

Antibiotic Protocol



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Orthopaedics Department Empirical Therapy. Send cultures before starting antibiotics!

	TYPE 1	TYPE 2 Low Risk : < 5 days admission High Risk : > 5 days admission	TYPE 3
Urine	IV Amoxicillin / Clavulanate OR Nitrofurantoin* ¹ if CrCL > 30	IV Piperacillin/Tazobactam	If in Septic shock IV Imipenem/Meropenem Without shock or pyelonephritis Nitrofurantoin* ¹ if CrCL > 30
Skin & soft tissue	IV Cloxacillin OR IV Amoxicillin / Clavulanate (if diabetic foot)	IV Cefepime	If in Septic shock IV Imipenem/Meropenem + IV Vancomycin* Without shock IV Piperacillin/Tazobactam ± IV Gentamicin If MRSA is strongly suspected* ² , add vancomycin*

*¹ Nitrofurantoin NOT for pyelonephritis *² Suspect MRSA if colonized with MRSA, previous MRSA infections within past 3 months.

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)
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- 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 [Department of Orthopaedics] 2017 – 2018

Urine (Top 5 is 86% of 268 urine-positive isolates)
Escherichia coli [n=94 (35%); ESBL 24 (26%)]
Pseudomonas aeruginosa [n=50 (19%)]
Klebsiella sp. [n=46 (17%); ESBL 20 (43%), CRE 2 (4%)]
Enterobacter sp. [n=23 (9%); ESBL 3 (13%)]
Enterococcus sp. [n=19 (7%)]
Pus (Top 5 is 67% of 1138 pus-positive isolates)
Staphylococcus aureus [n=317 (28%); MRSA 97 (31%)]
Pseudomonas aeruginosa [n=192 (17%)]
Streptococcus sp. [n=95 (8%)]
Enterobacter sp. [n=90 (8%); ESBL 26 (29%), CRE 1 (1%)]
Proteus sp. [n=88 (8%); ESBL 11 (13%)]