

ORGANISM FACT SHEET

Rapid Growing Mycobacteria

OFS013

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Rapid Growing Mycobacteria (RGM): Rapid growing (5-7 days incubation), acid-fast bacilli
e.g. *M. abscessus*, *M. chelonae*, *M. fortuitum*.

Infections

- Cutaneous, pulmonary, and nosocomial infections in immunocompromised populations.
- Environmental infections.

Antibiotic Resistance

- Intrinsic resistance to conventional antimycobacterial agents.
- Variable susceptibility to aminoglycosides, cefoxitin, imipenem, trim/sulfa, tetracyclines, quinolones and macrolides.
- Monotherapy not recommended due to rapid emergence of resistance.

Susceptibility testing needs

- Wounds, respiratory (broncho-alveolar lavage, sputum), sterile tissues (soft tissue, bone, middle ear, eye).
- Therapy selection to verify tentative empiric choices.
- Monitor therapy compliance and resistance development.
- To generate more susceptibility data.

Methods

Agar disc elution

- Not recommended

Broth microdilution

- Cumbersome to prepare and maintain (-70°C storage).
- Can not report Imipenem results for *M. chelonae* and *M. abscessus*.
- Contamination problems.

Etest

- For individual therapy selection and monitoring.
- Simple to implement, requires no instrumentation.
- Media and conditions can be adapted to different species.
- Cost effective and flexible for MIC testing of 3-6 drugs of choice.
- Can generate epidemiology based on MIC data.