

ADDIS 2 progress, Jan-Aug 2014

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Introduction

Outline:

- Stakeholder survey results
- Software review results
- Demo of ADDIS 2
- (Discussion) aligning software and research

NOT in this presentation:

- data entry / management
- requirements; case study data flows

Stakeholder survey

General impressions

- sound methods most important
- software matter of convenience, efficiency
 - may be *required* for efficient use of RWD
 - perceived importance greater for industry
- current software is "obscure"

Stakeholder survey

Fears and challenges

- "easy to use" means "easy to abuse"
- full electronic submissions could overburden regulators

Desiderata

- maximum transparency
- validation & recognition by authorities
- audit trail
- visualization is key (see also IMI PROTECT WP5)
- documentation & user training

Stakeholder survey

Surprise find: software as communication tool

- "rapid cycle learning"
- dashboards: visualizations + interactivity
- interact with and explore models and data

Software review

Statistical packages

- Identified "best of breed" R packages for use in ADDIS 2
- Meta-analysis:
 - meta (pair-wise), gemtc & netmeta (network), metafor & mvmeta (multivariate), GLM routines (IPD)
- Predictive modeling:
 - msm, gems, Epi & simMSM (multi-state models), simPH, survsim, flexsurv & timereg (time-to-event)
- Landscape is more settled for MA than for PM

Software review

User interfaces

- Identified key UIs to find patterns of presenting information and modeling decisions
- In-depth analysis of the key UIs in progress
- Meta-analysis:
 - Cochrane RevMan, Comprehensive Meta-Analysis, OpenMetaAnalyst, ProMeta, ADDIS 1
- Predictive modeling:
 - Microsoft Excel, TreeAge, ARENA, SIMUL8

Software review

Other software

- ADDIS 1: "template" for analysis and data entry features
- TIDI: prototype decision support for HTA
- Several systematic review packages
- Clinical trial registries (as potential data sources)

ADDIS 2 Demo

ADDIS 2 R1-3 (Jan - Sep 2014)

- New web-based architecture
 - Users, projects, analyses
- Rough re-implementation of ADDIS 1 features
 - View clinical trials data from example datasets
 - Basic network meta-analysis
 - Benefit-risk analysis (MCDA)

ADDIS 2 Demo

ADDIS 2 Demo

- So far: technology & "catching up" to ADDIS 1
- Future:
 - Data entry & management ("ConceptMapper")
 - GetReal analysis features

Aligning software and research

- What are key features for GetReal?
- Can we add value for case studies, methods research?
 - Interactive reports / showcases?
- How can we "stay in the loop"?

Aligning software and research - proposal

- Software sub-team formulates "themes"
 - Feel free to participate!
- Development team evaluates feasibility
- Joint WP4 decision on priorities
- WP4 participant assigned as "product owner"
 - For a single release (7 iterations = 14 weeks)
 - To implement a specific theme
 - Specify and prioritize concrete features
- Could start with Release 6 (May 2015)

Thank you!