

Evidence review: prevention and management of neutropenic sepsis in cancer patients

Study ID	Infection	Population	Study types	No. studies considering time to antibiotic therapy	Meta analysis	Definition of early antibiotic therapy	Results	Comments
Yu et al 2008	Community acquired pneumonia	Adult and paediatric	Observational studies	13	No	< 4 hours And < 8 hours	<p>Odds ratios were calculated for individual studies where possible.</p> <p><u>Short term mortality (<4 hours)</u> Ziss et al. 2003 (OR = 0.82; 95% CI, 0.20 to 3.40) Wilson et al. 2005 (OR = 0.24; 95% CI, 0.08 to 0.71) Houck et al. 2004 (OR = 0.85; 95% CI, 0.74 to 0.98) Marrie et al 2005 (OR = 1.02; 95% CI, 0.77 to 1.36) Bodi et al 2005 (OR = 0.82; 95% CI, 0.54 to 1.24) Waterer et al 2006 (OR = 0.36; 95% CI, 0.15 to 0.83) Silber et al 2003 (OR = 1.99; 95% CI, 1.22 to 13.45) <u>Short term mortality (<8 hours)</u> Mortensen et al 2004 (OR = 0.60; 95% CI, 0.37 to 1.35) Dedier et al 2001 (OR = 0.85; 95% CI, 0.75 to 0.96) Marrie et al 2005 (OR = 0.96; 95% CI, 0.70 to 1.30)</p>	<p>MEDLINE, EMBASE, and the Cochrane Library were searched.</p> <p>Studies considering inpatient or 30-day mortality among patients receiving early versus delayed antibiotics were included.</p> <p>Studies were categorized according to whether they were retrospective or prospective and whether they adjusted for severity with the Pneumonia Severity Index.</p> <p>Odds ratios were calculated for each study. These were not pooled.</p>
Pines et al 2009	Community acquired	Adult and paediatric	Observational studies	8	No	< 4 hours	<p>Studies were categorised as 'supporting evidence', 'neutral evidence' or 'opposing</p>	<p>Only one data base was searched for relevant studies (PubMed). It is doubtful that the</p>

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	pneumonia						<p>evidence’.</p> <p>2 studies supported door-to-needle time of < 4 hours</p> <p>1 study was categorised as neutral</p> <p>5 studies opposed door-to-needle time of < 4 hours. These were said to document “increased rates of mis-diagnosis”/ “interventions that might result in the inappropriate prioritization of patients for the purpose of meeting quality measures”</p>	<p>literature search was sufficiently rigorous to identify all relevant studies.</p> <p>Studies were categorised according to study design, but study quality was not reported. The authors did not conduct a meta-analysis. A rather subjective method of categorising studies as containing ‘supporting evidence’, ‘neutral evidence’ or ‘opposing evidence’ was used. The criteria for categorisation were unclear.</p>
Siddiqi et al 2010	Severe sepsis	Adult	RCTs	0	No	< 1 hour	No RCTs considering time to antibiotic administration for severe sepsis were identified.	This was Cochrane review of early versus late pre-intensive care unit admission broad spectrum antibiotics for severe sepsis. No RCTs considering the impact of time to antibiotic administration for severe sepsis were found.
Mc Gregor 2007	Bacteremia	Adult	Observational studies	2	No	No definition	No results related to time to antibiotic therapy were reported	