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CASE STUDY · MARLUC SYNOPSIS

Whittington Health AI rota builder for resident doctors

IMPLEMENTED 2023–2025 · HEALTH AND LIFE SCIENCES · UK · BAND C · CLAIMED ONLY

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Whittington Health, a north London NHS trust, co-developed an AI rota builder for resident doctors with Lantum. By the trust's and Lantum's account, it cut medical bank and agency spend by £624,000 in its first year and reduced shift gaps by over 40%.

ABOUT THIS SYNOPSIS

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Facts and figures are as reported by the sources listed below, which may be incomplete, self-reported or out of date. Check the original source before relying on any figure.

The impact band, proof marker and SEAM view are MarLuc's opinion. The organisation is not a MarLuc client and has not reviewed or endorsed this synopsis. Names and trademarks belong to their owners.

NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

AI and automation used: Rota generator described by the trust and vendor as AI-powered (Lantum In-Genius), which searches rota combinations against contract rules, leave and preferences.

Implemented: 2023–2025. Grade: band C, Process change, Claimed only.

Headline result, as reported: £624,000 less medical bank and agency spend in year one and shift gaps down by over 40%, by the trust's and Lantum's account, January 2026

1 · The case

The facts, as reported by the 5 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

Whittington Health NHS Trust. NHS trust in north London running hospital and community services, with over 4,400 staff and income of £395 million in 2020-21, by its own account. Canvas block: 4. Operations and process. Also 5. People and skills, 6. Data and technology.

Business challenge

The challenge. In 2023 the trust set out to tackle high medical bank and agency spend, rising staff dissatisfaction and the growing complexity of less-than-full-time working, by the case study's account. The case study says most resident doctor rotas are still built by hand in spreadsheets, and that the trust was forecasting £44 million in temporary staffing costs.

Who implemented it

Lantum (Software vendor): Co-developed In-Genius with the trust and supplies In-Genius, In-Flight and In-Check..
In-house (In-house): A team of the trust's paediatric registrars, led by Dr Priyen Shah, built the prototype..
The December 2024 contract notice was issued by Whittington Health with Moorfields Eye Hospital, North Middlesex University Hospital and Royal Free London; the winning supplier is not shown in the notice page opened.

Technology (SEAM pillar E)

SEAM types: not established; the sources do not say how the system works. Deployment: Not reported. Vendors and products: Lantum, In-Genius, In-Flight, In-Check.

Where it was built in: Builds rotas from leave, working patterns, preferences and department rules; In-Flight handles leave and swaps; rotas pass to In-Check (formerly DRS) for contract validation and pay.

What changed

Before: rotas built in spreadsheets, with doctors downloading Excel sheets to check leave, by the trust's account. After: rotas generated from rules, leave and preferences, with leave and swaps managed in one app and rotas checked for compliance and pay through In-Check. [1] [2] [3] [4] [5]

What it cost

Not reported. Contract value and project cost are not given in the sources opened.

What it saved

By the trust's and Lantum's account: £624,000 of cash-releasing savings on medical bank and agency spend in year one, validated by the trust's finance team, and about £2m estimated over two years; shift gaps down by over 40%; six hours of consultant time saved each week on rota administration. Earlier paediatric registrar trial, by the trust's page: £65,000 saved on temporary staffing. [1] [2] [3] [4] [5]

Governance and control

The trust's chief finance officer, Terry Whittle, is quoted on the results, and the case study says the trust's finance team validated the savings. The trust reports an AI Acceptable Use Policy and an Innovation, Digital and Technology Group overseeing AI, but its freedom of information response listing AI tools does not name In-Genius. Review of generated rotas before issue: Not reported.

S2 · Accountable owner · Claimed
The trust's chief finance officer, Terry Whittle, is quoted on the results, and the prototype was led by Dr Priyen Shah, a paediatric registrar, by the trust's account. [1] [2]

A1 · Safe use · Claimed
The trust reports an AI Acceptable Use Policy and a completed data protection impact assessment for the AI tools it lists; whether these cover In-Genius is not reported. [4]

A2 · Human in the loop · Not reported
Whether rota coordinators review or change generated rotas before issue is not reported.

A3 · Monitoring and assurance · Claimed
The trust's finance team compared old and AI-generated rotas, and the case study tracks gaps, leave and rest spacing from March 2024 to September 2025. [2]

A4 · Vendor AI · Not reported
Built with Lantum under a co-development partnership; vendor controls are not reported. [2]

A5 · Agent controls · Not reported
No agents described.

A6 · Standards and regulation · Not reported
No regulator or outside review reported; the trust says the tool builds contract compliant rotas. [1]

What worked, what did not, what is unproven

WORKED

– Lower medical bank and agency spend, by the trust's and Lantum's account, checked by the trust's finance team.

– Fewer shift gaps and more leave requests met, by the trust's and Lantum's account.

– Longer recovery between long days and nights: median spacing between long days rose from seven days in March 2024 to 12 days by September 2025, by the case study's account.

– Less consultant time spent on rota administration, by the case study's account.

DID NOT

– Not reported

UNPROVEN

– All results come from the trust and its vendor; the finance validation and data are not published.

– How much of the saving is due to the tool rather than other changes in bank and agency use: Not reported.

– Results from the eight other trusts piloting the system: the case study says early data show similar improvements, with no figures published.

Timeline

2023 Whittington Health sets out to cut medical bank and agency spend and partners with Lantum to co-develop In-Genius [2]

Dec 2024 Contract notice published by Whittington Health and three partner trusts for an AI-driven rota generation tool for junior doctors [3]

Sept 2025 Median spacing between long days reaches 12 days, by the case study's account [2]

Jan 2026 Whittington Health and Lantum publish first-year results; eight other trusts are piloting the system [2]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: C, Process change. Proof: Claimed only. Level of change: Process change.

Process change (Level 2, band C). Rota building in the departments using the tool moved from spreadsheets to a rules-based generator, with a finance-checked saving claimed. No change to jobs, teams or sourcing is reported, so Level 3 is not assessed.

In the departments using it, rota building moved from spreadsheets to a generator that works from contract rules, leave and preferences, with a finance-checked saving claimed. That is a process change. Jobs, teams and sourcing are not reported as changed.

The SEAM view and lessons learnt

The result came from combining a rota generator with the trust's own contract rules, leave data and doctors' preferences, and the prototype came from the trust's own registrars. The sources do not separate the tool's effect from other changes in bank and agency use over the same period, and results are the trust's and Lantum's own. Before copying, a leadership team should ask how savings will be measured against a fair baseline, and who checks a generated rota for safe staffing before it is issued.

1. Measure bank and agency spend per rota before and after, with finance sign-off.
2. Involve the doctors who work the rota in setting its rules.
3. Publish one consistent set of results as the rollout grows.

Evidence

Score 2 of 4. Self-reported: the trust's own page and a case study written by the trust and its vendor; the finance check is internal; no independent evaluation.

Evaluation method. Self-reported before and after comparison: the trust's finance team compared old and AI-generated rotas like for like, by the case study's account; the method and data are not published.

Sources disagree. The trust's own page reports a trial on the paediatric registrar rota with savings of £65,000, rota gaps down by 67% and an average of 90% of leave requests met; the

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/whittington-health-ai-doctor-rotas

[1] Whittington Health: Lantum (Powering up our rotas with AI)
https://www.whittington.nhs.uk/lantum

[2] HTN Health Tech News: Case study: Rethinking rotas, how AI helped Whittington Health reduce burnout, gaps and costs (by Whittington Health and Lantum)
https://htn.co.uk/2026/01/26/case-study-rethinking-rotas-how-ai-helped-whittington-health-reduce-burnout-gaps-and-costs/

[3] Stotles (Find a Tender notice): Development of a smart rota solution for medical rostering
https://stotles.com/explore/notices/ea0a555c-de67-4e64-bb8e-70c36e7e87cb/development-of-a-smart-rota-solution-for-medical-rostering

[4] Whittington Health: Freedom of information response 25-JB-0310, Artificial Intelligence systems
https://www.whittington.nhs.uk/document.ashx?id=16166

[5] Whittington Health: About us
https://www.whittington.nhs.uk/default.asp?c=3920

Whittington Health NHS Trust website: https://www.whittington.nhs.uk

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