

# Who should be involved in improving research publications?

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Q: Who should be involved in improving research publications?  
 A: EVERYBODY!



## Publication dystopia

- Research is poorly reported
- Methods cannot be repeated
- Important elements are missing
- Negative results are excluded
- Reports are unusable
- Data is lost / cannot be shared



Pointless!

## Much published research is unusable

- Of 102 journal articles reporting clinical trials, 62% had a change to the primary outcome stated in the protocol
- Of 88 studies using novel questionnaires only 8% of questionnaire could be accessed
- Of 141 studies of test accuracy, 40% did not report participants' age and sex
- Of 49 AIDS trials, only 33% reported all adverse events

All refs in Glasziou et al *Lancet*, 2014

## Much research is never published

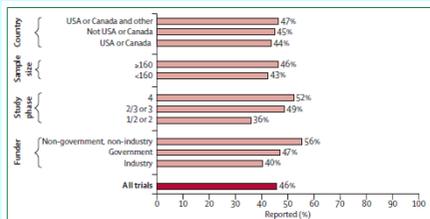


Figure 2. Reporting of completed trials, by study characteristic. Data taken from Ross and colleagues' analysis<sup>21</sup> of a random sample of 677 completed trials registered with ClinicalTrials.gov between 2000 and 2007.

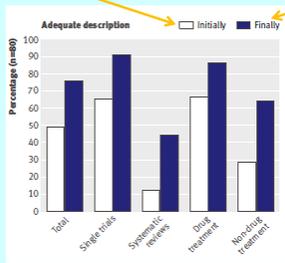
## Until recently, 50% of clinical trials were unpublished

Of EU-funded health research 1998-2006

Galsworthy et al *Lancet* 2012;380:971

- 50% unpublished
- 570 million Euros of research had "no detectable academic output"
- Situation may be improving but evidence-base for most prescribed medicines is badly affected by non-publication

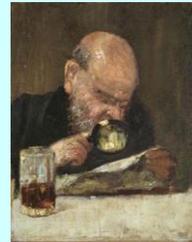
## Inadequate treatment descriptions in 80 studies of medical therapies from journal article and supplementary info



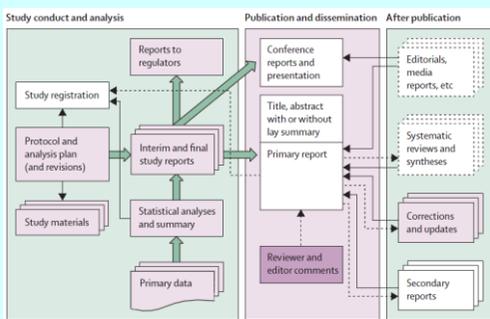
Glasziou et al *BMJ*, 2008;336:1472

## Who might be involved in improving research publications?

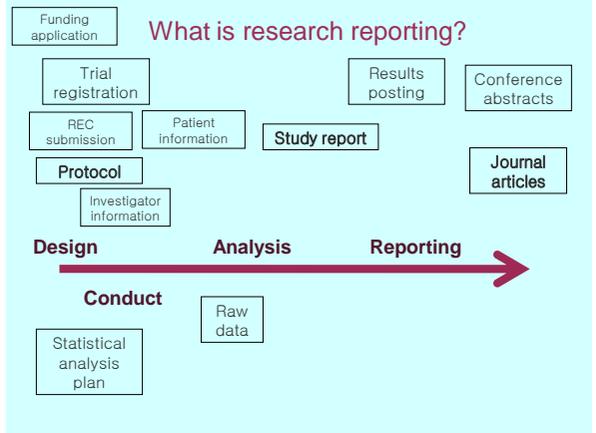
- Researchers
- Institutions
- Funders
- Regulators
- Editors
- Peer reviewers
- Publishers
- Communications experts
- Users



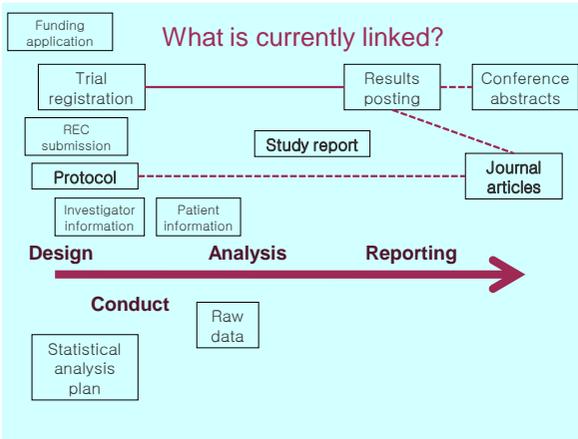
## Reporting = article + protocol + materials + data + ... + links



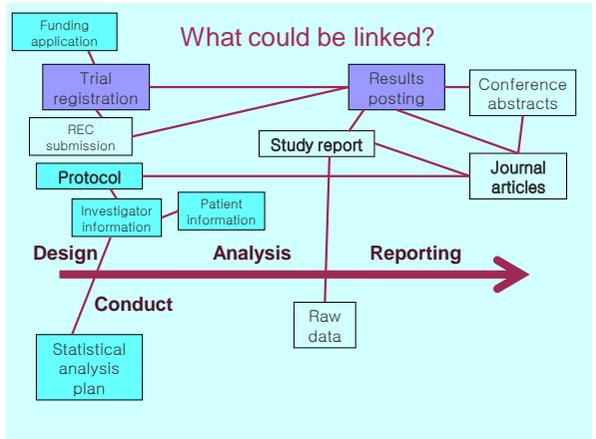
## What is research reporting?



## What is currently linked?



## What could be linked?



PROTOCOL SUMMARY LOCATIONS RESULT SUMMARY LAST UPDATED

FIRST RECEIVED July 18, 2014

LAST UPDATED July 18, 2014

It won't fit!

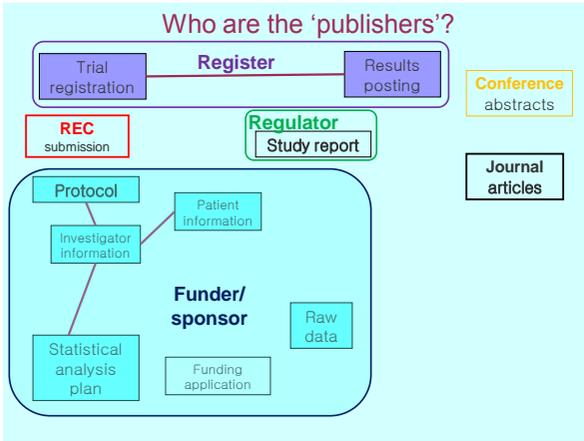
Statistical Analysis Plan (SAP)

Lung Cancer Clinical Trials Fact Sheet

## Threaded publications (not a new idea!)

- “Electronic publication of a protocol could be simply the first element in a sequence of “threaded” electronic publications, which continues with reports of the resulting research ... followed by deposition of the complete data set”

Chalmers & Altman, *Lancet* 1999; 353:490-3



- ### Potential 'disseminators' (and quality controllers)
- Ethics committees
  - Funders
  - Regulators
  - Trial registers
  - Institutions
  - Researchers
  - Conferences
  - Journals

### Power vs responsibility

<ul style="list-style-type: none"> <li>Ethics committees</li> <li>Funders</li> <li>Regulators</li> <li>Trial registers</li> <li>Institutions</li> <li>Researchers</li> <li>Conferences</li> <li>Journals</li> </ul>	<ul style="list-style-type: none"> <li>Ethics committees</li> <li>Funders</li> <li>Regulators</li> <li>Trial registers</li> <li>Institutions</li> <li>Researchers</li> <li>Conferences</li> <li>Journals</li> </ul>	<p>Current situation for publications</p>
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### Conclusions

- Improving research reporting is **everybody's responsibility**
- Reporting is about more than just journal articles
- Focusing on author responsibility (eg reporting guidelines) can only produce small improvements
- We need more fundamental change to the whole reporting system