

CQ 6-7

成人敗血症患者の初期輸液にアルブミン製剤を投与するか？

検索データベース

- MEDLINE (PubMed/Ovid)
- CENTRAL
- 医学中央雑誌
- その他 ()

検索式とヒット数

PubMed search strategy(検索日 2019年4月29日)

#1	sepsis[MeSH] OR sepsis[tiab] OR "Shock, Septic"[Mesh] OR "septic"[tiab]	192,248
#2	"systemic inflammatory response syndrome"[Mesh] OR "systemic inflammatory response syndrome"[tiab] OR "SIRS"[tiab]	123,789
#3	"multiple organ failure"[Mesh] OR "organ failure"[tiab] OR "organ dysfunction"[tiab] OR "MOF"[tiab] OR "MODS"[tiab]	37,660
#4	"Bacteremia"[tiab] OR "Endotoxemia"[tiab] OR "Bacteremia"[mesh] OR "Endotoxemia"[mesh]	44,746
#5	#1 OR #2 OR #3 OR #4	234,307
#6	Albumins[MESH] or Albumins[tiab] or albumin[tiab]	249,800
#7	"Administration, Intravenous"[mesh] OR intravenous[All Fields] OR administration[All Fields] OR infusion[All Fields] OR "fluid resuscitation"[All Fields] OR "fluid loading"[All Fields] OR "Transfusion Medicine"[mesh] OR Transfusion[tiab] OR Replacement[tiab]	4,099,485
#8	#6 AND #7	46,720
#9	(randomized controlled trial[pt] OR controlled clinical trial[pt] OR randomized[tiab] OR placebo[tiab] OR drug therapy[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab] NOT (animals [mh] NOT humans [mh]))	3,888,532
#10	#5 AND #8 AND #9	700

CENTRAL search strategy(検索日 2019年4月29日)

#1	MeSH descriptor: [Sepsis] explode all trees	3,998
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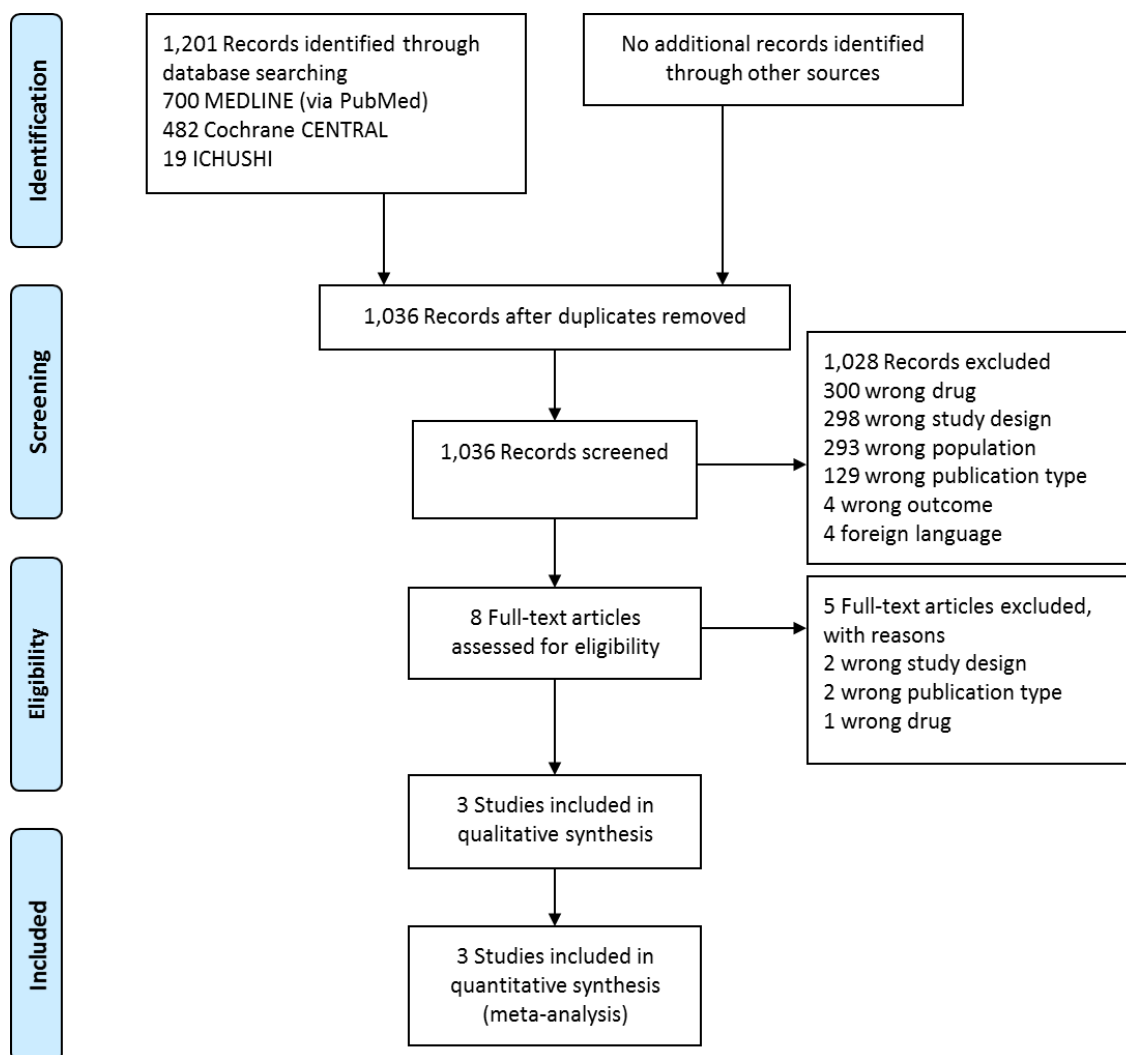
#2	(sepsis):ti,ab,kw	10,248
#3	MeSH descriptor: [Shock, Septic] explode all trees	771
#4	(septic):ti,ab,kw	4,108
#5	MeSH descriptor: [Systemic Inflammatory Response Syndrome] explode all trees	4,328
#6	(systemic inflammatory response syndrome):ti,ab,kw	1,194
#7	(SIRS):ti,ab,kw	676
#8	MeSH descriptor: [Multiple Organ Failure] explode all trees	384
#9	(organ failure):ti,ab,kw	5,601
#10	(organ dysfunction):ti,ab,kw	2,529
#11	(MOF):ti,ab,kw	141
#12	(MODS):ti,ab,kw	247
#13	(Bacteremia):ti,ab,kw	2,383
#14	(Endotoxemia):ti,ab,kw	587
#15	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14	21,415
#16	MeSH descriptor: [Albumins] explode all trees	7,064
#17	(Albumins):ti,ab,kw	636
#18	(albumin):ti,ab,kw	12,998
#19	MeSH descriptor: [Administration, Intravenous] explode all trees	17,807
#20	(intravenous)	82,321
#21	(administration)	326,782
#22	(infusion)	54,376
#23	(fluid resuscitation)	1,394
#24	(fluid loading)	582
#25	MeSH descriptor: [Transfusion Medicine] explode all trees	1
#26	(Transfusion):ti,ab,kw	13,730
#27	("replacement"):ti,ab,kw	26,710
#28	#16 OR #17 OR #18	17,395
#29	#19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27	400,406
#30	#15 AND #28 AND #29	482

医学中央雑誌 search strategy(検索日 2019年4月29日)

#1	((敗血症/TH or 敗血症/TA) or (シヨック-敗血症性/TH or 敗血症性シヨック/TA)) and (PT=会議録除く)	22,405
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#2	((敗血症/TH or sepsis/TA) or septic/TA) and (PT=会議録除く)	16,661
#3	((全身性炎症反応症候群/TH or 全身性炎症反応症候群/TA) or (全身性炎症反応症候群/TH or 全身性炎症性反応症候群/TA) or 全身性炎症反応性症候群/TA or (全身性炎症反応症候群/TH or 全身性炎症反応症候群/TA)) and (PT=会議録除く)	17,737
#4	((“全身性炎症反応症候群”/TH or “systemic inflammatory response syndrome”/TA) or (全身性炎症反応症候群/TH or SIRS/TA)) and (PT=会議録除く)	17,860
#5	((多臓器不全/TH or 多臓器不全/TA) or 臓器不全/TA or (多臓器不全/TH or 多臓器障害/TA) or 臓器障害/TA or 臓器機能障害/TA) and (PT=会議録除く)	11,764
#6	(“organ failure”/TA or “organ dysfunction”/TA or (“多臓器不全”/TH or “MOF”/TA) or (“多臓器不全”/TH or “MODS”/TA)) and (PT=会議録除く)	5,100
#7	((菌血症/TH or 菌血症/TA) or (内毒素血症/TH or エンドトキシン血症/TA)) and (PT=会議録除く)	4,133
#8	#1 or #2 or #3 or #4 or #5 or #6 or #7	36,601
#9	((Albumins/TH or アルブミン/TA) or (“Albumins”/TH or “Albumins”/TA) or (“Albumins”/TH or “Albumin”/TA)) and (PT=会議録除く)	33,226
#10	((静脈内投与/TH or 静脈内投与/TA) or (静脈内注射/TH or 静脈内注射/TA) or (静脈内注入/TH or 静脈内注入/TA) or “intravenous”/TA or (“組織と管理”/TH or “administration”/TA) or “infusion”/TA or “fluid resuscitation”/TA or “fluid loading”/TA or (“輸血医学”/TH or “Transfusion Medicine”/TA) or “transfusion”/TA or “replacement”/TA) and (PT=会議録除く)	328,521
#11	#9 and #10	2,154
#12	((ランダム化比較試験/TH or 準ランダム化比較試験/TH or ランダム化/AL or 無作為化/AL or 比較試験/AL or 臨床試験/AL or プラセボ/AL or 対照/AL or コントロール/AL or 臨床研究/AL) and (PT=会議録除く)) and (PT=会議録除く)	229,335
#13	#8 and #11 and #12	19

PRISMA フロー

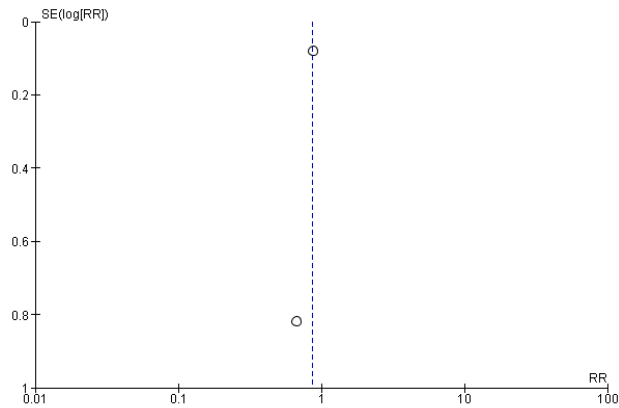
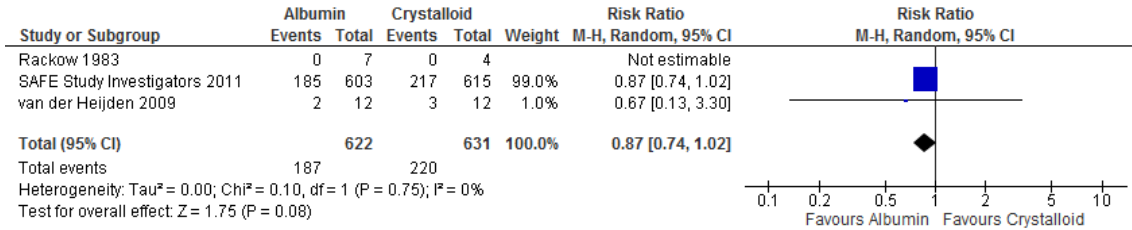


Risk of Bias サマリー

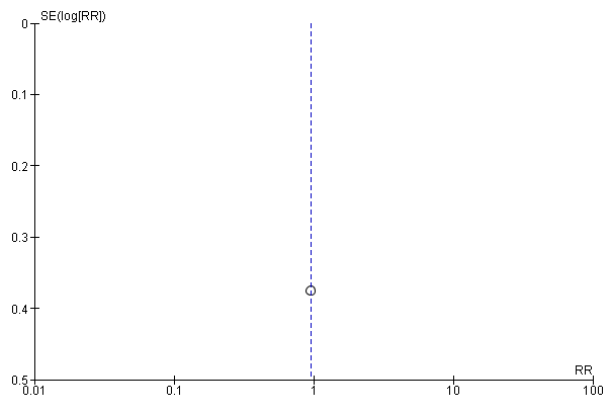
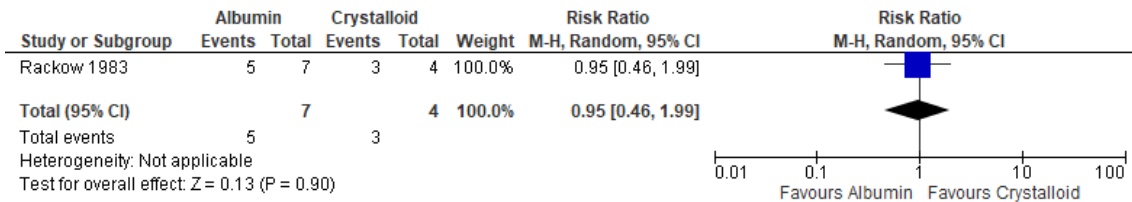
	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Rackow 1983	?	?	?	?	+	-	+
SAFE Study Investigators 2011	+	+	+	?	+	+	+
van der Heijden 2009	+	+	?	?	+	+	+

Forest/Funnel Plots

アウトカム① Short-term mortality (28 or 30days)



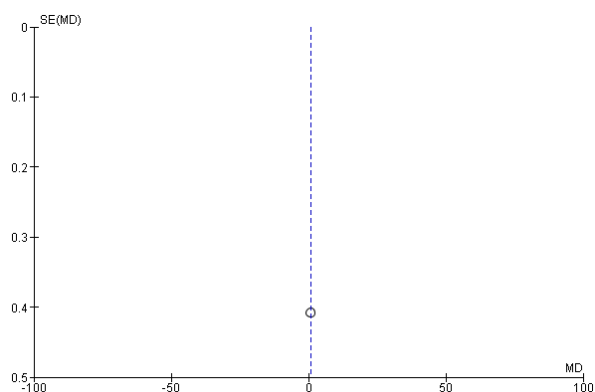
アウトカム② Long-term mortality (90 days or more)



アウトカム③ ICU length of stay (days)

Study or Subgroup	Albumin			Crystalloid			Weight	Mean Difference IV, Random, 95% CI	Mean Difference IV, Random, 95% CI
	Mean	SD	Total	Mean	SD	Total			
SAFE Study Investigators 2011	8.2	7.5	603	7.5	6.7	615	100.0%	0.70 [-0.10, 1.50]	
Total (95% CI)			603			615	100.0%	0.70 [-0.10, 1.50]	

Heterogeneity: Not applicable
Test for overall effect: Z = 1.72 (P = 0.09)



アウトカム④ Sever adverse effects (Lung injury score)

Study or Subgroup	Albumin			Crystalloid			Weight	Mean Difference IV, Random, 95% CI	Mean Difference IV, Random, 95% CI
	Mean	SD	Total	Mean	SD	Total			
van der Heijden 2009	2	0.5625	12	1.25	0.75	12	100.0%	0.75 [0.22, 1.28]	
Total (95% CI)			12			12	100.0%	0.75 [0.22, 1.28]	

Heterogeneity: Not applicable
Test for overall effect: Z = 2.77 (P = 0.006)

