Innovation brief

Medical Technology Innovation Dynamic Purchasing System Synvichor supplied by OrthoDx Pty. Ltd.

Summary

Disruptive innovation

This briefing introduces a disruptive innovation newly available via NHS Supply Chain. Synvichor has been reviewed by clinical specialists and supported by key stakeholders. This device offers a novel approach to the diagnosis of inflammatory joint pain by using a polymerase chain reaction (PCR) diagnostic test.

Introduction

This document is intended to inform clinical stakeholders and procurement teams about innovative products that have undergone a clinical review and are now accessible through NHS Supply Chain.

Products featured in this brief may be classified as disruptive innovations, meaning they:

- Introduce a novel approach.
- Offer improvements compared to existing models of care.
- Are not currently replicated elsewhere within or beyond the health and care sector.

Please note: while robust evidence or validated savings may not yet be available, early data and clinical insights support the potential for patient and system-level improvements.

Departments / stakeholders for engagement

- NHS procurement teams
- Pathology departments
- A&E departments
- Orthopaedic departments
- Rheumatology departments
- Musculoskeletal departments
- Primary Care

Opportunity

Synvichor presents an opportunity to enhance care by:

- Identifying joint infections with a positive predictive value of 95%.
- Reducing the time taken to diagnose joint infections.
- Reduced unnecessary antibiotic prescription.
- Assessment and treatment in the community.

Product overview

Synvichor is a PCR test designed to improve the accuracy of the diagnosis of joint infections. Clinical research suggests that Synvichor has a greater accuracy of diagnosis of joint infections than current standard practice.

- It measures the human immune response to infection rather than the pathogen.

Synovial fluid is aspirated and tested with a PCR unit, a result is provided within three hours, and the patient is then able to begin antibiotic treatment only if a positive result is reported.

Clinical relevance

- When a joint infection is suspected, current clinical practice is to send the patient to A&E department for testing, joint fluid is aspirated and set for laboratory testing, typically C-Reactive Peptide.
- Laboratory testing can take time (24 to 72 hours depending on the local service). Whilst waiting for the result, patients are often treated with prophylactic antibiotics and sometimes admitted onto a ward for monitoring.
- Initial NHS trials across Norwich and Norfolk University Hospital and Sheffield Hospitals Orthopaedic Departments have shown:
  - 60% of patients presenting with joint pain could be safely removed from the hospital system and manged in the community.
  - Reducing 585 bed days from a study of 197 patients.

Additional benefits

- Reduction in antibiotic prescription.
- Reduction in hospital admission.
- Testing and managed in a community setting which can improve A&E capacity.

Cautions

- Sample size of the NHS trials was small (197).
- Current evidence has been sponsored and therefore independent validation would provide greater validity on current results.

Pathway change

- Changes to joint infection pathways would be required - this would require coordination from Orthopaedics, Musculoskeletal services, GP / first contact practitioners and pathology services.

Supply details

Complete your requirements in our form on https://www.supplychain.nhs.uk/dps

Product	Unit of Issue	Manufacturer's Product Code (MPC)
Synvichor Native	Box of 24	SYNV-M-NATV
Synvichor Prosthetic	Box of 24	SYNV-M-PROST
Synvichor Myra+	Single unit	SYNV-MYRA+

Contact details

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