

## Hospital Acquired Pneumonia: Evidence Based Guidelines

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### What are the HAP Guidelines?

- The BSAC Hospital Acquired Pneumonia (HAP) guidelines are one of only two sets of fully evidence- based guidelines on this topic in the world<sup>1,2</sup>
- These new evidence-based guidelines adopt a three-way approach towards managing HAP via its prevention, diagnosis and treatment<sup>1</sup>

### Key Points Covered by the Guidelines

#### **HAP prevention**

- Hospital education programmes should form part of the risk reduction measures for HAP within an overall infection control strategy<sup>1</sup>
- Care protocols and guidelines for weaning and sedation should be developed and actively pursued in the critical care setting and to ensure compliance with monitoring<sup>1</sup>
- Non-invasive ventilation (NIV) rather than mechanical ventilation should be used in selected patients to reduce the risk of HAP<sup>1</sup>
- Where it is anticipated that mechanical ventilation will be for 48 hours or more SDD should be considered for ICU patients in order to prevent the development of VAP<sup>1</sup>
  - Use of SDD should not be withheld because of any concerns of resistance developing<sup>1</sup>
  - While initial costs to implement SDD may be higher than standard management, use of SDD is cost effective in terms of individual cost per survivor<sup>1</sup>
  - SDD regimens should include topical and parenteral agents (with activity against Gram negative bacilli) and the choice of treatment should depend on local pathogen profiles<sup>1</sup>

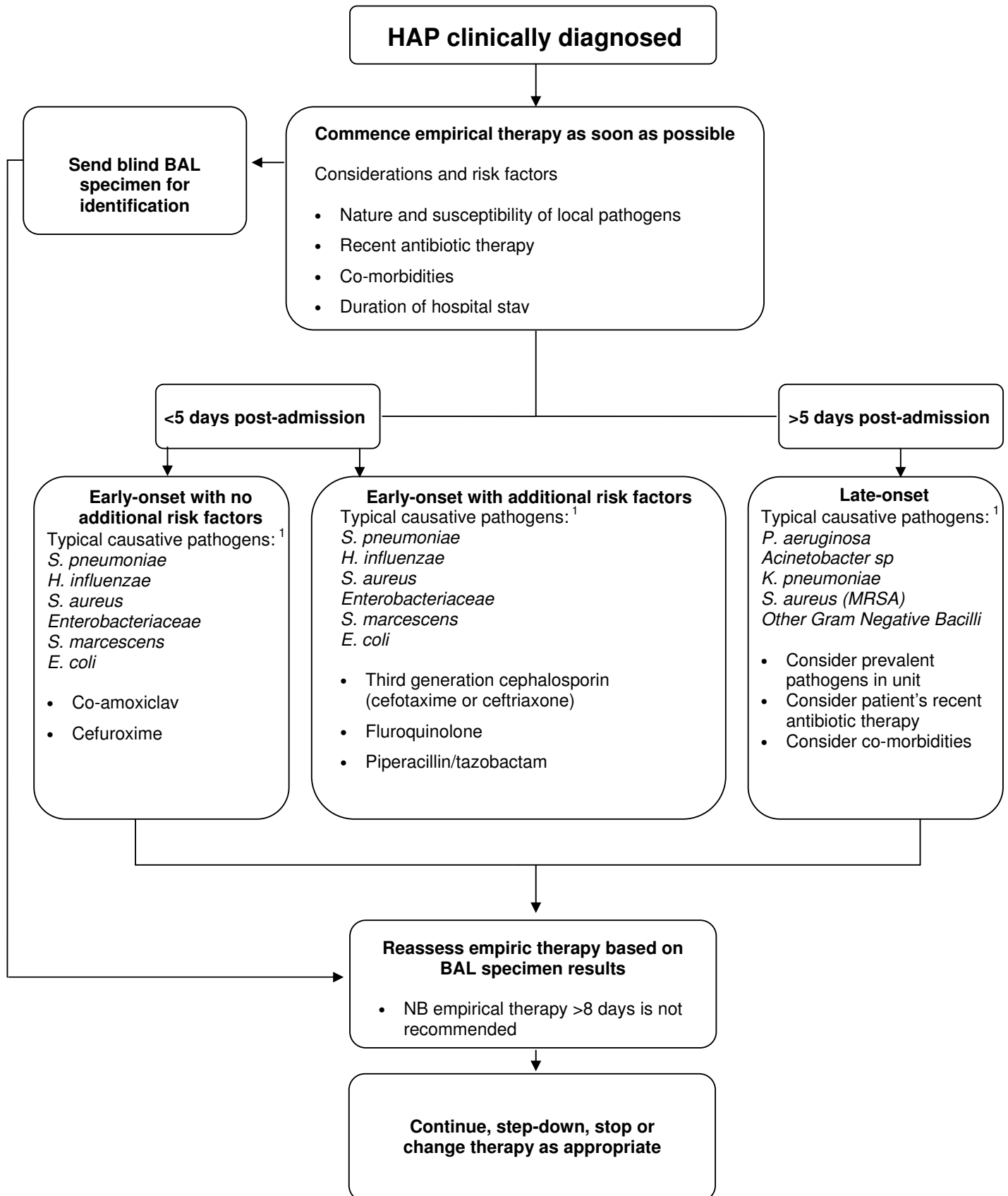
#### **HAP diagnosis**

- HAP is difficult to diagnose and there are no universally accepted 'gold' or reference standard diagnostic criteria<sup>1</sup>
- Radiological and microbiological tests only serve to support a clinical diagnosis<sup>1</sup>
- Blind bronchoalveolar lavage (BAL) is recommended as a simple and effective method to obtain respiratory specimens and to identify potential pathogens in suspected HAP so providing a guide to therapy<sup>1</sup>

#### **HAP treatment**

- Empirical therapy should be started immediately. The choice of empirical antibiotic therapy of patients with HAP in an individual unit should be based on the following criteria:
  - Knowledge of the nature and susceptibility patterns of the pathogens that are prevalent on that unit as risk assessment
  - Duration of hospital stay i.e.
    - <5 days is early-onset,
    - >5 days is late-onset infection as this will result in different patterns of causative pathogens (refer to algorithm)
  - Recent administration of antibiotic therapy
  - Co-morbidities<sup>1</sup>
- The choice of definitive therapy should be determined by culture and susceptibility test results<sup>1</sup>
- Monotherapy is recommended as it is equivalent to combination therapy in patients with HAP<sup>1</sup>
- The normally recommended duration of empirical therapy is no more than eight days<sup>1</sup>
- Patients with sepsis and pneumonia should not be treated with granulocyte-colony stimulating factor (G-CSF)<sup>1</sup>
- Pharmacokinetic (PK), pharmacodynamic (PD) modelling data on antibiotics should not be used to guide treatment selections in HAP<sup>1</sup>

**BSAC Hospital Acquired Pneumonia (HAP) guidelines:  
Recommended treatment of HAP<sup>1</sup>**



## References

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<sup>1</sup> Masterton RG *et al.* Guidelines for the management of hospital-acquired pneumonia in the UK: Report of the Working Party on Hospital-Acquired Pneumonia of the British Society for Antimicrobial Chemotherapy. *Journal of Antimicrobial Chemotherapy* 2008; 62(1):5-34. Available at: <http://jac.oxfordjournals.org/cgi/content/full/dkn162>  
Last accessed 12<sup>th</sup> May 2008

<sup>2</sup> American Thoracic Society. Guidelines for the management of adults with hospital-acquired, ventilator-associated, and healthcare-associated pneumonia. *Am J Respir Crit Care Med* 2005; 171: 388-416