

# Lunit INSIGHT Chest X-ray Deployment of Chest X-ray AI

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## The Clinical Problem

Radiology departments face significant challenges with chest X-ray (CXR) reporting times due to the high volume of plain film X-rays. In 2023/24, there were 22.6 million plain film X-ray examinations, an 8% increase over five years. These delays in reporting can lead to extended waiting times for patients, impacting their treatment and overall care. Managing reporting workloads with AI could improve reporting times and ensure timely and accurate patient care.

## AI Deployment Platform - AIDP

Process	Details
Transfer	Pseudonymised Patient images (DICOM) will be securely transferred via a Smart Router and CIMAR gateway
Data Privacy	No patient identifiable data is shared with external vendor
AI Analysis	The AI will only analyse the pseudonymised images
Return	Images will be returned via the secure CIMAR Gateway, where reverse-pseudonymisation will occur
Integration	The resulting DICOM images will be integrated into the patient's PACS Series
Success	Integration with OUH PACS in correct patient record

AIDP STOPPED



## Patient, Public Involvement and Engagement

Our vision is to co-produce quality research in Clinical Artificial Intelligence that benefits public health and leads on future research in this field.

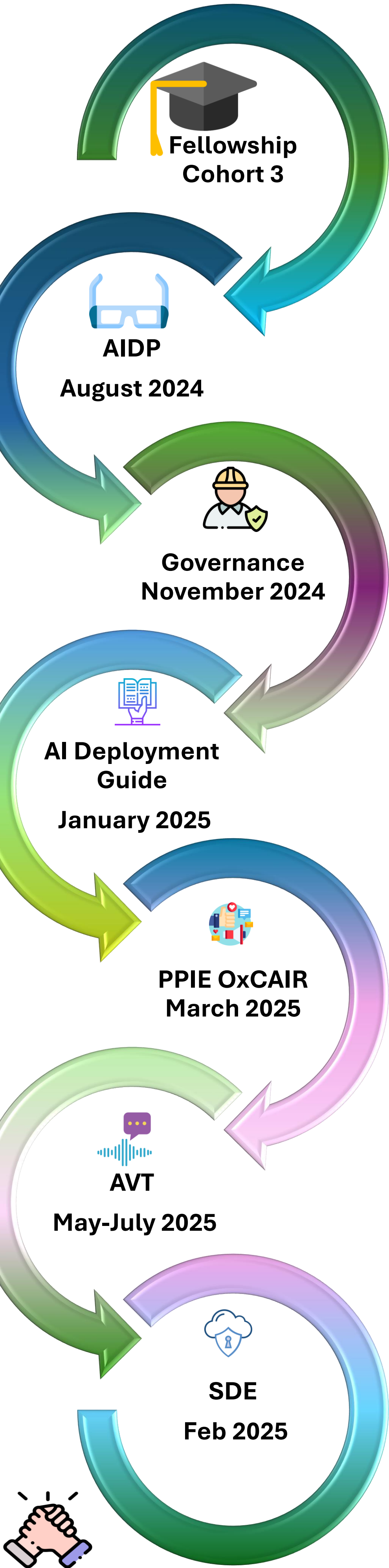
### Objectives

To engage patient and public involvement in OxCAIR research design and implementation by integrating their voices in all aspects of work that shape, define and promote work in Clinical Artificial Intelligence.

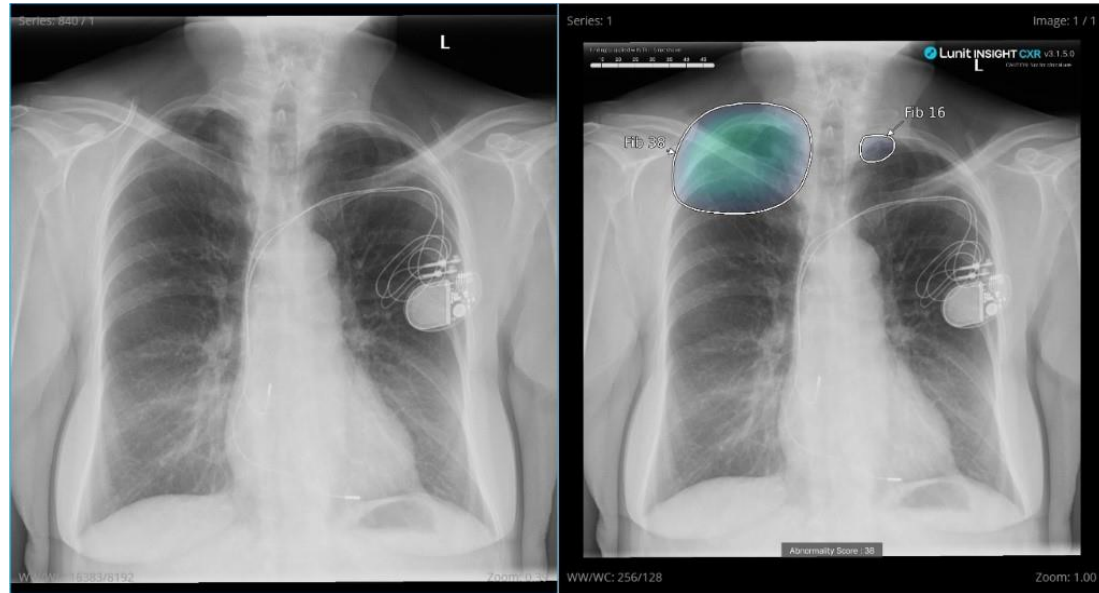
To develop an advertising campaign to recruit members accounting for equality, diversity, and inclusion, reducing barriers to involvement, enhancing accessibility and representation that creates a diverse group of people.

To engage and recruit a diverse group of people to be called the PPIE group.

Plan – Bring PPIE group with other stakeholders, researchers, healthcare professionals, operations teams, data scientists and AI vendors to build a collaborative community that co-creates and develops Clinical AI health research ideas.



## The AI Solution Lunit INSIGHT



**Input:**  
Frontal chest radiographs: chest PA or chest AP •  
Standard DICOM format  
**Output:**  
The results of the tool presented as a secondary capture images reviewed alongside the original CXR on PACS.

Work with Information Governance, and clinical safety teams to manage the implementation of Lunit. Submission DPIA and Clinical Safety documentation. Presentation to Technology Advisory Group.

## AI Deployment Guideline

Professional guidance and digital education are essential for safe and effective AI implementation. With OxCAIR established comprehensive guidelines to navigate and deploy AI safely across various healthcare settings. Radiology's advanced deployment guidance has is a model for creating trustworthy AI solutions.

Promoting digital education and professional support for AI deployment in healthcare is essential

## Ambient voice technology

Ambient Voice Technology (AVT) has the potential to enhance clinical efficiency and patient care. However, multiple options are available, ensuring regulatory compliance, data governance, and integration with existing digital systems is key.

Facilitating a service evaluation of 5 AVT products in 4 clinical settings, ABAB design. Data capture - User survey, sentiment analysis, time logs and focus groups.

## Secure Data Environment

Appointed to the Secure Access and data Review Committee as a Health member. Working with the SDE to review access requests.

  
Thames Valley  
& Surrey  
SECURE DATA  
ENVIRONMENT

  
Part of the  
NHS Research Secure Data  
Environment Network



### Your data, your choice

Your health and care information is held by organisations that provide your care, like your hospital or GP.

Data about you can be used to:

- provide your individual care
- plan health and care services
- carry out research to find new treatments, or develop services

Locally, our secure data environment allows approved research to be carried out without data leaving the NHS.



## Progress Review

Worked alongside OxCAIR and Lunit to support deployment in clinical settings. Collaborated with the PACS, Information Governance, and clinical safety teams to manage the implementation of Lunit, which included finalising the DPIA and Clinical Safety documentation. Despite encountering obstacles with AIDP and funding, I successfully developed a Guideline for Deployment and established a PPIE strategy along with its execution. Furthermore, I was appointed to the SDE Committee and the AVT project, and co-applied with OxCAIR for the I4i Thrive Grant. **Next Steps** - Publish the AI guideline for Allied Health Professionals. Partner with the AI/ML team at OUHFT on AVT and advance PPIE for AI in collaboration with OXCAIR.