

Pyomyositis in Adults – Microbiology Summary Clinical Guideline

Reference number: CG-AB/3670/23

Clinical concerns re pyomyositis (symptoms and signs include muscle pain, fever, skin erythema, tenderness, swelling, and a fluctuant/firm/woody mass)

Investigation

- Radiology:
 - First line: MRI
 - Second line: CT with contrast
- Microbiology:
 - Before starting antibiotics: blood cultures x 2, drawn approximately 1-15 minutes apart, from 2 locations/venepunctures
- Blood sciences:
 - FBC, INR, CRP, ESR, CK, lactate, U&Es, and LFTs

Treatment

- Surgical opinion ± intervention:
 - Consult with the orthopaedic registrar/consultant on call if an intra-muscular abscess/collection has been identified
- ± Radiological opinion and intervention:
 - Interventional radiology with US- or CT-guided percutaneous aspiration or drainage can be considered for intra-muscular abscesses, especially if surgical drainage is contraindicated
 - Surgical consultant to radiology consultant discussions - regarding the specific patient, contraindications, and complications – are recommended
- Empiric, intravenous antibiotics (please note, page 2)

Investigation (if surgery or radiology intervene):

- Microbiology:
 - Fluid, pus, or tissue for MC&S

Treatment

- Directed, intravenous antibiotics (please note, Microbiology Full Clinical Guideline pages 3-5)
- ± Referral to the UHDB orthopaedic multi-disciplinary meeting (1200-1300 Fridays)

Empiric, intravenous antibiotics: no history of immunocompromise or intravenous drug usage

| | No history of MRSA | History of MRSA |
|-------------|--|--|
| First line | Flucloxacillin 2 g 6 hourly | Vancomycin or teicoplanin, dose as per hospital guidelines , vancomycin target pre dose level 15-20 mg/l, teicoplanin target pre dose level 15-30 mg/l |
| Second line | If non-immediate without systemic involvement penicillin allergy , cefuroxime 1.5 g 8 hourly | Daptomycin 6 mg/kg 24 hourly |
| Third line | If immediate rapidly evolving or non-immediate with systemic involvement penicillin allergy , vancomycin or teicoplanin, dose as per hospital guidelines , vancomycin target pre dose level 15-20 mg/l, teicoplanin target pre dose level 15-30 mg/l | Linezolid 600 mg 12 hourly (or per oral [absorption 100%]) |

Empiric, intravenous antibiotics: **history of immunocompromise or intravenous drug usage**

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| First line | Piperacillin tazobactam 4.5 g 6 hourly and Vancomycin or teicoplanin, dose as per hospital guidelines , vancomycin target pre dose level 15-20 mg/l, teicoplanin target pre dose level 15-30 mg/l |
| Second line, if non-immediate without systemic involvement penicillin allergy | Ceftazidime 2 g 8 hourly and Vancomycin or teicoplanin, dose as per hospital guidelines , vancomycin target pre dose level 15-20 mg/l, teicoplanin target pre dose level 15-30 mg/l |
| Third line, if immediate rapidly evolving or non-immediate with systemic involvement penicillin allergy | Ciprofloxacin 400 mg 8 hourly and Vancomycin or teicoplanin, dose as per hospital guidelines , vancomycin target pre dose level 15-20 mg/l, teicoplanin target pre dose level 15-30 mg/l |

References

Baddour, L. M. and Keerasuntornpong, A. 2023. Primary pyomyositis. UpToDate. Available at: <https://www.uptodate.com/contents/primary-pyomyositis>.

Bennett, J. E., Dolin, R., and Blaser, M. J. 2015. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 8th Edition. Elsevier.

Document control

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