Workgroup Updates

February 24, 2021

PIcc Alliance

February Steering Committee Meeting

TRUTHING

- **Pilot study complete**. Starting analysis. Looking for additional statisticians to help create a statistical analysis plan and size the pivotal study.
- **Updated training nearly complete**. Next, we will be creating a test with feedback and a proficiency test. Then we will establish an online CME opportunity that will create the credential for pivotal study participation. Happy to have a committee to provide feedback.
- **HTT manuscript accepted with revisions**.
- **Received notification on internal funding:** FDA's Office of Women's Health will support a research assistant and moderate incidentals for slide sourcing and in-person data collection events.
- **Submitted joint proposal to BWF's Innovation in Regulatory Science Award** with Emory University to support slide sourcing and WSI platform development.
- We have two U.S. sites pursuing **research collaboration agreements** (RCA) for slide sourcing. We have two sites outside the U.S. interested, with discussions in progress. We have a template research plan for all RCAs. We'd like to find one more U.S. site that can provide slides.
- **eeDAP system undergoing hardware upgrades** with additional software upgrades soon. Projected plan is to collect eeDAP-based annotations (via events or equipment and material loans). We are looking for sites to host these events.

PRE-ANALYTICS

- **Goal**: To educate, promote and identify pathways for regulatory clearance of innovation that is based on high quality pathology images of standardized tissue samples.
- **Whitepaper**:
  - What we do not want: Whitepaper for labs on improving pre-analytics variables. There is a lot of established research and resources out there today – we do not need another. A lab specific guideline does not support the mission of PIcc to focus on the regulatory science perspective.
  - What we want: Whitepaper that can support regulatory submissions and regulatory reviewers that enables standardization of tissue pathology data or AI/ML algorithms for companion diagnostic submissions, Software as a Medical Device (SaaMD), Medical devices, etc?
- **Leadership Team Expansion**:
  - A collaborative community can bring together stakeholders to achieve common outcomes, solve shared challenges, and leverage collective opportunities.
  - We need more stakeholders.
  - The current team, Amanda Lowe and Matt Leavitt, need additional members who are interested in stepping up to provide suggestions and leadership on execution of the workgroup plan and ideas.
- **Excellent resource**: Roche/APPIA hosted "Optimize Patient Outcomes by Improving Pre-Analytics" on BrightTalk, presented by Dr. David Hicks, Prof & Dir of IHC-ISH Laboratory & Breast Subspecialty Service, University of Rochester Medical Center.

TRAINEES

- **Why join?:** We focus on providing additional input and education on topics that are underrepresented in formal trainee education (but are assumed to be of paramount importance in your future leadership role).
  - **Requirements**: You have to be currently in a
    - Graduate school program
    - Postgraduate education (e.g. post-doctoral fellowship program)
    - Pathology residency and/or fellowship programs
  - **Focus on three practical aspects:**
    - Technical projects
    - Working courses
    - Interactive seminars
  - We offer **networking among trainees** that share similar interests:
    - Access to an unparalleled network of experts
    - Opportunities to collaborate with your peers and future colleagues
    - Career advice with concrete relevance for daily activities
- Initial Topics of Interest:
  - Running your own lab (research or clinical)
  - Assessing the current state of regulatory education in the USA
  - IRB & clinicaltrials.gov
  - Grant Writing

PAYOR

- Paper was accepted and published:
  - Invited for podcast
  - Speaking at Japanese Conference for DP
- **Need to regroup** for programming identified next steps. Define **key endpoints and outcomes**: outline the key outcomes relevant to demonstration of the value-add of the technology.
  a. Evaluate improvement in response to therapy or delay in disease progression are useful.
  b. Consider the conduct benefit-risk assessments and development of cost-effectiveness data that can impact to relevant stakeholders including the hospital system and commercial payers.
- **Identify limitations of the current care paradigm**: create a foundational understanding of the limitations of the current care paradigm so that the unique benefits of the technology can be highlighted.
  a. A retrospective review of existing care decision-making and treatment patterns via chart review or claims analysis.
  b. These evaluations should include both community and academic settings given that the care paradigm can vary considerably in different settings.
- **Utilize new reimbursement codes**: With a backdrop that current codes do not account for the full cost/value of digital pathology technologies.
  a. Pursue novel specific CPT codes, leveraging the new PLA coding system which allows for creation of codes specific to particular offerings/applications.
- **Long-term efforts:**
  a. Build support for value-based payments: the evidence needed to support reimbursement in a value-based system will be different, requiring a move from viewing digital pathology as a reduction in cost to a source of value.
  b. Define Clinical Utility of Digital Pathology Intervention: this can be achieved through an observational study which compares the selected endpoints from a program using the digital pathology technology to one without.

ML/Continuous Learning

- **FDA Action Plan**: In comments on the discussion paper, stakeholders provided strong general support for the idea and importance of Good Machine Learning Practice (GMLP), and there was a call for FDA to encourage harmonization of the development of GMLP through consensus standards efforts and other community initiatives.
- FDA agreed in the Action Plan that it should support the development of GMLP to evaluate and improve machine learning algorithms, which the agency said will be pursued in close collaboration with FDA's Medical Device Cybersecurity Program, Picc
- Working group identified earlier:
  - **Need**: A better understanding of how to verify and validate continuous learning algorithms, currently none are approved by FDA.
  - **Problem**: There is currently too much uncertainty around the least burdensome approach for verification and validation as well as testing for continuous learning algorithms.
  - **Project Focus**: initial input from stakeholders in this group, on general principles for verification and validation testing for increased efficiency and access
- Discussion today:
  - FDA action Plan Has been removed from the website?
  - Await the 510(k) exempt notice before executing above?
  - Identify short term next steps