Table S1. Administrative billing codes and cost estimates for decision tree analysis of neodjuvant chemotherapy versus primary debulking surgery for bulky advanced epithelial ovarian cancer

Event	Probability		Cost	Administrative billing codes**	Source
	PDS	NACT			
Debulking surgery	1.00	1.00	$2,095	CPT 58953	Medicare Physician Fee Schedule[30]
Additional surgical procedures					Medicare Physician Fee Schedule[30]
Pelvic lymphadenectomy or para-aortic lymphadenectomy	0.38	0.43	$177*	CPT 58954	Medicare Physician Fee Schedule[30]
Recto-sigmoidectomy with anastomosis	0.84	0.15	$1,428	CPT 45111, 44145	Medicare Physician Fee Schedule[30]
Large/small bowel resection	0.42	0.08	$1,395	CPT 44140	Medicare Physician Fee Schedule[30]
with ostomy creation	0.38	0.15	$475	CPT 44141, 44144	Medicare Physician Fee Schedule[30]
Diaphragm stripping/resection	1.00	0.38	$1,059	CPT 39560, 39561	Medicare Physician Fee Schedule[30]
Splenectomy and/or distal pancreasectomy	0.58	0.04	$1,032	CPT 48140, 38100, 38102	Medicare Physician Fee Schedule[30]
Liver resection	0.09	0.00	$2,423	CPT 47120	Medicare Physician Fee Schedule[30]
Post-surgical hospitalization					
Without complications			$11,471	DRG 738	HCUPnet****[29]
With major complications			$27,030	DRG 736	HCUPnet[29]
Readmission for late complication					
Pleural effusion	0.50	0.00	$5,543	DRG 188	HCUPnet[29]
Pelvic abscess	0.33	0.00	$4,449	DRG 759	HCUPnet[29]
Heart failure	0.17	0.00	$4,638	DRG 293	HCUPnet[29]
Chemotherapy (3 rounds)					
Carboplatin (AUC=5***)			$60	HCPCS J9045	Average Sales Price[31] + 6%
Paclitaxel (175 mg/m^2)			$528	HCPCS J9265	Average Sales Price[31] + 6%
IV chemotherapy administration, 4 hours			$665	CPT 96412 + 96415 x3	Medicare Physician Fee Schedule[30]

Abbreviations: CPT, Current Procedural Terminology; DRG, Diagnosis Related Group; HCUP, Hospital Cost and Utilization Project; AUC, area under the curve; IV, intravenous

*Represents the additional cost of CPT 58954 versus 58953

**For procedures with multiple codes listed, the average of the costs was used; All costs are inflation-adjusted to 2015 US Dollars

***AUC=5 was calculated for a 65 year-old female weighing 70 kg with a serum creatinine of 0.8 mg/dL

****Based on 2014 inpatient stays

Table S2. Utility weights associated with health states in decision tree analysis of neoadjuvant chemotherapy versus primary debulking surgery in advanced epithelial ovarian cancer

Health state	Utility weight	Time frame (months)	Source
Chemotherapy (3 rounds)	0.79	2.08	Rowland *et al*[37]
Major post-operative complications	0.51	1.00	Ebm *et al*[38]
No post-operative complications	0.78	1.00	Rowland *et al*[37]
No ACT following PDS	0.16	2.70	Havrilesky *et al*[35]
No IDS following NACT			
Progressive disease	0.43	7.42	Havrilesky *et al*[35]
Last month of life among no IDS	0.16	1.00	Havrilesky *et al*[35]
Post-treatment	0.83	5.84	Havrilesky *et al*[35]
Death	0.00	varies*	

Abbreviations: ACT, adjuvant chemotherapy; PDS, primary debulking surgery; IDS, interval debulking surgery; NACT, neoadjuvant chemotherapy

*Time from death to end of time horizon

Table S3. Outcomes and incremental cost effectiveness ratios for scenario analysis using literature-based utility weights

	PDS	NACT	Difference (NACT minus PDS)
Cost per 20,000 AEOC cases	$529M	$340M	-$189M
Quality-adjusted life-years	14,095	15,714	1,619
Cost per quality-adjusted life-year		DOMINANT*	

Abbreviations: PDS, primary debulking surgery; IDS, interval debulking surgery; NACT, neoadjuvant chemotherapy; M, millions; AEOC, advanced epithelial ovarian cancer; QALY, quality-adjusted life-year; WTP, willingness-to-pay

*A dominant treatment strategy costs less and provides superior outcomes compared to the treatment alternative

**The threshold analysis calculated the maximum difference in overall survival that would result in PDS being the cost-effective strategy at each WTP threshold