



Antibiotic Protocol

General Intensive Care Unit

GICU Empirical Therapy		(Send cultures before starting antibiotics)	
TYPE 1 (CAI)		TYPE 2 (HAI)	TYPE 3 (NI)
Blood	Amoxicillin / clavulanate If IVDU: Cloxacillin	Ertapenem + Amikacin	If patient in severe sepsis / septic shock: Imipenem/ Meropenem ± Vancomycin ± Polymyxin* If strongly suspected of MRSA use Vancomycin <i>* Polymyxin is to be initiated with ID consultation only</i>
Lung	Ceftriaxone + Azithromycin	Piperacillin/ tazobactam ± Gentamicin	If patient in severe sepsis/septic shock: Imipenem/ Meropenem ± Vancomycin ± Polymyxin* If strongly suspected of MRSA use Vancomycin <i>* Polymyxin is to be initiated with ID consultation only</i>
Skin and Soft tissue	Amoxicillin / clavulanate	Piperacillin / tazobactam ± Gentamicin	If patient in severe sepsis/septic shock: Imipenem / Meropenem + Vancomycin If strongly suspected of MRSA use Vancomycin
Continuing Treatment	If the pathogen is sensitive or culture is negative & patient responds clinically; Consider ORAL switch if 1. T < 38 °C for >24 hours with clinical improvement AND 2. Orally tolerated, AND 3. No sign of sepsis AND 4. No high risk / deep seated infection.	De escalate to narrowest spectrum antimicrobials If culture negative and clinically stable, consider 5-7 days duration (* Strongly recommend ID consultation)	

- Type 1** → No contact with health care system in the last 90 days AND No prior antibiotic treatment in the last 90 days AND young Patient with no or few co-morbid conditions
- Type 2** → Contact with health care system in past 3 months or < 1 week in the hospital or < 48hrs in ICU (eg. admission in hospital or nursing home), invasive procedure OR Recent antibiotic therapy in last 3 months OR elderly (> 65 years) with few co-morbidities
- Type 3** → Hospitalization > 5-7 days ± infections following major invasive procedures OR Recent & multiple antibiotic therapies OR Elderly (> 65 years) + multiple co-morbidities (eg. structural lung disease, immunodeficiency)

TOP 5 Pathogens [GICU] Dec 2014 – Jun 2016

Blood Stream Infection (BSI) (N=170 [Top 5 is 61%])
Staphylococcus aureus [n= 54; MRSA 22 (41%)]
Escherichia coli [n= 28; ESBL 5 (18%), CRE 1 (4%)]
Klebsiella spp [n= 23; ESBL 8 (35%), CRE 1 (4%)]
Burkholderia cepacia [n=21 (9%)]
Pseudomonas aeruginosa [n=12 (5%)]

Respiratory Infection (N= 371 [Top 5 is 85%])
Acinetobacter sp. [n=82 (22%)]
Pseudomonas aeruginosa [n=79 (21%)]
Klebsiella sp. [n= 79; ESBL 33 (42%)]
Staphylococcus aureus [n= 79; MRSA 13 (28%)]
Enterobacter sp. [n=27; ESBL 7(25%)]

Skin and Soft Tissue Infections (SSTI) (N=117 [Top5 is 69%])
Klebsiella sp. [n= 22; ESBL 11 (50%)]
Staphylococcus aureus [n= 17; MRSA 11 (65%)]
Pseudomonas aeruginosa [n=16 (14%)]

Acinetobacter sp. [n=13 (11%)]
Escherichia coli. [n=13; ESBL 6 (46%)]

Collaborative effort by HCTM PPUKM Antimicrobial Stewardship Committee

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