Case Study

Sustainable Development Unit

Travel and access, Technology and Personalised Models of Care	**University Hospital of North Midlands NHS Trust**

Personalised Care for Lung Fibrosis Patients: Reducing unnecessary travel.

Idiopathic Pulmonary Fibrosis (IPF) is a condition that causes progressive scarring of the lungs resulting in shortness of breath and physical disability, leading to the need for extra oxygen. Treatment is given to relieve symptoms and to try to slow disease progression. The Royal Stoke University Hospital is a specialised centre for the management of patients with IPF

What was the issue being addressed?

It is only in the past two years that drugs have become available to treat IPF. These can only be prescribed by specialised centres. These drugs have side effects for which patients require close monitoring and regular clinic visits and assessments. As a specialist centre for IPF, UHNM sees patients referred from a large area across the midlands and Wales. For some patients this means a lot of traveling.

(patient Peter Robinson, Prof Spiteri and nurse specialist Jacqueline Piggott)

Patients with IPF also require prompt and as the disease progresses. Such support is usually provided in close collaboration with the patients' carers and local community and hospital-based respiratory services. Thus communication between all parties has to be effective.

Pete Robinson, a patient using the app said:

"This app will be an absolute godsend for when I get worried about changes in the condition. It means you can go on holiday with piece of mind that you have the specialist with you, constantly monitoring things and in touch with you via your mobile device."

What action did you take to overcome the issue

To address the issues of frequent clinic attendances in person and prompt intervention to support patients, the team in Stoke have developed a bespoke 'app' – accessible by, phone, tablet or computer - on a secure hospital website. This allows patients to track and report their symptoms at home instead of attending the hospital in person.

The patient-generated reports are reviewed by the clinical team daily, who can then guide the patient/carer. The app includes the patient's history and other co-morbidities. Functionality is especially useful to enable patients to recognise symptoms and drug side effects. It also supports patient/carer participation in the management of their disease with real–time communication between them and the clinical team avoiding the need to make unnecessary visits to the hospital clinic.

What was the impact / result?

There are currently over 250 IPF patients at the trust. Although the app was only recently launched over 50 patients are using it. This can mean a reduction in appointments of up to 50 % meaning a saving in carbon, costs as well as better outcomes for patients.

The trust is hoping the project will enable a reduction to two visits a year for the mild to moderate disease and four visits for severe. Detailed results will be published in March 2016

Lessons learned / success factors?

Internal testing was required to ensure patient safety and the suitability of the application and a simple user guide has been produced. Security of the system, data entry and confidentiality were addressed by entry protection on the Trust website. The application can be used on a variety of devices e.g. smart phone, tablet, laptop or desk computer according to patient preference.

Scaling up

If possible, estimate what the impact could be if other organisations across the NHS / health system implemented the changes in this case study.

Replication of this application is possible across other specialist centres in the NHS and for other conditions. The trust has received funding to develop a similar self-diagnostic system for Chronic Obstructive Pulmonary Disease patients.

The clinical team are also currently in talks with commercial parties to roll-out the applications across the NHS economy.

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For more information about the project visit the UNHS website.