NETIMIS

CASE STUDY

Maximizing Care Efficiency in the Urgent Care System

Client: Leeds north CCG

Using NETIMIS to explore the ways in which improvements could be made within the urgent care system across Leeds.

Overview

The NHS provides an Urgent Care System to cater for all patients within the UK who require immediate attention. Urgent Care Systems are required to provide all patients with safe and effective care but are struggling to uphold these standards.

The NHS's Urgent Care Systems are fragmented leavings patients unsure of which service is most appropriate for their situation, for which reason they require some improvements and adjustments to ease these difficulties.

The redesign of the system can be carried out by mapping and analysing patient flows around the system to identify bottlenecks and the scope for changing pathways. This will reduce patients misuing hospital services and ensure that there is sufficient capacity across the health and social care system for them to seek appropriate treatment.

About

As part of the NHS Five Year Forward View, Leeds North CCG are currently looking at how the Urgent Care Systems across Leeds could be improved.

At present, Urgent Care Systems across Leeds are providing treatment for over 300,000 patients per year.

Challenges

Due to an increased demand for Urgent Care Systems, A&E departments are experiencing large volumes of unnecessary admissions and, over the past year, this has contributed to underperformance within these services to provide a high, efficient standard of care.

One of the high-profile measures used by Urgent Care Systems to uphold their requirements of care is the 4-hour period between 'time of arrival' through to discharge, transfer or admission. The focus within Leeds was to ensure that the pressures experienced by A&E departments were managed effectively and that the Urgent Care System was being used appropriately.

To manage the challenges in this way it was crucial to understand the current patient flow within the Urgent Care System in Leeds and assess the risks of change before any decisions were

made. To do this, the models created in NETIMIS provided the evidence needed to understand the current and future management of Urgent Care Systems.

Solution

Using NETIMIS, the current state of Urgent Care Systems were mapped out which provided the opportunity to explore forward thinking and hypothetical solutions for these services going forward. It provided the opportunity to look for ways in which the system could be improved to withstand current and predicted future pressures. By running the models, it made problems, such as bottlenecks, clearly identifiable and visible for targeting.

Method

The initial step was to map out the current process that patients entering Urgent Care Systems were experiencing (Figure 1) using the data to determine the flow. This data set was provided by Leeds North CCG and presented information on the key areas:

- 999 Emergency Services
- NHS 111 Services
- Walk-in Centres
- Minor Injuries Units
- Accident and Emergency
- Out-of-Hours

After analysing the outcomes produced by these models, Leeds North CCG looked at ways they could introduce an Urgent Care Hub (Figure 2) into the pathways to steer patients away from using the Walk-in Centres and Minor Injury Units when not appropriate.

Conclusion

NETIMIS proved valuable for creating simulations that enabled us to model the current and hypothetical states of Urgent Care Systems. Stakeholders were better able to understand and visualise the processes involved in patient care pathways and how these could be improved.

Simon Harris from Leeds North CCG stated: *"Through the process of describing and mapping the Urgent Care System in Leeds, NETIMIS has helped the CCG think differently about how it can use the system modelling element to refine and improve patient flow."*

The models effectively displayed how care providers are linked and can support each other's services. The ability to trial hypothetical scenarios gave Leeds North CCG the chance to explore various improvement options in a risk-free environment. Additionally, the models provided a chance to fully analyse where patients are going within the system through clear categorisation of their demographics and conditions.

Figures

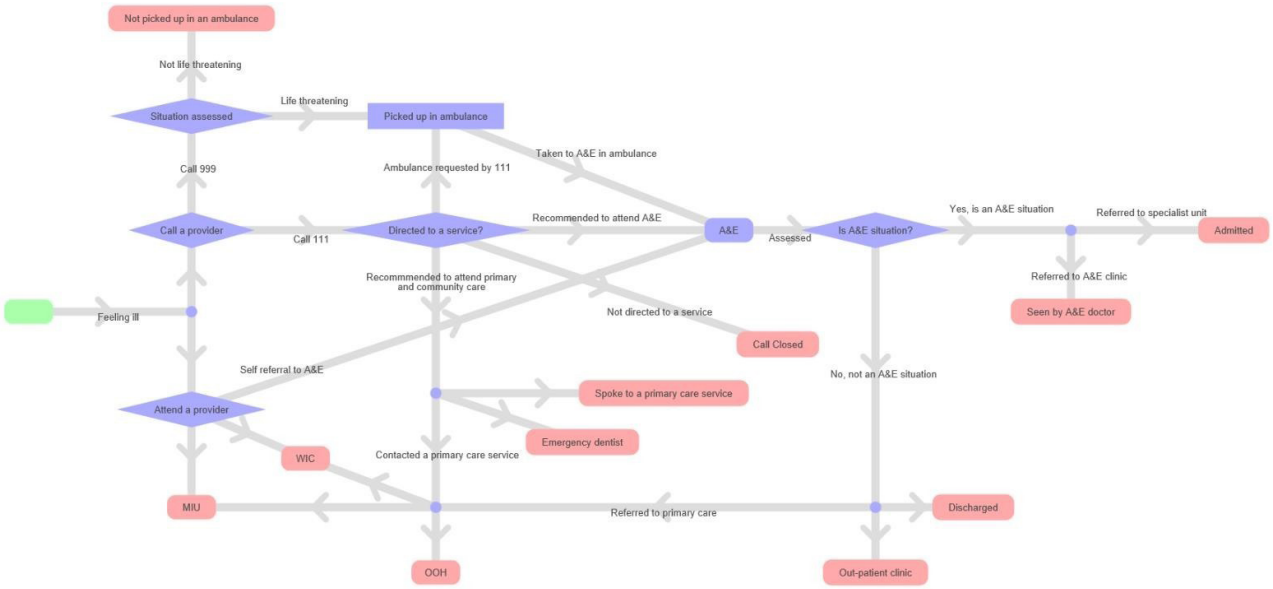

Figure 1 - *Baseline model for overview of urgent care pathways*

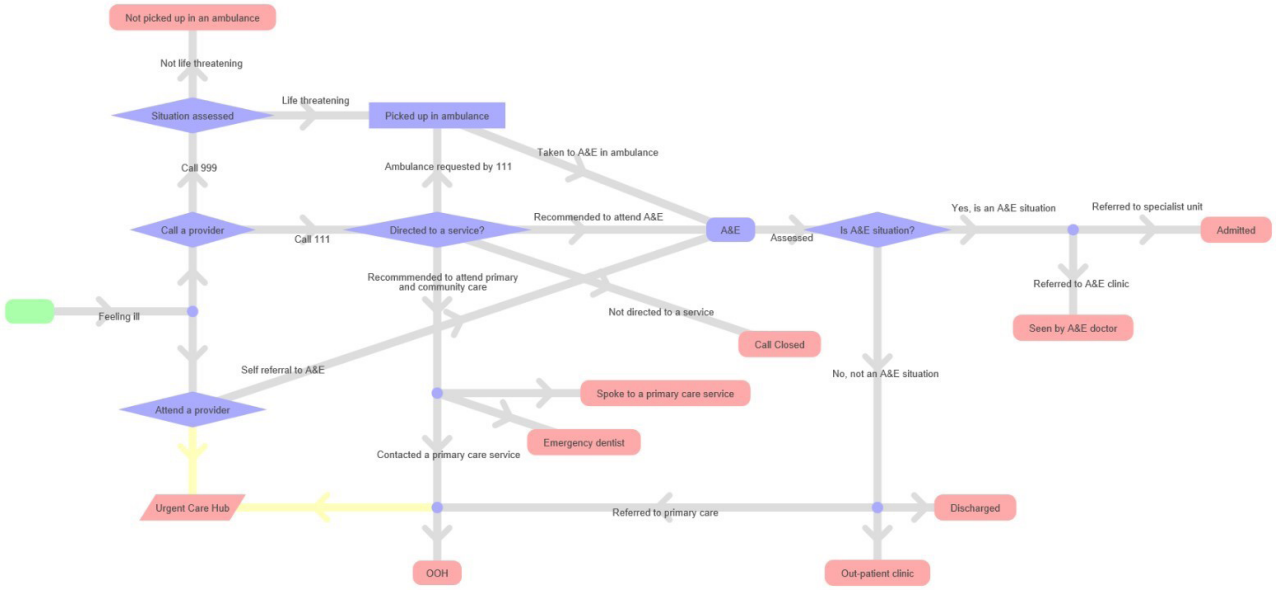

Figure 2 - *Introduction of Urgent Care Hub into overview of urgent care pathways*