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 RUSH UNIVERSITY
MEDICAL CENTER

IT'S HOW MEDICINE

SHOULD BE





25 Years of progress through prevention

AND A SPECIAL THANKS ALSO GOES TO THE

Carolyn R. “Bo” Aldigé
Prevent Cancer Foundation

STEERING COMMITTEE

Chair:

- James L Mulshine, *Rush University*

Members:

- Laurie Fenton Ambrose
Lung Cancer Alliance
- Ricardo S. Avila
Accumetra, Inc
- Daniel C. Sullivan
Duke University

- Elisha Malanga
COPD Foundation
- Raul San Jose Estepar
Brigham and Women’s Hospital
- David F. Yankelevitz
Mount Sinai Medical Center

Measuring Progress

14 Workshops since 2004
1 Interim COPD Meeting



- **Ramp up to quality imaging challenging but moving slowly forward**
- **Reimbursement by CMS reduced, raising concerns with access and disparities**
- **Concerns with medical radiation harms receding but “false positivity” becoming more prominent**
- **Published volumetric approach associated with false positivity around 3%**
- **LDCT image quality inadequate in 40% of VA screening pilot cases**

- **Screening is a demanding complex management process**
- **Screening makes people think about their health in ways that are challenging**
- **LungRADS which is a good intermediate solution involves crude manual techniques that do not provide precise characterization of clinical aggressiveness**
- **Access to facile volume measurement tools limited and labor intensive**
- **Integration with screen-optimized smoking cessation not fully baked**

Addressing QI Quality

- **QIBA Small Nodule Profile undergoing internal review prior to launch**
- **Evolution from tape to automated, cloud-based conformance testing for imaging process using precision phantom**
- **Crowd sourcing plans to test this revised approach to validate national and international feasibility**
- **Exploration of scaling conformance to other tobacco-induced diseases (COPD)**
- **Need financial model to support ongoing evolution of care**

Developmental Implications

- **Need to define magnitude of benefit (clinical as well as cost) to support reimbursement for providing services**
- **Need to define economical and workflow-friendly solutions to allow for implementation especially in existing HR systems**
- **Need to overcome inertia of a skeptical medical community**

Workshop XIV Take Aways

- **Continued imaging evolution: 1024 X1024 matrix size, separate data files for visualization and quantitation**
- **Strategic plan to resource evolution of QI to drive tobacco-related disease care**
- **Align with FDA on elucidation of feasible continuous quality measures for QI-based clinical decision support**
- **Formalize planning on scalable cloud infrastructure to facilitate QI dissemination and CPI**

Where Can We Go?

- **Integration of Cancer/COPD screening at both a clinical and technical level**
- **Enhancing biofeedback on tobacco cessation with integrated lung cancer/COPD (CAD) focus**
- **Alignment with emerging FDA regulatory approaches**

Moving to the Cloud

- **Work with QIBA, cloud-centered services**
- **Profile Conformance Testing to validate appropriate CT performance to reliably measure pulmonary nodule volume change**
- **Serve as a central, neutral resource to enable nodule measurement precision**
- **Data aggregated on the cloud services as a data quality resource to monitor delivered CT performance**

- **Our goal is for better, cheaper, faster implementation of cloud-enabled LDCT screening of the three leading causes of tobacco-related premature death**
- **How do we ensure that the populations that are at the highest risk have access to these services**
- **How do we make sure these services are supported so that continued rapid evolution and dissemination are ensured?**