

Prosthetic Joint Infection – please be vigilant and proactive!

The information below provides guidance on how to recognise and refer a patient with a suspected prosthetic joint infection following hip replacement surgery.

Why is this important?

- Prosthetic Joint Infection (PJI) is a deep infection around a prosthetic joint that can result in severe pain, disability, or death.
- Incidence within 2 years of primary hip replacement ranges from 0.8 – 2.1%.
- Risk factors: males, previous revision surgery, previous hip infection, hip replacement for rheumatoid arthritis, femoral bone graft during primary hip replacement, smokers, people with a history of steroid administration or body mass index ≥ 30 kg/m², and those with significant co-morbidity (including liver disease, diabetes, chronic pulmonary disease, heart failure and depression).
- PJI has a significant physical, social and psychological impact.

Guidelines on treatment and management of PJI are available here:

[INFORM Guideline for hip PJI_v1.2.pdf \(bristol.ac.uk\)](#)

Remaining vigilant

Hip replacement patients with postoperative complications such as unexplained pain or slow-wound healing should prompt high suspicion of infection.

Who to refer?

A prosthetic joint infection should be suspected in:

Any patient within the first four weeks of primary joint replacement with increasing discharge, reduction in function, worsening erythema (redness of the skin) should prompt discussion with a specialist orthopaedic colleague within 48 hours.

Any patient with a previously well performing hip replacement, who develops symptoms consistent with infection (such as fluid discharge, new or worsening erythema and new or worsening pain) which persists for more than 48 hours, should prompt discussion with an arthroplasty specialist within 72 hours from presentation.

Early recognition is crucial to prevent progression to a severe, life-altering condition that is difficult to treat and potentially leads to severe disability or death. If in doubt, contact your local hospital and the treating orthopaedic department.

Red Flags

All patients with suspected prosthetic joint infection should be dealt with on an urgent basis as outlined above.

If a patient presents with signs of [sepsis](#) then call 999 / arrange emergency transfer to ED.

Referral

Where PJI is suspected DO NOT DELAY in referral to the treating orthopaedic team.

- Unless sepsis is apparent and patient unwell requiring emergency care, refrain from treating with antibiotics.
- Without identification of the infecting organism pre-emptive treatment with antibiotics in primary care may delay identification of the infecting organism or make decision making and surgical management more difficult.
- Orthopaedic team must collect samples before antibiotics started to optimise identification of the infecting organism.

Referral can be made back to the treating Orthopaedic team in normal working hours, or to the on-call team (available via switchboard) at the local hospital/trauma unit out of hours.

Resources

Guidelines: [INFORM Guideline for hip PJI_v1.2.pdf \(bristol.ac.uk\)](#)

Evidence: “Approach to patients with a potential prosthetic joint infection”. *BMJ* 2022; 376: <https://doi.org/10.1136/bmj-2021-069502>

Mental health: Consider referral for mental health support if required.