

Supplementary material:

Antibiotic treatment guidelines for each NHS trust included in the study

Community acquired pneumonia (CAP)

	Trust 1	Trust 2
Mild CAP	<p>Mild CAP previously untreated Amoxicillin 500-1000mg PO TDS</p> <p><i>Penicillin allergy:</i> clarithromycin 500mg PO BD</p> <p>Mild CAP previously treated in community Amoxicillin 500-1000mg PO BD TDS + clarithromycin 500mg PO BD</p> <p><i>Penicillin allergy:</i> doxycycline 200mg PO STAT then 100mg PO BD or levofloxacin 500mg PO OD</p>	<p>Low severity Amoxicillin 500-1000mg PO TDS</p> <p><i>Penicillin allergy:</i> clarithromycin 500mg PO BD</p>
Moderate CAP	<p>Amoxicillin 500-1000mg PO BD TDS + clarithromycin 500mg PO BD</p> <p><i>Penicillin allergy:</i> doxycycline 200mg PO STAT then 100mg PO BD or levofloxacin 500mg PO OD</p>	<p>Amoxicillin 500mg-1000mg 1g IV/POTDS+ clarithromycin 500mg PO/IV BD</p> <p>If aspiration suspected substitute amoxicillin with co-amoxiclav 625mg TDS of 1.2g TDS</p> <p><i>Penicillin allergy:</i> doxycycline 200mg PO STAT then 100mg PO OD or moxifloxacin 400mg PO OD</p>
Severe CAP	<p>Co-amoxiclav 1.2g IV TDS plus clarithromycin 500mg IV/PO BD.</p> <p><i>Penicillin allergy:</i> Levofloxacin 500mg IV BD alone or Cefuroxime 1.5g IV TDS + clarithromycin 500mg IV BD</p>	<p>Co-amoxiclav 1.2g IV TDS plus clarithromycin 500mg IV BD (if legionella or <i>S. aureus</i> pneumonia suspected, add rifampicin 300mg PO/IV BD)</p> <p><i>Penicillin allergy:</i> Vancomycin loading, then 15mg/kg IV BD + ciprofloxacin 400mg IV BD</p>

Hospital Acquired pneumonia (HAP)

	Trust 1	Trust 2
Mild HAP	Trimethoprim 200mg PO BD or doxycycline 200mg PO STAT then 100mg PO OD	<p>Non-severe HAP</p> <p>Co-amoxiclav 625mg PO TDS or 1.2g IV TDS.</p> <p>IF MRSA risk doxycycline* 200mg stat then 100mg PO BD</p> <p><i>Penicillin allergy:</i> clarithromycin* 500mg PO/IV BD</p> <p>*If aspiration add metronidazole 400mg PO TDS or 500mg IV TDS</p>
Moderate HAP	Co-trimoxazole 1.44g PO/IV BD	
Severe HAP	<p>Ceftriaxone 2g IV OD + gentamicin</p> <p><i>Penicillin allergy:</i> ciprofloxacin 500mg PO BD or 400mg IV BD. Consider adding vancomycin if MRSA or very sick</p>	<p>Piperacillin-tazobactam 4.5g IV TDS. If MRSA risk add vancomycin.</p> <p><i>Penicillin allergy:</i> vancomycin + ciprofloxacin 500mg PO BD or 400mg IV BD. If aspiration add metronidazole 500mg IV TDS</p>

Skin and soft tissue infection (SSTI)

	Trust 1	Trust 2
Cellulitis (uncomplicated)	Flucloxacillin 500mg-1g PO QDS <i>Penicillin allergy:</i> clindamycin 300mg PO QDS	Flucloxacillin 1g PO/IV QDS <i>Penicillin allergy:</i> clarithromycin 500mg PO/IV BD
Cellulitis (MRSA)	Vancomycin	Doxycycline 200mg STAT then 100mg PO OD or vancomycin
Cellulitis (complicated) with comorbidities +/-systemically ill	Flucloxacillin 2g IV QDS or ceftriaxone 2g IV OD <i>Penicillin allergy:</i> clindamycin 300-450mg PO QDS	Co-amoxiclav 625mg PO TDS or 1.2g IV TDS (add vancomycin if MRSA risk) <i>Penicillin allergy:</i> clarithromycin 500mg PO BD + ciprofloxacin 500mg BD + metronidazole 400mg PO TDS Or if IV required: Vancomycin loading then 15mg/kg IV BD + ciprofloxacin 400mg IV BD + metronidazole 500mg IV TDS
Bites	Co-amoxiclav 625mg TDS <i>Penicillin allergy:</i> metronidazole 400mg PO TDS + Doxycycline 200mg PO OD (animal bites) or clarithromycin 500mg PO BD (human bites)	Co-amoxiclav 625mg PO TDS <i>Penicillin allergy:</i> clindamycin 300mg PO QID and ciprofloxacin 500mg PO BD

Urinary tract infections (UTI)

	Trust 1	Trust 2
UTI uncomplicated	<p>Female: cefalexin 500mg PO BD or nitrofurantoin 50mg PO QDS</p> <p><i>Penicillin allergy:</i> nitrofurantoin 50mg PO QDS</p> <p>Male: Cephalexin 500mg PO BD or ciprofloxacin 500 PO BD</p> <p><i>Penicillin allergy:</i> ciprofloxacin 500 PO BD</p>	<p>Co-amoxiclav 625mg PO TDS</p> <p><i>Penicillin allergy:</i> cephalexin 500mg PO QDS or ciprofloxacin 500mg PO BD</p>
UTI complicated (pyelonephritis, urosepsis)	<p>Co-amoxiclav 1.2g TDS IV + consider gentamicin</p> <p><i>Penicillin allergy:</i> ciprofloxacin 400mg IV BD</p>	<p>Co-amoxiclav 1.2g TDS IV*</p> <p><i>Penicillin allergy:</i> ciprofloxacin 400mg IV BD or gentamicin 5mg/kg OD</p>