Digital Workers Assist NHS Dorset Clinical Commissioning Group in Providing Critical Patient Care Across their ICS
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Foreword

The past two years have seen a level of pressure unprecedented across the NHS and healthcare services worldwide. It has required a unparalleled response for Trusts working alongside partners to identify, showcase and deliver innovation through more efficient and collaborative processes between NHS services and has been well documented since before the arrival of the Covid-19 pandemic.

The arrival of the Covid-19 pandemic only made this need more critical, and in many cases spurred unprecedented innovation both within and between organizations. Automation has proved a valuable tool in helping to bridge these gaps, and this case study showcases the work that Dorset Clinical Commissioning Group has undertaken in using this technology to tighten processes between primary and second care units, and ultimately improve patient outcomes.

This case study provides a snapshot into how Blue Prism and Dorset CCG partnered to deliver three Covid-19 critical processes to streamline processing between primary and secondary care services and improve patient outcomes.

Each of our partners have been specifically chosen for their background and experience in addressing issues at the top of NHS trust leaders’ agenda in real world environments and we hope that this publication helps you start those important discussions and see how Blue Prism might help you as you work to elevate the patient experience and outcomes and yield significant cost and resource savings.

Best wishes,

Chris Hopson
Chief Executive, NHS Providers
Business impacts

- Life-saving process accelerated
- Test results in two minutes (down from four - five days)
- 1,200+ Work hours returned in one year
- Data availability ensured for those who need it
NHS Dorset Clinical Commissioning Group (CCG) has a long and well-documented history of thinking outside the box when it comes to provisioning care for Dorset’s 800,000-strong population. Known for its enduring and ambitious innovation programs, NHS Dorset CCG is setting the benchmark for integrated care system working across the country with its collaboration-first approach to transformation.

This is recognised by their award for “Best Digital Continuing Healthcare (CHC) Project” from the NHS CHC Strategic Improvement Program and their shortlisting in the 2020 Institute of Collaborative Working (ICW) Collaborative Working Awards. The CCG works in partnership with NHS providers, primary care, local authorities and other partners to provide world-class care to its patients and residents.

Paul Wyman, robotic process automation architect for NHS Dorset CCG discovered that manual printing and scanning was the reason clinicians were receiving blurry medical images in their e-referrals. Wyman and the outpatient transformation team embarked on an automation journey to find a solution. It was a journey that would subsequently go on to make a critical difference in the face of a deadly global pandemic.

“We pulled together a couple of smaller projects, and we demonstrated it to NHS England and Improvement and they loved it. They thought it was absolutely fantastic. They couldn’t believe we were doing all this automation.”

PAUL WYMAN, ROBOTIC PROCESS AUTOMATION ARCHITECT, NHS DORSET CLINICAL COMMISSIONING GROUP
Introducing the transformative power of intelligent automation

Bringing the situation to a (public) conclusion and drawing a line under it to ensure all parties could move on and continue to work together unimpeded.

The concept of automating business processes to drive operational efficiencies is nothing new. However, the type of automation used by Wyman, known as intelligent automation, takes this basic concept to a new and more powerful level. Rather than merely optimising a process, intelligent automation transforms it.

Blue Prism is a pioneer in this technology, offering a digital workforce that is adept at bridging the gaps between technology stacks that couldn’t otherwise communicate. Put simply, Blue Prism digital workers speak ‘everybody’s language’ and has been specifically designed to integrate with common IT platforms, such as systems, applications, and products (SAP).

Through intelligent automation, the opportunity to drive transformative optimisation is virtually endless, and this potential made it the ideal candidate to help NHS Dorset CCG in the wake of the unexpected COVID-19 pandemic.

Rising to the demands of a global pandemic

It’s estimated that the NHS engages with one million patients every 36 hours. While this comes as no surprise to those on the front lines, now add to that the urgent and unprecedented impact of COVID-19.

With the referrals process successfully underway, the team asked themselves, “Could intelligent automation be deployed to speed up the management of critical data relating to COVID-19? Could intelligent automation facilitate the assessment of patients being discharged from hospital, improving their health outcomes?” Wyman was sure it could.

94% of NHS leaders surveyed by Blue Prism reported that the pandemic accelerated their use of automation in some capacity.
Prioritising critical information in the face of a pandemic

As the UK Government and NHS rushed to meet the challenges of the pandemic, new policies were being implemented at an unprecedented pace. One policy for example was the requirement for social care staff to undergo regular COVID-19 antibody testing with healthcare providers given only seven days to put a strategy in place to do so.

Early estimates predicted it would take six weeks for a team of 22 to process the testing of Dorset’s 36,000 social care staff and return results. The NHS couldn’t ask existing employees to take on the additional workload and hiring new staff would be difficult and costly. So, Wyman turned to his team of digital workers to get the job done.

Using a basic form template to capture necessary information, Wyman built a booking engine that made it possible for staff to schedule their own test. Unfortunately, there was a roadblock: results reached the hospital at midnight, and because of data confidentiality laws, they lacked critical information, such as name and contact details. This made for a heavily manual and data-intensive process of matching NHS numbers to results, then texting the result. All this required staff to work overnight to process the data in real time. Wyman saw this as a perfect opportunity for digital workers.

Digital workers received the data as a CSV excel file, located the NHS number, and used that to search for the recipient’s contact details within Dorset’s directory. It then composed a mobile text message to inform individuals of their results and scheduled it to send at 7.00am.

In total, the digital workers saved the NHS 841 work hours.

Preventing a life-threatening delay

As our knowledge about COVID-19 advanced, monitoring the blood oxygen levels of patients suffering with, or at high risk of contracting the virus quickly became a key intervention tactic for avoiding critical decline and organ failure in seemingly healthy patients.

One simple way of doing this is with an oximeter test. But not all people required it, and the person best qualified to make that decision was a patient’s GP. Sadly, getting the news of a patient’s positive test result to the individual GP was not simple. The results—which numbered over 1,000 at the peak—arrived daily via email, then had to be sorted manually, and finally had to be forwarded to specific GP surgeries across the county of Dorset. The four or five days it could take to complete the process.

In just three days, Wyman and his team put a digital worker on the task. Now when the reports arrive, processing takes just two minutes and all GPs whose patients return a positive test are emailed automatically. To date, intelligent automation has returned 350 work hours back to NHS Dorset CCG and delays in disseminating this critical information have been eliminated.
Improving patient healthcare, case by case

As patients transition from hospitals and back into home care settings, the CHC team are tasked with assessing their ongoing needs and formulating a care plan to meet those needs in a two-week timeframe. But because the cross-disciplinary medical panel required patient records from multiple sources, and those records were being sourced manually, the process could take six weeks. The records were often paper based, which required scanning before they could be collated.

To help the CHC team assess more quickly, digital workers now source and collate all the required records and documentation automatically, making them easily available for the CHC team. This initiative has been so successful that Wyman and his team have been acknowledged with an award for its success.

The future is automated

Having clearly established the effectiveness of intelligent automation, Wyman and his team have their sights set on launching even more transformative benefits for the NHS. Short-term goals include deploying more digital workers to facilitate additional aspects of the care plan process. Soon, after a nurse on a ward indicates that a patient is set to leave on a certain date, a digital worker can trigger the CHC care plan process to automatically gather all relevant medical records and documentation.

The automation programme is on a path of rapid growth. To accelerate the pace of his program, Wyman has leveraged colleagues in the NHS and Blue Prism’s Digital Exchange (DX) to share automations—the NHS has shared the e-referral process and Dorset has shared part of its CHC process with peers on the DX.

With Dorset leading the charge towards collaborative and strategic transformation across integrated care systems, the future is an exciting one to consider.
**NHS Providers** is the membership organisation for the NHS hospital, mental health, community and ambulance services that treat patients and service users in the NHS. We help those NHS trusts and foundation trusts to deliver high-quality, patient-focused care by enabling them to learn from each other, acting as their public voice and helping shape the system in which they operate.

NHS Providers has all trusts in voluntary membership, collectively accounting for £92bn of annual expenditure and employing more than one million staff.