QIBA NM Coordinating Committee Update

Annual QIBA Meeting

Wednesday, April 13, 2016
Modality Committee Structure

- **NM Coordinating Committee**
  - Richard Wahl, MD; Eric Perlman, MD; P. David Mozley, MD

- **FDG-PET/CT Biomarker Committee**
  - Rathan Subramaniam, MD, PhD, MPH; John Sunderland, PhD; Scott Wollenweber, PhD

- **Profile Conformance Task Force**
  - Timothy Turkington, PhD; Ronald Boellaard, PhD; Martin Lodge, PhD

- **PET-Amyloid Biomarker Committee**
  - Eric Perlman, MD; Satoshi Minoshima, MD, PhD; Anne Smith, PhD

- **SPECT Biomarker Committee**
  - Yuni Dewaraja, PhD; P. David Mozley, MD; John Seibyl, MD

- **Clinical & Literature Review Task Force**, John Seibyl, MD
- **Image Acquisition & Processing Task Force**, Yuni Dewaraja, PhD
- **Phantoms DRO Task Force**, John Dickson, PhD; Brian Zimmerman, PhD
- **Quantitative & Image Analysis Task Force**, Robert Miyaoka, PhD; John Seibyl, MD
Current Status: Profile Development

- **completed:**
  - FDG PET/CT in Oncology, Version 1: January 11, 2013

- **in progress:**
  - FDG PET/CT in oncology, Version 2: ETA 4Q2016 (which will update to new Template)
  - FDG PET/CT Profile manuscript currently in draft
  - Amyloid PET in Alzheimer’s disease
    - launch public comment by end of 2Q2016
  - SPECT
    - Parkinson’s: >90% complete; 95% complete by end of 2Q2016; ETA 3Q2016
    - Technetium-99m profiles for whole body oncology by 3Q2016; pharma sponsored ground work; ETA 4Q2016
Current Status: Feasibility / Field Testing & Conformance

- FDG PET/CT in oncology
  - completed phase 1 & 2 feasibility groundwork projects
  - creation of a checklist to facilitate the process of site conformance
  - Profile v2.0 will incorporate:
    - data from imaging site feasibility testing projects
    - data from manufacturers (part of feasibility testing)
    - site checklist
  - develop strategy / roadmap toward Technical Confirmation
- amyloid PET
  - initiate discussions for feasibility testing as Profile nears Public Review phase
Key Highlights for Discussion

- **anticipated problems or challenges:**
  - **FDG PET/CT:**
    - heterogeneous practices & SOPs
  - **amyloid:**
    - qualitative package label
    - three FDA approved radiotracer products
  - **SPECT:**
    - diverse stakeholder interest, e.g., neuro v. oncology v. radiotherapy

- **unanticipated problems or challenges:**
  - **ALL**
    - finding timeslots that work for 3 regions: Japan (GMT +7), EU (GMT +/- 1) & USA (GMT -5 to -9)
    - Profile editing activity delays (process vs. scientific)
  - **amyloid** –
    - limited literature on quantitative effects of different head motion
    - limited literature on SUVR’s based on different tracer uptake times
Key Highlights for Discussion

• *Process lessons learned for cross-modality consideration?*
  • *Copy and paste freely from prior Profile work groups, so that most of the volunteer workforce can react instead of act*

• *Opportunities for cross-organization engagement?*
  • *Combining Amyloid PET & CT hippocampal volumetry*
  • *SPECT & CT volumetry for partial volume corrections*
## Listing of “Round 5” Funded Projects

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<thead>
<tr>
<th>YR</th>
<th>Code</th>
<th>Committee</th>
<th>NM Projects</th>
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<tbody>
<tr>
<td>2015-A</td>
<td>Amyloid PET</td>
<td>Analyses to Support Amyloid Imaging Profile Development</td>
<td>Matthews</td>
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<tr>
<td>2015-B</td>
<td>FDG-PET/CT</td>
<td>Biologic and Reader Repeatability of FDG and CT Volumetric Parameters (ACRIN 6678 &amp; MERCK)</td>
<td>Subramaniam</td>
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<tr>
<td>2015-E</td>
<td>Amyloid PET</td>
<td>Amyloid Brain PET Test-Retest Meta-analysis</td>
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<td>2015-I</td>
<td>FDG-PET/CT</td>
<td>A PET-Metabolic Tumor-Volume-Digital Reference Object (PET-MTV-DRO)</td>
<td>Kinahan</td>
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<tr>
<td>2015-J</td>
<td>FDG-PET/CT</td>
<td>A Procedure to Facilitate Greater Standardization of PET Spatial Resolution</td>
<td>Lodge</td>
<td></td>
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Example Results of Funded Projects

• Project and slide to be presented just in time

Please choose 1-2 groundwork projects from each active BC / TF, and provide representative results to highlight the groundwork activities and their contributions to Profile and/or conformance development activities.