L-Università ta' Malta
Faculty of Medicine & Surgery
Department of Pharmacy

PCN 253

DECISION-MAKER PERSPECTIVES ON OUTCOMES STUDIED IN LEUKAEMIA CLINICAL TRIALS: THE RESPONSE EVALUATION IN LEUKAEMIA (REVALEU) STUDY PROTOCOL

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OBJECTIVES

Evidence of efficacy for antineoplastic agents may be valued differently by regulatory and health technology assessment (HTA) bodies in the European Union (EU), impacting decision-making and access to innovative therapies.[1,2,3,4] The aim was to develop a study protocol to identify core efficacy outcomes prioritised by EU decision-makers for clinical trials (CTs) investigating leukaemic disorders.

METHODS

Extraction of Efficacy Endpoints

- **Identification of Phase II to Phase IV interventional CTs registered in the EU Clinical Trials Register (2007-2017).**
- **Inclusion criteria for CTs: 1) Reporting efficacy data, 2) Medicinal products of chemical, biological and biotechnological origin.**
- **Extraction of unique primary and secondary efficacy endpoints and grouping into endpoint categories.**

Tool Development and Psychometric Evaluation

- **Response Evaluation in Leukaemia (REVALEU) online surveying tool: weighted importance rating scales and nominal scales.**
- **Validation: Content Validity Index (CVI) method. Intra-subject reliability: test-retest approach (2-week interval).**

e-Delphi Process

- **Recruitment of onco-haematology experts from the European Medicines Agency (EMA) and HTA bodies in the EU.**
- **Two-round electronic Delphi (e-Delphi) process with two independent panels (Figure 1).**

Consensus for outcome to be considered important:
≥75% of experts selecting a rating of 4 (Important) or 5 (Very important)

Consensus for outcome to be considered not important:
≥75% of experts selecting a rating of 1 (Not important at all) or 2 (Not important)

RESULTS

- **The register search generated 666 CTs with 431 being eligible for the study, representing around 109,000 patients.**
- **Thirty-six unique efficacy measures were identified and grouped into four endpoint categories: Survival (n=5), Response Rates and Biomarkers (n=16), Time-To-Event (n=6) and Other (n=9).**
- **An 8-member multidisciplinary panel completed the validation process. The REVALEU tool demonstrated high content validity as shown from the mean scale-level CVI (S-CVI) score of 93% for the assessed domains of relevance, clarity, and structure and layout.**
- **Intra-subject reliability was upheld across the tool as confirmed from the Kendall-Tau and Kappa statistical test values ($p<0.05$).**
- **Thirty-six experts were recruited in the e-Delphi process:**
  i. 12 experts from HTA bodies in 9 EU countries: Austria (n=1), Czech Republic (n=2), Finland (n=1), Ireland (n=2), Italy (n=1), Malta (n=2), Portugal (n=1), Sweden (n=1), and The Netherlands (n=1).
  ii. 24 experts from committees, working parties and experts database of the EMA.

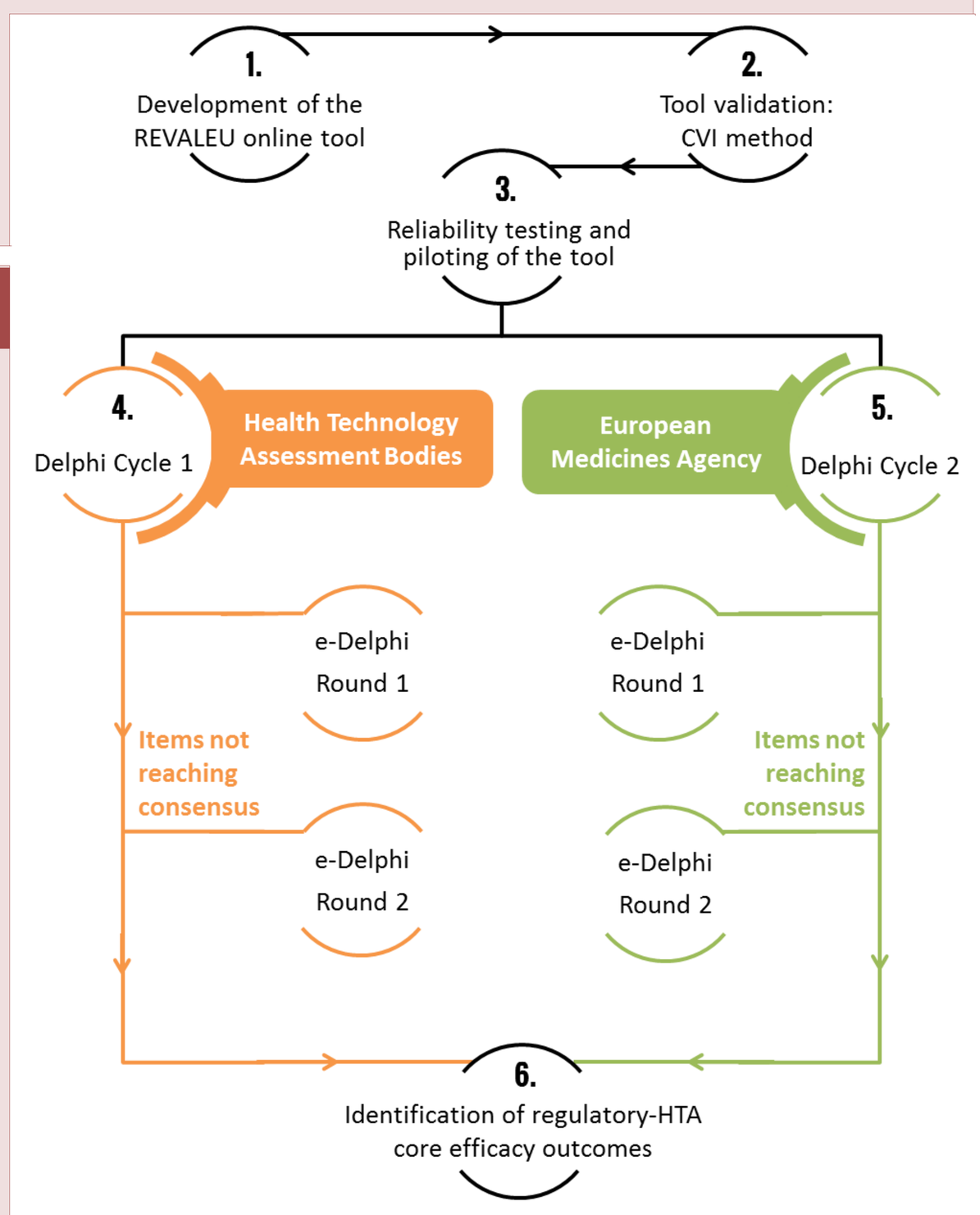

Figure 1. Flow diagram depicting the data collection framework for the study protocol.

CONCLUSIONS

This study should narrow the gap between regulatory and HTA clinical evidence needs. The designed protocol supports medicines developers in potentially obtaining regulatory and reimbursement approvals for novel leukaemia treatments through the identification of core efficacy outcomes shared between both groups of decision-makers.

Funding: This study has been funded by the Government of Malta Endeavour Scholarship Scheme 2017. **Acknowledgements:** The Malta Medicines Authority.

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