

Case Study

Electrophysiology Co-Ordinator Cuts NHS Referral Delay by Up to 75%



University Hospitals
Coventry and Warwickshire
NHS Trust

Results



Reduced referral delay times by up to 75%

achieved with time series analysis



Saved 4-5 hours per week

by automating weekly reporting on key performance indicators



Optimised procedure time slots

by analysing and prioritising procedures with longer recovery times



Joel Hollingsworth

Electrophysiology Co-ordinator

Joel Hollingsworth is an electrophysiology co-ordinator at University Hospitals Coventry and Warwickshire (UHCW) NHS Trust and manages the elective service patient waiting list for the cardiology department. The Trust manages two major hospitals in Coventry and Rugby, which between them serve a population of over a million people and each year provide more than 800,000 episodes of care to patients from across Coventry, Warwickshire and beyond.

Learner profile

Job title: Electrophysiology Co-ordinator

Job function: Analytics

Organisation: UHCW NHS Trust

Industry: Healthcare

Organisation Size: 10,500+ employees

Programme: Level 4 Data Analyst

Programme Duration: 14 months

From admin to analysis

Joel initially held an administrative position at the NHS. However, driven by his ambition for self-improvement in data analysis, he sought to craft a role that would be more valuable to the organisation.

This led him to begin a data analysis journey with Cambridge Spark by enrolling in the Level 4 Data Analyst Apprenticeship.

“Before I joined Cambridge Spark’s apprenticeship, I spent a good few months on independent learning courses and online forums trying to learn SQL and data analytics. But nothing compared to actually having a centre of learning and getting interactive support through the apprenticeship—whether that’s from Knowledge Base, my data mentor or coach.”

Joel Hollingsworth, Electrophysiology Co-ordinator at UHCW

Reducing delay in the referral process by up to 75%

During his apprenticeship, Joel undertook a project where he analysed referral data to identify strategies for reducing patient waiting times.

His approach focussed on examining patterns in the data to determine which days were less optimal for referring patients to specific consultants. This analysis revealed critical insights into the consultants' busiest days, where Joel's team could anticipate longer response times.

Joel's study also extended to understanding the seasonal variations in referral processing times. Notably, he found that referrals made during the summer months typically incurred longer processing times due to busier schedules or increased annual leave.

Through his analysis, Joel was able to recommend the most effective days for patient referrals, tailored to each consultant's availability. This approach led to a major improvement in the referral process, with patients receiving their procedures up to 18 days earlier than prior to the study.

This outcome not only enhanced patient care but also helped achieve the Trust's goals to process referrals more efficiently based on clinical priority, as those who had been prioritised would have their referrals actioned first.

"What surprised me about the apprenticeship was EDUKATE. I think what worried me at the start of the apprenticeship was not having the software needed to do the code. So having EDUKATE where it was easy to write the code, as well as having videos and Knowledge Base to interact with were quite surprising to me because it felt like 24/7 support."

Joel Hollingsworth, Electrophysiology Co-ordinator at UHCW

Cutting weekly reporting time from 5 hours to 15 minutes

Every week, Joel creates key performance indicator reports for his management team. This task entails identifying patients who have exceeded their recommended waiting period for a procedure and determining the extent of their wait time breach, as these reports are used as waiting list insights.

Completing this manual process previously took 4 to 5 hours of his time every week. Now, by using Python script and data visualisation techniques, Joel efficiently completes this task in just 15 minutes. He's able to clearly present the number of patients who have exceeded waiting time deadlines, by how many weeks they've breached deadlines, and provide a visual snapshot of the categorised data.

"The apprenticeship has created a much more valuable role for me. I'm now the central point for most insights that clinicians and the central management team would want. And I feel like I provide a more efficient process of care for patients."

Joel Hollingsworth, Electrophysiology Co-ordinator at UHCW