Aptean Medworxx partners with the NNUH to develop a world-class Integrated Care System (ICS)

By **CATHERINE STURMAN .** Jun 10, 2018, 9:00AM

The Norfolk and Norwich University Hospital Foundation Trust (NNUH) is responsible for providing a broad range of acute clinical services to a population of around 900,000. The hospital provides secondary acute care and some specialist tertiary services, and is a centre for professional education, training and healthcare research for the East of England.

The Trust employs approximately 7000 staff, on two sites, and provides a total of 1200 beds. Like most large acute teaching Trusts the NNUH has to balance the combined impact of financial and staffing demands with the provision of high quality care and efficient patient flow. Demand for healthcare services is also increasing year on year, and Norfolk has a population with the oldest average age in the UK.

NNUH has sought to deploy innovation and new technologies in order to achieve improved and more rapid patient flow. The Trust has piloted a number of new operational initiatives in the last 12 months including the expansion of ambulatory emergency care services. This reduces the time patients wait to move to a nursing home or long term residential care by the deployment of individual care coordinators.

The Trust has also developed the UK's first Older People's Emergency Department which is dedicated to patients over 80 years old. The Trust's main aim is to deliver continuous service improvement by monitoring and reviewing the efficiency of each step in the patient's acute hospital journey, and delivering solutions to problems which may retard optimum patient flow.

From the 'front door' in the Emergency Department, and the delivery of the NHS 4 hour quality standard, to the improved Discharge Service - which aims to discharge as many patients as possible in less than seven days - the NNUH is committed to achieving and maintaining consistent results.

As with most acute hospital systems, winter pressures on the service of increased admissions and higher rates of respiratory exacerbations and infectious illnesses such as flu and Norovirus, mean that, from time to time, short-term additional bed capacity is required. This additional capacity tests the whole health system as it very often results in sluggish patient flow and increased pressure on the already limited workforce.

Prompted by the long-term NHS plan for greater integration of health and social care services, and the development of Integrated Care Systems (ICS), NNUH Deputy Chief Operating Officer, Roberta Fuller explains the NNUH strategy:

“We have been challenged by a number of problems in recent years including rising demand for acute admissions, a growing elderly population and slower patient flow. All these exert operational pressure on our bed capacity which has reduced over the past two years due to reduced staffing levels and the need to develop a higher ratio of high dependency beds within the hospital.

“Our commitment to service improvement involves trialling an extensive range of measures, each of which are a contribution to achieving optimum patient flow. We review the impact of each initiative and continue the projects which have worked well and had positive impact, whilst decommissioning the projects which do not deliver.

“We have focused on a number of projects aimed at improving internal patient flow within the hospital – such as the Red to Green campaign – and we have realised that the regular and automated reporting of information to inform the development and delivery of operational processes on the wards and departments is of vital importance.

“As well as a focus on process improvement we have also sought to secure the ‘hearts and minds’ of our staff in the delivery of improved care. The ‘Last 1000 days’ campaign, which promotes the value of the patient’s time and their experience as the most important currency in healthcare, reminds health professionals of the importance of improving service efficiency as part of the overall care of their patients.

“We know that longer lengths of stay in hospital, especially for elderly patients, contribute to deconditioning and worse clinical outcomes. By working to improve patient flow all health professionals contribute to “giving back to the patient some of the precious last days of life”.

Medworxx CUR was implemented in the NNUH in September 2016. Full roll out was achieved by March 2017 and was the largest and fastest roll out in the UK. This achievement was recognised by NHS England. The system is live on 964 beds across the hospital, including the Acute Medical Unit (74 beds), the Surgical Assessment Unit (33 beds) and Paediatrics (33 beds). Data input is completed daily by Ward Sisters, and overall compliance ranges from 77% to 83%.

As well as clearly identifying the top five reasons for delay, early data analysis has highlighted the shortfalls in integrated Community Services such as Outpatient IV Antibiotic Therapy (OPAT) and the management of VAC dressings. Combined potential annual bed day savings have been estimated at approximately £289,000.

Despite limited resources to support the project management of some of the new initiatives, the gradual application of faster and safer discharge processes, particularly for vulnerable and frail patients, has started to deliver a more efficient hospital and local health system. Other local health system partners have been inspired by the use of the Medworxx system to understand better their patient flow dynamics.

Better partnership working and information sharing has paved the way for easier integration of services across the acute, community and social care sectors. Medworxx has enabled NNUH to improve compliance with clinical information recording to 85%, reduce ‘ready for discharge’ patients by 18% and reduce ‘avoidable admissions’ by a further 5%.

Roberta Fuller confirms: “Medworxx helps to provide clarity at all levels of the patient journey through the acute hospital, and potentially beyond, if our local health system partners decide to adopt the Medworxx product. Effective use of the Medworxx system enables us to identify blockages to efficient patient flow and gives us a focus around which to design solutions.

“We are working with our clinical teams to empower medical and nursing staff to understand the impact of their daily work processes and decisions, and to design improved services for patients which can minimise harm and support more rapid recovery. Regular Medworxx reports have been designed at NNUH to answer the questions most frequently asked.

“The Trust is currently in the process of embedding the use of this data as part of business as usual. We have high hopes for the continued use of Medworxx to support the ongoing delivery of service improvements as we explore the use of new technologies and techniques to manage the optimum flow of patients from arrival to discharge.”