

Reference:	FOI.13779.24
Subject:	Septic arthritis
Date of Request:	9 February 2024

Requested:

Questions for clinical team(s):

1. In 2022/2023 (or for the last recorded year with data available), in your Trust/Health Board, how many of the following did you record?
 - a. Paediatric patients with suspected septic arthritis in native joints
 - b. Paediatric patients with suspected prosthetic joint infection (PJI)
 - c. Adult patients with suspected septic arthritis in native joints
 - d. Adult patients with suspected prosthetic joint infection (PJI)

2. Does your Trust/Health Board follow or have any locally developed/adapted guidelines for the diagnosis and treatment of septic arthritis in native joints and prosthetic joint infections in both adults and paediatric patients?

If yes, please state which guidelines have been adapted and please provide a copy of your local guidelines

3. When investigating suspected septic arthritis in native joints in both paediatric and adult patients, is a synovial fluid sample collected before or after antibiotics are administered and commenced?
 - a. Is joint aspirate collected in ED/triage, Assessment unit, inpatient ward, or theatre?
 - b. Who typically performs the procedure and collects the sample? (Please specify job role)
 - c. Does the above differ for suspected prosthetic joint infections? If yes, please clarify how this differs

4. What clinician would typically manage paediatric patients with suspected septic arthritis in native joints? (please select one or multiple)
 - Paediatric Consultant
 - Orthopaedic Consultant
 - Infectious Diseases Consultant
 - Other (please specify)

5. Are patients discharged before culture results from synovial fluid aspirate are received? If yes, what requirements need to be met before patients are discharged?

Questions for lab/diagnostic team(s):

6. For adult and paediatric patients with suspected septic arthritis of native joints, what are the mean turnaround times (in hours, or if more appropriate, working days) for results on the following tests from receipt of specimen: (please provide an answer for each result)
 - a. Gram Stain
 - b. Culture
 - c. Blood culture
 - d. White blood cell count

7. Does your Trust/Health Board conduct PCR testing of bacteria from synovial fluid of patients who have suspected septic arthritis of native joints?

If yes:

- a. Is this testing conducted on site?
- b. At what point is testing requested – when the culture is negative or on request?
- c. How long is the average turnaround time for results from receipt of specimen?
- d. What organisms are routinely tested for?

8. Does your Trust/Health Board conduct 16S PCR testing of bacteria from synovial fluid of patients who have suspected septic arthritis of native joints?

If yes:

- a. Is this testing conducted on site?
- b. At what point is testing requested – when the culture is negative or on request?
- c. How long is the average turnaround time for results from receipt of specimen?
- d. What organisms are routinely tested for?

Joint question – input from both clinician and lab/diagnostic team:

9. For joint infections, in your Trust/Health Board, please confirm the following:
- a. Which roles or stakeholders are involved in the design of diagnostic pathways and introducing change/pathway improvement?
 - b. Which team(s) hold the budget for investing and implementing in new technologies across the pathway (e.g. rapid diagnostic testing)?

Response:

1. Hywel Dda University Health Board (UHB) provides, within the table below, the number of adults and Children and Young People (CYP) diagnosed with septic arthritis in native joints and Prosthetic Joint Infection (PJI), as recorded on the UHB's Welsh Patient Administration System (WPAS), during the 2022/23 financial year.

Condition	Adults	CYP
Septic arthritis in native joints	49	0
PJI	0	0

2. The UHB confirms that it does not have any locally developed guidelines for the diagnosis and treatment of septic arthritis in native joints and PGI. However, for CYP it adheres to the British Society for Children's Orthopaedic Surgery (BSCOS) guidance which can be accessed via the link provided below.

[Musculoskeletal Infection Consensus \(bscos.org.uk\)](https://www.bscos.org.uk)

3. The UHB confirms that for both adults and CYP, there is no specific recommendation as to where, when and by whom a sample can be collected. However, where possible, samples should be collected prior to antibiotic provision.

Additionally, for adults, Medical and Primary Care teams often commence antibiotics prior to clinical suspicion being raised, ensuring treatment is begun as soon as possible to avoid delays and possible escalation of the condition. For CYP, there may be instances where the treatment

of sepsis may be so urgent that antibiotics are administered prior to sample collection, again to avoid delays with treatment and possible escalation of the condition.

- a. & b. Adult samples are collected by the responsible clinician, which may be a medical or surgical professional and undertaken in any clinical area. CYP samples are collected in theatre by the surgical team, as the aspiration typically requires a general anaesthetic.
 - c. The UHB confirms that aspiration of a prosthetic joint is typically collected within theatre to mitigate risk of introducing infection.
4. As per BSCOS guidelines, CYP with suspected Musculoskeletal (MSK) infection are considered for joint management by Orthopaedic Surgeons and Paediatricians, especially in cases of diagnostic uncertainty.
5. The UHB confirms that in most cases, patients are not discharged before culture results are received. However, some patients that have a clinical suspicion raised, and on examination or initial investigations, do not clinically have septic arthritis, are discharged post aspirate. However, this situation almost exclusively occurs in adults and is a rarity in CYP.

The UHB does not hold all of the information requested for questions 6 to 8, as the UHB's microbiology services in Bronglais General Hospital, Glangwili General Hospital and Prince Philip Hospital are provided by Public Health Wales (PHW), who have direct management of these laboratories.

We therefore recommend that you redirect these parts of your request to the Freedom of Information Team in Public Health Wales (PHW), who may be able to help you with your enquiry. Contact details for PHW are as follows:-

Foi.phw@wales.nhs.uk or alternatively, you can contact: Freedom of Information Office, Public Health Wales, Floor 3, 2 Capital Quarter, Tyndall Street, Cardiff, CF10 4BZ.

However, the UHB provides the information it holds for its laboratory in Withybush General Hospital (WGH) below.

6. The UHB provides, with the table below, the mean turnaround times for results from receipt of specimen, for the listed tests, for adults and CYP with suspected septic arthritis of native joints.

Test	Mean time
Gram Stain	1 hour
Culture	2 days
Blood culture	2 days
White blood cell count	1 hour

7. The UHB confirms that it does not conduct Polymerase Chain Reaction (PCR) testing of bacteria from synovial fluid for adult or CYP patients with suspected septic arthritis of native joints.
8. The UHB confirms that it does conduct 16S PCR testing of bacteria from synovial fluid for adult or CYP patients with suspected septic arthritis of native joints.

- a. This testing is not conducted on site.
 - b. Testing is on request by the Consultant Microbiologist.
 - c. The average turnaround time for results is three (3) days.
 - d. The UHB does not hold this information, as testing is undertaken offsite.
9. The UHB confirms that there is no local Multidisciplinary Team (MDT) group involved in designing diagnostic pathways or pathway changes, as it adheres to national guidelines. However, should a change to the national guidance be proposed, all stakeholders, which would include Paediatrics and Physicians, with other teams such as Pharmacy, Theatres and Anaesthetics would be involved.