Supplementary File 1:

Table S1 Means and standard deviations of items and scales measuring psychosocial determinants of surgical site infection preventive compliance

Scale		Physicians			Nurses		
ltems ^a	N	M	SD	N	М	SD	
Capability	86	5.7	1.1	186	5.6	1.0	
I have been sufficiently trained to implement these measures in accordance with the guidelines.	89	4.9	1.9	190	5.5	1.6	
I am confident in my ability to implement these measures correctly in practice.	89	6.0	1.1	193	6.0	1.1	
Even if I previously made a mistake in relation to these measures, I am confident in my ability to	90	6.1	1.2	193	6.1	1.1	
implement them correctly again.							
I know exactly how to implement these measures correctly.	90	5.8	1.3	191	5.9	1.2	
I regularly verify that I have implemented these measures correctly.	90	5.3	1.6	192	5.7	1.3	
Effectively implementing these measures has become routine for me.	88	5.7	1.3	190	5.8	1.2	
Opportunity ^b	85	4.6	1.3	188	4.5	1.2	
The technical and spatial equipment in "my" ward and operating theatre are appropriate for	88	5.4	1.6	192	5.2	1.6	
implementing these measures.							
The personnel resources in "my" ward and operating theatre are appropriate for implementing	90	5.0	1.6	193	4.3	1.8	
these measures.							
I have sufficient time to implement these measures effectively.	90	4.4	1.7	193	3.9	1.7	
I have sufficient opportunities to keep me informed about the correct implementation of these	90	4.6	1.7	193	4.7	1.7	
measures (in-house standards).							
The cooperation between my colleagues and me regarding these measures is effective.	88	5.2	1.5	193	5.3	1.4	
I receive sufficient recognition for implementing these measures, e.g. from my supervisor.	89	3.6	2.1	188	3.6	1.9	
Motivation	89	6.2	1.1	185	6.2	.9	
If I implement these measures correctly, I contribute to the prevention of surgical site infections.	90	6.4	1.2	191	6.3	1.0	
If I implement these measures correctly, I will be a role model for my colleagues.	89	6.0	1.5	190	5.9	1.4	
I have set myself the goal of always implementing these measures correctly.	90	6.2	1.2	191	6.2	1.1	
As an employee, I feel obliged to always implement these measures correctly.	90	6.4	1.1	192	6.4	.9	
Planning	89	3.9	1.8	184	3.9	1.7	
I have recently developed specific plans for implementing these measures most effectively.	89	3.8	1.9	184	3.9	1.8	
I have recently developed specific plans for overcoming barriers and challenges that make the	89	3.9	1.8	185	3.9	1.7	
implementation of these measures increasingly difficult.							

Notes: M, mean; SD, standard deviation.

^a German originals are available from the senior author upon request.

^b Comparisons of means of the opportunity scale and items between physicians and nurses may be biased because measurement equivalence was not established

Supplementary File 2:

Table S2 Mean rates (in %) and standard deviations of self-reported compliance with surgical site infection (SSI) preventive interventions for which participants reported responsibility for

Nb Mean compliance rate (in %) Nb Mean pliance rate (in %) Nb Mean pliance rate (in %) Nb Mean compliance rate (in %) Nb Nb Nb Nb Nb Nb Nb N	SSI-preventive	Physicians			Nurses			
- exposure time	clinical interventions	Nb	Mean com- pliance rate		N ^b	com- pliance rate	SD	
Technique	_	00	00.0	0.0	07	04.0	44.0	
Preparing of sterile instruments - within the operating theatre - outside the operating theatre - outside the operating theatre - within the operating theatre - outside the operating theatre - of the operative the operating theatre - outside the operating t	•							
- within the operating theatre 29 92.4 19.1 32 96.2 7.8 Covering prepared sterile instruments - within the operating theatre 29 92.4 19.1 32 96.2 7.8 Covering prepared sterile instruments - within the operating theatre 24 91.1 21.4 18 89.2 30.7 Hair removal—clipping 30 87.8 21.6 50 88.9 8.2 3.8 Wearing surgical cap 80 99.9 0.7 88 98.9 3.3 Wearing surgical mask 81 98.1 7.7 89 95.8 10.5 Use of double gloving 57 84.1 28.5 61 91.4 18.7 Using remnant antiseptic 67 97.3 7.5 64 88.8 20.9 Use of iodine-impregnated incision 36 79.4 33.3 33 61.0 31.8 drape Sterile handing over of instruments 60 97.9 11.0 75 97.9 7.7 in the operating theatre Perioperative antibiotic prophylaxis 82 94.3 12.6 42 88.3 20.2 Perioperative temperature 45 82.9 29.1 32 84.7 18.4 measurement Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of 58 92.3 17.3 70 89.5 16.6 existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.6 Removing white coat before 54 60.3 37.1	•	65	97.9	5.0	67	96.4	8.9	
- outside the operating theatre Covering prepared sterile instruments - within the operating theatre - outside the	. •	20	00.0	2.0	62	00 5	27	
Covering prepared sterile instruments - within the operating theatre - outside the operating theatre - 24	•							
- outside the operating theatre	Covering prepared sterile	29	92.4	19.1	32	90.2	1.0	
- outside the operating theatre	 within the operating theatre 	30	99.3	2.5	51	89.8	23.8	
Wearing surgical cap 80 99.9 0.7 88 98.9 3.3 Wearing surgical mask 81 98.1 7.7 89 95.8 10.5 Use of double gloving 57 84.1 28.5 61 91.4 18.7 Using remnant antiseptic 67 97.3 7.5 64 88.8 20.9 Use of iodine-impregnated incision 36 79.4 33.3 33 61.0 31.8 drape 82 94.3 33.3 61.0 31.8 31.8 drape 82 94.3 12.6 42 88.3 20.2 Perioperative antibiotic prophylaxis 82 94.3 12.6 42 88.3 20.2 Perioperative temperature 45 82.9 29.1 32 84.7 18.4 measurement Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39	•	24	91.1	21.4	18	89.2	30.7	
Wearing surgical mask 81 98.1 7.7 89 95.8 10.5 Use of double gloving 57 84.1 28.5 61 91.4 18.7 Use of iodine-impregnated incision drape 67 97.3 7.5 64 88.8 20.9 Sterile handing over of instruments in the operating theatre 60 97.9 11.0 75 97.9 7.7 in the operating theatre 82 94.3 12.6 42 88.3 20.2 Perioperative antibiotic prophylaxis 82 94.3 12.6 42 88.3 20.2 Perioperative temperature 45 82.9 29.1 32 84.7 18.4 measurement Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative b	Hair removal—clipping	30	87.8	21.6	50	87.8	20.6	
Use of double gloving Using remnant antiseptic G7 97.3 7.5 64 88.8 20.9 Use of iodine-impregnated incision drape Sterile handing over of instruments in the operating theatre Perioperative antibiotic prophylaxis Perioperative temperature Perioperative blood glucose control Perioperative pre-warming Examination of the indication of existing surgical drains Aseptic dressing change Septic dressing change Septic dressing chande Septic dr	Wearing surgical cap	80	99.9	0.7	88	98.9	3.3	
Using remnant antiseptic 67 97.3 7.5 64 88.8 20.9 Use of iodine-impregnated incision 36 79.4 33.3 33 61.0 31.8 drape Sterile handing over of instruments 60 97.9 11.0 75 97.9 7.7 in the operating theatre Perioperative antibiotic prophylaxis 82 94.3 12.6 42 88.3 20.2 Perioperative temperature 45 82.9 29.1 32 84.7 18.4 measurement Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of 58 92.3 17.3 70 89.5 16.6 existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1 touching a patient Hygienic hand disinfection ^a - before touching a patient 89 81.1 19.6 191 81.5 16.8 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings	Wearing surgical mask	81	98.1	7.7	89	95.8	10.5	
Use of iodine-impregnated incision drape Sterile handing over of instruments in the operating theatre Perioperative antibiotic prophylaxis Perioperative temperature 45 82.9 29.1 32 84.7 18.4 measurement Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of 58 92.3 17.3 70 89.5 16.6 existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1 touching a patient Hygienic hand disinfectiona - before touching a patient 89 81.1 19.6 191 81.5 16.8 existing sagainer to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings	Use of double gloving	57	84.1	28.5	61	91.4	18.7	
Sterile handing over of instruments 60 97.9 11.0 75 97.9 7.7	Using remnant antiseptic	67	97.3	7.5	64	88.8	20.9	
in the operating theatre Perioperative antibiotic prophylaxis 82 94.3 12.6 42 88.3 20.2 Perioperative temperature 45 82.9 29.1 32 84.7 18.4 measurement Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of 58 92.3 17.3 70 89.5 16.6 existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1 touching a patient Hygienic hand disinfection ^a - before touching a patient 89 81.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings		36	79.4	33.3	33	61.0	31.8	
Perioperative antibiotic prophylaxis 82 94.3 12.6 42 88.3 20.2 Perioperative temperature measurement 45 82.9 29.1 32 84.7 18.4 Perioperative blood glucose control Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of Examination of Examination of Examination of the indication of Examination of Examinat		60	97.9	11.0	75	97.9	7.7	
Perioperative temperature	• •	82	94.3	12 6	42	88.3	20.2	
measurement 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of existing surgical drains 58 92.3 17.3 70 89.5 16.6 existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before touching a patient 54 60.3 37.1 - - - - Hygienic hand disinfection ^a - -	• • • •							
Perioperative blood glucose control 38 81.6 25.8 21 78.6 27.1 Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of existing surgical drains 58 92.3 17.3 70 89.5 16.6 existing surgical drains 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before touching a patient 54 60.3 37.1 - - - - before touching a patient 89 81.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially infectious material 90 97.9 4.3 189 95.9 8.6 - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients'	·	.0	02.0	20.1	02	01.1	10.1	
Perioperative pre-warming 43 69.0 31.2 39 68.7 36.6 Examination of the indication of 58 92.3 17.3 70 89.5 16.6 existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1 touching a patient Hygienic hand disinfectiona 54 60.3 37.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material 190 87.8 15.6 191 86.9 15.1 after touching patients 90 71.1 24.7 190 76.1 20.3 surroundings		38	81.6	25.8	21	78.6	27.1	
Examination of the indication of existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1								
existing surgical drains Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1 touching a patient Hygienic hand disinfectiona - before touching a patient 89 81.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings								
Aseptic dressing change 59 89.4 20.0 98 92.1 12.6 Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before 54 60.3 37.1 touching a patient Hygienic hand disinfectiona - before touching a patient 89 81.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings								
Septic dressing change 58 88.6 19.7 94 89.1 16.3 Removing white coat before touching a patient 54 60.3 37.1 - - - - touching a patient 4 89 81.1 19.6 191 81.5 16.8 16.8 16.8 191 81.5 16.8	3 3	59	89.4	20.0	98	92.1	12.6	
Removing white coat before touching a patient 54 60.3 37.1 -		58	88.6	19.7	94	89.1	16.3	
touching a patient Hygienic hand disinfectiona - before touching a patient 89 81.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings		54	60.3	37.1	-	-	-	
- before touching a patient 89 81.1 19.6 191 81.5 16.8 - before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings								
- before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings	Hygienic hand disinfection ^a							
- before aseptic procedures 87 93.5 13.1 184 92.3 10.6 - after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings	- before touching a patient	89	81.1	19.6	191	81.5	16.8	
- after exposure to potentially 90 97.9 4.3 189 95.9 8.6 infectious material 90 87.8 15.6 191 86.9 15.1 after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings	9 ,	87	93.5	13.1	184	92.3	10.6	
infectious material - after touching a patient 90 87.8 15.6 191 86.9 15.1 - after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings	· · ·	90	97.9	4.3	189	95.9	8.6	
- after touching patients' 90 71.1 24.7 190 76.1 20.3 surroundings								
surroundings	- after touching a patient	90	87.8	15.6	191	86.9	15.1	
	- after touching patients'	90	71.1	24.7	190	76.1	20.3	
Mean overall compliance rate 90 88.8 7.5 193 88.3 9.8	Mean overall compliance rate	90	88.8	7.5	193	88.3	9.8	

Note: SD, standard deviation.

^a Differences to rates reported in ³³ are due to slightly different analytical samples due to missing values.

^b Denotes the number of respondents who indicated responsibility for the action in question.