eCOA: Continuing to Get Better Together

Tenth Annual
Patient-Reported Outcome Consortium Workshop

April 24 – 25, 2019 ■ Silver Spring, MD
Disclaimer

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Session Outline

• Getting Better Together – An update
• Consensus Development Initiative: Best Practice Recommendations for ePRO Dataset Structure and Standardization to Support Drug Development
• Electronic Clinical Outcome Assessment (eCOA) Instrument Libraries
• eCOA Voice Project
• Changing PRO Data Collected Electronically
• Panel Discussion
• Question and Answer
Session Participants

Moderator
- Sonya Eremenco, MA - Associate Director, PRO Consortium and Acting Director, ePRO Consortium, C-Path

Presenters
- Katherine Zarzar – Senior Manager, Patient-Centered Outcomes Research, Genentech, A Member of the Roche Group
- Paul O’Donohoe, MSc – Scientific Lead, eCOA and Mobile Health, Medidata Solutions and Vice Director, ePRO Consortium
- Alexandra (Alex) Barsdorf, PhD – Director, Clinical Outcome Assessments, Clinical Outcomes Solutions
- Megan Turner – Scientist, COA Implementation, Value Evidence and Outcomes, GlaxoSmithKline
- Patricia (Trish) Shepherd Delong, MS – Manager, Patient-Reported Outcomes, Global Commercial Strategy Organization (GCSO), Janssen
- Andres Escallon, DM – Director, eCOA Clinical Data Management, ERT

Panelist
- David Reasner, PhD – Vice President, Data Science and Head, Study Endpoints, Ironwood Pharmaceuticals
Getting Better Together: An Update

Katherine Zarzar – Senior Manager, Patient-Centered Outcomes Research, Genentech, A Member of the Roche Group

Paul O’Donohoe, MSc – Scientific Lead, eCOA and Mobile Health, Medidata Solutions and Vice Director, ePRO Consortium
Topics

• Key Issues List from 2018 Workshop
• ePRO Consortium’s work to start addressing issues
• Collaboration between PRO Consortium’s ePRO Subcommittee and ePRO Consortium to address key issues
Key Issues List from 2018 Workshop

• Overall Themes:
  • Misalignment of expectations
  • Clear identification of critical issues vs. concerns
  • Better collaboration between eCOA providers, contract research organizations (CROs), and sponsors is essential

• Impacts all stages of the eCOA component of a clinical trial
  • Design
  • Build
  • Launch
  • Execute
  • Close-out
Key Issues List from 2018 Workshop

• We have misaligned expectations among the key stakeholders: sponsor, CRO, eCOA provider, site, and patient

• Risks
  • Impacting patients
  • Impacting the success of the eCOA industry – adapt or die
  • Impacting the success of the pharmaceutical industry
  • Impacting adoption

• Establishing and specifying clear roles and responsibilities for all stakeholders is a critical step for success

• Technology will never be issue free - resolution relies on effective collaboration
- Best Practices for Avoiding Paper Backup When Implementing Electronic Approaches to Patient-Reported Outcome Data Collection in Clinical Trials

- Training for the Electronic Capture of PRO Data in Clinical Trials

- Best Practices for User Acceptance Testing (UAT) for eCOA Systems
Best Practices for Avoiding Paper Backup When Implementing Electronic Approaches to Patient-Reported Outcome Data Collection in Clinical Trials

Cindy Howry, MS¹, Celeste A. Elash, MS², Mabel Crescioni, DrPH, JD, LLM³, Sonya Eremenco, MA³, Paul O'Donohoe, MSc⁴, and Tracey Rothrock, BS⁵

Best Practices for Avoiding Paper Backup

The Electronic Patient-Reported Outcome (ePRO) Consortium

invites you to attend a webinar titled

Best Practices for Avoiding Paper Backup When Implementing Electronic Approaches to Patient-Reported Outcome Data Collection in Clinical Trials

Date: Thursday, May 16, 2019
Time: 11:00 am – 12:00 pm Eastern (US)

This webinar will provide an overview of the issues related to the use of paper backups in studies for which PRO data is collected electronically. Best practice recommendations for optimizing ePRO data collection in clinical trials and viable strategies to eliminate the need for a paper-backup system will be discussed.

Presenters: Cindy Howry, MS (assistTek) and Paul O’Donohoe, MSc (Medidata Solutions)
Moderator: Celeste Elash, MS (YPrime)

Registration is required. You are welcome to forward this invitation to other potential participants.

The webinar will be recorded and subsequently made available to the public via the ePRO Consortium’s website: http://c-path.org/programs/eproc/

If you have comments or questions regarding the webinar, please contact Christian Noll at cnoll@c-path.org.
Training on the Use of Technology to Collect Patient-Reported Outcome Data Electronically in Clinical Trials: Best Practice Recommendations from the ePRO Consortium

Jenny J. Ly, PhD\(^1\), Mabel Crescioni, DrPH\(^2\), Sonya Eremenco, MA\(^2\), Serge Bodart, MSc\(^3\), Mario Donoso, BA\(^4\), Adam J. Butler\(^3\), Susan M. Dallabrida, PhD\(^1\), and on behalf of the ePRO Consortium

https://journals.sagepub.com/doi/full/10.1177/2168479018796206
Training for the Electronic Capture of PRO Data in Clinical Trials

Wednesday, June 26 • 2:00pm - 3:15pm

Training for the Electronic Capture of PRO Data in Clinical Trials: Views from ePRO Vendors, Sponsors, Sites, and Patients

Sign up or log in to save this to your schedule and see who’s attending!

https://sched.co/KfYn

https://www.diaglobal.org/flagship/DIA-2019/Program/sched?type=event&tag=KfYn

Component Type: Forum
Level: Intermediate
CE: ACPE 1.25 Knowledge UAN: 0286-0000-19-698-L04-P; CME 1.25; IACET 1.25; RN 1.25

This forum presents the ePRO Consortium’s best practices recommendations for training subjects and sites on technology use in clinical trials. Sponsor, ePRO vendor, site, and patient perspectives will be shared on training challenges and solutions.

Learning Objectives

Discuss best practice recommendations from the Consortium for training on the use of technology to collect PRO data in clinical trials; identify challenges associated with training subjects and study sites from a vendor, sponsor, site, and patient perspective.
Best Practices for User Acceptance Testing (UAT) for eCOA Systems

- Manuscript in progress
- Joint publication between ePRO Consortium and PRO Consortium
- Co-authors:

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<td>Jennifer Crager, BA</td>
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<td>Cindy Howry, MS</td>
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<td>Mabel Crescioni, DrPH, JD, LLM</td>
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<td>Alexandra Barsdorf, PhD</td>
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<td>Sue Vallow, MBA, MA</td>
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eCOA 101: The What, Why, and How of eCOA to Reduce Barriers to Adoption in Clinical Studies

Sunday, June 23 - 9:00am - 12:30pm

SC27 #27: eCOA 101: The What, Why, and How of eCOA to Reduce Barriers to Adoption in Clinical Studies

Sign up or log in to save this to your schedule and see who’s attending!

https://sched.co/Kfam

Component Type: Tutorial

Learning Objectives

At the conclusion of this course, participants should be able to:
• Review benefits and challenges of capturing eCOA data in clinical trials;
• Identify measurement science principles applicable to eCOA data capture and considerations for measurement comparability;
• Discuss roles and responsibilities of eCOA providers, sponsors and sites in the implementation/deployment of clinical trials collecting electronic COA data.

https://www.diaglobal.org/flagship/DIA-2019/Program/sched?type=event&tag=Kfam
New Collaborative eCOA Initiative

• Sponsor and eCOA provider representatives from PRO Consortium and the ePRO Consortium coming together to jointly address key issues

• Elevate improvement efforts from company level to industry level
  • Establish standards, best practices, and aligned expectations

• Foster a shared sense of purpose and establish a “collaboration as default” mindset/model

• Identify and prioritize future work to address high-impact issues
eCOA: Getting Better Together Initiative

Priority Focus Areas for 2019 - 2020

- Request for Proposal (RFP)
- Start Up/Build
- Data Management/Data Quality
- Timelines

eCOA Lexicon

eCOA Workflow/Process and Roles and Responsibilities
RFP:
- RFP Order Form/Annotated Checklist and best practice recommendations
  - Align expectations on and define the RFP process
  - Outline best practices for sponsors, CROs, and eCOA providers

Start Up/Build:
- Design Specifications
  - Create best practice recommendations defining expectations, roles and responsibilities, and how to best approach this stage
- UAT
  - Contribute to UAT paper in development
- Site Readiness and Training
  - Work with collaborators from the DIA forum on eCOA training to leverage outputs and enhance best practice recommendations
Data Management/Data Quality:

• Data Change – best practice recommendations/standard approach
• Data Management – best practice recommendations, with particular focus on the collaboration between sponsor, CRO, and eCOA partners
• Data Transfers – best practice recommendations/standard approach for operational aspects (timing, etc.) and annotated data transfer agreement (DTA) template
• ePRO Dataset Structure and Standardization (already active) - best practice recommendations/standards, and data transfer file format specifications (FFS) standardization
Timelines

• Review current expectations (12 weeks) vs. reality (~16 weeks)

• Align expectations and create aligned eCOA timeline guidelines

• Identify critical path milestones
  
  • Dependencies between sponsor and providers that impact timeline success (e.g., contract execution, sign off of design specifications, sponsor/license holder review of screenshots, and UAT)
  
  • Licensing of COAs and translations
eCOA: Getting Better Together Initiative

eCOA Lexicon:

• Review terminology and create an aligned eCOA Lexicon for industry-wide use

eCOA Workflow/Process and Roles and Responsibilities:

• Define the eCOA workflow/process and identify who brings value to each stage
Next Steps

• How can you help?
  • Work teams will be comprised of representatives from the PRO Consortium and ePRO Consortium member firms
    • Once these initial priorities are addressed, additional areas will be added to scope on a rolling basis

• If you’re interested in joining this initiative, please contact:
  • Christian Noll cnoll@c-path.org
  • Sonya Eremenco SEremenco@c-path.org
Consensus Development Initiative: Best Practice Recommendations for ePRO Dataset Structure and Standardization to Support Drug Development

Alexandra (Alex) Barsdorf, PhD – Director, Clinical Outcome Assessments, Clinical Outcomes Solutions
Collection of Patient-Reported Outcome Data Electronically in Clinical Trials

• The capture of patient-reported outcome data electronically (ePRO) has increasingly become the preferred data collection mode in clinical research

• Compared to paper and pencil, ePRO data collection offers a number of efficiencies; however, there are also limitations with moving to this mode for primary data collection in clinical trials

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<th>Strengths</th>
<th>Limitations</th>
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<tr>
<td>Less subject and administrative burden</td>
<td>Lack of hard copy source data for quality control (i.e., Case report form)</td>
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<td>Avoidance of secondary data entry</td>
<td>No consistent data structure</td>
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<td>Date and time stamping</td>
<td>Technological issues (e.g., battery, application issues)</td>
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<td>Near real-time access to data elements</td>
<td>Lack of dataset standardization guidelines</td>
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• Clinical Data Interchange Standards Consortium (CDISC) has developed standardization for clinical research data to ensure a link between datasets.
  • Data standards are defined to include models, domains, and specification for data across each type of data collected (e.g., demographic, clinical, outcomes, adverse events)
• While Sponsors have been migrating to CDISC standards for clinical trial implementation and case report form (CRF) data collection, the electronic modes for PRO data collection have not begun that migration, thus creating a disconnect between the CDISC datasets and the PRO datasets.
**Issue**: Data generated within the ePRO platform is not structured or evaluable as a Study Data Tabulation Model (SDTM) dataset, which directly contributes to the derivation of the Analysis Data Model (ADaM) dataset. Data collected on all other elements of a clinical trial are collected in this framework, so these ePRO data should migrate to these standards to ensure quality control and ease of mapping to clinical data.
Data Structure – ePRO Example

- Data generated as part of an ePRO system for data collection do not necessarily follow a standard structure for database structure, database type, or variable naming and often vary by ePRO provider making it difficult for the analytic programming team to generate analytic datasets without quite a bit of hard programming.

- Recommendation:
  - CRF development for PRO measure with analytic programming team
  - Consistent naming conventions
  - Consistent coding of missing values
  - Transition to CDISC standards

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CDISC Format: Analyzable Dataset Development

- CDISC standards for deriving analyzable datasets from raw data files allow for the ease of analytic programming due to the informative nature of the data.
- Using a common terminology, variables are coded at the instrument, domain, item, and patient-populated value which allows for the use of a macro-level programming (vs. hard coding) of datasets. Also, this format allows for ePRO diary data – often generated outside of the clinical trial site data system via ePRO provider – to be easily merged into the clinical dataset without extensive cleaning at Database Lock.

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Data Management and Security

• Data Management and Security is mandated as part of the 21 CFR Part 11 requirement to mitigate potential contamination of clinical datasets.

• ePRO data should be collected in line with these standards and a common approach for locking datasets as read-only and proper file transfer should be considered to ensure that data collected in these systems are secure and not exposed to potential corruption (e.g., changing values within a specific cell in an Excel dataset).
• Critical Path Institute (C-Path) has formed a multi-stakeholder initiative to
develop best practice recommendations for ePRO dataset structure and
standardization

• Stakeholder representatives on the leadership team (i.e., co-chairs)
  • Pharmaceutical firms (Alison Rowe – Roche)
  • eCOA firms (Geoff Low - Medidata)
  • Regulators (Bellinda King-Kallimanis – FDA’s Oncology Center of Excellence)
  • Analytical consulting firms (Stacie Hudgens – Clinical Outcomes Solutions [COS])
  • CDISC (Sam Hume)
  • Contract Research organization (CRO) (Konstantina Skaltsa - IQVIA)

• Overall project lead: Alexandra (Alex) Barsdorf, COS
Next Steps

• Define scope (in progress)
  • What are the issues that need to be addressed?
  • Which of these issues can be effectively addressed through this initiative?

• Review and refine draft outline (in progress)

• Develop best practice recommendations with input from all stakeholder groups

• Hold an advisory panel meeting to review and reach consensus on the recommendations

• Disseminate the best practice recommendations
eCOA Instrument Libraries

Paul O’Donohoe, MSc – Scientific Lead, eCOA and Mobile Health, Medidata Solutions and Vice Director, ePRO Consortium

Megan Turner – Scientist, COA Implementation, Value Evidence and Outcomes, GlaxoSmithKline
What’s the Problem?

- eCOA set-up timelines have been stuck at ~16 weeks (English) since we started this work

- Sponsors and providers are implementing the same questionnaires and translations in eCOA systems repeatedly

- Is there a way of increasing efficiency and positively impacting timelines?
Topics

• What is an electronic Clinical Outcome Assessment (eCOA) Provider Instrument Library?

• Anticipated advantages

• Challenges:
  • Differing eCOA technologies
  • Instrument owner requirements
  • Licensing
  • Ensuring version control
What is an eCOA Provider Instrument Library?

- Author approved questionnaires prebuilt in an eCOA system to standardize screenshots
- Ready to deploy in studies with minimal rework
- Can be deployed across a range of devices/modes
- Translations ready to go
- Screenshots ready to go
- Shared across all sponsors via individual eCOA providers
Anticipated Advantages

• Reduced build timelines
• Increased build efficiency, quality, and standardization
• Reduced cost
• Shared efforts and benefits across sponsors and within provider
• Lower barriers to Bring Your Own Device (BYOD)
Challenges

• Differing eCOA technologies
• Sponsor-specific materials
• Instrument owner requirements
• Licensing
• Ensuring version control
Differing eCOA Technologies

• All eCOA provider technology is different – no ability to share build work

• Each eCOA provider would have to develop their own library
  • Each eCOA provider will need to manage and maintain the library on their own platform
Sponsor-Specific Materials

• Many sponsors have diaries, instruction text, branding, and other materials that are proprietary or study-specific.

• These would not go in a general eCOA Library, but could be kept in a sponsor-specific library.

• Want to limit this as much as possible (i.e., multiple ‘flavours’ of commonly used questionnaire).
Instrument Owner Requirements

- A study-level license **does not** mean one has permission to build and store library versions of questionnaires
- A library-specific license often required
- The requirements for this license can vary significantly by instrument
  - Specific wording
  - Requirements for notification of use
  - Metrics
  - Payments
- Translations often use “paper wording;” need to work with instrument owner to standardize
Study-Level Licensing

- **Study-level licensing doesn’t change**
- A library version of a questionnaire does not circumvent the need for a study-level license when required by instrument owner
- Sponsors will still be required to obtain all appropriate permissions and licenses to use a questionnaire even if it is pulled from an eCOA Instrument Library
- eCOA provider should be confirming this for every study, as is done now
Ensuring Version Control

• Questionnaires and/or translations sometimes updated – how is this captured when forms are being pulled from a Library?

• Screenshots should still go through a translation vendor review, compared to the most up to date version of the questionnaire/translation obtained for that specific study

• Instrument owners can notify eCOA providers of updates
Summary

• eCOA Instrument Libraries promise time/cost savings and quality improvements

• They can be burdensome to establish
  • Build requirements
  • Multiple technologies
  • Instrument owner requirements

• Challenges could be overcome by stakeholders agreeing to work collaboratively
eCOA Voice Project

Patricia (Trish) Shepherd Delong, MS – Manager, Patient-Reported Outcomes, Global Commercial Strategy Organization (GCSO), Janssen
Currently sites and patients are not always involved in the practical set-up of eCOA tool/procedures. This results in issues across all therapeutic areas that may result in compromised data quality and timelines.
Value Proposition

• By incorporating feedback from sites and patients in the set-up of the eCOA system (such as device, instructions, training, helpdesk), the compliance and data quality will be optimized and ultimately contribute to timely trial completion and result in a more positive experience.
### Project Plan

#### Site workstream
1. Site survey: eCOA experience – Q1 2019
2. Site Ad Board (Janssen + general eCOA experience) - Q3 2019

#### Patient workstream
1. Conduct a Market Research study to collect patient experience. Patients completed a clinical trial where they used eCOA across several TAs

1. Assess need for Feasibility/Usability studies on a study level
2. Incorporate changes and develop process that optimally fits into the overall eCOA start-up – Q2 2020
What we hope to achieve

• An understanding of what is important to sites for successful implementation of eCOA
• An understanding of what is important to patients to provide a positive experience with eCOA
• Generation of new ideas and best practices for eCOA based on broad site and patient experience
Changing PRO Data Collected Electronically

Patricia (Trish) Shepherd Delong, MS – Manager, Patient-Reported Outcomes, Global Commercial Strategy Organization (GCSO), Janssen

Andres Escallon, DM – Director, eCOA Clinical Data Management, ERT
Problem Statement

eCOA providers were enforcing data change rules that stated which data were permitted and not permitted to be changed at the request of sponsors. Recent inspections of eCOA trials uncovered gaps with the existing control of data change requests specific to a Principal Investigator’s loss of control of their data regarding these rules.
History

Regulatory Inspections

• Questions around sponsors not having exclusive control of a site’s data
  • Changes that were done without the acknowledgement of the site
  • Loopholes and process that would enable sponsors to exert control over site data

• Evaluation of how ERT aligned with expectations from MHRA and other regulatory agencies, specifically regarding data changes.

• Release of the ERT Data Change Policy Jan 2nd, 2018.

• Discussion with sponsors on impacts of ERT’s Data Change Policy prompted revisions to the policy and its operational application over the course of 2018.
ICH and FDA references:

- From EMA Reflection paper of (Aug 1st, 2010)
- Topic 3: Control
- Investigator maintains
- Source data should only be modified
- Sponsor should not have exclusive control (allow, deny)

- 21CFR312.62(a through c) Investigator Recordkeeping and Record Retention
- 21CFR312.50 (General responsibilities of sponsors)
“There was a loss of PI control of data between database lock and pdfs being sent to the site. The pdfs returned were also only the final version of the data and did not contain all meta data.”
So why a Data Change Policy?

A lack of transparency and consistency in ERT’s management of data change requests presented a gap.

ERT decided to create a policy to address the findings from recent regulatory inspections, which resulted in updated process.

This led to a forum to proactively collaborate and align with sponsors on the impacts of the policy and ERT’s role in supporting their clinical studies.
Impact of the Policy

Pre Data Change Policy workflow:
1. Site submits Data Change Request
2. ERT drafts resolution & sends back to Site
3. Site Approves Data Change Request
4. Required data edits are made
5. Edits are verified
6. Sponsor Approves Data Change Request

Post Data Change Policy workflow:
1. Site submits Data Change Request
2. ERT drafts resolution
3. Required data edits are made
4. Clarify
By closing gaps between how eCOA providers implemented rules around permissible data change requests, questions arose around the impact of this new approach in regards to PRO data. If Principal Investigator exclusive control of data must be maintained, how do we also ensure the integrity of PRO data?

SHOULD SITES BE ALLOWED TO CHANGE PRO DATA??
What do we do now?

• Janssen and ERT met and decided to create a Job Aid to clarify definitions and apply rules to be used across all Janssen trials

• Janssen, ERT, and PRO Consortium met to clarify understanding of new ERT data change policy and the impact on industry

• Future state goal is to have this Job Aid an industry-wide best practice

• Janssen team: Trish Shepherd Delong, Kelly McQuarrie
• ERT: Andres Escallon, Valdo Arnera, Stephen Raymond
• PRO Consortium: Stephen Coons, Theresa Hall, Theresa Griffey, Sonya Eremenco, Maria Mattera, Christian Noll
What is the purpose of this Job Aid?

• The intent of this Job Aid is to define acceptable data changes

• Data Change Requests are then categorized into the following
  
  • **Routine** – Demographic, termination, re-activation
  
  • **Study Specific** – Visit label corrections (data reconciliation), study workflow edits (Site confirmed the wrong visit)

  • **Special Case** – Changes to Patient-entered data, changes impacting eligibility or scoring calculations

• The scope is intended to be between the Sponsor and eCOA Provider.
  
  • Any other site-facing or patient-facing materials are out of scope. Clinician-reported outcome (ClinRO) measures are out of scope.
Should PRO Data Be Changed?

PRO data are not allowed to be changed. Any requested changes to PRO data must be flagged and brought to the attention of the Janssen study team, following the steps for addressing special case changes outlined in study Data Management Plans.
Patient-Reported Outcome (PRO)

• Patient-reported outcome is defined as any report of the status of a patient’s health condition that comes directly from the patient, without interpretation of the patient’s response by a clinician or anyone else. The outcome can be measured in absolute terms (e.g., severity of a symptom, sign, or state of a disease) or as a change from a previous measure.
• This includes questions about disease impacts, symptoms, physical, functional, emotional, and social well-being related to health.

Non-PRO Data

• Data from patients which can include medication logs, visit labels, demographics, dosing, and metadata collected by the eCOA system.

FDA Guidance on ‘Patient Reported Outcome Measures: Use in Medical Product Development to Support Labeling Claims’
Examples of Non-PRO Data Changes

ERT will process documented and authorized changes to:

- Demographics
- Visit Labels
- Patient Status/Phase
- Patient-entered data that are non-PRO data with confirmed source data (e.g., medication log)
- Site-entered Data
- Confirmed reconciliation findings (e.g., mis-matched subject IDs) with other systems (electronic data capture [EDC], interactive web response [IWR])
- Timestamps caused by documented device software bugs
Influenced to Change Patient Responses, Scenario 1:

- The patient is reporting on their pain severity and select ‘5’ on a scale from 0 to 10. They select save and close out the application. They sit down with their doctor and have a discussion on their pain and decide that it’s not a ‘5’ but more like a ‘3.’ They request the data to be changed from a ‘5’ to a ‘3.’

- **Solution:** This data change request is not permitted because they were influenced to change their response. ERT to deny the Data Change Request and notify the Janssen study team.
Patient Misunderstanding of question, Scenario 2:

- Patients misunderstands the response options (e.g., mixes up the edges of a scale thinking 10 is 0 or 0 is 10) and requests a change after completion of the PRO measure.

- **Solution:** Most of the time this is not allowed to be changed however this Data Change Request must be flagged by ERT and brought to Janssen team (including PRO Lead) for consultation before any changes are implemented.
Non-PRO data change, Scenario 3:

• The data reconciliation discovers that the patient medication log is missing doses of medication. The site has source documentation from the patient that the medication was taken. The patient admits to forgetting to log their study medication.

• **Solution**: This is an allowable change, as this is not PRO data, refer to non-PRO data change rules.
Summary

• Evolution of our industry requires us to challenge the status quo

• Better data, better trials, happy patients

• Ensuring the voice of the patient is heard and understood, while not compromising data integrity

• Clear and defined process for sites including standard language in trial protocols

• We want to partner with sponsors and providers to further drive this forward and establish best practice across our industry
Panel Discussion and Q&A

Moderator
– Sonya Eremenco, MA - Associate Director, PRO Consortium and Acting Director, ePRO Consortium, C-Path

Presenters
– Katherine Zarzar – Senior Manager, Patient-Centered Outcomes Research, Genentech, A Member of the Roche Group
– Paul O’Donohoe, MSc – Scientific Lead, eCOA and Mobile Health, Medidata Solutions and Vice Director, ePRO Consortium
– Alexandra (Alex) Barsdorf, PhD – Director, Clinical Outcome Assessments, Clinical Outcomes Solutions
– Megan Turner – Scientist, COA Implementation, Value Evidence and Outcomes, GlaxoSmithKline
– Patricia (Trish) Shepherd Delong, MS – Manager, Patient-Reported Outcomes, Global Commercial Strategy Organization (GCSO), Janssen
– Andres Escallon, DM – Director, eCOA Clinical Data Management, ERT

Panelist
– David Reasner, PhD – Vice President, Data Science and Head, Study Endpoints, Ironwood Pharmaceuticals