

ECC CS CQ

CS患者の治療において、肺動脈カテーテルの使用は転帰を改善するか？

Does the treatment strategy using pulmonary artery catheter (PAC) improve in-hospital mortality as compared to the strategy not using it in patients with cardiogenic shock?

P (patients): patients aged 18 years or older with CS

I (intervention): implementation of PAC

C (comparator): no implementation of PAC or no evaluation

O (outcome): in-hospital mortality or 30-day mortality

S (study designs): observational studies (there were no randomized controlled trials)

T (time frame): all published literature until July 16, 2023

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Kondo T, Nakashima T, Yamamoto T, Nakayama N, Hanada H, Hashiba K, Kirigaya J, Ishizu T, Hosoya Y, Katasako-Yabumoto A, Okazaki Y, Yamamoto M, Sakamoto K, Arai M, Osawa T, Tanaka A, Matsuo K, Yamaguchi J, Mano T, Kojima S, Noguchi T, Tsujimoto Y, Kikuchi M, Funazaki T, Tahara Y, Nonogi H, Matoba T. Use of a Pulmonary Artery Catheter in Patients With Cardiogenic Shock — A Systematic Review and Meta-Analysis —. *Circ Rep.* 2025;7(8):CR-25-0088.

doi:10.1253/circrep.CR-25-0088

Search strategies of literature databases

Search strings

1. PubMed (MEDLINE & PMC)

#1: "cardiac shock"[Title/Abstract] OR "cardiogenic shock"[Title/Abstract] OR ("myocardial infarction"[MeSH Terms] AND "shock"[MeSH Terms:noexp]) OR "shock, cardiogenic"[MeSH Terms] OR "hypoperfusion"[Title/Abstract] OR ("hypotension"[Title/Abstract] AND ("heart failure"[Title/Abstract] OR "cardiac failure"[Title/Abstract] OR "myocardial failure"[Title/Abstract] OR "heart failure"[MeSH Terms] OR "HF"[Title/Abstract] OR "AHF"[Title/Abstract] OR "CHF"[Title/Abstract] OR "ADHF"[Title/Abstract]))

#2: "pulmonary artery catheter*"[Title/Abstract] OR "pulmonary arterial catheter*"[Title/Abstract] OR "PAC"[Title/Abstract] OR "PAFC"[Title/Abstract] OR "right heart catheter*"[Title/Abstract] OR "RHC"[Title/Abstract] OR "swan ganzcatheter*"[Title/Abstract] OR "thermodilution catheter*"[Title/Abstract] OR "catheterization, swan ganz"[MeSH Terms] OR "flotation catheter*"[Title/Abstract]

#3: #1 AND #2

2. Web of Science (Science Citation Index Expanded(SCIE))

#1: (TI="cardiac shock" OR AB="cardiac shock" OR AK="cardiac shock" OR KP="cardiac shock") OR (TI="cardiogenic shock" OR AB="cardiogenic shock" OR AK="cardiogenic shock" OR KP="cardiogenic shock") OR ((TI="myocardial infarction" OR AB="myocardial infarction" OR AK="myocardial infarction" OR KP="myocardial infarction") AND (TI="shock" OR AB="shock" OR AK="shock" OR KP="shock")) OR (TI=hypoperfusion OR AB=hypoperfusion OR AK=hypoperfusion OR KP=hypoperfusion) OR ((TI=hypotension OR AB=hypotension OR AK=hypotension OR KP=hypotension) AND ((TI="heart failure" OR AB="heart failure" OR AK="heart failure" OR KP="heart failure") OR (TI="cardiac failure" OR AB="cardiac failure" OR AK="cardiac failure" OR KP="cardiac failure") OR (TI="myocardial failure" OR AB="myocardial failure" OR AK="myocardial failure" OR KP="myocardial failure") OR (TI=HF OR AB=HF OR AK=HF OR KP=HF) OR (TI=AHF OR AB=AHF OR AK=AHF OR KP=AHF) OR (TI=CHF OR AB=CHF OR AK=CHF OR KP=CHF) OR (TI=ADHF OR AB=ADHF OR AK=ADHF OR KP=ADHF)))

#2: (TI="pulmonary artery catheter*" OR AB="pulmonary artery catheter*" OR AK="pulmonary artery catheter*" OR KP="pulmonary artery catheter*") OR (TI="pulmonary arterial catheter*" OR AB="pulmonary arterial catheter*" OR AK="pulmonary arterial catheter*" OR KP="pulmonary arterial catheter*") OR (TI=PAC OR AB=PAC OR AK=PAC OR KP=PAC) OR (TI=PAFC OR AB=PAFC OR AK=PAFC OR KP=PAFC) OR (TI="right heart catheter*" OR AB="right heart catheter*" OR AK="right heart catheter*" OR KP="right heart catheter*") OR (TI=RHC OR AB=RHC OR AK=RHC OR KP=RHC) OR (TI="swan ganz catheter*" OR AB="swan ganz catheter*" OR AK="swan ganz catheter*" OR KP="swan ganz catheter*") OR (TI="thermodilution catheter*" OR AB="thermodilution catheter*" OR AK="thermodilution catheter*" OR KP="thermodilution catheter*") OR (TI="flotation catheter*" OR AB="flotation catheter*" OR AK="flotation catheter*" OR KP="flotation catheter*")

#3: #1 AND #2

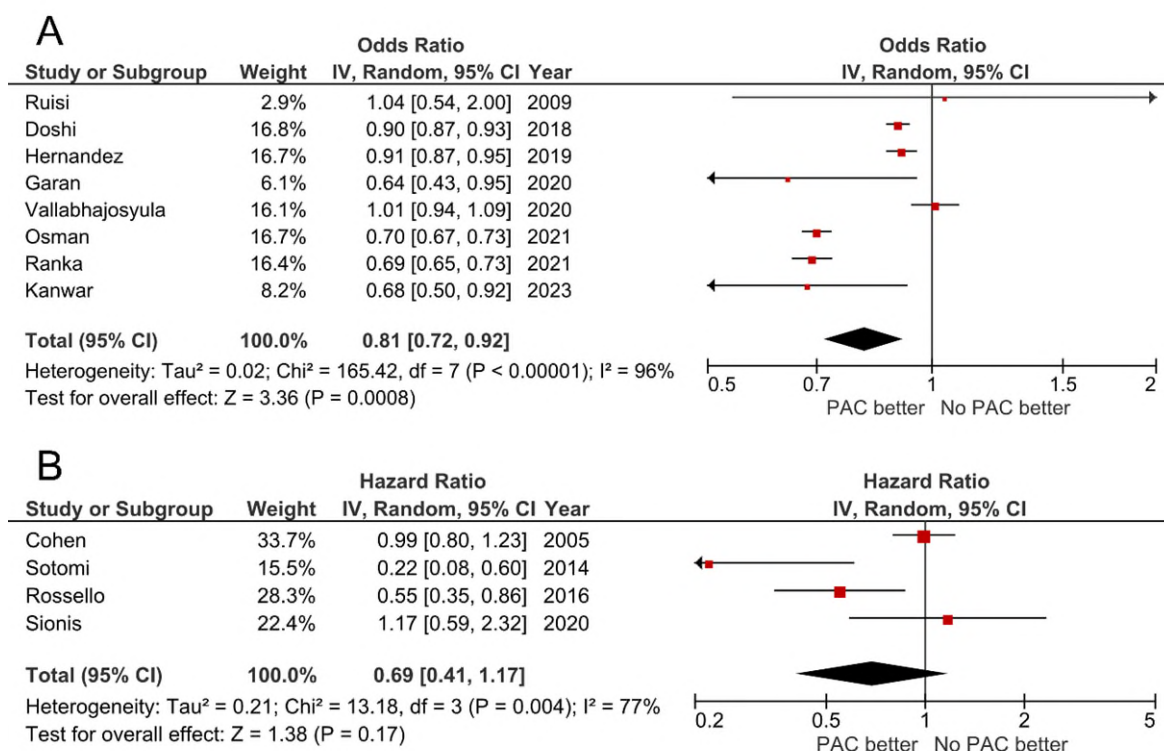
3. Cochrane Library (Cochrane Central Register of Controlled Trials(CENTRAL))

#1: "cardiac shock":ti,ab,kw OR "cardiogenic shock":ti,ab,kw OR ([mh "myocardial infarction"] AND [mh ^shock]) OR [mh "shock, cardiogenic"] OR hypoperfusion:ti,ab,kw OR (hypotension:ti,ab,kw AND ("heart failure":ti,ab,kw OR "cardiac failure":ti,ab,kw OR "myocardial failure":ti,ab,kw OR [mh "heart failure"] OR HF:ti,ab,kw OR AHF:ti,ab,kw OR CHF:ti,ab,kw OR ADHF:ti,ab,kw))

#2: ("pulmonary artery" NEXT catheter*):ti,ab,kw OR ("pulmonary arterial" NEXT catheter*):ti,ab,kw OR PAC:ti,ab,kw OR PAFC:ti,ab,kw OR ("right heart" NEXT catheter*):ti,ab,kw OR RHC:ti,ab,kw OR ("swan ganz" NEXT catheter*):ti,ab,kw OR ("thermodilution" NEXT catheter*):ti,ab,kw OR [mh "catheterization, swan ganz"] OR ("flotation" NEXT catheter*):ti,ab,kw

#3: #1 AND #2

肺動脈カテーテルの使用と短期死亡率

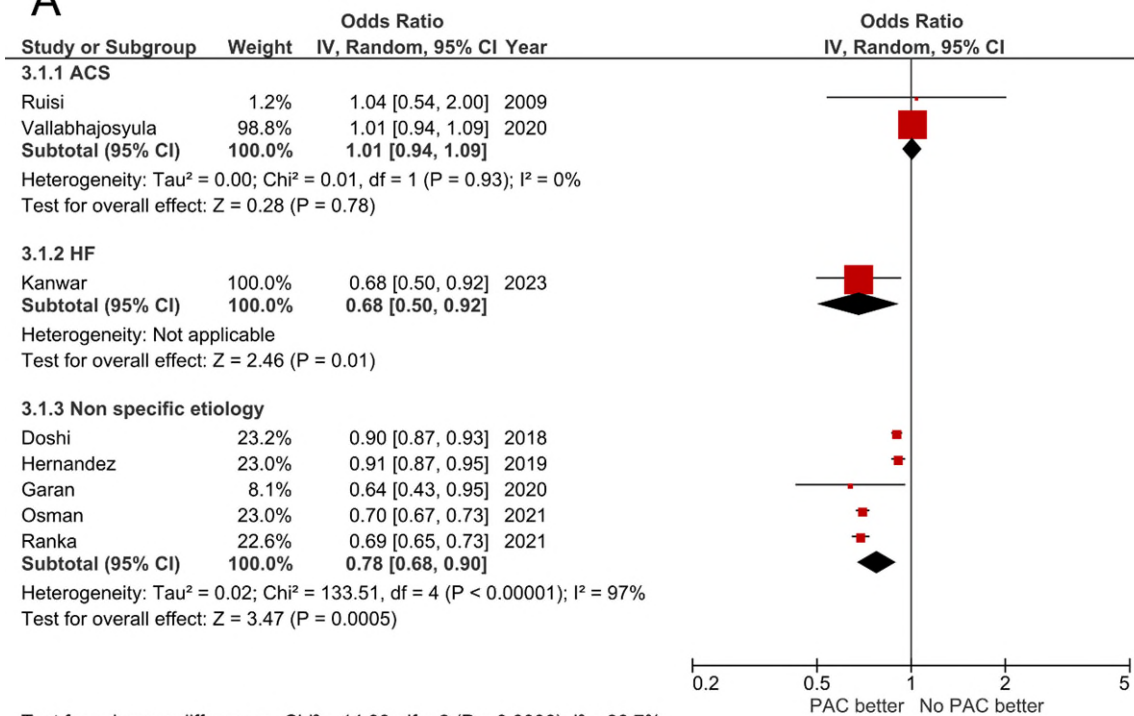


A: 二値変数で評価されたオッズ比の統合

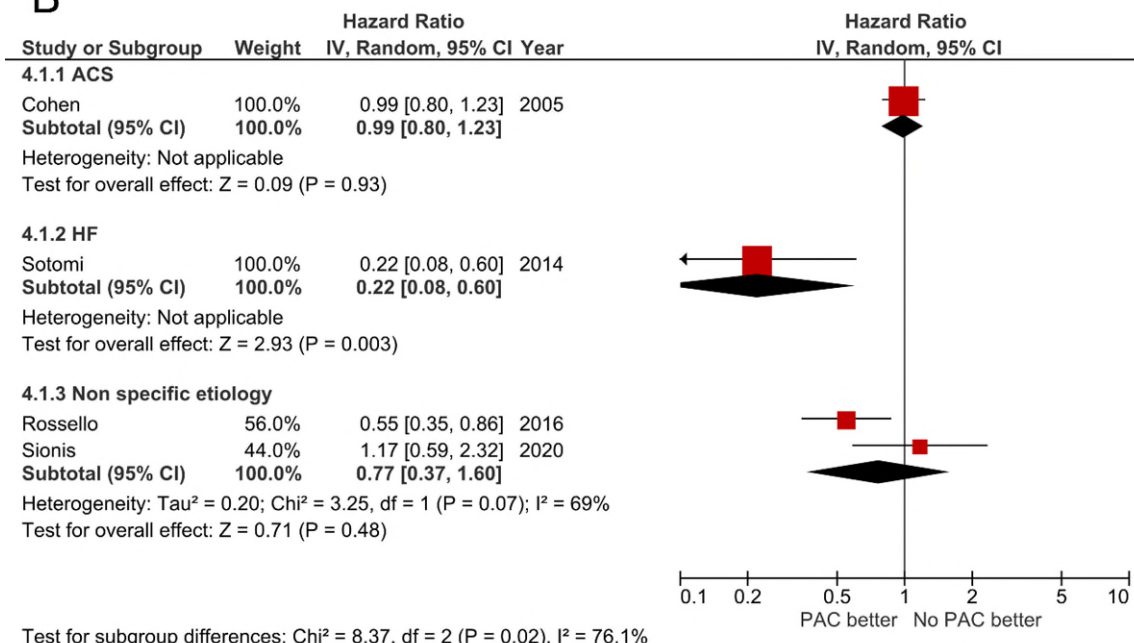
B: Time-to-event で評価されたハザード比の統合

肺動脈カテーテルの使用と短期死亡率：サブグループ別

A



B



A: 二値変数で評価されたオッズ比の統合

B: Time-to-event で評価されたハザード比の統合