TABLE E-1 Systematic Review and Meta-Analysis*

Event Counts					Prophylaxis						Control							
Primary Author	Year	Extended Prophylaxis Agent	Duration	Control Agent	N	VTE	DVT	PE	PEf	Bleed	FBleed	N	VTE	DVT	PE	PEf	Bleed	FBleed
Bergqvist[5]	1996	LMWH (enoxaparin)	21	placebo	131	2	2	0	0	0	0	131	10	8	2	0	0	0
Comp[10]	2001	LMWH (enoxaparin)	21	placebo	224	0	0	0	0	0	0	211	7	6	1	-	0	0
Dahl[7]	1997	LMWH (dalteparin)	28	placebo	117	4	4	0	0	0	0	110	6	3	3	1	0	0
Heit[13]	2000	LMWH (ardeparin)	42	placebo	241	3	3	0	0	0	0	231	5	5	0	0	1	0
Hull[9]	2000	LMWH (dalteparin)	35	placebo	389	4	4	0	0	0	0	180	3	3	0	0	0	0
Planes[6]	1996	LMWH (enoxaparin)	21	placebo	90	3	3	0	0	0	0	89	7	7	0	0	0	0
Meta-analysis					*1192*	*16*	*16*	*0*	*0*	*0*	*0*	*952*	*38*	*32*	*6*	*1*	*1*	*0*
Prandoni[17]	2002	warfarin	28	placebo	184	2	2	0	0	1	0	176	4	3	1	0	0	0
Samama[18]	2002	warfarin	42	LMWH (reviparin)	636	24	20	4	0	35	1	643	15	15	0	0	9	0

Event Rates					Prophylaxis						Control							
				Primary Author		VTE	DVT	PE	PEf	Bleed	FBleed	VTE	DVT	PE	PEf	Bleed	FBleed	Relative Risk of VTE (95% CI)
				Bergqvist[5]		1.5%	1.5%	0.0%	0.0%	0.0%	0.0%	7.6%	6.1%	1.5%	0.0%	0.0%	0.0%	20% (4%, 90%)
				Comp[10]		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	2.8%	0.5%	-	0.0%	0.0%	6% (0%, 109%)
				Dahl[7]		3.4%	3.4%	0.0%	0.0%	0.0%	0.0%	5.5%	2.7%	2.7%	0.9%	0.0%	0.0%	63% (18%, 216%)
				Heit[13]		1.2%	1.2%	0.0%	0.0%	0.0%	0.0%	2.2%	2.2%	0.0%	0.0%	0.4%	0.0%	58% (14%, 238%)

				Hull[9]		1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	1.7%	1.7%	0.0%	0.0%	0.0%	0.0%	62% (14%, 273%)
				Planes[6]		3.3%	3.3%	0.0%	0.0%	0.0%	0.0%	7.9%	7.9%	0.0%	0.0%	0.0%	0.0%	42% (11%, 159%)
				Meta-analysis		*1.3%*	*1.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*4.0%*	*3.4%*	*0.6%*	*0.1%*	*0.1%*	*0.0%*	*33.6% (18.9%, 59.9%)*
				Prandoni[17]		1.1%	1.1%	0.0%	0.0%	0.5%	0.0%	2.3%	1.7%	0.6%	0.0%	0.0%	0.0%	47.8% (8.8%, 257.8%)
				Samama[18]		3.8%	3.1%	0.6%	0.0%	5.5%	0.2%	2.3%	2.3%	0.0%	0.0%	1.4%	0.0%	61.8% (32.7%, 116.7%)

*VTE = symptomatic venous thromboembolism, DVT = symptomatic deep-vein thrombosis, PE = pulmonary embolism, PEf = fatal pulmonary embolism, PEnf: nonfatal pulmonary embolism, Bleed = major bleeding episode, FBleed = fatal bleeding episode, LMWH = low-molecular-weight heparin, and – = no data available.

TABLE E-2 Primary and Secondary Analysis Parameters

Extended Prophylaxis Costs	Days of Treatment	Average Daily Drug Cost	Total Drug Cost	Home Care Proportion	Home Care Visits	Home Care per Visit	Total Home Care Cost	Total Treatment Cost
Low-molecular-weight heparin (LMWH)	28	$10.67	$299	39%	28	$52.92	$576*	$875
Warfarin	28	$0.50	$14	39%	5	$28.27	$55†	$69

* Cost of daily home nursing visits for LMWH injection for 39% of cohort

† Cost of 5 home blood collections for international normalized ratio (INR) monitoring for 39% of cohort

Inpatient Complication Costs	Discharged	Died in Hosp
Deep-Vein Thrombosis (DVT) | No Major Bleed	$10,316	$24,478
Pulmonary Embolism (PE) | No Major Bleed	$6,716	$26,278
DVT or PE | Major Bleed	$20,191	$19,245
Major Bleed | No Venous Thromboembolism (VTE)	$13,997	$8,531
Post-discharge drug therapy	$436	-

Outpatient DVT Management	Qty	Unit Cost	Total Cost
Visit to General Practitioner	1	$46.25	$46.25
Specialist Consultation	1	$126.95	$126.95
Specialist Followup x 2	2	$68.25	$136.50
Complete blood-cell count (CBC) x 2	2	$9.38	$18.76
INR x 17	17	$10.13	$172.20

INR Monitoring (months)	3	$10.92	$32.75					
LMWH x 5d	5	$11.49	$57.43					
Home Care x Proportion	1.9	$52.92	$102.82					
Warfarin x 90d	90	$0.50	$44.58					
Blood Collection x Proportion	6.6	$28.27	$186.74					
Total			$924.99					
Outpatient PE Management	Qty	Unit Cost	Total Cost					
GP Visit	1	$46.25	$46.25					
Specialist Consultation	1	$126.95	$126.95					
Specialist Followup x 2	2	$68.25	$136.50					
Ventilation-Perfusion Lung Scan‡	0.5	$352.08	$176.04					
Spiral CT Scan‡	0.5	$101.22	$50.61					
CBC x 2	2	$9.38	$18.76					
INR x 17	17	$10.13	$172.20					
INR Monitoring (months)	3	$10.92	$32.75					
LMWH x 5d	5	$11.49	$57.43					
Home Care x Proportion	1.9	$52.92	$102.82					
Warfarin x 90d	90	$0.50	$44.58					
Blood Collection x Proportion	6.6	$28.27	$186.74					

Total			$1,152					
‡ Lung Scan and Computed Tomography (CT) Scan quantities based on assumption 50% of patients will receive Lung Scan; 50% will receive CT Scan								
All costs in 2006 Canadian dollars								
Health States	Utility	Duration						
Quality of Life Following Total Hip Arthroplasty	0.93	up to 14.5yrs						
Warfarin Therapy	0.99	1 month						
LMWH Therapy	0.99	1 month						
PE with Resolution	0.98	1 month						
DVT with Resolution	0.98	1 month						
Major Bleed with Resolution	0.99	1 month						

TABLE E-3 Probabilistic Sensitivity Analysis, Baseline Values, and Distributions*

Drug Costs	Value	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Distribution	Source
LMWH / Daily Cost	10.42	7.72	12.85	Triangle	Unpublished survey
Warfarin / Daily Cost	0.48	0.44	0.52	Triangle	Unpublished survey
Event Costs					
DVT | No Major Bleed / Discharged	10,316	600	39,887	Gamma	Source
DVT | No Major Bleed / Died in Hosp	24,478	3,625	63,921	Gamma	OCCI
PE | No Major Bleed / Discharged	6,716	479	30,724	Gamma	OCCI
PE | No Major Bleed / Died in Hosp	26,278	0	202,585	Gamma	OCCI
DVT or PE | Major Bleed / Discharged	20,191	655	79,654	Gamma	OCCI
DVT or PE | Major Bleed / Died in Hosp	19,245	226	79,526	Gamma	OCCI
Major Bleed | No VTE / Discharged	13,997	5077	27,749	Gamma	OCCI
Major Bleed | No VTE / Died in Hosp	8,531	33	37,191	Gamma	OCCI
Outpatient DVT Management	925	830	1,022	Gamma	See Table II
Outpatient PE Management	1,152	1049	1,254	Gamma	See Table II
Utility Weights					
Total Hip Replacement	0.93	0.87	0.97	Beta	26
Warfarin Therapy (1 month)	0.99	0.96	1.00	Beta	26

LMWH Therapy (1 month)	0.99		0.97	1.00	Beta	26
PE with Resolution (1 month)	0.98		0.94	1.00	Beta	26
DVT with Resolution (1 month)	0.98		0.95	1.00	Beta	26
Major Bleed with Resolution (1 month)	0.99		0.96	1.00	Beta	26
Life Expectancy						
Expected Life Years Remaining	21.39		4.87	52.36	Life Tables	24,25
Discounted Life Years Remaining	14.47		4.47	26.24		
Quality-Adjusted Life Years Remaining	13.46		4.14	24.47		
Event Rates, Primary Analysis						
VTE | Placebo	0.0398		0.0282	0.0529	Beta	See Table I
VTE Relative Risk | LMWH	0.3363		0.1887	0.5993	Log Normal	See Table I
VTE Relative Risk | Warfarin	0.4783		0.0887	2.5784	Log Normal	See Table I
DVT | VTE	0.8231		0.7335	0.8986	Beta	See Table I
PE | VTE	0.1769		0.1014	0.2665	1 - DVT | VTE	See Table I
Fatal PE | PE	0.1436		0.0190	0.3706	Beta	See Table I
Major Bleed | Placebo	0.0010		0.0000	0.0038	Beta	See Table I
Major Bleed | LMWH	0.0140		0.0064	0.0243	Beta	See Table I
Major Bleed | Warfarin	0.0055		0.0001	0.0205	Beta	See Table I
Fatal Bleed | Bleed	0.0054		0.0001	0.0197	Beta	See Table I

Outpatient Treatment | DVT	0.9005		0.8214	0.9773	Triangle	
Outpatient Treatment | PE	0.3295		0.2503	0.4076	Triangle	
Home Care Proportion	0.3885		0.3371	0.4407	Beta	20
Event Rates, Secondary Analysis						
VTE | LMWH	0.0232		0.0131	0.0361	Beta	See Table I
RR VTE | Warfarin	1.6174		0.9771	2.2454	Log Normal	See Table I
DVT | VTE	0.8132		0.7468	0.8705	Beta	See Table I
PE | VTE	0.1868		0.1295	0.2532	1 - DVT | VTE	See Table I
Fatal PE | PE	0.1436		0.0190	0.3706	Beta	See Table I
Major Bleed | LMWH	0.0140		0.0064	0.0243	Beta	See Table I
RR Major Bleed | Warfarin	3.8366		3.0940	4.5689	Log Normal	See Table I
Fatal Bleed | Bleed	0.0054		0.0001	0.0197	Beta	See Table I
Outpatient Treatment | DVT	0.9005		0.8214	0.9773	Triangle	
Outpatient Treatment | PE	0.3295		0.2503	0.4076	Triangle	
Home-Care Proportion	0.3885		0.3371	0.4407	Beta	20

*VTE = symptomatic venous thromboembolism, DVT = symptomatic deep-vein thrombosis, PE = pulmonary embolism, LMWH = low-molecular-weight heparin, RR = relative risk, and OCCI - Ontario Case Costing Initiative database, Ontario Ministry of Health and Long-Term Care.