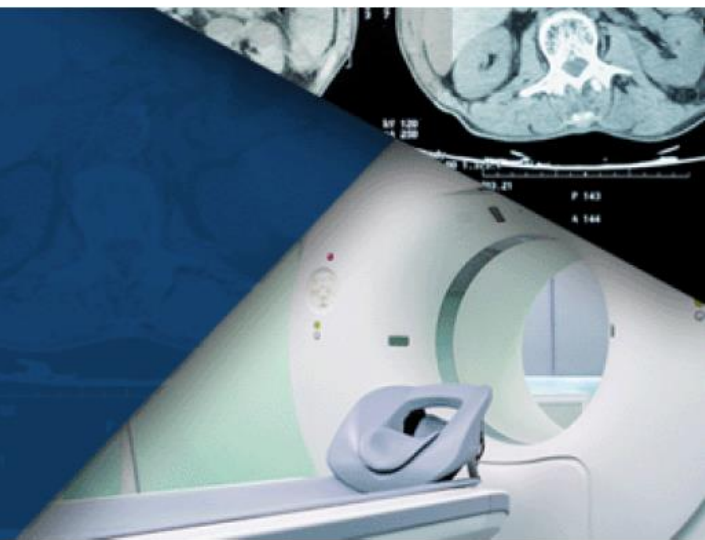


QUANTITATIVE IMAGING WORKSHOP XX:

*Annual chest CT screening—visualizing the
full impact of 20-plus years of smoking*

November 2-3, 2023 | Virtual



CLINICAL BREAKOUT SESSION

**Thoracic CT Results: How to Simply Communicate
Voluminous Amounts of Information**

QIW XX Clinical Breakout: LCS Status

Increasing confidence with LCS motivates expansion of eligibility with ACS new guidelines: Accrual moves from 14 M to 19 M

Implications include workforce capacity challenges (radiologists, CT technicians, nurse navigation, primary care, software developers, informaticians, sub specialists support)

Need for Capacity Planning to Facilitate National Implementation

Need for Communication Plan to Prepare Public to this Important New Opportunity

Lessons from CAC tool development

Good news: CAC results actionable

Bad news: technical parameters not optimized

App development developed to facilitate cardiology navigation with screening information

Progress with Bone density evaluation

Progress with cardiac chamber volume AI determination to predict AF

Validation through with PCORI supported pragmatic trials in screening populations

Adding CAC to LCS: ROBINSCA Trial

Screening for a high cardiovascular disease (CVD) risk followed by preventive treatment can potentially reduce coronary heart disease-related morbidity and mortality.

ROBINSCA (Risk Or Benefit IN Screening for CArdiovascular disease) is a population-based randomized controlled screening trial that investigates the effectiveness of CVD screening in asymptomatic participants using the Systematic COronary Risk Evaluation (SCORE) model or coronary artery calcium (CAC) scoring.

This study describes the distributions in risk and treatment in the ROBINSCA trial relative to mortality outcomes

Seven year follow-up complete and under analysis for publication

Lessons from Pulmonary tool development

- As LCS eligibility expands and the array of tobacco-related diseases grows, how can healthcare systems, physicians and radiologists effectively leverage the wealth of available information with AI?
 - Lee Gazourian from Lahey [Imbio IQ-UIP]
 - Variation in how disease is being reported; Variations in the CT scan itself
 - Demonstrate how technology can help standardize care, a tool to identify lists of patients and get them to the right specialist (workflow, a clinical program and a management system)

Follow up from QIW XIX: Refining AI taxonomy for Reimbursement of New CT Screening Services

- How can we systematize the rational management of lung cancer screening across to tobacco screening, creating a clear process to get into the workflow that supports these products and sustains innovation?
 - Richard Frank, CPT editorial panel
 - Adding an appendix to the CPT codes which provides a framework for AI taxonomy to build CPT codes
 - Digital medicine coding committee to work for the rigorous and consistent application of taxonomic rating of products in terms of what codes are generated.
 - Tab 57 Augmentative output = output from the software/device is useful to the physician in making care pathway decision that is fully validated to lead to an improved outcome
- Plug and Play concept for suite of software
 - Can evidence development and performance data be developed in a standardized way to populated a suite of screening services software tools (i.e. Smokers'panel: osteoporosis, CAC, ILD, emphysema etc.) extracted from an annual CT scan
 - Can such efforts be implemented in a federated consortium of tool developers?
 - Is there a role for FDA device qualification process to help define a feasible path forward?

Brainstorming on Incentives for Screening-management tool Development with Population Health care

- Rewards and penalties:
 - Follow-up is not widely use as a quality metrics
 - Using AI technology to identify (Medicare/ACO) patients who require specialist care and getting them there can improve overall patient health. This approach adds value to the healthcare system, making it advantageous for institutions to adopt this AI technology
- Nurse navigation process
 - AI system helps identify the patients -> Nurse navigator helps patients navigate through the complex healthcare system for follow-up
 - Acts as a buffer, elevating the level of service as mandated through the evolution of more comprehensive screening.
 - Triage software for workflow prioritization; Code 92229 for diabetic retinopathy -> Binary output (repeat scan or refer to interventionalist)
 - Demonstrate to hospitals that navigators contribute to improved patient care and better outcomes, rather than viewing them as costs.

Opportunities to Evaluate Coronary Targets on Screening Thoracic CT

- **Can visualize coronary calcium, cardiac chamber size, aortic /pulmonary artery size, cardiac muscle volume, mediastinal and epicardial fat**
- **Technical factors can influence image findings (gaiting, heart rate control, etc)**
- **What information should be reported back to screening participants**

Validation and Trial Strategies for Use of Screening CT Images to Improve Health Outcomes

Process for reimbursement of new imaging /new clinical services (DRGs, CPT Codes -Categories)

Trials to establish imaging benefit

Role of PCORI

Opportunity for Repurposing Trial Data/Images to begin a national thoracic CT research resource

Need to meet with PCORI leadership?

Importance of Metrics in Advancing Screening Uptake

- Star Metrics as a choice in the Marketplace
- Impact of Star Measures on Screening Uptake
- Feedback on Milliman yield pilot
- Strategy with Star claim– importance of Yield metric
- Other Pathways –ACOs Medical Homes
- Issues with Shared Decision Making

Cost Sharing and Preventive Services

Source of inequity which constitutes a barrier to preventive services for many

Appeals and other mechanisms of appeal do exist

Nuisance vs bigger enough to solve?

Standardization of appeals process?

Actionable items

- Convene vendors to discuss capacity challenges with 19 M screening candidates to discuss sharing parameters or data structures
- Highlight emerging payment strategies
- Address bottlenecks (i.e. Consensus Volumetric tools are not routinely integrated in to US workflow and there is a need for standardized approaches to volumetric analysis)
- Urgent need for large developmental and validation databases
- Incentive strategy for preclinical cooperation (IFP model– no contribution, no play)