Impact of Modified System of Objectified Judgment Analysis (SOJA) Methodology on Prescribing Costs of Angiotensin Converting Enzyme Inhibitors (ACEIs)

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OBJECTIVE: SOJA is a structured approach to the selection of drugs for formulary inclusion. The aim of this study was to use a modified SOJA approach in the selection ofACEI products for use within a health board in Northern Ireland. METHODS: The modified SOJA approach involved three phases in sequence: an evidence based pharmacotherapeutic evaluation of all available ACEI drug entities, a separate safety / risk assessment analysis of products containing agents which exceeded the pharmacotherapeutic threshold and finally a budgetary impact analysis. A comprehensive literature review and expert panel judgment, informed selection of criteria (and their relative weighting) for the pharmacotherapeutic evaluation. The resultant criteria / scoring system was circulated (in questionnaire format) to prescribers and stakeholders for comment. Based on statistical analysis of the latter survey results, the final scoring system was developed. Drug entities which exceeded the evidence threshold score were entered into a tendering process with pharmaceutical suppliers. Products submitted as a result of the tendering process were sequentially entered into the second and third phases of the modified SOJA process (safety / risk assessment; budgetary impact analysis). RESULTS: Five drug entities (from the 11 currently available in the UK) exceeded the evidence threshold and 22 from 26 submitted product lines, containing these drug entities, satisfied the safety evaluation / risk assessment criteria. Three product lines, each containing a different drug entity, were selected for formulary inclusion as a result of the budgetary impact analysis. The estimated annual cost savings for ACEIs as a result of this selection (based on estimated annual usage in Defined Daily Doses) in this health board was 41%. CONCLUSION: The modified SOJA approach has a significant contribution to make in containing ACEI costs while retaining the same level of patient care.

Use of Contrast Echocardiography: A Review of Clinical Data Using a Systematic Approach

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OBJECTIVE: Risk assessment is important in determining the management of patients with suspected or confirmed coronary artery disease (CAD). However, evidence supporting the clinical impact of contrast echocardiography (CE) in this sphere is not well known. The objective was to review and summarise the clinical data for licensed and investigational applications of CE in CAD, using systematic review methodology. METHODS: Full publications of clinical studies of selected contrast agents were identified through searches of electronic literature databases and application of predefined inclusion criteria. Studies were categorised and key data were extracted and tabulated for analysis. No statistical pooling of data was undertaken due to study heterogeneity. RESULTS: 2275 abstracts were screened. 61 studies met inclusion criteria and were categorised as follows: effectiveness in image enhancement (23 studies); accuracy in the diagnosis of CAD, using coronary angiography as the diagnostic gold standard (23 studies); myocardial viability assessment (16 studies); prognostic accuracy (2 studies). Using second generation contrast agents, diagnostic images were obtained in 48–98% (median = 74%) of patients with suboptimal un-enhanced images and several studies reported improved intra- and interoperator reproducibility. Reported sensitivities and specificities for CAD diagnosis ranged from 41–100% (median = 86%) and 44–100% (median = 81%). Two studies reported that information gained from myocardial contrast echocardiography (MCE) provided incremental diagnostic value to that from left ventricular function (LVF) assessment alone. Reported sensitivities and specificities of myocardial viability assessment by MCE for predicting LVF recovery ranged from 50–96% (median = 74%) and 44–96% (median = 83%). CONCLUSIONS: The body of evidence suggests that effective use of contrast agents in echocardiography extends beyond the licensed use in patients with suboptimal baseline images. MCE is effective in the assessment of myocardial perfusion in the diagnosis of CAD and the detection of myocardial viability. Interpretation is limited by the size of studies, lack of long-term outcomes and potential referral bias.