

PRINCESS ALEXANDRA HOSPITAL ICU: PROCEDURE MANUAL

Section: Continuum of Care

Procedure No. 0031/v4/08/2007

Initiator: ICU senior staff committee

Applicable To: All ICU Staff

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Authority: Director of Intensive Care, NUM of Intensive Care

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Signature of Issuer:

Guideline Title: Investigations for community acquired pneumonia

Guideline:

Patients admitted to intensive care with the provisional diagnosis of community acquired pneumonia should have the following investigations

- Chest Xray
- Blood gases, FBC, Coagulation studies, ICUP (standard ICU biochemistry profile)
- Sputum mc&s, AFB, Legionella culture
- Blood cultures * 2 in the first 12 hours of presentation
- Urine
 - Legionella antigen
 - Pneumococcal antigen
- Blood Serology
 - Acute and Convalescent (at 14 days):
 - Legionella antibodies
 - Mycoplasma pneumoniae IGM, IGG
 - Chlamydia serology
 - Q fever
 - Influenza A & B
- Naso pharyngeal aspirate for respiratory viruses. Lab will automatically perform:
 - Adenovirus
 - RSV
 - Influenza A& B
 - Parainfluenza
 - Human metapneumovirus
 - Corona virus

- Pleural aspirate if a significant amount of pleural fluid is present (discuss with ICU consultant first)

Forms and Specimens

Request forms are available in the CAP box in the blood gas machine room. If no forms are available, then print out and complete [these five forms](#).

The following specimens are required:

Blood culture x 2

Nasopharyngeal aspirate (see [Nasopharyngeal Aspiration Technique](#))

Sputum

Urine

2x white top tubes for serology

Clinical triggers for further microbiological investigations should include

- **Agricultural exposure**
 - Q-fever, Leptospira serology
- **For recent travellers (Rockhampton and further) and pneumonia acquired in the tropics:**
 - Serology and cultures for Burkholderia pseudomallei (Meliodosis)
 - Leptospirosis serology
 - Serology for scrub typhus
- **For recent (within two weeks) travellers to Asia or other risk factors for Avian influenza:**

Request H5N1 on nasopharyngeal aspirate

- **For Immunocompromised Hosts**
 - Sputum or BAL:
 - PCP
 - CMV PCR
 - Fungal and mycobacterial culture
 - Blood CMV PP65
 - Blood Serology for HIV
 - Consider serum cryptococcal antigen

Antibiotics must be given as quickly as possible (<1hr). Cultures should be collected as quickly as possible (<1 hour from admission) and should not delay commencement of antibiotic therapy. If blood cultures can be collected quickly and will not delay administration of antibiotics, then ideally this can be done prior to commencement of antibiotics.

Broncho-alveolar lavage and pleural aspiration carries significant risk in patients with respiratory failure, and should not be done unless discussed with the ICU consultant.

Other relevant procedures and guidelines

[Blood Culture Collection](#)

[Nasopharyngeal Aspiration Technique](#)

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