1. INTRODUCTION

Until the 1990s benefit assessment in health economics was dominated by an assumption that health was the only important outcome from health care. This is evidenced by the large amount of research devoted to valuing health outcomes using quality-adjusted life years (QALYs) (Williams, 1985; Dolan, 1997). The 1990s saw a challenge to this assumption, arguing that concentration on health outcome fails to allow for the possibility that individuals derive benefit from other sources – non-health outcomes and process attributes – (Ryan and Shackley, 1995; Ryan and Hughes, 1997; Diener et al., 1998; Donaldson et al., 1998; Ryan, 1999; Donaldson and Shackley, 2003). Non-health outcomes refer to sources of benefit such as the provision of information, reassurance, autonomy and dignity in the provision of care. Process attributes include such aspects of care as waiting time, time in consultation, location of treatment and continuity of care and staff attitudes. While it should be recognised that some of these will have direct effects on health outcomes, they also have what can be regarded as pure non-health benefits. The debate about going beyond health outcomes led to the question of how such attributes can be valued. It became clear that QALYs would not be appropriate for valuing non-health outcome and process attributes. For example, it would not be realistic to ask individuals how many years at the end of their life they would be willing to give up to have waiting time reduced by 3 months; as would be required using the time–trade-off method.

Recently, it was argued that the National Institute of Health and Clinical Excellence (NICE) should use the discrete choice experiment (DCE) approach in their “patient centred” evaluations of technologies (Ryan, 2004). By adopting this approach factors beyond health outcomes can be considered and their valuation from the patient’s perspective may lead to different recommendations to those based on the cost per QALY.
approach. This is more likely to be the case when comparing technologies that differ with respect to factors beyond those measured in a QALY (Ryan, 2004), as well as to interventions that result in short-term QALY gains (Gafni and Zylak, 1990).

These points are clearly demonstrated in this chapter where we present the results of a DCE conducted following a randomised controlled trial (RCT) concerned with examining the effect of reducing waiting times on the health of patients referred for a non-urgent rheumatology opinion. The intervention compared a “fast-track” appointment (mean waiting time of 43 days between referral and seeing hospital doctor) with an “ordinary” appointment (mean waiting time of 105 days). No significant differences were found in health gains across the two arms of the trial 15 months after treatment (Hurst et al., 2000). The authors conclude that this finding suggests no benefit from fast-tracking. Further, they argue that given rationing by delay was not detrimental to either mental or physical health, expenditure of resources on waiting times is likely to be wasteful, and that additional resources should be directed at achieving the greatest clinical benefit. However, crucially, such an approach ignores the value that patients attach to reductions in waiting time. Related to this, it is likely that patients in the fast-track arm received benefit 6 weeks earlier. Whilst the RCT design did not collect data on the time course of health change, the small time gained means that the QALY is unlikely to be sensitive to the value of any health gain derived 6 weeks earlier. The QALY approach does not assign value to short-term QALY gains (Gafni and Zylak, 1990). The reason for this is that whilst the difference in health states may be significant, when this is multiplied by the length of time spent in the state, any effects then become negligible.

In the study presented in this chapter we apply the DCE methodology to estimate the monetary value of reducing waiting time. It is shown how the technique can be used to take a patient-centred approach that values all aspects of care important to patients. In Section 2 we describe the DCE methodology applied to value reductions in waiting time in the provision of routine rheumatology care. The results are discussed in Section 3. Section 4 discusses the policy relevance of the findings as well as the application of the DCE approach when providing patient-centred evaluations on health care interventions.

2. METHODOLOGY

2.1. Attributes, Levels, Experimental Design and Questionnaire

Following the results of the RCT by Hurst et al. (2000), this study was mainly concerned with the value of reducing waiting time in the management of routine rheumatology care. Two attributes included in the study were therefore waiting time and a price proxy such that willingness to pay (WTP) could be indirectly estimated. In addition, the study valued two other attributes of care that were identified as important by patients (Ryan et al., 2000). The attributes are shown in Table 4.1 together with the levels assigned to them. These attributes and levels gave rise to 96 possible scenarios.

Experimental design techniques were used to derive eight choices that were presented to respondents (Bradley, 1991). For each choice subjects were asked which clinic they would prefer, with possible responses being “clinic A”, “clinic B” or