Contents

Chapter 1  General introduction and outline of the thesis

Part I  Indices of infections in the critically ill patient
Chapter 2  Microbiological findings and adequacy of antibiotic treatment in the critically ill patient with drowning-associated pneumonia
  *Intensive Care Med. 2014 Feb;40(2):290-1*
Chapter 3  Development of trigger-based semi-automated surveillance of ventilator-associated pneumonia and central line-associated bloodstream infections in a Dutch intensive care
  *Ann Intensive Care. 2014 Dec 21;4:40*

Part II  Respiratory viral infections in the critically ill: marker or mediator?
Chapter 4  Respiratory Viral Pathogens in critically ill patients
  *Submitted*
Chapter 5  Clinical correlates of herpes simplex virus type 1 loads in the lower respiratory tract of critically ill patients
  *J Clin Virol. 2013 Sep;58(1):79-83*

Part III  Biomarkers of sepsis in the critically ill
Chapter 6  Longitudinal neutrophil CD64 expression as a biomarker for acute infection and severity of disease in critically ill patients.
Chapter 7  Limited diagnostic value of procalcitonin for proven infection in patients admitted on the ICU with SIRS.
  *Submitted*
Chapter 8  Stop Antibiotics on guidance of Procalcitonin Study (SAPS):
a randomised prospective multicenter investigator-initiated trial to analyse whether
daily measurements of procalcitonin versus a standard-of-care approach can safely shorten antibiotic duration in intensive care unit patients


**Chapter 9** Effectiveness and safety of procalcitonin guidance in reducing the duration of antibiotic treatment in critically ill patients.

*Lancet Infect Dis. 2016 July;16(7):819-27*

**Addendum** Procalcitonin to guide antibiotic stewardship in intensive care - Authors' reply.

*Lancet Infect Dis. 2016 Aug;16(8):889-90*

**Part IV** **Summary and future perspectives**

**Chapter 10** Summary and general discussion

**Chapter 11** Nederlandse Samenvatting en toekomstperspectief

**Part V** Abbreviations

Curriculum Vitae

List of publications and presentations

Dankwoord