

Ultra-radical surgery compared to standard surgical treatment for women with advanced ovarian cancer: a cost-effectiveness analysis

Giovanna Bettoli¹, Andrew Phillips², Sudha Sundar³, Carole Cummins⁴, and Anish Bali²

¹University of Nottingham School of Medicine

²Royal Derby Hospital

³University of Birmingham Institute of Cancer and Genomic Sciences

⁴University of Birmingham Institute of Applied Health Research

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Abstract

Objective To compare current surgical practice for women with AOC to ultra-radical surgery; to assess whether the new approach would be cost-effective under NICE guidelines of approximately £20,000/QALY. **Design** Cost-effectiveness analysis. **Setting** NHS, using data from a variety of sources. **Population** Patients with advanced ovarian cancer (FIGO stages IIIC-IV). **Methods** A decision analytic model (microsimulation model) was built to examine the Objective; deterministic and probabilistic sensitivity analyses were used to test the susceptibilities of the baseline model and its assumptions. **Main Outcome Measures** ICER (incremental cost-effectiveness ratio). **Results** The standard model yielded an ICER of £5325.06; this is in spite of an associated overall decrease in utility due to predicted increase in surgical mortality. The parameters with the most significant impact on the ICER are the cost of ultra-radical surgery, the utility associated with progression-free survival, and the probability of death from ultra-radical surgery. **Conclusions** Ultra-radical surgery is cost-effective under NICE willingness-to-pay thresholds of £20000; the costs of ultra-radical surgery are bound to decrease as centres specialise further, and its effectiveness is also likely due to increase with development of newer techniques and more surgical training.

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