

Appendix 2. Evidence table

Author, year, reference	Design, setting, population	Type of surgery	SSI definition	Randomization and blinding	Intervention	Results
Abouzari, 2009 ⁷	RCT, single centre mixed population	Elective cranial surgery (exclusion of ventriculo-peritoneal shunt surgery).	Follow-up until complete wound healing. Presence of infection, including pus at the operative site, a positive culture from a swab of the incision, development of postoperative bacterial meningitis and/or inflammation at the area of the wound.	Unknown randomization and blinding.	A) Shaving (unknown timing and location) B) Clipping (unknown timing and location) C) No hair removal	A) n=65 SSI: 3/65 (4.6%) B) n=65 SSI: 1/65 (1.5%) C) n=65 SSI: 1/65 (1.5%) No <i>P</i> -value or OR reported
Adisa, 2011 ⁸	RCT, single centre, adults	Clean operations with access through hair-bearing areas of the body.	Modified Southampton wound infection scoring system (presence of undue wound redness and swelling, discharge of serous or haemoserous fluids, discharge of pus or wound dehiscence).	Envelope randomization, blinding of assessor.	A) Shaving (immediately before surgery in the OR) B) Depilatory cream (potassium thioglycolate) (morning of surgery, unknown location)	A) n=86 SSI: 11/86 (12.8%) B) n=79 SSI: 2/79 (2.5%) <i>P</i> =0.015
Alexander, 1983 ⁹	RCT, single centre mixed population	Elective surgery (exclusion of dirty wounds, proctologic procedures, skin grafts, operations on the genitalia, head or hand, amputations of the toe or foot or operations for decubitus ulcers).	Infection defined as discharge of pus, classified as either stitch abscess, superficial abscess (requiring minor drainage) or deep abscess (requiring major drainage in the OR or extending into a major body cavity) checked at time of discharge.	Envelope randomization, unknown blinding.	A) Shaving (night before surgery) B) Shaving (morning of surgery) C) Clipping (night before surgery) D) Clipping (morning of surgery) Unknown type of razor and clipper	A) n=271 SSI: 14/271 (5.2%) B) n= 266 SSI: 17/266 (6.4%) C) n=250, SSI: 10/250 (4.0%) D) n=226 SSI: 4/226 (1.8%) No <i>P</i> -value or OR reported
Balthazar, 1982 ¹⁰	RCT, single centre, male patients	Elective inguinal herniorrhaphy.	Infection defined as discharge of purulent exudate at postoperative day 5.	Randomization table, unknown blinding.	A) Shaving (wet shaving with standard safety razor immediately before surgery) B) Clipping (non-sterilized, ordinary barber's electric clippers immediately before surgery)	A) n=100 SSI: 2/100 (2%) B) n=100 SSI: 1/100 (1%) No <i>P</i> -value or OR reported
Celik, 2007 ¹¹	RCT, single centre, mixed population	Spinal surgery.	Purulent discharge from the surgical wound; increasing pain, tenderness, or redness around the incision line, in addition to haematologic test results showing a high polymorphonuclear lymphocyte count or an increasing	Unknown randomization and blinding.	A) Shaving (immediately before surgery in the OR) B) No hair removal	A) n=371 SSI: 4/371 (1.1%) B) n=418 SSI: 1/418 (0.2%)

			erythrocyte sedimentation rate; clinical features of meningitis; or an abscess identified via control magnetic resonance imaging studies and the results of haematologic tests.			$P < 0.01$
Court-Brown, 1981 ¹²	RCT, single centre mixed population	Abdominal surgery (without any other incision or construction of a colostomy)	Infection defined as discharge of material from which bacteria were cultured; assessed daily and 28 days' postoperatively.	Unknown randomization and blinding	A) Shaving (disposable safety razor, 18-24 hours before elective surgery, within 6 hours before emergency surgery) B) Depilatory cream (potassium thioglycolate and calcium hydroxide, identical timing to group A) C) No hair removal	A) n= 137 SSI: 17/137 (12.4%) B) n= 126 SSI: 10/126 (7.9%) C) n= 141 SSI: 11/141 (7.8%) $P = NS$
Goëau-Brissonnière, 1987 ¹³	RCT, single centre mixed population	Elective surgery requiring hair removal (clean, clean-contaminated or contaminated).	Examined on postoperative days 2 and 5 after surgery by a blinded assessor and defined as purulent discharge or partial or complete dehiscence.	Randomization table, blinding of assessor	A) Razor (night before surgery) B) Depilatory cream (thioglycolic acid in the form of sodium and calcium, night before surgery)	A) n=51 SSI: 0/51 (0%) B) n=49 SSI: 0/49 (0%) No P -value or OR reported
Grober, 2013 ¹⁴	RCT, single centre male adults	Surgery involving male genitalia and requiring preoperative hair removal.	Evidence of increasing cellulitis and/or pus from the surgical incision within 3 months of surgery.	Unknown randomization, unknown blinding of SSI (blinding of photographs to assess skin trauma)	A) Clipping (3M surgical clipper, immediately before surgery in the OR) B) Shaving (Gillette® 2 blade disposable plastic blue razor, immediately before surgery in the OR)	A) n=107 SSI: 2/107 (1.9%) B) n=108 SSI: 2/108 (1.9%) No P -value or OR reported
Horgan, 1999 ¹⁵	Quasi-RCT, single centre unknown population	Elective cranial surgery for tumour or vascular anomaly.	Unknown.	Alternately shave/unshaven, unknown blinding	A) Shaving (unknown timing and location) B) No hair removal	A) n=10 SSI: 0/10 (0.0%) B) n=10 SSI: 0/10 (0.0%) No P -value or OR reported
Ilnkovan, 1992 ¹⁶	RCT, single centre mixed population	Maxillofacial surgery.	Presence of purulent material, local erythema associated with fever or tenderness and wound breakdown (7 days).	Random number sequence, unknown blinding	A) Shaving (immediately before surgery in the OR) B) No hair removal	A) n=25 SSI: 0/25 (0.0%) B) n=25 SSI: 0/25 (0.0%) No P -value or OR reported
Kattipattanapong,	RCT, single centre,	Ear and/or mastoid	CDC National Nosocomial Infections	Block computer randomization,	A) Shaving (mean time between shaving and surgery 16.7±6.7 hours,	A) n=66 SSI: 3/66 (4.5%)

2012 ¹⁷	adults	surgery.	Surveillance system.	unknown blinding	unknown location) B) No hair removal	B) n=77 SSI: 2/77 (2.6%) P=0.674
Powis, 1976 ¹⁸	RCT, two centres age of patients not reported	Surgery requiring removal of hair at the operative site.	Examined on postoperative days 2 and 5 by an independent observer; grade 3 or higher considered as infection (purulent discharge or dehiscence).	Randomization based on hospital registration number	A) Shaving (disposable razor or a safety razor with disposable blades; 20 patients on night before surgery, 26 patients on day of surgery; mean duration between shaving and surgery, 3.3 hours) B) Depilatory cream (calcium thioglycolate trihydrate, calcium hydroxide and strontium hydroxide) (26 patients on night before surgery, 20 patients on day of surgery; mean duration between cream and surgery, 4.1 hours)	A) n=46 SSI: 1/46 (2.2%) B) n=46 SSI: 1/46 (2.2%) P=NS
Rojanapirom, 1992 ¹⁹	RCT, single centre mixed population	Open appendectomy for acute appendicitis.	Unknown definition, follow-up until stitches were removed (7-10 days).	Unknown randomization and blinding	A) Razor (day of surgery, unknown location) B) No hair removal	A) n=40 SSI: 3/40 (7.5%) B) n=40 SSI: 3/40 (7.5%) No P-value or OR reported
Seropian, 1971 ²⁰	RCT, single centre mixed population	Appendectomy.	Unknown definition, assessed by infection control unit.	Randomization based on hospital registration number	A) Shaving (standard razor, unknown timing and location) B) Depilatory cream (calcium thioglycolate trihydrate, calcium hydroxide and strontium hydroxide)	A) n=249 SSI: 14/249 (5.6%) B) n=157 SSI: 1/157 (0.6%) P=0.02
Thur de Koos, 1983 ²¹	RCT, single centre male patients	Elective surgery.	Unknown.	Randomized by bed number (even=cream; uneven=razor), unknown blinding	A) Depilatory cream (cetyl alcohol and thioglycolic acid, night before surgery in the ward) B) Shaving (wet, unknown type of razor, immediately before surgery in the OR)	A) n = 116 SSI: 9/116 (7.6%) B) n = 137 SSI: 10/137 (7.3%) P=NS

RCT: randomized clinical trial; SSI: surgical site infection; OR: odds ratio; OR: operating room; CDC: Centers for Disease Control and Prevention; NS: not significant