advance CT Lung Measurements Using CT Calibration & Artificial Intelligence Panel Discussion

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Lung nodule volume change measurements have better sensitivity and specificity for classifying malignant from benign lung nodules when applied to solid lung nodules from high-quality CT scans.
Why is quantitative imaging of small lung nodules not widely used in clinical practice?

- CT departments generally do not have QA system in place to assess the performance of the software (the reproducibility/quality of volumetric measurements)
- No published data to show volumetrics result in stage shift or provide mortality reduction benefit over diameter measurements
Opportunity: Prospective Randomized Trial To Provide Evidence that AI Approach Improves Clinical Outcome

- Example

If AI recommends an earlier imaging study or biopsy for a more aggressive tumor, this benefit cannot be observed in retrospective study because the patient did not have a visit at this earlier time point, and it is unknown whether the patient already had lung cancer at that time.