

# Northern Care Alliance Foundation Trust

## Salford Royal Hospital - Northern Care Alliance Foundation - Executive Summary

**Project Name:** Digital Solution - Penguin Patient Management System – Rheumatology – Service Development

### Project Summary:

Provide and implement the Penguin remote monitoring solution in the Rheumatology Service at Salford Royal site to assist both in the ongoing monitoring and care of disease management and health to improve access and experience of care.

In this project, Cievert (on behalf of Novartis), will complete the configuration of bespoke clinical templates by determining the clinical data to be collected for Service Development. Following configuration, the Penguin system will then be implemented within the Trust's system.

Implementation of the solution in the NHS aims to;

- Empower patients to own their disease through the ability to track their disease through validated Patient Reported Outcome Measures (PROMS) and clinician touchpoints over time;
- Flag to clinicians patients who report outcome measures that are outside of the clinically-determined tolerance levels, or whose scores are on a consistent downward trend. These real-time rapid alerts of patients not achieving optimal outcomes will enable their care to be reviewed and optimised more quickly than if the patient had to wait for a scheduled appointment;
- Support the move to a needs-based care model, keeping well-managed patients with minimal disease impact out of secondary care and managed through virtual consultations, recycling capacity to manage those patients who are not achieving optimal outcomes;
- Support clinicians to make a confident and informed decision about a patient's treatment plan, virtually or face to face, based on patient reported outcomes; and
- Enable clinicians to prioritise new patient referrals and the backlog of patients caused by unanticipated workload e.g. COVID-19, based on assessment of patient needs using the validated PROMs.

The expected outcomes from this project (from baseline to 12 months) will be as follows:

- Improvements in PROMs and disease assessment scores measured at baseline and after every interaction or at regular intervals (as determined by the clinician) with the platform up to 12 months
- Improvements in patient experience scores measured at regular intervals (as determined by the clinician) with the platform up to 12 months
- Improvement in clinician experience scores measured at regular intervals up to 12 months
- Faster access to emergency appointments for patients not achieving optimal outcomes measured by PROMs at baseline and up to 12 months

- Reduction in DNAs measured at baseline and up to 12 months
- Reduced backlog of patients waiting for treatment reviews measured at baseline and up to 12 months
- Maintains NHS data security standards with no data breaches

#### **Planned Milestones:**

- Project kick-off meeting
- Preliminary Paperwork/Sign off
- PDS IT interfacing work completed
- Participant Mapping
- Local Training & Configuration of Local Test Platform
- Live System Set-up
- Start of 12-month license, hosting and support
- Business Case, Write-Up and Project Close

#### **Expected Benefits:**

- Empower patients to own their disease through provision of educational resources and ability to track progress through validated PROMs and clinician touchpoints over time.
- Better management of their disease via the clinician's specifications to the Penguin software solution (including the clinical template).
- A digital platform to record their PROMs at home between appointments, freeing up appointment time to discuss results and patient health factors identified via the PROM questionnaires.
- Support to move to a needs-based care model with patient initiated follow up, keeping well patients out of hospital and freeing appointments for patients not achieving optimal outcomes.
- Reducing the number of hospital appointments for patients who are feeling well and achieving optimal outcomes – saving patients time, reducing time off work and the associated financial outlay with travel to hospital appointments.
- Ability to access to clinical data, including PROMs, for individual patients in one digital platform.
- Flagging to clinicians and patients who report outcome measures that are outside of the clinically determined tolerance levels, or whose scores are on a consistent downward trend. These real-time rapid alerts of patients not achieving optimal outcomes will enable their care to be reviewed and optimised more quickly than if the patient had to wait for a scheduled appointment.
- Support the Trust to move to a needs-based care model, keeping well-managed patients with minimal disease impact out of secondary care and managed through virtual consultations at reduced frequency, recycling capacity to manage those patients who are not achieving optimal outcomes or who are on waiting lists for initial review.
- Support clinicians to make a confident and informed decision about a patient's treatment plan, virtually or face to face, based on patient outcomes.
- Enabling clinicians to prioritise new patient referrals and the backlog of patients caused by COVID-19 based on assessment of patient need using the validated PROMs
- Increased opportunities for digital innovation and engagement across the trust, aligning to the Novartis strategic priority: driving the use of data and going digital.
- Creation and real-world use of the Novartis clinical template in the Penguin system for Patient PROMs
- Baseline, non-patient identifiable, aggregated Trust data in baseline reports.
- Improved reputation through joint working with the Trust to collect PROMs via a robust online system.
- Aligns with Novartis focus of innovating to address the most significant unmet needs of patients in the UK.

**Start Date & Duration:** October 2022 for 18 months 2/4

## **Salford Royal Hospital - Northern Care Alliance Foundation - Outcomes Summary**

**Project Name:** Digital Solution - Penguin Patient Management System – Rheumatology – Service Development

**Completion Date:** Sep-2023

### **Outcome Summary:**

The pilot project has demonstrated the Penguin Patient Management System's applicability as a notification to the Salford Care Organisation Rheumatology service for patients who require urgent review and may not seek it through usual channels.

### **Key Project Outcomes Data**

In this project, Evergreen Health Solutions Limited (formally known as Cievert; on behalf of Novartis), configured and implemented the Penguin Patient Management System for use in the Trust's Rheumatology Department. The system was set up to collect Rheumatology electronic Patient Reported Outcome Measures (ePROMs) using bespoke clinical templates.

Patient engagement with the Penguin Patient Management System was beyond expectations with 49.2% of patients completing ePROMS within the 2 week reply period.

The Penguin Patient Management System allowed stratification of the patient ePROM responses. This triggered the further provision of ePROMs that were individualised to the patients earlier responses.

The following is the patients completion rate at the end of the project:

- A total of 191 patients were invited to complete 4 sets of PROMs.
- A total of 100 patients completed at least 1 of the 4 sets of PROMs, with a response rate of 52.4%

This decreased questionnaire fatigue and ensured patient were only asked the questions that really mattered to their individual presentation.

A number of patients had their appointments brought forwards having been noted by the ePROM that they required sooner medical management, without this patient check in between appointments, they would not have had such rapid access to escalation in their management plan.

When utilising the Penguin Patient Management System, a wealth of data was provided by the patients, however the interface of this data with the existing NHS IT infrastructure was sub-optimal meaning that multiple data points for one patient could not be viewed at the same time and review of the "full picture" for each patient became time intensive and therefore not possible in the restricted period offered for follow up appointments or for clinical review outside of allocated appointments / clinics.

### **Outcomes:**

191 patients were invited to complete four Rheumatology questionnaires in total, BAS-G, BASFI, HADS, BASDAI. This exercise was done to gauge patient engagement, and to inform clinical staff before patients appointment.

This exercise led to better informed appointments for a small cohort of patients, but without wider clinical

uptake and full interfacing with the NHS IT infrastructure the Penguin system could not be fully utilised throughout the Rheumatology Department. The project ended early as the system cannot be currently implemented as a standard in clinical practice within the Salford Care Organisation Rheumatology department.

**Quote from partner:**

*"This has shown very promising potential for embracing a modern, 21<sup>st</sup> century way to interact with our patients between appointments and support more responsive and more personalised medical care"* Salford Care Organisation Rheumatology Healthcare Professional

**Conclusion:**

The project has allowed the NCA- Salford Care Organisation Rheumatology team to pilot an e-PROMs tool in a small cohort of patients which received excellent patient engagement and promising signs for the way future health care might be delivered.

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**List of links present in page**

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