Table 21: Economic evidence table showing the included health economic evidence for the optimal duration of adjuvant endocrine therapy for people with oestrogen-receptor positive breast cancer

Study details	Treatment strategies	Study population, design and data sources	Results	Comments
Author & year: Shah et al. 2013 **Country:** United States (US) **Type of economic analysis:** Cost-utility analysis **Source of funding:** Not reported.	Accelerated partial breast radiotherapy (APBRT) techniques were compared against whole beam radiotherapy (WBRT) techniques. Various APBRT and WBRT techniques were considered: APBRT techniques • 3D Conformal radiotherapy (CT) • Intensity modulated radiotherapy (IMRT) • Single lumen (SL) • Multi lumen (ML) • Interstitial WBRT techniques • 3D Conformal radiotherapy (CT) • Intensity modulated radiotherapy (IMRT)	**Population characteristics:** Women with invasive early stage (breast cancer. **Modelling approach:** Cost-efficacy analysis and cost-utility analysis (results reported here reflect cost-utility analysis). **Source of base-line and effectiveness data:** Matched pair analyses of cohort data for patients treated with APBI and WBI was used to inform analysis. It was assumed that WBI and APBI effectiveness was the same regardless of technique. WBI effectiveness was based on data from traditional techniques (2D and 3D CRT) and this was extended to newer techniques (IMRT). APBI effectiveness was based on data from interstitial technique and it was assumed to be equivalent to all other APBI techniques (based on a trail which found no difference in outcome between techniques). **Source of cost data:** Costs were based on reimbursement costs from Medicare schedules for each treatment technique. Costs associated with recurrence and distant disease were	***APBRT techniques compared against WBRT – 3D CRT*** **Mean (and incremental) cost per patient** • WBRT – 3D CRT: $11,726 • APBRT – 3DCRT: $6,578 (-$5,148) • APBRT –IMRT: $10,547 (-$1,179) • APBRT –SL: $12,602 ($876) • APBRT –ML: $16,439 ($4,713) • APBRT –Interstitial: $11,765 ($39) - **Mean (and incremental) QALYs per patient:** • WBRT – 3D CRT: 10.84 QALYs • APBRT – 3DCRT: 10.91 QALYs (0.07 QALYs) • APBRT –IMRT: 10.91 QALYs (0.07 QALYs) • APBRT –SL: 10.91 QALYs (0.07 QALYs) • APBRT –ML: 10.91 QALYs (0.07 QALYs) • APBRT –Interstitial: 10.91 QALYs (0.07 QALYs) **ICERs:** • APBRT – 3DCRT: Dominant • APBRT –IMRT: Dominant • APBRT –SL: $12,514 per QALY • APBRT –ML: $67,329 per QALY • APBRT –Interstitial: $557 per QALY	**Perspective:** Multiple perspectives were considered as various costs were included. Results reported here focus on reimbursement costs and therefore reflect the US health care payer perspective. **Currency:** US dollars ($) **Cost year:** 2011. **Time horizon:** Not reported **Discounting:** Not reported. **Applicability:** The analysis was only partially applicable to the UK context since it considered the US health care system. **Limitations:**

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		sourced from a published cost analysis. Follow-up costs were not considered in the analysis because of the similarity in follow-up between treatment strategies. In some scenarios, non-medical costs were incorporated based on costs from a previous analysis. **Source of QoL data:** QoL values were sourced from a previous cost-effectiveness analysis. QoL values were applied for three health states (no recurrence, recurrence and distant metastases).	***APBRT techniques compared against WBRT – IMRT*** **Mean (and incremental) cost per patient** • WBRT – IMRT: $20,637 • APBRT – 3DCRT: $6,578 (-$14,059) • APBRT –IMRT: $10,547 (-$10,090) • APBRT –SL: $12,602 (-$8,035) • APBRT –ML: $16,439 (-$4,198) • APBRT –Interstitial: $11,765 (-$8,872) - **Mean (and incremental) QALYs per patient:** • WBRT – IMRT: 10.84 QALYs • APBRT – 3DCRT: 10.91 QALYs (0.07 QALYs) • APBRT –IMRT: 10.91 QALYs (0.07 QALYs) • APBRT –SL: 10.91 QALYs (0.07 QALYs) • APBRT –ML: 10.91 QALYs (0.07 QALYs) • APBRT –Interstitial: 10.91 QALYs (0.07 QALYs) **ICERs:** • APBRT – 3DCRT: Dominant • APBRT –IMRT: Dominant • APBRT –SL: Dominant • APBRT –ML: Dominant • APBRT –Interstitial: Dominant **Subgroup analysis:** Not conducted. **Sensitivity analysis:** No deterministic or probabilistic sensitivity analyses were conducted.	Serious limitations were identified in the analysis. Most notably, uncertainty around the base case estimates was not assessed as no deterministic or probabilistic sensitivity analyses were conducted. Also the modelled time horizon was not clear and the discount rate was not reported (possible that no discount rates were used). **Other comments:** Incremental costs and QALYs were not reported in the study. Incremental values above have therefore been estimated as the difference between the absolute values reported in the study. Note also that the study presents costs under numerous scenarios. The costs presented above are for reimbursement costs only as it was thought to best reflect the third party perspective (other scenarios reported in the analysis included 'non-medical' costs which possibly include costs

Study details	Treatment strategies	Study population, design and data sources	Results	Comments
				more applicable to the societal perspective).