INTRODUCTION

Ovarian cancer is a chemotherapy-sensitive disease that is treated at the time of initial diagnosis using platinum- and taxane-based chemotherapy. The disease recurs after first-line treatment in the majority of patients (80%), who must be retreated at subsequent recurrences as long as the tumour is responsive to chemotherapy.1 Response rates to chemotherapy, however, decrease after each treatment cycle due to the onset of drug resistance.2

Identifying appropriate utility values to inform cost-effectiveness analysis is a common problem. The aim of this study was to review health state utility values (HSUVs) for patients with advanced ovarian cancer and make recommendations about their use in the economic evaluation of a targeted maintenance therapy for platinum-sensitive recurrent ovarian cancer (PSROC).

METHODS

A systematic review was conducted to identify and synthesize evidence from published reports (direct [standard gamble (SG), time trade-off (TTO)], or visual analogue scale (VAS)) or indirect (EQ-5D, SF-6D, or HUI-3) utility values for patients with advanced ovarian cancer. Searches of Embase®, MEDLINE®, and MEDLINE® in Process and Reference Center databases were carried out in June 2013. Bibliographic searching of included studies was also conducted to identify any additional studies, which may not have been identified by the search. In addition, health technology assessment agency websites were searched. These included NICE, SMG, HAS, NOMA, CADTH, PBAC, IQWiG, and T&LV. Study design, country, HSUV elicitation method, health state (HS) description, and study publication year were recorded for each HSUV.

RESULTS

A total of 1202 publications were identified through literature searches, and of these, 10 publications, representing five primary sources of utility values, were found. Two were derived from trial-based patient-reported QoL PRO profiling; one derived HSUVs from patients with ovarian cancer and utility values from a sample of the general population using a SG; one derived HSUVs from patients with a prior diagnosis of ovarian cancer and healthy volunteers using TTO and VAS; one non ovarian cancer-specific study derived utility values using TTO.

Included studies reported utilities for 18 different health states. Further, 2 additional health states were identified in a mixed patient population study, where the majority of patients (70%) had advanced ovarian cancer. Utilities derived using direct elicitation methods are presented in Table 1. Table 2: Utility values derived using indirect elicitation methods

CONCLUSIONS

The trial-based estimates of health state utility shown above were derived by pooling patients across all comparators in two clinical trials (OVA-310 and ICON7). These estimates have been used in all of the recent ovarian cancer technology assessments submitted to NICE (TA 222, TA 284, and TA 285). Overall, there is insufficient evidence to conclude whether or not health state utilities differ across these treatments. Furthermore, none of the trial-based estimates made any allowances for the reduction in utility associated with treatment-related adverse events, on the basis that since EQ-5D values were obtained from patients at a number of different time points during treatment, the effects of adverse events would already be accounted for. Since utility estimates were pooled across treatment groups, this assumption implies that the profile of adverse events is the same for all treatments. None of the studies included in this review reported values for patients receiving maintenance therapy. Where comparisons were possible, utility values differed widely: remission 0.72-0.97; progressive disease-free survival after recurrence 0.4-0.71; progressive disease 0.27-0.75. However, there is some evidence to suggest that utility value associated with the progression of the disease state increases with the length of progression-free survival.

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