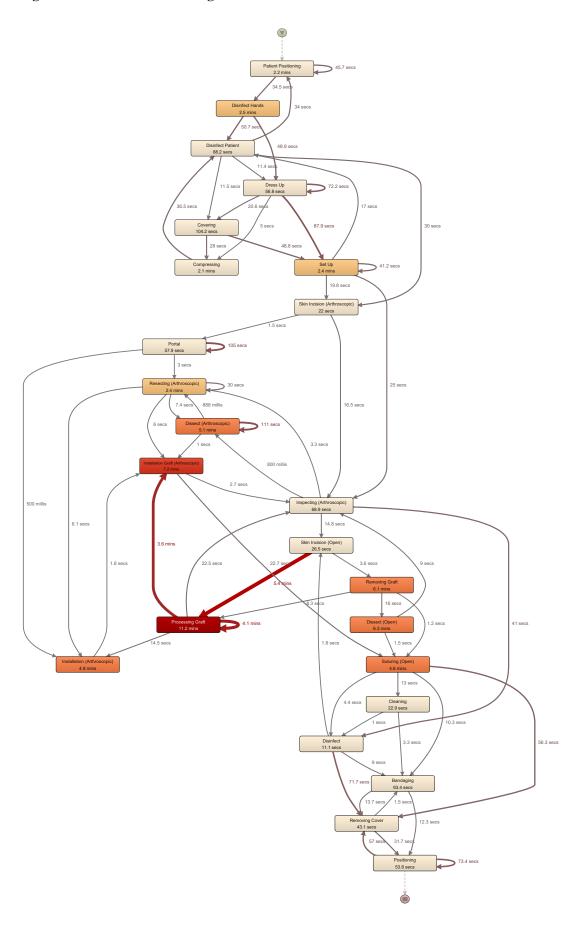
# **Supplementary Material**

## A. Average duration of phases and actions and average number of occurrences per intervention

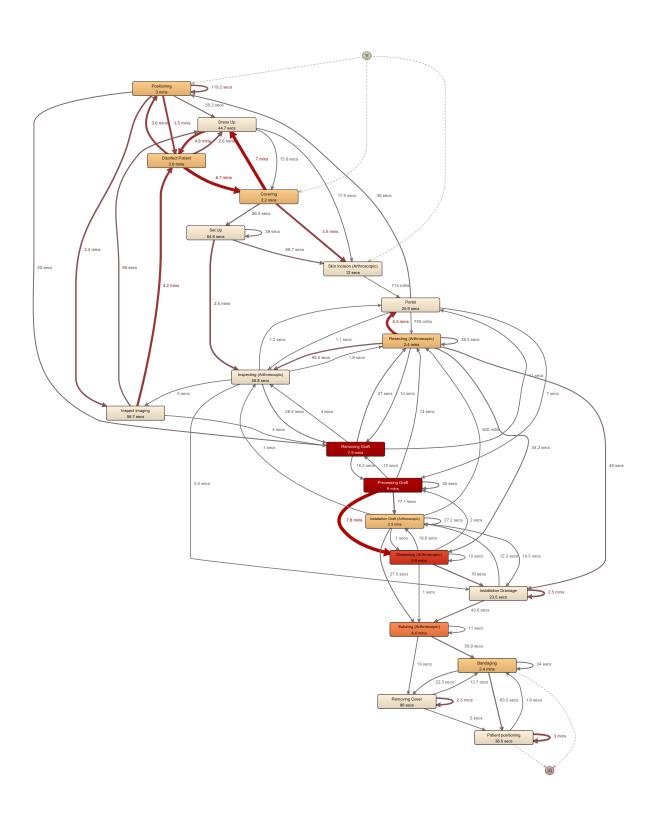
Table 1 - Average duration of phases and actions and average number of occurrences per intervention

	UH	OC	p values
Phases (min)			
Preoperative	$30{,}79 \pm 9{,}19$	$26,02 \pm 13,99$	<i>p</i> <0,05
Postoperative	$15,\!07\pm9,\!93$	$9,\!93\pm3,\!71$	<i>p</i> <0,001
Changeover time	$32,55 \pm 7,58$	$6,\!03\pm8,\!05$	<i>p</i> <0,001
Closure-to-Incision-Time	$80,03 \pm 11,73$	$41,\!20 \pm 18,\!79$	<i>p</i> <0,001
Anaesthesia-Ready-to- Incision-Time	$31,58 \pm 9,74$	$18,03 \pm 8,44$	<i>p</i> <0,001
Actions (min)			
Positioning Patient	$9,40 \pm 5,60$	$2,73 \pm 2,24$	<i>p</i> <0,001
Actions (sec)			
Providing inside OR (per intervention)	$124,52 \pm 117,35$	$20,61 \pm 30,50$	<i>p</i> <0,001
Providing outside OR (per intervention)	$194,86 \pm 216,22$	$15,83 \pm 36,96$	<i>p</i> <0,001
Providing inside OR (per action)	$25,\!48 \pm 38,\!98$	$22,83 \pm 14,03$	p=0,6
Providing outside OR (per action)	$64,54 \pm 61,10$	$40,19 \pm 32,28$	p<0,05
Ocurrences (n)			
Additional tools	$5.45 \pm 4.20$	$1.18\pm1.48$	p<0,001
Defective tools	$0.98\pm1.09$	$0.11\pm0.31$	p<0,001
Opening instrument set	$0.28 \pm 0.68$	$0.02\pm0.21$	<i>p</i> <0,001
Provisions inside OR	$4.89 \pm 3.75$	$0.91\pm1.48$	<i>p</i> <0,001
Provisions outside OR	$3.02\pm2.46$	$0.39 \pm 0.67$	<i>p</i> <0,001
Calls total	$4.53\pm3.44$	$0.11\pm0.31$	<i>p</i> <0,001
Calls surgeon	$1.66\pm1.85$	$0.05\pm0.27$	p<0,001
Calls surgeon sterile coated	$0.25\pm0,\!55$	$0.02\pm0,\!12$	p<0,005

# B. gSPM of anterior cruciate ligament reconstruction at UH



# $C. \quad \textbf{gSPM of anterior cruciate ligament reconstruction at } \textbf{OC}$



# D. Definition of phases and actions

Phase	Start	End
Preoperative	Patient arrives in the operating theatre	Skin incision.
	before the intervention.	
Postoperative	End of the last suture.	Patient leaves the operating theatre
		after the intervention.
Changeover time	Patient of the accomplished	Patient of the following intervention
	intervention leaves the OR.	arrives in the OR before the
		intervention.
Closure-to-Incision-Time	End of the last suture of the	Skin incision in the following
	accomplished intervention.	intervention.
Anesthesia-Ready-to-Incision-Time	Anesthetic preparation is complete	Skin incision.
	and the patient is released.	
Intraoperative (Incision-to-Closure	Skin incision.	End of last suture.
time)		

Action	Start	End
Positioning Patient	First sub action to position the patient	End of the last sub action to position
	(often starting with the positioning of	the patient (fixation of the position).
	the patient on the operation table).	
Providing inside OR	The assistant moves to provide an	The instrument is handed over to the
	instrument from inside of the OR.	sterile assistant.
Providing outside OR	The assistant moves to provide an	The instrument is handed over to the
	instrument from outside of OR.	sterile assistant.
Skin incision	The scalpel cuts through the skin.	The scalpel is removed from the skin.
Suturing	Starts with the first stitch of a needle.	Ends with the last cut of the suture.
Wound dressing	Put on the wound dressing material.	Fixation of the wound dressing.