

ePOA

Electronic pre-operative assessment workflow

Service definition

Introduction

ePOA is a flexible, low-code electronic pre-operative assessment platform that digitises the end-to-end elective surgical pathway, from consultation through to theatre booking. Designed for health and care and adaptable across other public sector environments, it replicates existing workflows, streamlines patient and clinician interactions, and integrates seamlessly with Patient Administration Systems (PAS) and Electronic Patient/Health Records (EPR/EHR).

Optional Smart preOp AI adds advanced risk stratification to support clinical decision making and optimise the peri-operative pathway.

Overview

Pre-operative assessment is essential to safe, timely elective surgery, yet many organisations still rely on paper-based or fragmented digital workflows. Traditional approaches can create administrative burden, increase patient contact unnecessarily, and limit clinician visibility over complex surgical pathways.

ePOA addresses these challenges by providing a low-code, healthcare-aware digital platform built on AireBlocks. It enables both patient and clinician-facing interfaces, allowing organisations to:

Streamline communication and workflow between patients and clinicians

- Reduce administrative effort and duplicated tasks
- Optimise surgical scheduling and pathway management
- Maintain a holistic, accurate record of patient information

Standalone or integrated with PAS and EPR/EHR systems, ePOA ensures complete interoperability and secure, reliable data flow across teams, departments, and organisations.

AI-Enhanced Pathway: Smart preOp

Smart preOp is an optional AI module that:

- Uses primary care and procedure data to risk-stratify patients into low-risk (ASA 1-2) and high-risk (ASA 3+) cohorts
- Predicts 30-day mortality risk to support clinical decision-making
- Supports proactive patient management by identifying interventions to improve pre-operative health and fitness

Smart preOp has been trained and validated on multiple UK datasets and can be tailored to local organisational data, providing actionable insight while enhancing efficiency across the digital pre-operative pathway.

Key Capabilities

Patient-Facing Interface

- Remote assessment completion via device-agnostic forms
- Multilingual support and accessibility features to improve patient engagement

Clinician-Facing Interface

- Customisable work lists for efficient patient triage and task management
- Automated task-driven workflows to reduce manual processing

Low-Code Flexibility

- Rapid configuration to replicate local or national workflows
- Forms and processes can be updated without relying on IT release cycles

Analytics and Reporting

- Dashboards for operational and clinical oversight
- Monitor throughput, waiting times, and service performance
- Extract insights to inform resource allocation and service improvement

Integration and Interoperability

- Open APIs connect seamlessly with EPRs, PAS, and other healthcare applications
- Enables secure, standards-based data exchange

Optional Smart preOp AI

- Risk stratification and decision support
- Population-level analysis of patients and procedure cohorts
- Enables proactive interventions to improve outcomes

Benefits

- **Reduce administrative burden:** Automate tasks, eliminate duplicated paperwork, and free clinicians for patient care
- **Improve patient experience:** Remote completion of assessments reduces face-to-face appointments and patient travel
- **Optimise surgical workflows:** Customisable work lists and automated task-driven processes improve booking and peri-operative planning
- **Support proactive patient management:** Identify at-risk patients and recommend health or fitness interventions prior to surgery
- **Integrate with confidence:** Open APIs ensure seamless interoperability with PAS, EPR/EHR, and other clinical systems
- **AI-Enhanced insight:** Smart preOp supports clinical decision-making and pathway optimisation

Proven Impact

Leeds Teaching Hospitals NHS Trust:

- Transitioned almost all pre-operative assessments to digital, remote completion
- Freed up to 50% of clinician time; previously each assessment took ~40 minutes
- Eliminated 6,000+ face-to-face appointments per year
- Delivered £57,000 in annual administrative savings per department
- Improved patient experience and operational efficiency across surgical pathways

“Using Aire Innovate’s preoperative assessment enabled our Trust to rapidly move away from face-to-face assessment for almost all patients. This improved patient experience, process efficiency, and clinical quality. It’s a win-win.”

— Dr Alwyn Kotze, Leeds Teaching Hospitals

Features

- Patient-facing remote assessment interface
- Device-agnostic digital forms
- Automated task workflows
- Customisable patient work list
- Reporting and analytics dashboards
- Open API integration
- Optional Smart preOp AI for risk stratification and decision support

Summary

ePROMs empower health and care organisations to digitise patient-reported outcomes, improve data quality, reduce administrative workload, and support evidence-based clinical decisions. Its flexible, secure, and scalable design ensures it can deliver consistent impact across services, organisations, and integrated care.

Implementation

Managing change and requirements

Our first priority is to gather a comprehensive understanding of your organisation’s requirements. Our team will be fully accessible and in regular contact with stakeholders across the organisation to meet the developing health and care needs and ePOA requirements.

Depending on the scale of the implementation we can support/complement internal resources with our own business analysts, project managers and software engineers.

At the start of the project, we will work with key stakeholders from the organisation to discuss the flexible deployment options and ensure we have captured the requirements.

Wherever possible, we use an agile methodology and encourage our customers to work to a proof of concept, minimum viable product and refine as further detail becomes available.

Training

Our training can cover a number of elements of the deployment of ePOA from the business process considerations for the deployment through, design requirements, through to maintenance and operation of the solution.

The aim of the training is to ensure that where a customer requires training in any of these items they understand how the solution can be utilised to meet their workflow and pathway requirements.

End user training is rarely needed as the resulting solutions are easy to use and very intuitive by nature. However we can support any training that is required. For example, where complex forms need training support, this can be given locally to meet clinical safety requirements.

Hosting and technical requirements

ePOA is delivered as a fully hosted solution through our trusted partner, AWS, providing the highest levels of security and compliance. The platform is browser-based and accessible via any modern browser, including Chrome, Edge, Safari, and Firefox, without the need for additional extensions.

In line with our open platform policy, ePOA includes open APIs, allowing integration with a wide range of other systems and solutions. This flexibility ensures that clients can connect AireBlocks with existing technology and adapt it to meet evolving local requirements.

Support

Aire Innovate provides comprehensive technical support for ePOA following implementation. Our support team is available between 8:30am and 5:30pm, reachable by telephone or email. All support requests are logged and tracked through our JIRA-driven support desk, ensuring timely updates and resolution in line with agreed service level agreements.

Our approach is underpinned by a continuous improvement ethos, with ePOA regularly updated to meet evolving requirements and to reflect new needs identified by clients. In addition to technical support, we offer dedicated account management to review system performance, discuss new features, and explore opportunities to extend the use of the platform, ensuring clients can make the most of ePOA over time.

About us

Aire Innovate was founded to transform digital innovation in health and care. Drawing on the expertise of our sister company, Aire Logic, which has delivered over 1,000 IT projects across national programmes, regional initiatives, ad hoc innovations, and pro bono work, we bring deep knowledge of healthcare systems and digital transformation.

Our low-code platform, **AireBlocks**, allows teams to build, connect, and adapt solutions precisely to their needs. Unlike off-the-shelf software, it supports rapid innovation, flexible scaling across regions, and local configuration, enabling organisations to respond quickly to changing clinical, operational, and regulatory requirements.

Mission & Vision

We empower health and care teams to take control of digital transformation, turning plans into reality, accelerating innovation, and improving outcomes for patients and staff.

Values & Expertise

We focus on meaningful impact, supporting our people, and delivering trusted, reliable solutions. AireBlocks combines secure system integration, tailored workflows, and robust governance to deliver high-quality, scalable healthcare solutions efficiently.