Patient Catalyst

AI-enabled operational decision
support for health systems

Bringing Ingenuity to Life.

High-quality patient care which is free at the point of use is the cornerstone of the NHS. Achieving this level of care requires a delicate balance of resources, expertise, and innovation, especially in times of financial strain.

To maintain a positive working experience for staff and high-quality patient care, the NHS must drive maximum value from its constrained resources. In this post-pandemic period, with rising demand, growing waiting lists and staffing constraints this challenge has never been greater.

In July 2023, the NHS financial position was

£340m worse than planned.

If ICSs continue to overspend at this rate, they will end the year around £2bn off plan

62%

Cancer patients are treated within 62 days

UK

The UK has the fifth lowest number of CT and PET scanners and MRI units per capita in the OECD.

500,000+

Outpatients have been waiting more than six weeks for a diagnostic test

The key to addressing these challenges lies in unlocking efficiency. Through process optimisation, and integration of technology-driven solutions, the NHS can identify significant cost-saving opportunities while enhancing and maintaining the quality, safety and timeliness of patient care.

To make this vision a reality, NHS staff must be equipped with the necessary tools and technology. By providing comprehensive technology, tools, and support, the NHS can empower its workforce to adapt to the increasing complexity of patient care.

The path forward involves a dual approach: identifying and implementing efficiencies within the healthcare system while concurrently investing in the technology and tools needed to unlock these savings.

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Healthcare costs are rising as personalised treatments come of age. We are close to a future where the number of care pathways being managed could be as numerous as the number of patients being treated. This is a phenomenal achievement of modern medicine but provides health systems with a significant challenge - how to safely provide significantly more individual care management within the constraints of a publicly funded system.

Jenny Lewis,
Partner, PA Consulting

PA's Patient Catalyst

Our latest healthcare innovation, Patient Catalyst, enables increased activity without stretching existing capacity. The AI-enabled operational decision support platform empowers clinical staff to effectively match each patient to the next clinical activity in the pathway, delivering the most effective care in the quickest possible time.

For decades, PA has been a trusted partner for stakeholders across the health system. Our multi-disciplinary experts devise programmes and products that enhance healthcare delivery and address prevailing challenges such as increasing demand, greater complexity, and resourcing constraints.

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Patient Tracker allows us to be truly patient centric in a way we have never been able to.

Director of Performance,
NHS Trust

Decisions Save Lives

Patient Catalyst revolutionises clinical decision-making by accessing disparate data from across the health system to predict each patient's pathway needs. The platform applies advanced machine learning, predictive analytics, and AI to draw insights from diverse datasets, providing a single source of truth for operational decision support.

> **This kind of safety net is exactly what we need to ensure nobody gets missed.**
>
> Clinician,
> NHS Trust

Better patient experience and outcomes

Empower your staff with intelligence to support efficient pathway management, with alerts for high priority patients, maximising the quality and safety of patient care.

1month

Average reduction in waiting times for patients monitored

9000patients

Protected from potential clinical harm on average per year

Faster, accurate operational decisions

Enable staff to make more accurate, faster operational decisions and maximise use of precious healthcare resources, by analysing large volumes of data in record time.

98% Accuracy of predicting future resource needs for each patient

Improved real-time collaboration

Enhance communication between operational staff through a centralised platform for seamless data sharing, centred on the patient and smoothing out bottlenecks.

up to 25% Increase in productivity of expensive hospital resources such as CT scanners

Product highlights
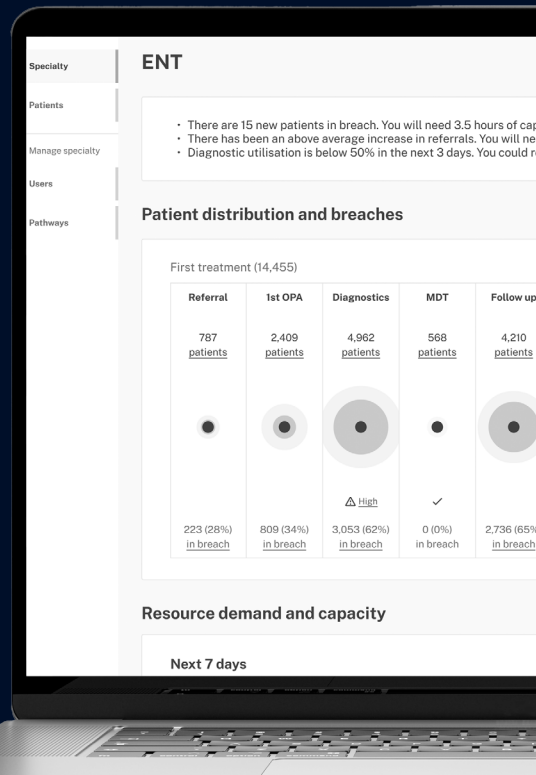
Predict before it happens

Connect relevant data with critical operational decisions, preparing for resource demand up to six weeks in advance.

Total pathway management

Holistic view of patient pathways tracked automatically across systems, highlighting bottlenecks building at patient level.

Cutting edge analytics

Leverage the power of AI, predictive analytics, and machine learning to predict patient needs and outcomes while aligning them to the next step in patient pathway.

ENT

Specialty

Patients

Manage specialty

Users

Pathways

- There are 15 new patients in breach. You will need 3.5 hours of cap
- There has been an above average increase in referrals. You will ne
- Diagnostic utilisation is below 50% in the next 3 days. You could r

Patient distribution and breaches

First treatment (14,455)

	Referral	1st OPA	Diagnostics	MDT	Follow up
	787 patients	2,409 patients	4,962 patients	568 patients	4,210 patients
			⚠ High	✓	
	223 (28%) in breach	809 (34%) in breach	3,053 (62%) in breach	0 (0%) in breach	2,736 (65% in breach

Resource demand and capacity
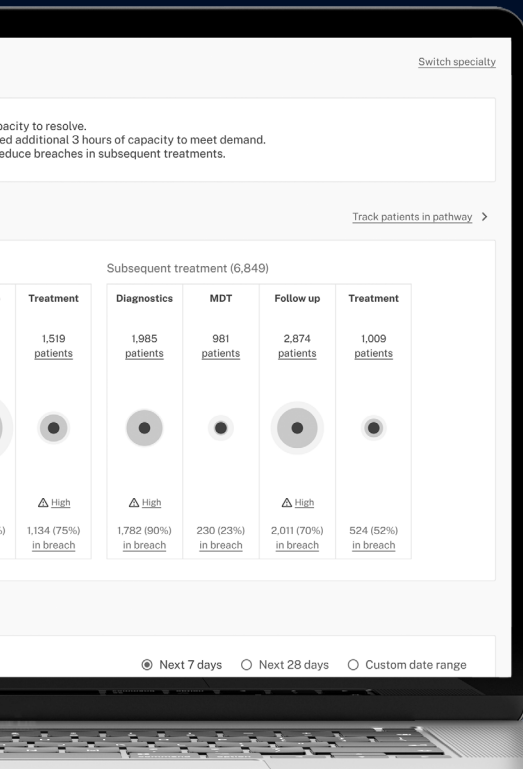
Next 7 days

Automated scheduling

Intelligent scheduling that automates matching of patient need to first available capacity across a range of services.

Intuitive user interface

Access an intuitive, user-friendly interface with comprehensive data visualisations, enabling non-technical and technical users alike to quickly access and analyse real-time data.

Seamless data integration

Pull data from multiple sources including your own EMR, imaging system, and analytics software, utilising large clinical datasets to support decision-making without the guesswork.

Switch specialty

pacity to resolve.
ed additional 3 hours of capacity to meet demand.
duce breaches in subsequent treatments.

Track patients in pathway >

Subsequent treatment (6,849)

	Treatment	Diagnostics	MDT	Follow up	Treatment
	1,519 patients	1,985 patients	981 patients	2,874 patients	1,009 patients
	⚠ High	⚠ High		⚠ High	
	1,134 (75%) in breach	1,782 (90%) in breach	230 (23%) in breach	2,011 (70%) in breach	524 (52%) in breach

◉ Next 7 days   ○ Next 28 days   ○ Custom date range

Customised modules for your needs

Patient Catalyst features integrated, interoperable modules, each designed to perform a specific function tailored to the needs of the operational staff it supports.

Together, the modules provide a holistic single solution able to manage, integrate, and analyse all your health system decisions under one roof. We are committed to continuously expanding the capabilities of our platform by actively developing new modules to ensure Patient Catalyst remains at the forefront of evolving health system needs.

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Using our finite resources for maximum impact is key to recovering from the pandemic and reducing waiting times...PA has helped us find new ways to overcome these challenges.

Divisional Director for Medicine,
NHS Trust

1 Patient tracker
Monitor and track the progress and status
of patients throughout their care pathway.

2 Cancer tracker
Track patient progress against the recommended treatment
pathway, providing alerts to resolve potential issues.

3 Theatre scheduler
Easily manage theatre resources such as surgical teams,
equipment, and supplies to minimise time to treatment.

4 Imaging scheduler
Efficiently manage imaging resources, such as
scanners and staff, to minimise patient wait times.

5 Bed scheduler
Allocate beds more efficiently with real-time
visibility into bed availability and occupancy.

6 Discharge predictor
Accurately predict the likelihood of patient discharge
based on various clinical and administrative data points.

Working with PA

With Patient Catalyst, you're not just choosing a product – you're choosing a partner

With decades of experience working with our long-standing NHS clients and a wealth of digital expertise, we are best placed to support your journey to becoming a truly data-driven organisation. Co-developed with our NHS partners, Patient Catalyst is built for the specific needs of UK-based healthcare organisations.

We are not your average provider – we develop close working relationships as part of our one team approach, always focusing on the needs of your people. Our team of healthcare experts, product specialists, and change management consultants will work with you throughout implementation and beyond, ensuring you have the support you need at every step.

To know more, contact:

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> We are extracting the full value from our extensive data sets for the first time, using patient data to address live problems across the Trust, make informed decisions, and improve services for the thousands of patients we serve.

**Deputy Medical Director,
Nottingham University Hospitals NHS Trust**

About PA

We believe in the power of ingenuity
to build a positive human future.

As strategies, technologies, and innovation
collide, we create opportunity from complexity.

Our diverse teams of experts combine
innovative thinking and breakthrough
technologies to progress further, faster.
Our clients adapt and transform, and together
we achieve enduring results.

We are over 4,000 strategists, innovators,
designers, consultants, digital experts,
scientists, engineers, and technologists.
And we have deep expertise in consumer and
manufacturing, defence and security, energy
and utilities, financial services, government
and public services, health and life sciences,
and transport.

Our teams operate globally from offices across
the UK, Ireland, US, Nordics, and Netherlands.

Discover more at paconsulting.com and
connect with PA on LinkedIn and Twitter.

PA. Bringing Ingenuity to Life.