NCCHTA

22nd April 2009

Methodological Technology Assessment Report commissioned by the NHS R&D HTA Protocol (08/228)

1. Title of the project:
Critical Appraisal of Manufacturer Submissions for the NICE STA Process

2. Name of TAR team and 'lead'

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Liverpool Reviews and Implementation Group, The University of Liverpool (Ms Rumona Dickson, Dr Angela Boland, Dr Janette Greenhalgh)

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3. Plain English Summary

The NICE single technology appraisal (STA) process has been in existence since 2005. NICE's STA process differs from the full NICE appraisal process in that the manufacturer's submission (MS) to NICE forms the principal source of evidence for decision making, and the burden of proof has shifted to the manufacturer. The MS is expected to contain an evaluation of the clinical effectiveness and cost-effectiveness of the technology using decision-analytic approaches outlined in the STA guidelines developed by NICE.[1] Independent Evidence Review Groups (ERGs) are charged with the task of critically appraising the MS and to identify strengths, weaknesses and gaps in the evidence presented. The resultant ERG reports are then considered as a part of the evidence considered by the appraisal committee. The timescales from time of referral of the appraisal to production of the final appraisal documentation (FAD) are much shorter for STAs, taking around 34 weeks compared to 51 weeks for a full NICE appraisal. Assessment by the ERG is conducted over an eight week period. Within the STA process, there are no resources for the ERG to extend the manufacturer's analysis or to produce an independent systematic review or cost-effectiveness model. As a result, a technology could obtain a negative recommendation or a "minded no" merely because of a poor submission, rather than being poor value for money. As the name implies, an STA appraises a single technology although each appraisal may include more than one comparator. When the STA process was initially introduced, concerns were raised that it may represent a less robust process for producing guidance on the use of health technologies.[2] Concerns have also been raised regarding the need for consistency and transparency of methods used to critically appraise the MS as part of the STA process. This project is designed to examine the approaches used to critically appraise the MS as a part of the STA process.

4. Aims and objectives

The aims of the project are to review the methods currently used to critically appraise manufacturers' submissions within the NICE STA process and to provide recommendations on approaches that could be considered in the future.

The project will have three primary objectives:

1. To provide a map of the STA process to date
2. To identify current approaches to critical appraisal of manufacturer's submissions
3. To provide recommendations for possible alternative approaches to be used in the critical appraisal process.

5. Report methods

The project will involve two main parts:

5.1 Mapping exercise

All STAs which have been identified by NICE up to and including March 2009 will be included in the mapping exercise. The mapping tool will be piloted. The mapping exercise will collect information on a range of topics including:

- Title of STA
- NICE wave
- Date of first identification of topic by NICE
- Date of commencement of STA
- Date of receipt by NICE and the ERG of manufacturer's submissions (MS)
- Date of submission of ERG report
- Date of first Appraisal Committee meeting
- Date of FAD
- Changes: deferral, withdrawal, changes to timelines and reasons
- Appraisal Committee decision
- If minded no, description of extra analysis, requested and undertaken
- ICERs reported by the manufacturer, ERG team and the ICER deemed to be most appropriate by the Appraisal Committee
- Technology type and indication

Data collection and analysis will be undertaken in ACCESS. Analysis of mapping data will provide a summary of the STA process to date, including information on timelines throughout the process.

5.2 ERG reports documentary analysis

A maximum of 30 ERG reports will be examined using standard documentary analysis techniques.[3,4] The 30 most recently completed (as of March 2009) ERG reports will be used. Familiarisation with the data will involve thorough reading of the ERG reports. For this research we are exclusively interested in the content, rather than the context of the reports. Attention will be neither focused on the context within which the documents were produced nor on their subsequent impact on external decision-making processes but rather on the content of the reports making this a content analysis approach. Standard templates are used to develop the ERG reports. A template for the documentary analysis will be developed and pre-tested covering relevant themes. Clarification letters and responses relating to these STAs and will also be examined. Expert advice

will be sought from within ScHARR on the use of documentary analysis techniques for this research and the lead researcher (EK) has experience with documentary analysis techniques.

The following points will be included in the data extraction template as part of the documentary analysis:

- Approaches used by ERGs to assess: manufacturer's search strategies, appropriateness and completeness of included studies, quality of included studies, inclusion/exclusion criteria, critiques of meta-analysis and indirect comparisons, interpretation of any subgroup analyses
- Approaches used by ERGs to assess the manufacturer's model in terms of: appropriateness of model structure, included and excluded health states, appropriateness of comparators and the sequencing of interventions where appropriate, incorporation of clinical trial data both for efficacy and adverse events, assessing whether the data from any RCT can be assumed to hold for the patients who would receive treatment in the UK health setting, internal model validity, appropriateness of model parameter population including both distributions for PSA and the incorporation of correlation between variables, the appropriateness of sensitivity analyses, interpretation of model output, transcription errors and extrapolating this to a conclusion
- Issues identified by ERG teams: problems, mistakes errors in sponsor submissions
- Issues raised in the clarification letters
- Strengths of the MS
- General versus topic specific concerns

Teams will be contacted where necessary for points requiring further clarification.

Documentary analysis on ERG reports produced by LRiG will be conducted by ScHARR-TAG and visa versa so that at no stage will a team extract data from their own reports. The principal findings will be summarised and presented in tables and narrative synthesis.

5.3 ERG team telephone interviews

The draft report will be sent out to ERG teams for comment as well as a set of questions informed by the documentary analysis. Teams will be telephoned at a set time agreed in advance to discuss specific issues the groups have had with manufacturer submissions, both positive and negative. They will be asked to provide a description of their internal processes used to critically appraise the MSs. These responses and descriptions will be included in the final report.

5.4 Report synthesis

Material collected from the mapping exercise, the documentary analysis and the telephone interviews will be synthesised within the final report addressing the primary objectives identified. Comments on the draft report received from each ERG team will be incorporated into the final report.

5.5 Outputs

Recommendations as to best practice will be included in the final report. Recommendations will also be made on the ERG report template. The work will be presented at an InterTASC methodological workshop and developed into publications for peer reviewed journals. The results of this study will also inform the manufacturer's training sessions that are currently being planned by NICE through the DSU.

5.6 Expertise of team and responsibilities

The team includes a mix of systematic reviewers and cost effectiveness modellers with extensive experience of producing ERG reports. Upon approval of the final protocol, the team will meet to decide on the work plan for the project and assign specific responsibilities. Team members from both LriG and ScHARR will be involved in data synthesis, report writing and development of recommendations.

6. Competing interests of authors

Both LRiG and ScHARR-TAG have undertaken single technology appraisals for NICE since the process began.

References

1. National Institute for Health and Clinical Excellence (NICE). Guide to the Single Technology Appraisal Process September 2006 http://www.nice.org.uk/download.aspx?o=316193
2. Buxton MJ. and Akehurst R. How NICE is the UK's fast-track system? www.scripmag.com March 2006; 24-25.
3. Miller FA and Alvarado K. Incorporating documents into qualitative nursing research. J Nurs Scholarship 2005; 37(4):348-53.
4. Appleton JV and Cowley S. Analysing clinical practice guidelines. A method of documentary analysis. Journal of Advanced Nursing 1997; 25 (5): 1008-1017.

Additional information that is needed by NCCHTA and NICE.
Please send this as a WORD document when you submit your protocol to Htatar@soton.ac.uk.

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Timetable/milestones
The project work will take three months spread out over a five month period as illustrated below.

Activity	**Date**	**Team**
STA mapping exercise	April/May 2009	ScHARR/LRiG
Documentary analysis of ERG reports	June/July 2009	15 reports ScHARR 15 reports LRiG
Synthesis and final report	August 2009	ScHARR/LRiG
Progress report to NCCHTA	4 August 2009	ScHARR
Final report submitted to NCCHTA	1 September 2009	ScHARR