PRO assessment in stroke trials: challenges and opportunities.

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MRC Hubs for Trials Methodology Research

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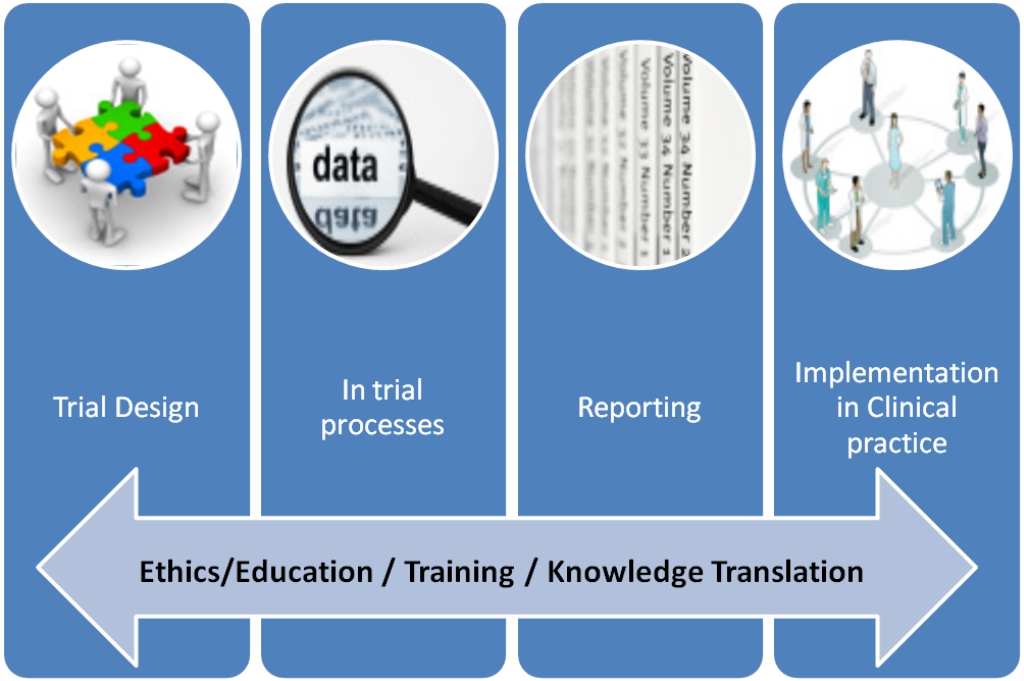
PRO Research Group, University of Birmingham

Aim: to develop best practice for PROs in trials to improve patient care.



http://www.birmingham.ac.uk/patient-reported-outcomes

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ISOQOL
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Overview

Challenges: Trial Design, Conduct, Reporting

- Ensuring a clear rationale and hypothesis.
- Selecting of PROs (Drs Sara Brookes/Kerry Avery).
- Content of trial PROtocols.
- 'In-trial' practices including dealing with PRO Alerts.
- Analysing & reporting PRO results in a meaningful way to inform clinical practice.

Opportunities to improve practice and patient care.

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The Ultimate Challenge

'We must do all that we can to make patient reported outcome assessment feasible and credible. If we fail in our task we will have left out the heart of all health-care research: the patient.'

Sloan 2007

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Challenge

Trial Design

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Challenge: Ensuring a clear PRO rationale & hypothesis.

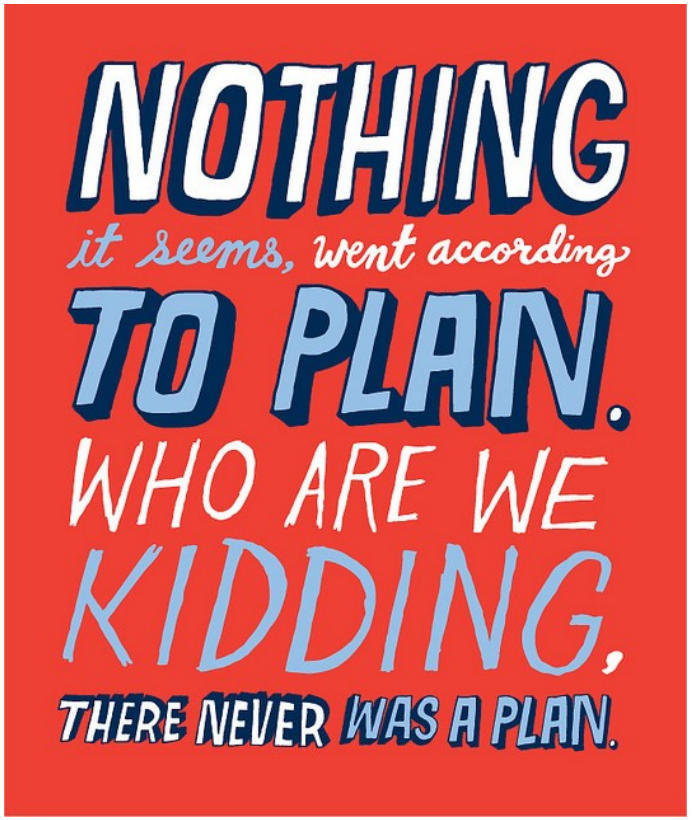
- What outcome/domain/time-point?
- What' the rationale?
- What's the evidence?
- Risk of multiple statistical testing and selective reporting of significant results.

Opportunity: Ensuring a clear PRO rationale & hypothesis.

A clearly defined rationale and hypothesis will:

1. minimise multiple statistical testing
2. reduce the risk of selective reporting
3. aid interpretation of results
4. may facilitate the use of results to inform patient care.

Challenge: Content of trial PROtocols



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Evidence: Systematic Review of PRO Guidance for Protocol Writers

- Searched MEDLINE, EMBASE, CINHAL, the Cochrane Library databases from inception until February 2013 for PRO specific guidance for trial protocol writers. Plus grey literature.

- 21,175 citations identified and screened from which 54 met our inclusion criteria.

- >150 unique PRO related recommendations for protocol writers.

- **Funded by NIHR SPCR**

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Evidence: Review of NIHR HTA Protocols

- Many protocols, including stroke trials, lack PRO specific information.
- Rationale, hypothesis, data collection, timing of assessment, methods to minimise missing data, analysis.

- **Funded by NIHR SPCR**

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Opportunity: Improve the content of trial protocols.

- Guideline development underway lead by the PRO Research Group and ISOQOL Task force.

- Include PRO experts as part of the trial team.
- Consider ways to optimise PRO data collection.

- Stakeholder engagement & involvement in the above activities.

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Challenge: Inconsistencies in quality of life data collection in clinical trials

OPEN ACCESS Freely available online

PLOS ONE

Inconsistencies in Quality of Life Data Collection in Clinical Trials: A Potential Source of Bias? Interviews with Research Nurses and Trialists

Derek Kyte[1], Jonathan Ives[2], Heather Draper[2], Thomas Keeley[1,3], Melanie Calvert[1,3]*

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Evidence:

26 Semi-structured interviews of trials staff involved in PRO data collection/management.

Results:

- Theme 1: Inconsistent PRO measurement.
- Theme 2: Dealing with ‘concerning PRO data’.
- Theme 3: Emotional or ethical burden for trial staff.
- Theme 4: Lack of training and guidance.
- **D. Kyte Doctoral Research NIHR SPCR Doctoral Fellowship**

Opportunity: Optimal data collection

- Guideline development (underway).
- Training for staff.
- Improved protocols (see previous).
- Pre-specified methods to deal with PRO Alerts.

Challenge: ‘PRO Alerts’ in clinical trials

“worrying levels of psychological distress or physical symptoms that may require an immediate response.”

JAMA The Journal of the American Medical Association

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Viewpoint | September 25, 2013

Patient-Reported Outcome Alerts

Ethical and Logistical Considerations in Clinical Trials

Derek Kyte, MSc[1]; Heather Draper, PhD[2]; Melanie Calvert, PhD[1,3]

[+] Author Affiliations

JAMA. 2013;310(12):1229-1230. doi:10.1001/jama.2013.277222.

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Challenge: ‘PRO Alerts’ in clinical trials

- Potential for co-intervention bias.
- Trial participants ‘in-need’ may receive suboptimal care.
- Confidentiality & consent.

Evidence:

- 26 Semi-structured interviews of trials staff involved in PRO data collection/management.

- Survey of >600 trialists (Derek Kyte doctoral research, manuscript in preparation).

Funding:
- **D. Kyte: Doctoral Research NIHR SPCR Doctoral Fellowship**
- **M. Calvert, H Draper: MRC MHTMR**

Opportunities:

- To ensure trial participants are fully informed on **how** their data will be used to inform their care and **who** will access the data.

- Researchers should be aware of potential ‘PRO alerts’ and pre-specify management in the protocol and supporting trials documentation.

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Challenge

Trial Reporting

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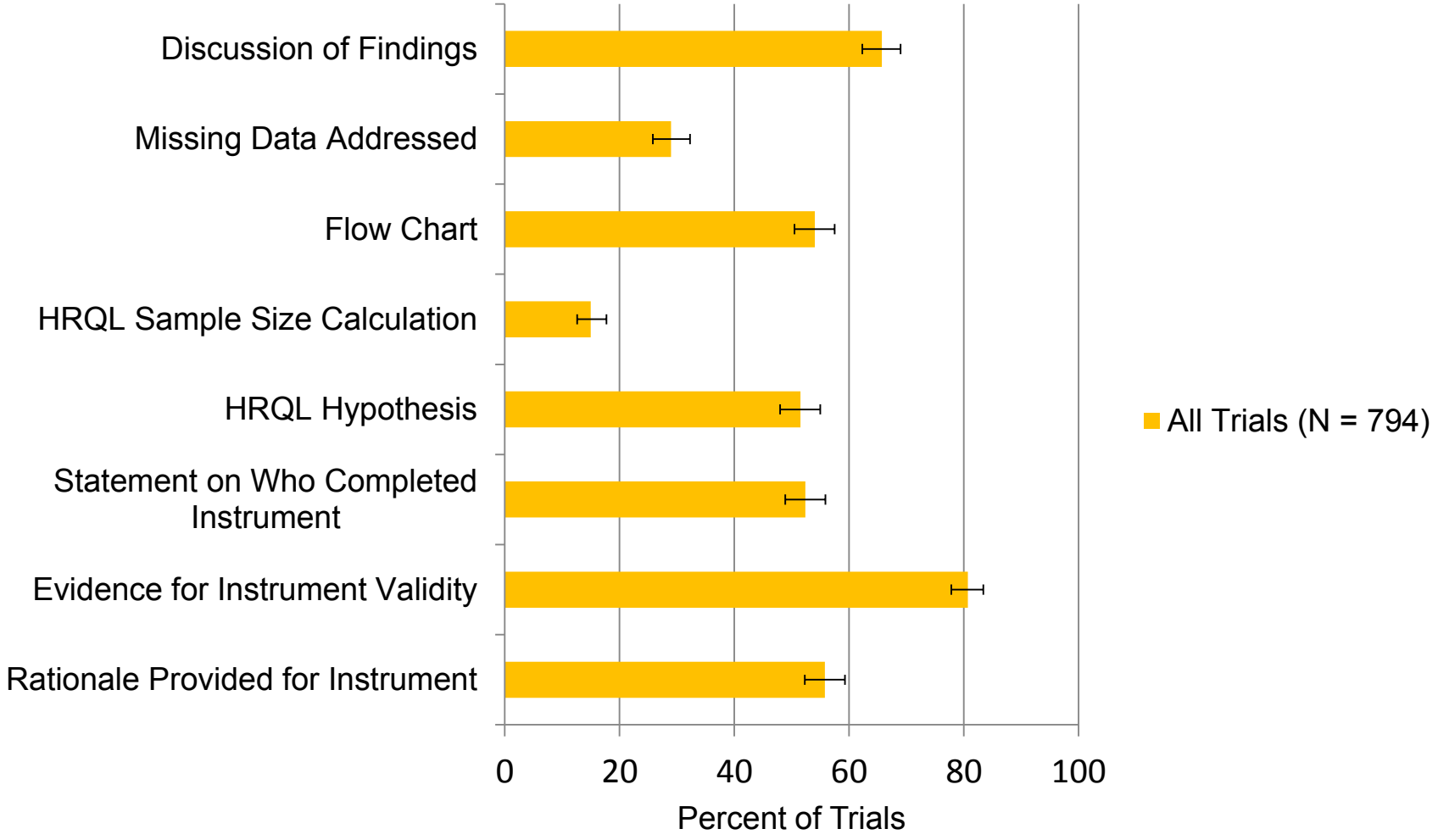
Challenges:

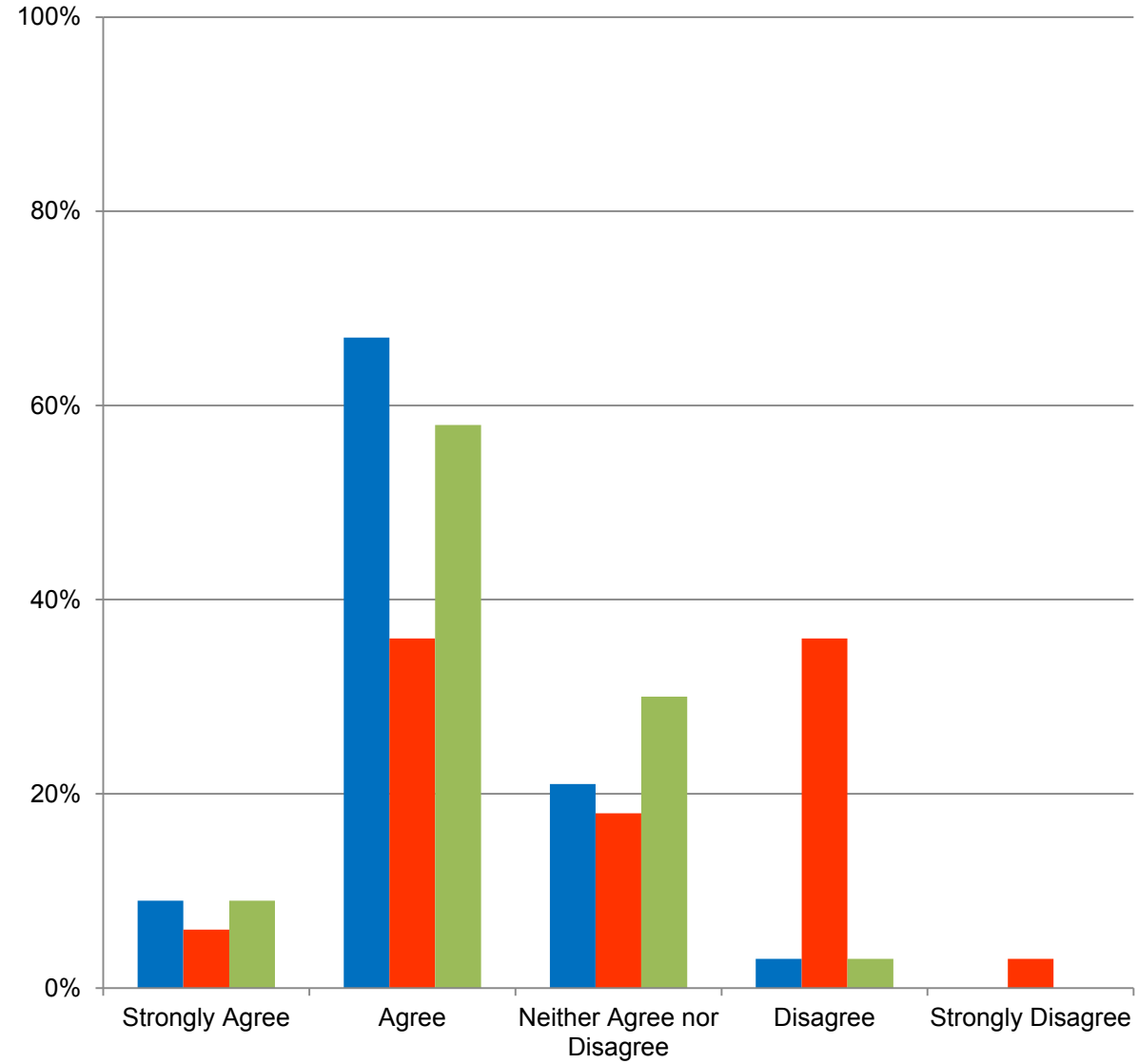
- Current reporting of PROs is poor quality.
- Poor reporting hampers the use of PRO trial data to inform clinical practice.

Evidence: current reporting of PRO data is poor quality.



Brundage M, Bass B, Davidson J et al. Patterns of reporting health-related quality of life outcomes in randomized clinical trials: implications for clinicians and quality of life researchers. *Qual Life Res.* 2011;20:653-664.

Evidence: Poor reporting hampers the use of PRO data in clinical practice



- I have a good understanding of the concept of quality of life.
- I feel comfortable interpreting quality of life data as it is reported in the clinical trial literature.
- I feel a need to improve or increase my use of clinical trial quality of life data in my clinical practice.

Brundage et al Qual Life Res. 20(7): 979-985, 2011.

Opportunity: To Improve the Reporting of HRQL/PRO data from stroke trials

- Improved reporting of PROs in clinical trials will enable robust evidence to inform patient choice, aid clinical decision making, and inform health policy.

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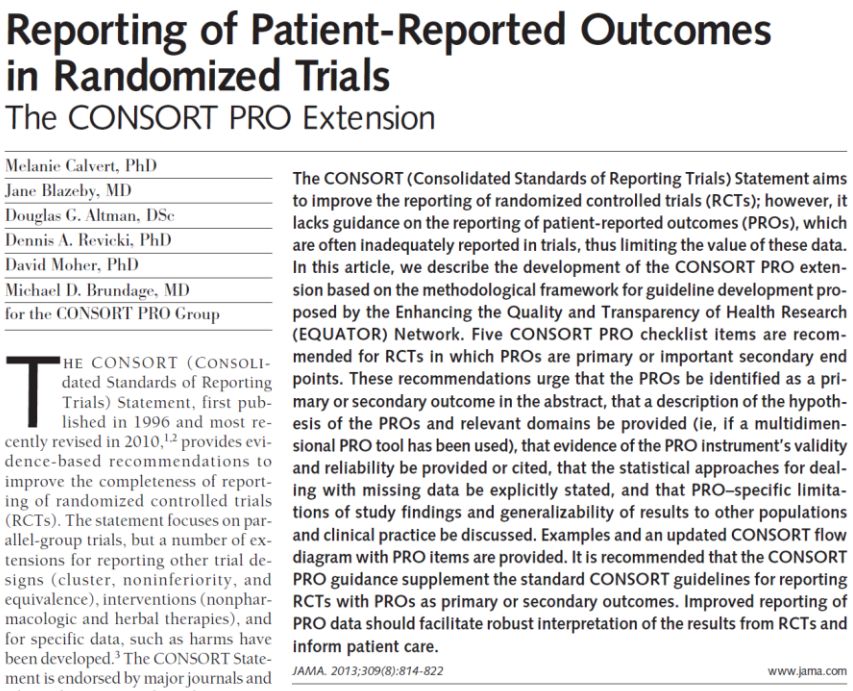
Opportunity: The CONSORT PRO Extension



- **Funded by MRC & CIHR**

Summary

Need to improve PRO trial design analysis and reporting to:

- **ensure high quality ethical data,**
- **minimise research waste**
- **and produce high quality data to inform care.**

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Opportunities for help and advice:

PRO Research Group http://www.birmingham.ac.uk/patient-reported-outcomes

Design:

- NIHR Research Design Service
- MRC Hubs Trials Methodology Research
- Clinical Trials Units

Analysis:

- Clinical Trials Units

Reporting:

- CONSORT PRO Extension

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