identified 88 aspects as subunits of eight main domains. Agencies show most similarities in the domain ‘organisation’ (4 of 15 subunits), followed by ‘dissemination’ (2 of 9), ‘methods’ (2 of 20), ‘processes’ (1 of 11), and, scope (1 of 13). All subunits of the domains ‘decision’, ‘implementation’ and ‘impact’ were different. Ranking in terms of productivity is misleading without taking into account other aspects. CONCLUSIONS: We found considerably more differences than similarities across agencies and countries influenced by contextual aspects. This elementary framework is intended to provide disaggregated and global comparative insight that may allow further progress in clarification on the need for action regarding harmonization. By enlarging the number of agencies assessed, our findings could facilitate the communication between producers and users in an understandable, interpretable and transferable way.

**HT2**

UPDATE OF RESULTS AND OUTCOMES OF NICE SINGLE TECHNOLOGY APPRAISALS—ECONOMIC CRITICISMS

Karia R, Plessted M, Cann K, Zwaferink H

Heron Evidence Development Ltd, Letchworth Garden City, UK

**OBJECTIVES:** The Single Technology Appraisal (STA) system has attempted to shorten the process of assessment. As a follow-up to a previous ISPOR poster, we sought to update the database with since published STAs as well as conduct further qualitative research and investigate the criticisms on the economic aspects of the submissions. Discrepancies between ICERs obtained by the manufacturer and the ERG group, and their impact on outcomes were assessed.

**METHODS:** A previously developed database was updated with data from submissions appraised between 6 December 2006 and 31 May 2008. Top-line clinical data was extracted from the manufacturer submission, evidence review group report, expert submission and the final appraisal determination. Further qualitative data was gathered to capture criticisms on the economic aspects of the submissions. Differences in ICER values between the manufacturer and the ERG group were also collected.

**RESULTS:** In total, 18 STAs have been submitted to and appraised by NICE. Thirteen of the 18 submissions received positive guidance from NICE, recommending the use of the drug in the NHS. Further investigation into criticisms on the economic aspect revealed under-estimation of costs, exclusion of relevant costs and/or adverse events and concerns over the time horizon implemented resulting in an under-estimation of the ICER, commonly leading to negative guidance. Industry submissions reported ICERs ranging from £4,726.00 to £44,600.00. Corresponding ICERs reported by the ERG ranged from £8,500.00 to £458,000.00. The committee provided positive guidance in approximately 50% of cases, even though the ERG expressed concerns regarding aspects of the economic model.

**CONCLUSIONS:** Results demonstrated discrepancies in ICERs between the manufacturer’s submission and the ERG report. Fifty percent of the submissions received positive guidance irrespective of concerns voiced by the ERG. Analyzing criticisms on economic aspects of submissions alongside the final outcome will assist in educating manufacturers in the expectations of NICE.

**HT3**

A COMPARISON OF REASONS FOR RECOMMENDATION AND REJECTION IN FOUR HEALTH TECHNOLOGY APPRAISAL SYSTEMS: NICE, SMC, CADTH AND PBAC

Cann K, Karia R, Plessted M, Samuels E

Heron Evidence Development Ltd, Letchworth Garden City, UK

**OBJECTIVES:** Technology appraisal systems are used in many countries to assess newly licensed drug treatments and devices. Our objective was to identify the reasons underlying recent drug appraisal decisions in four countries (England/Wales, Scotland, Canada and Australia) where decisions differed between the agencies.

**METHODS:** Submissions appraised between 1 November 2005 and 31 May 2008 by NICE, SMC, CADTH and PBAC, in England/Wales, Scotland, Canada and Australia respectively, were searched for submissions with opposing decision outcomes. We compared qualitatively and quantitatively the reasons for rejection or recommendation for all drugs where decision outcomes differed between HTA bodies.

**RESULTS:** A total of 81 submissions were identified as having been appraised by two or more of the HTA bodies with differing decision outcomes for the same indication. Seven were excluded from the analysis due to unavailability of data. The most common reasons given for recommendation of a drug were cost-effectiveness, superior efficacy to placebo, and superior efficacy to comparators in 28, 14 and 13 submissions respectively. The most common reasons given for rejection of a drug were a lack of cost-effectiveness, limitations identified in the economic model submitted by the manufacturer, and a lack of superior efficacy to its comparators, as given in 21, 20 and 10 submissions respectively. Twenty-five of the submissions highlighted the same issues pertaining to the new drug as another HTA with a different decision outcome, but continued to issue an alternative outcome.

**CONCLUSIONS:** Commonly HTA bodies focus on the relative cost-effectiveness and efficacy of a new drug. However, different HTAs place different emphases on each aspect of a submission. Recognising the individual preferences of the appropriate body could potentially influence future outcomes.

**HT4**

HEALTH TECHNOLOGY ASSESSMENTS: ARE THEY RELEVANT TO CLINICAL PRACTICE?

Zhang B, Van Staa TP

1General Practice Research Database, London, Middlesex, UK
2General Practice Research Database, London, UK

**OBJECTIVES:** Data from randomised clinical trials (RCT) are often considered best evidence for health technology assessments. The objective of this study was to compare event probabilities used in published cost-effectiveness studies to those observed in actual clinical practice. Selective Cox-2 inhibitors (coxibs) were used as an example. Almost all the 30 published coxib cost-effectiveness studies used RCT data for event probabilities.

**METHODS:** A basic cost-effectiveness model was developed using a decision tree. Two alternative strategies were evaluated: prescription of a conventional NSAID or coxib. The UK General Practice Research Database (GPRD) was used to estimate the individual probabilities of upper gastrointestinal (GI) events during current use of NSAID or coxib. Outcomes included upper GI events as recorded in GPRD and hospitalisation for upper GI events recorded in the national registry of hospitalisations (Hospital Episode Statistics) linked to GPRD. Incremental prescription costs were based on GPRD costs.

**RESULTS:** The study population included over 1 million patients prescribed conventional NSAIDs or coxibs. Only a minority of patients used the drugs long-term and daily (34.5% of conventional NSAIDs and 44.4% of coxibs), whereas coxib RCTs required daily use for at least 6–9 months. The rate of upper GI events (as recorded in GPRD) and hospitalisations during current use of conventional NSAIDs decreased over calendar time with 5–8% per year (tests for linear trend P-value < 0.05). The mean cost of preventing one upper GI event as recorded in GPRD was £52 k (ranging from £32 k with long-term daily use to £91 k with intermittent use) and £149 k for hospitalisations. The mean costs (for GPRD events) over calendar time were £29 k during 1990–1993 and