

MD – mean difference, RR – relative risk

- | Quality assessment | | | | | | | № of patients | | Effect | | Quality | Importance |
|---|------------------------------------|--------------|---------------|--------------|---------------------------|----------------------|----------------|-----------------------------|------------------------|---|------------------|------------|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Active warming | control (no active warming) | Relative (95% CI) | Absolute (95% CI) | | |
| Infection and complications of the surgical wound | | | | | | | | | | | | |
| 3 | randomised trials ^{1,2,3} | not serious | not serious | not serious | serious ^a | none | 20/291 (6.9%) | 52/291 (17.9%) | RR 0.40 (0.24 to 0.65) | 107 fewer per 1000 (from 63 fewer to 136 fewer) | ⊕⊕⊕○
MODERATE | CRITICAL |
| All cause mortality | | | | | | | | | | | | |
| 3 | randomised trials ^{1,3,4} | not serious | not serious | not serious | very serious ^b | none | 5/293 (1.7%) | 6/310 (1.9%) | RR 0.89 (0.27 to 2.91) | 2 fewer per 1000 (from 14 fewer to 37 more) | ⊕⊕○○
LOW | IMPORTANT |
| Major cardiovascular complications | | | | | | | | | | | | |

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Active warming	control (no active warming)	Relative (95% CI)	Absolute (95% CI)		
1	randomised trials ⁴	not serious	not serious ^a	not serious	very serious ^b	none	2/142 (1.4%)	10/158 (6.3%)	RR 0.22 (0.05 to 1.00)	49 fewer per 1000 (from 0 fewer to 60 fewer)	⊕⊕○○ LOW ³	IMPORTANT
Non fatal myocardial infarction												
1	randomised trials ⁴	not serious	not serious ^a	not serious	very serious ^b	none	0/142 (0.0%)	1/158 (0.6%)	RR 0.37 (0.02 to 9.03)	4 fewer per 1000 (from 6 fewer to 51 more)	⊕⊕○○ LOW	IMPORTANT
Non fatal cardiac arrest												
1	randomised trials ⁴	not serious	not serious ^c	not serious	very serious ^b	none	0/142 (0.0%)	2/158 (1.3%)	RR 0.22 (0.01 to 4.59)	10 fewer per 1000 (from 13 fewer to 45 more)	⊕⊕○○ LOW	IMPORTANT
Patients transfused												
8	randomised trials ^{1,3,5,6,7,8,9,10}	not serious	not serious	not serious	serious ^b	none	64/298 (21.5%)	102/310 (32.9%)	RR 0.72 (0.46 to 1.14)	92 fewer per 1000 (from 46 more to 178 fewer)	⊕⊕⊕○ MODERATE	CRITICAL
Fluids transfused during surgery - mL												
17	randomised trials ^{1,4,5,7,8,9,11,12,13,14,15,16,17,18,19,20,21}	not serious	serious ^d	not serious	not serious	none	541	538	-	MD 178,22 fewer (from 277 fewer to 79 fewer)	⊕⊕⊕○ MODERATE	IMPORTANT

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MD – mean difference, RR – relative risk

- 95% of CI includes appreciable benefit or harm
- 95%CI includes large benefit or harm

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Forced-air warming	electric heating systems	Relative (95% CI)	Absolute (95% CI)		
Fluids transfused during surgery - mL												
2	randomised trials ^{1,2}	not serious	not serious	not serious	Serious ^a	none	88	85	-	MD 97,11 more (from 20,76 fewer to 215 more)	⊕⊕⊕○ MODERATE	IMPORTANT
Infection of surgical wound												

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Forced-air warming	electric heating systems	Relative (95% CI)	Absolute (95% CI)		
1	randomised trials ³	not serious	not serious	not serious	very serious ^b	none	1/29 (3.4%)	1/30 (3.3%)	RR 1.03 (0.07 to 15.77)	1 more per 1000 (from 31 fewer to 429 more)	⊕⊕○○ LOW	CRITICAL
Transfusions - patients												
1	randomised trials ³	not serious	not serious	not serious	very serious ^b	none	14/29 (48.3%)	12/30 (40.0%)	RR 1.21 (0.68 to 2.15)	84 more per 1000 (from 128 fewer to 460 more)	⊕⊕○○ LOW	CRITICAL

References

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Tabla 17: Aire caliente conectivo frente a sistemas de circulación de agua caliente

MD – mean difference, RR – relative risk

- a. Low number of events; 95% of CI includes appreciable benefit or harm
- b. Low number of events
- c. High variability of effects among studies
- d. 95%CI includes large benefit or harm

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Forced-air warming	warm water circulation systems	Relative (95% CI)	Absolute (95% CI)		
Infection of surgical wound												
3	randomised trials ^{1,2,3}	not serious	not serious	not serious	very serious ^a	none	5/104 (4.8%)	1/104 (1.0%)	RR 3.00 (0.62 to 14.53)	19 more per 1000 (from 4 fewer to 130 more)	⊕⊕○○ LOW	CRITICAL
Transfusions - patients												
2	randomised trials ^{1,3}	not serious	not serious	not serious	serious ^b	none	27/54 (50.0%)	18/54 (33.3%)	RR 1.59 (0.48 to 5.24)	197 more per 1000 (from 173 fewer to 1000 more)	⊕⊕⊕○ MODERATE	CRITICAL
Fluids transfused during surgery - mL												
3	randomised trials ^{2,4,5}	not serious	serious ^c	not serious	serious ^d	none	94	90	-	MD 315,65 fewer (from 899 fewer to 268 more)	⊕⊕○○ LOW	IMPORTANT

References

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Tabla 18: Aire conectivo frente a calor radiante

MD – mean difference, RR – relative risk

a. 95%CI includes large benefit or harm

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Forced-air warming	electric heating systems	Relative (95% CI)	Absolute (95% CI)		
Infection of surgical wound												
1	randomised trials ¹	not serious	not serious	not serious	very serious ^a	none	8/139 (5.8%)	5/140 (3.6%)	RR 1.61 (0.54 to 4.80)	22 more per 1000 (from 16 fewer to 136 more)	⊕⊕○○ LOW	CRITICAL

References

1. Melling AC, Ali B, Scott EM, Leaper DJ. Effects of preoperative warming on the incidence of wound infection after clean surgery: a randomised controlled trial. *Lancet* 2001;358(9285):876-80

Tabla 19: Sistemas de calentamiento eléctrico frente a sistemas de circulación de agua caliente

MD – mean difference, RR – relative risk

- a. Single study
- b. Low number of events; 95% of CI includes appreciable benefit or harm

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Resistive heating systems	warm water circulation systems	Relative (95% CI)	Absolute (95% CI)		
Infections of the surgical wound												
1	randomised trials <small>iError! No se encuentra el origen de la referencia.</small>	not serious	not serious ^a	not serious	very serious ^b	none	1/30 (3.3%)	0/29 (0.0%)	OR 3.00 (0.12 to 76.68)	0 fewer per 1000 (from 0 fewer to 0 fewer)	⊕⊕○○ LOW	CRITICAL
Patients transfused												
1	randomised trials ¹	not serious	not serious ^a	not serious	very serious ^b	none	12/30 (40.0%)	5/29 (17.2%)	OR 3.20 (0.96 to 10.72)	228 more per 1000 (from 6 fewer to 518 more)	⊕⊕○○ LOW	CRITICAL

References

1. Hofer CK, Worn M, Tavakoli R, Sander L, Maloigne M, Klaghofer R, et al. Influence of body core temperature on blood loss and transfusion requirements during off-pump coronary artery bypass grafting: a comparison of 3 warming systems. The Journal of Thoracic and Cardiovascular Surgery 2005;129(4):838-43.

Tabla 20: Estrategias de precalentamiento previas a la inducción anestésica

CI: Confidence interval; RR: Risk ratio; MD: Mean difference

- a. Low number of events
- b. Single study
- c. High variability of effects among studies
- d. 95%CI of effect estimate includes benefit or harm
- e. Very low number of events; 95%CI includes appreciable benefit or harm

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Active	no active	Relative (95% CI)	Absolute (95% CI)		
Infection and complications of the surgical wound												
2	randomised trials ^{1,2}	not serious	not serious	not serious	serious ^a	none	14/187 (7.5%)	34/195 (17.4%)	RR 0.44 (0.25 to 0.80)	98 fewer per 1000 (from 35 fewer to 131 fewer)	⊕⊕⊕○ MODERATE	CRITICAL
Patients transfused												
2	randomised trials ^{2,3}	not serious	not serious	serious ^c	serious ^a	none	14/67 (20.9%)	34/76 (44.7%)	RR 0.40 (0.12 to 1.35)	268 fewer per 1000 (from 157 more to 394 fewer)	⊕⊕○○ LOW	CRITICAL
Fluids transfused during surgery - mL - Preoperative												
5	randomised trials ^{3,4,5,6,7}	not serious	serious ^c	not serious	serious ^d	none	71	61	-	141.58 fewer (341.16 fewer to 58.01 more)	⊕⊕○○ LOW	IMPORTANT

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Active	no active	Relative (95% CI)	Absolute (95% CI)		
All cause mortality												
1	randomised trials ²	not serious	not serious ^b	not serious	very serious ^e	none	1/47 (2.1%)	2/56 (3.6%)	RR 0.60 (0.06 to 6.37)	14 fewer per 1000 (from 34 fewer to 192 more)	⊕⊕○○ LOW	IMPORTANT

References

1. Melling AC, Ali B, Scott EM, Leaper DJ. Effects of preoperative warming on the incidence of wound infection after clean surgery: a randomised controlled trial. *Lancet* 2001;358(9285):876-80.
2. Wong PF, Kumar S, Bohra A, Whetter D, Leaper DJ. Randomized clinical trial of perioperative systemic warming in major elective abdominal surgery. *The British Journal of Surgery* 2007;94(4):421-6.
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4. Chung SH, Lee BS, Yang HJ, Kweon KS, Kim HH, Song J, et al. Effect of preoperative warming during cesarean section under spinal anesthesia. *Korean Journal of Anesthesiology* 2012;62(5):454-60.
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