

openMetaAnalysis: PICO Table

Trial	Patients	Intervention	Comparison	Outcome
Svoboda, 2007 Hepatogastroenterology PMID: 17523274	72 subjects with Severe sepsis after major abdominal surgery or surgery for multiple trauma • Microbiologically proven infection: not reported • Mean age 45.8 years	First day antibiotic cessation allowed: not defined Criteria for antibiotic cessation: not defined Other interventions: if severe sepsis with PCT >2 ng/mL, change antibiotics and intravascular devices	Usual care	Primary: • All cause in-hospital mortality Secondary: • Duration of ICU stay, and others
Nobre, 2008 Am J Respir Crit Care Med PMID: 18096708 NCT00250666	79 subjects with Suspected severe sepsis or septic shock admitted to the ICU • Microbiologically proven infection: 50%. Blood cultures positive in 32% • Mean age 67.7 years	First day antibiotic cessation allowed: 3 if initial PCT value less than 1 µg/L, 5 if initial PCT value more than 1 µg/L Criteria for antibiotic cessation: PCT value decreased over 90% or PCT value lower than 0.25 µg/L	Usual care	Primary: • Total duration of antimicrobial therapy Secondary: • All cause 28 day mortality, in-hospital mortality, duration of ICU and hospital stay
Schroeder, 2009 Langenbecks Arch Surg PMID: 19034493	27 subjects with Severe sepsis after surgery and admitted to the surgical ICU • Microbiologically proven infection: 67% • Mean age 68.8 years	First day antibiotic cessation allowed: 1 Criteria for antibiotic cessation: PCT less than 1 ng/mL or declined more than 25% to 35% of the initial concentration within 3 days	Usual care	Primary: • Total duration of antimicrobial therapy Secondary: • Others
Hochreiter, 2009 Crit Care PMID: 19493352 ISRCTN10288268	110 subjects with Sepsis (confirmed or highly suspected bacterial infection and at least two	First day antibiotic cessation allowed: 1 Criteria for antibiotic cessation: PCT less than 1 ng/mL or declined	Standard regimen of antibiotics over 8 days	Primary: • Total duration of antimicrobial therapy Secondary:

	concomitant SIRS criteria) patients admitted to the surgical ICU • Microbiologically proven infection: not reported • Mean age 66.9 years	more than 25% to 35% of the initial concentration within 3 days		<ul style="list-style-type: none"> • Mortality at 90 days • All cause mortality at 90 days, duration of ICU stay, and others
Bouadma (PRORATA), 2010 Lancet PMID: 20097417 NCT00472667	621 subjects with suspected bacterial infection admitted to the ICU • Microbiologically proven infection: 70% • Mean age 61.5 years	First day antibiotic cessation allowed: 1 Criteria for antibiotic cessation: PCT value decreased over 80% or PCT value lower than 0.5 µg/L	Usual care	Primary: <ul style="list-style-type: none"> • All cause mortality at 28 and 60 days Secondary: <ul style="list-style-type: none"> • Duration of ICU and hospital stay, total number of days on antimicrobial therapy, duration of antimicrobial therapy according to infection site, and others
Jensen, 2011 Crit Care Med PMID: 21572328 NCT00271752	1200 subjects with Admitted to the ICU for more than 24 hours • 38% had severe sepsis or septic shock • Microbiologically proven infection: not reported (83% were 'judged to have infection') • Mean age 65.1 years	First day antibiotic cessation allowed: 0 Criteria for antibiotic cessation: not defined Other interventions: Escalation of antibiotics/interventions based on PCT of more than 1 µg/L	Usual care	Primary: <ul style="list-style-type: none"> • All cause mortality at 28 days Secondary: <ul style="list-style-type: none"> • Duration of ICU stay, and others
Layios, 2012 Crit Care Med PMID: 22809906	509 subjects with Sepsis admitted to the ICU (per Layios Table 3, all had sepsis) • Microbiologically proven	First day antibiotic cessation allowed: 0 Criteria for antibiotic cessation: PCT value lower than 0.5 µg/L	Usual care	Primary: <ul style="list-style-type: none"> • Antibiotic consumption days Secondary: <ul style="list-style-type: none"> • Others

	infection: 61% (87% of total 'suspected' of having infection) • Mean age 65.51 years			
Annane, 2013 BMJ Open PMID: 23418298 NCT01025180	62 subjects with non-microbiologically proven apparent severe sepsis admitted to the ICU • Microbiologically proven infection: 0% • Mean age 56.5 years	First day antibiotic cessation allowed: 3 Criteria for antibiotic cessation: PCT value lower than 0.5 µg/L for patients admitted to the medical ICU or lower than 9 µg/L for patients admitted to surgical ICU (less than 4% of patients)	Usual care	Primary: • Proportion of patients receiving antibiotics at day 5 Secondary: • All cause mortality at 5 days, at ICU discharge and at hospital discharge, total number of days on antimicrobial therapy, duration of ICU and hospital stay, and others
Oliveira, 2013 Crit Care Med PMID: 23921272 NCT00934011	94 subjects with Severe sepsis or septic shock admitted to the ICU • Microbiologically proven infection: 46%. Blood cultures positive in 21% • Mean age 59.6 years	First day antibiotic cessation allowed: 4 if initial PCT value less than 1 µg/L, 5 if initial PCT value more than 1 µg/L Criteria for antibiotic cessation: PCT value decreased over 90% if initial PCT value more than 1 µg/L or PCT value lower than 0.1 µg/L if initial PCT value less than 1 µg/L or after 7 days of antibiotic therapy	protocol based on the serum levels of CRP	Primary: • Duration of antimicrobial therapy Secondary: • Total number of days on antimicrobial therapy, duration of ICU and hospital stay, all-cause mortality at 28 days, and others
Liu, 2013 Zhonghua Wei Zhong Bing Ji Jiu Yi Xue PMID: 24225216	82 subjects with Sepsis admitted to the ICU • Microbiologically proven infection: not reported but blood cultures positive in	First day antibiotic cessation allowed: 1 Criteria for antibiotic cessation: PCT value decreased over 90% or PCT value lower than 0.25 µg/L	Usual care	Primary: • Duration of antimicrobial therapy Secondary: • Duration of ICU and

	30% • Mean age 49.56 years			hospital stay, all-cause mortality at 28 days, and others
Deliberato, 2013 Diagnostic Microbiology and Infectious Disease PMID: 23711530 NCT01494675	81 subjects with Sepsis, severe sepsis, or septic shock admitted to the ICU • Microbiologically proven infection: 100% • Mean age 65.1 years	First day antibiotic cessation allowed: 5 Criteria for antibiotic cessation: PCT value decreased over 90% or PCT value lower than 0.5 µg/L	Usual care	Primary: • Duration of antimicrobial therapy Secondary: • In-hospital mortality, ICU mortality, duration of ICU stay
Shehabi (ANZICS Clinical Trials Group), 2014 Am J Respir Crit Care Med PMID: 25295709 ACTRN12610000809033	394 subjects with suspected sepsis (bacterial infection with SIRS) admitted to the ICU • Microbiologically proven infection: 61% • Mean age 64.4 years	First day antibiotic cessation allowed: 1 Criteria for antibiotic cessation: PCT value decreased over 90% or PCT value lower than 0.25 µg/L	Usual care	Primary: • Duration of antimicrobial therapy at 28 days, hospital discharge, or death, whichever came first Secondary: • Duration of ICU and hospital stay, death from any cause by 90 days, all-cause mortality, and others
Najafi, 2015 Acta Med Iran PMID: 26553084	60 subjects with SIRS criteria but no initial source of infection who were admitted to the ICU. Proportion with eventual sepsis or suspected infection not reported. • Mean age 40.45 years • Microbiologically proven infection: not reported, but	First day antibiotic cessation allowed: 0 Criteria for antibiotic cessation: PCT value lower than 2 µg/L	Usual care	Primary: • Duration of antimicrobial therapy Secondary: • Early mortality, and others

	blood cultures positive in 35%			
de Jong, 2015 Lancet Infect Dis PMID: 26947523 NCT01139489	1575 subjects with critical illness admitted to the ICU with sepsis (per de Jong's Table 1, all had sepsis) • Microbiologically proven infection: not reported, but 'Unknown focus' was 9% • Mean age 65 years	First day antibiotic cessation allowed: 1 Criteria for antibiotic Cessation: PCT value decreased over 80% or PCT value lower than 0.5 µg/L	Usual care	Primary: • Duration of antimicrobial therapy Secondary: • Duration of ICU and hospital stay, death from any cause by 28 days and 1 year, and others
Bloos, 2015 JAMA Intern Med PMID: 27428731 NCT00832039	1089 subjects with severe sepsis or septic shock admitted to the ICU • Mean age 65.7 years	First day antibiotic cessation allowed: 7 Criteria for antibiotic cessation: PCT value decreased over 50% or PCT value lower than 1 µg/L	Usual care	Primary: • All cause mortality at 28 days Secondary: • Duration of ICU and hospital stay, duration of antimicrobial therapy, and others
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