UNIVERSITY OF LINCOLN

CLINICAL GOVERNANCE - STANDARD OPERATING PROCEDURE

HEALTH ECONOMIC ANALYSIS PLAN (HEAP)

CG-QMS SOP CGS4

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Version History	**Reason for change**

NOTE: All SOPs are subject to regular review.

Please ensure that the version of this SOP is the most up-to-date.

OUT OF DATE DOCUMENTS MUST NOT BE USED AND HARD COPIES SHOULD BE DESTROYED

1 PURPOSE

To describe the procedure for the preparation of a Health Economic Analysis Plan (HEAP) for a trial that will comply with the study protocol, GCP guidelines and other statutory and regulatory requirements.

2 SCOPE

Applicable to all clinical research with health economic analysis where LinCTU are providing trial support.

3 BACKGROUND

3.1 All clinical trials, using LinCTU, with a health economic analysis must have a Health Economic Analysis Plan (HEAP) which is a comprehensive description of the methods and presentation of data analysis proposed.

3.2 The Chief Investigator (CI) and Trial Health Economist will prepare the Health Economic Analysis Plan (HEAP).

3.3 The overall responsibility for preparing the HEAP is delegated to the CI, a suitably qualified Health Economist or the Lincoln Clinical Trials Unit (LinCTU). This delegation of duty shall be agreed before the study begins and shall be documented in the sponsorship/site agreements.

3.4 The HEAP must be drafted, finalised and agreed before commencing the final health economic analysis of clinical trial data. Where possible, analysis should be complete before unblinding (revealing the treatment allocation).

3.5 Changes to the HEAP during the course of the clinical trial must be documented in the HEAP and reasons for the change noted.

3.6 The HEAP shall document preparation of the HEAP, approval from the lead statistician or econometrician overseeing preparation of the HEAP (if required), and approval from the Chief Investigator.

4 CROSS REFERENCES

4.1 CG-QMS SOP CG12 Amendment

4.2 CG-QMS SOP CGD2 Data management

4.3 CG-QMS SOP CGD6 Randomisation

5 PROCEDURE

DETAILS OF THE HEAP

5.1 The Trial Health Economist will prepare a HEAP which consists of the following:

- Administrative information: including title, trial registration number, source of funding, purpose of HEAP, trial protocol version, trial SAP, trial HEAP version, HEAP revisions, roles and responsibilities, signature of person writing the HEAP, signature of senior health economist and signature of chief investigator
- Trial introduction and background: trial background and rationale, aims of the trial, objectives and/or research hypothesis of the trial, trial population, interventions and comparators, trial design, trial start and end dates
- Economic approach/ overview: aim(s) of the economic evaluation, objective(s) of the economic evaluation, overview of the economic analysis, jurisdiction, perspective(s), time horizon(s)
- Economic data collection and management: statistical software, identification of resources, measurement of resource-use data, valuation of resource use data, identification of outcomes, measurement of outcomes, valuation of outcomes
- Economics data analysis: analysis population, timing of analysis, discount rates for costs and benefits, cost-effectiveness thresholds, statistical decision rules, analysis of resource use,

analysis of costs, analysis of outcomes, data cleaning for analysis, missing data, analysis of cost–effectiveness, sampling uncertainty, subgroup analysis or analysis of heterogeneity, sensitivity analysis

- Modelling: Extrapolation or decision analytic modelling, model type, model structure, treatment effect beyond the end of the trial, other key assumptions, methods for identifying and estimating parameters, model uncertainty, model validation, subgroup analyses/ heterogeneity
- Reporting/ publishing: Reporting standards, deviations from HEAP
- Appendices: health economics collection tools. Optional items included table of contents, abbreviations/glossary of terms/definitions, monitoring of health economic data, database management, data entry, data archiving, value of information analysis, cross-referencing to other trial documents and illustrations.

METHODS OF ANALYSIS

5.2 The HEAP should describe the methods for analysis and presentation of the data, including, where possible:

- Provide information on the broader context for the study
- Give the study relevance for health policy or practice decisions.
- Outline characteristics of the base-case population and subgroups to be analysed including why they were chosen
- Outline the study perspective.
- Outline the interventions and comparators being compared and the time horizon over which they will be studied
- Choice of outcomes and measures of effectiveness
- Identify resource use to be measured and how the data will be collected
- Identify sources of unit cost and currency
- Choice of decision analytical model and underlying assumptions if appropriate
- Describe analytical methods where possible including methods for handling skewed data, missing data, population heterogeneity and uncertainty.

FLOW OF PARTICIPANTS

5.3 A flow diagram or a reference to the SAP flow diagram should be included in the HEAP and follow the Consort structure (http://www.consort-statement.org/)

5.4 The HEAP should contain:

- Screened, eligible and consenting participants
- Participants assigned
- Participants receiving the allocated treatment
- Participants completing the study protocol
- Participants analysed for the primary outcome
- A breakdown for each treatment group

5.5 A comparison of screening data between the participants included and excluded should be produced if any relevant data is recorded before consent to check how representative the study population is.

DATA TO BE OBTAINED

5.6 The health economist/designee should liaise with the data manager regarding data collection and data needed for the health economic analysis. It is good practice to assess health economic-related data downloads from the database at least once during the trial to ensure data collection is progressing in a satisfactory manner. The downloaded copy should not require manual intervention to obtain, but rather be an automated data download query using appropriate code or a consistent methodology to take an internal temporary copy of the frozen data each time the data download query is run.

5.7 The health economist should refer data queries to the data manager to investigate and correct any errors.

5.8 Any recommended amendments by the health economist to the study database or recommended amendments to the ways the data is collected should go before the trial management group for consideration as these will result in protocol amendments requiring ethical approval in accordance with SOP CG12 Amendment.

6 FLOW CHART

None required.