Procalcitonin testing to guide antibiotic therapy for the treatment of sepsis in intensive care settings and for suspected bacterial infection in emergency department settings: a systematic review and cost-effectiveness analysis


Record Status
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Citation

Authors' objectives
To assess the clinical effectiveness and cost-effectiveness of adding PCT testing to the information used to guide antibiotic therapy in adults and children (1) with confirmed or highly suspected sepsis in intensive care and (2) presenting to the emergency department (ED) with suspected bacterial infection.

Authors' conclusions
The limited available data suggest that PCT testing may be effective and cost-effective when used to guide discontinuation of antibiotics in adults being treated for suspected or confirmed sepsis in ICU settings and initiation of antibiotics in adults presenting to the ED with respiratory symptoms and suspected bacterial infection. However, it is not clear that observed costs and effects are directly attributable to PCT testing, are generalisable outside people presenting with respiratory symptoms (for the ED setting) and would be reproducible in the UK NHS. Further studies are needed to assess the effectiveness of adding PCT algorithms to the information used to guide antibiotic treatment in children with suspected or confirmed sepsis in ICU settings. Additional research is needed to examine whether the outcomes presented in this report are fully generalisable to the UK.

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