

Leeds Teaching Hospitals NHS Trust

Leeds Teaching Hospitals NHS Trust - Executive Summary

Project Name:

IHD Digital Solution - Penguin Patient Management System (Joint Working) - RHEUMATOLOGY

Start Date and Duration: December 2021 to June 2023 (18 months)

Joint Working Project Summary:

Provide and implement a remote monitoring solution in Rheumatology 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 a bespoke Rheumatology clinical template by determining the clinical data to be collected including PROMs, patient pathway, clinical data to be imported from other systems (e.g. blood test result systems) and the configuration of the clinician's and patient's dashboard. 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 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 need using the validated PROMs.

The Penguin system will meet the needs of Rheumatology clinical teams treating the following conditions: Rheumatoid Arthritis ("RA"), Psoriatic Arthritis ("PsA"), Axial Spondyloarthritis ("AS") and other rheumatological conditions.

Planned Milestones:

- Project kick-off meeting
- Preliminary paperwork/sign-off (including completion of SLA between Cievert and Trust)
- PDS IT interfacing work completed
- Pathway mapping and completion of baseline report
- Local training and configuration of local test platform

- Live system set-up
- Start of 12-month license, hosting and support
- Business case, write-up and project close (including baseline +6 months and +12 months reports)

Expected Benefits

Anticipated benefits for patients

- 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.

Anticipated benefits for the NHS

- Ability to access to clinical data, including PROMs, for individual patients in one digital platform.
- Flagging 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 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

Anticipated benefits for Novartis

- 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.
- Increased opportunities for the appropriate use of Rheumatology licensed medicines, including Novartis medicines in suitable patients, in line with local and/or NICE guidelines.
- Improved reputation through joint working with the Trust to meet an unmet need of benefit to the patient.
- Aligns with Novartis focus of innovating to address the most significant unmet needs of patients in the UK.

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Leeds Teaching Hospitals NHS Trust - Outcomes Summary

Project Name:

Completion Date: Jul-2023

Outcome Summary:

This project has improved clinical services and defined a pathway for PIFU (patient-initiated follow up) patients with long-term Rheumatology disorders, such as Rheumatoid Arthritis (RA).

Key Project Outcomes Data:

- Development of a bespoke remote monitoring service for patients with RA
- Demonstration of feasibility of remote monitoring within a large teaching hospital
- Development of a specific remote monitoring team within LTHT rheumatology
- Proportion of patients moved to a monitored PIFU pathway, freeing capacity within general and specialist RA clinics
- Ability to distinguish between patients within Leeds Penguin determined to be at risk and in need of face-to-face review versus patients determined to be stable and able to continue on remote monitoring, saving outpatient appointments.
- Sharing of positive Penguin experience with other sub-specialties within LTHT, with possible expansion of remote monitoring across rheumatology

Outcomes:

Through frequent and effective meetings between Evergreen Health Solutions Limited (formally known as Cievert) and LTHT Rheumatology, a bespoke remote monitoring platform was developed for those with RA, tested by a patient focus group, and then incorporated into a PIFU pathway. A RA remote monitoring team was created for the first time within LTHT rheumatology, including management and administrative staff, rheumatology nurses and consultants.

Patients with stable RA were sent an invite to complete validated electronic Patients Reported Outcome Measures (ePROMS) quarterly in order to assess their disease activity and function. Pre-set red flags for each ePROM alerted the rheumatology team to patients struggling, with patients receiving either a telephone call or physical review in clinic following review of their electronic case record.

To assess feasibility, a small number were entered into Penguin initially. Patient feedback was positive, with the majority reporting the system was easy and quick to use and helped them report their symptoms.

Following this, more patients were entered (n=130).

Over the last year, Penguin has identified 21 patients requiring telephone review and 19 patients requiring a physical clinical appointment, facilitating prompt assessment and management of their disease flare-ups, freeing up advice line calls and encouraging self-efficacy in our patients. Conversely, the remainder have engaged in the Penguin service and have been deemed to be stable, not requiring follow-up at that time point, freeing up capacity in clinic and minimising inconvenience to patients, e.g. time off work attending appointments.

Within the rheumatology department there are 1200 patients on a monitored PIFU pathway. 17% were specifically placed on this pathway as a result of Penguin; without Penguin they would have continued within the normal clinic structure remaining on lengthy waiting lists.

In addition to replacing clinical care, Penguin has been utilised across the RA population, with huge validation exercises being carried out across the rheumatology clinics, e.g. a review of an 800 strong early arthritis

cohort identified an extra 200 patients to be entered into Penguin, with further exercises planned to identify those in the complex biologic clinics. In these cases, Penguin will complement clinician/nurse assessments, increasing confidence throughout the clinical and patient community, facilitating a greater movement to monitored PIFU in the future.

Although the service is still developing, with trend analysis and systematic identification of patients who are not engaging, the Penguin experience has been shared with other subspecialist groups within rheumatology and met with enthusiasm.

Conclusion:

This innovative project has created the first remote monitoring service in rheumatology in Leeds and is now integrated into our patient-initiated follow up pathways. This partnership has facilitated patients struggling with their RA to receive earlier care, and allowed those stable to continue on safely, in addition to improving capacity within clinics. Furthermore, Penguin has demonstrated its ability to work alongside physical/telephone clinical reviews to enrich the patient assessment and encourage self-efficacy in patients.

There are areas that require development, such as a trend analysis, but these changes are in hand, and Leeds Rheumatology can see the value of implementing Penguin across many disease areas, improving both patient experience and quality of care.

This project has been a great success particularly given it involved setting up a completely new service, using an innovative method for patient care.

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