CASE STUDY

Royal National Orthopaedic Hospital Decommissions Bleeps, Unifies Clinical Communication Amidst Pandemic

The Largest Specialist Orthopaedic Hospital in the United Kingdom Responds to COVID-19 with a Robust Communication Strategy – and Nobody Misses the Bleeps

In December 2018, the Royal National Orthopaedic Hospital (RNOH) opened its new, state-of-the-art Stanmore Building. Its older facility was no longer suitable for the high-quality care and excellent clinical outcomes RNOH strives to provide. The hospital layout went from having Nightingale wards – large rooms without subdivisions for multi-patient occupancy – to modern wards with single patient rooms that offer much more privacy. Staff were accustomed to working and communicating with clear lines of visibility. Some were concerned they wouldn't be able to communicate with each other efficiently in the new hospital building, due to the reduced lines of sight in the much larger wards.

In February 2019, two months after RNOH opened the new facility, Health Secretary Matt Hancock issued his order for all NHS hospitals to remove archaic technology, including bleeps (pagers), for non-emergency communications before the end of 2021. The hospital quickly began the process to decommission bleeps and replaced them with a communication platform from Vocera® that would unify staff.

RNOH leadership chose the Vocera Platform, an intelligent ecosystem that connects all the people and information needed to deliver patient care, for their modern facility. Vocera stood out as the best vendor to meet RNOH's needs and was selected because the Platform provides simplicity, rapid hands-free communication, and allows users to choose the device that works best for their role.

One year after Mr. Hancock issued his order, the United Kingdom (UK) began to see cases of COVID-19. RNOH had to rapidly shift priorities and prepare for the impending patient surge. "If I were to give anyone advice when planning for a pandemic or impending patient surge, it would be to unify your communications now," explained Matt Phillips, Lead Clinical Practitioner, Acute Intervention Team at RNOH.

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"At no point during the COVID-19 crisis did we worry about communication. Vocera technology has proved to us that we have a truly robust communication strategy."

Matt Phillips
Lead Clinical Practitioner, Acute Intervention Team at RNOH

Scaling to Accommodate Massive Patient Surges

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Bela Haria
Information Management and Technology Senior Project Manager at RNOH

Because RNOH is a predominantly elective hospital, all elective surgery stopped within just a few days of COVID-19 cases showing up in the UK. The virus drastically changed the hospital's patient-based demographics. "In a 10-day period we turned our quiet, elective hospital into the orthopedic trauma center for a large portion of North Central London," recalled Phillips. "We suddenly went from caring for pre-assessed, optimised patients, to having 400 trauma-related cases."

The Vocera solution RNOH deployed included Vocera Badges and the Vocera smartphone app, which runs on clinicians' personal smartphones. The Badge is a wearable device that allows staff to communicate hands-free. RNOH integrated its nurse call system with its Vocera system to help improve staff response times and productivity.

Vocera technology allows RNOH staff to call by name, role, and group from a range of communication devices. Staff can quickly reach the right people and groups without having to know each team member's name or phone number. "Being able to easily get ahold of the right person without having to find a phone number or walk around the ward has been enormously helpful," said Bela Haria, Information Management and Technology Senior Project Manager at RNOH. "Vocera has certainly sped up the process of being able to reach the right people when we need to."

Speeding up Communication and Coordination

RNOH turned its private patient ward into a respiratory ward to treat COVID-19 patients because it has many private side rooms. The hospital set up runners, who wore Vocera Badges, to bring supplies to clinicians treating COVID-19 patients in the private rooms. The runners could communicate with the clinician in the room without having to go into it, which eliminated the need for the runners to don PPE. This saved time and PPE resources.

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"Vocera technology sped up communication and coordination during the peak of the COVID-19 crisis," said Pauline Robertson, Head of Nursing for the Medicine and Therapies at RNOH. "It helped us provide seamless patient care without risking infection. We were also able to conserve precious PPE since our clinicians didn't have to exit and re-enter patient rooms to gather supplies or call for assistance."

Communicating Safely While Wearing PPE

Vocera technology provides clear, secure communication underneath PPE. RNOH staff have found the ability to communicate safely using the Vocera Badge under PPE to be invaluable during the pandemic. Because staff can communicate by wearing the Badge under PPE there is need to don and doff, which keeps them safe, enables higher quality care, helps preserve scarce PPE resources, and eliminates the need to disinfect communication devices between patients.

"The ability to wear Vocera technology under even the most restrictive PPE to facilitate communication has been amazing," Phillips said. "If anyone ever has issues with the Vocera Genie understanding their voice through PPE, we tell them to simply use the 'Learn a Command' functionality so the Genie can understand their slightly muffled voice. It has eliminated any hiccups in voice recognition that users were experiencing."

Creating Custom Workflows and Call Groups

The Vocera Platform allowed the hospital to quickly create new groups and custom workflows to respond to the pandemic. Staff could simply say, "Call COVID Intubation Team" and they would reach the members of that team to quickly summon assistance. "The beauty of Vocera technology is that the entire administration system of the Platform is very user-driven and easy to configure," Haria explained. "Setting up new groups and custom workflows to respond to COVID-19 took minutes rather than days."

"Our doctors are now prolific Vocera smartphone app users!"

Bela Haria
Information Management and Technology Senior Project Manager at RNOH

Communicating Seamlessly When Working from Home

Many on-call clinicians, pathway coordinators, and non-clinical teams at RNOH have been working from home more than normal to stay safe during the crisis. Clinical teams including pharmacists, bereavement, infection control, and others need to be available outside of their typical working hours. "During this pandemic, the Vocera app has been instrumental and has

opened up the possibility for many staff to work from home," said Phillips. "Vocera allows our clinical on-call staff to be contacted without having to phone the switchboard operator. It enables continuity of communication."

Communicating Securely in Pop-Up Locations

Another innovative way RNOH leveraged Vocera technology during the peak of the COVID-19 crisis was using Badges in pop-up testing tents that the British Army set up in the hospital's car park. Fortunately, when the hospital initially deployed Vocera, they understood the importance of having a strong Wi-Fi network and expanded their Wi-Fi access across their entire campus and car park. This foresight allowed clinicians to communicate in pop-up locations during the pandemic.

"We wouldn't have had a way to securely and easily communicate with staff working in our testing tents if it weren't for Vocera," explained Phillips. "Vocera technology was brilliant because we didn't have to worry about anything related to communication. We gave staff working in testing tents a Vocera Badge and we were instantly at peace knowing they had a secure means to communicate with each other and with the rest of hospital staff."

Not Missing the Bleeps

When the Vocera Platform was initially deployed at RNOH, there were pockets of staff who were resistant to the change. Through strong leadership, confidence and adoption of Vocera technology quickly grew. The COVID-19 pandemic hit RNOH at a time when the hospital was already in the process of decommissioning bleeps. As the first wave of the pandemic began to settle down, hospital leadership noticed that adoption of Vocera technology had never been stronger.

"Prying bleeps out of doctor's hands was something we struggled with when we began our bleep decommissioning efforts," said Haria. "The onset of COVID-19 gave Vocera technology quite a boost at our hospital because the technology was part of our mandatory crisis training. Our doctors are now prolific Vocera smartphone app users!"

Ward-based doctors, nurses, pharmacists, therapists, and ward clerks rely on the Badge to communicate hands-free at RNOH, while consultants, non-clinical staff, and registrars at the hospital tend to use the Vocera app for seamless communication on their personal smartphones. The hospital also uses Vocera Analytics, a core monitoring and diagnostic feature of the Vocera Platform. "We love the auditability of the Vocera Platform," explained Haria. "We have access to the best analytics, which enables us to determine when a call was made, when it was responded to, and more. Our old bleep system didn't have analytics capabilities even remotely close to what the Vocera Platform offers."

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Crash Team Response Time Improves by 84%

RNOH uses its Vocera system to mobilise its Crash team, which is focused on treating cardiac arrest. Before Vocera, the Crash team relied on bleeps to be notified of a critical event. A member of staff would first ring the emergency bell, then find a phone to share the critical message with the switchboard operator. The switchboard operator would then repeat the message back for accuracy and issue a bleep to the Crash team. It was not an effective or speedy way to respond to such a critical notification. Additionally, if the hospital's phone system ever went down, there was no way to reach the Crash team in an emergency.

Before Vocera technology was introduced, the time to mobilise the Crash team averaged two minutes and five seconds. After the Crash team deployed Vocera, the average time to time mobilise the crash team dropped down to just 20 seconds – an 84% improvement. "Prior to Vocera, when our Crash team needed to be mobilised, the workflow was clunky," said Phillips. "We were able to shave an average of one minute and 45 seconds off our Crash team response time. We have resilience in our emergency call system now where we never had it before, thanks to Vocera."

More Information
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