



### **Online Supplementary Material**

A Health Economic Analysis Exploring the Cost Consequence of Using a Surgical Site Infection Prevention Bundle for Hip and Knee Arthroplasty in Germany. *JHEOR*. 2023;10(2):132-140. [doi:10.36469/jheor.2023.90651](https://doi.org/10.36469/jheor.2023.90651)

#### **Table S1: Full Efficacy Data**

This supplementary material has been provided by the authors to give readers additional information about their work.



**Table S1.** Full Efficacy Data

Parameter	Units	Base Case	Uncertainty	Distribution	Source
Discount rate (costs)	Proportion	0.00	0-0	None	Short time horizon, none used
Discount rate (benefits)	Proportion	0.00	0-0	None	Short time horizon, none used
Time in GW prior to being transferred to OR, high-risk	Days	0.50	0.45-0.55	Gamma	Assumption
Time in GW prior to being transferred to OR, low-risk	Days	0.50	0.45-0.55	Gamma	Assumption
Proportion receiving active pre-warming on ward, high-risk	Proportion	0.10	0.09-0.11	Beta	Assumption
Proportion receiving active pre-warming on ward, low-risk	Proportion	0.10	0.09-0.11	Beta	Assumption
Extra time in GW receiving active pre-warming on ward, intervention bundle	Minutes	25.00	22.5-27.5	Gamma	Grote et al <sup>1</sup>
Extra time in GW receiving active pre-warming on ward, SoC bundle	Minutes	25.00	22.5-27.5	Gamma	Grote et al <sup>1</sup>
Time between active warming on ward and OR entry (interruption time)	Minutes	20.00	15-25	Gamma	Grote et al <sup>1</sup>
Proportion receiving active pre-warming in OR, high-risk	Proportion	0.10	0.09-0.11	Beta	Assumption
Proportion receiving active pre-warming in OR, low-risk	Proportion	0.10	0.09-0.11	Beta	Assumption
Time spent receiving active pre-warming in OR, intervention bundle	Minutes	25.00	22.5-27.5	Gamma	Assumed as similar to ward
Time spent receiving active pre-warming in OR, SoC bundle	Minutes	25.00	22.5-27.5	Gamma	Assumed as similar to ward
Time between active warming in the OR and surgery start (interruption time)	Minutes	10.00	10-15	Gamma	Grote et al <sup>1</sup>
Patients without pre-warming who receive surgery with intraoperative warming, high-risk	Proportion	0.91	0.82-1	Beta	Frisch et al <sup>2</sup>
Patients without pre-warming who receive surgery with intraoperative warming, low-risk	Proportion	0.91	0.82-1	Beta	Frisch et al <sup>2</sup>
Hypothermic patients, high-risk, Following pre-OR active pre-warming and intraoperative warming	Proportion	0.13	0.11-0.14	Beta	Grote et al <sup>1</sup>
Hypothermic patients, low-risk, Following pre-OR active pre-warming and intraoperative warming	Proportion	0.13	0.11-0.14	Beta	Grote et al <sup>1</sup>
Hypothermic patients, high-risk, Intraoperative warming	Proportion	0.44	0.4-0.48	Beta	Frisch et al <sup>2</sup>
Hypothermic patients, low-risk, Intraoperative warming	Proportion	0.44	0.4-0.48	Beta	Frisch et al <sup>2</sup>
Hypothermic patients, high-risk, no active warming	Proportion	0.80	0.72-0.88	Beta	Assumption
Hypothermic patients, low-risk, no active warming	Proportion	0.80	0.72-0.88	Beta	Assumption
Hypothermic patients, high-risk, following active pre-warming on ward and intraoperative warming	Proportion	0.07	0.07-0.08	Beta	Frisch et al <sup>2</sup>
Hypothermic patients, low-risk, following active pre-warming on ward and intraoperative warming	Proportion	0.07	0.07-0.08	Beta	Frisch et al <sup>2</sup>

**Table S1.** Full Efficacy Data, *cont'd*

Parameter	Units	Base Case	Uncertainty	Distribution	Source
Proportion of TKHA patients not experiencing mortality, high-risk	Proportion	1.00	0.9-1	Beta	Prange et al <sup>3</sup>
Proportion of TKHA patients not experiencing mortality, low-risk	Proportion	1.00	0.9-1	Beta	Prange et al <sup>3</sup>
Mortality, superficial SSI (inpatient)	Proportion	0.00	0-0	Beta	Assumed 0 given short time horizon
Mortality, superficial SSI (outpatient)	Proportion	0.00	0-0	Beta	Assumed 0 given short time horizon
Mortality, deep SSI	Proportion	0.00	0-0	Beta	Assumed 0 given short time horizon
Mortality, deep SSI readmissions	Proportion	0.00	0-0	Beta	Assumed 0 given short time horizon
Superficial SSI risk factor: Patient risk categorization	RR	1.13	1.11-1.15	Log-normal	Hardtstock et al <sup>4</sup>
Superficial SSI risk factor: Hypothermia prior to entering the GW	RR	1.21	0.95-1.54	Log-normal	Geurts et al <sup>5</sup>
Deep SSI risk factor: Patient risk categorization	RR	1.13	1.11-1.15	Log-normal	Hardtstock et al <sup>4</sup>
Deep SSI risk factor: Hypothermia prior to entering the GW	RR	1.21	0.95-1.54	Log-normal	Geurts et al <sup>5</sup>
Deep SSI risk factor: Ioban™ Incise Drapes	RR	0.29	0.28-0.35	Log-normal	Bejko et al <sup>6</sup>
Impact on hypothermia, Bair Hugger™ Temperature Management System	RR	0.71	0.64-0.78	Beta	Shaw et al <sup>7</sup>

Abbreviations: GW, general ward; OR, operating room; SoC, standard of care; SSI, surgical site infection; TKHA, total hip and knee arthroplasty

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