

Standardising defibrillators for North Wales Betsi Cadwaladr University Health Board



Customer

Betsi Cadwaladr University Health Board

Location North Wales, UK

Solution

BeneHeart D3 & D6 manual defibrillator and BeneHeart D1 Pro AED

Customer Profile

The Betsi Cadwaladr University Health Board covers three main hospitals - Wrexham, Glan Clwyd and Bangor – plus a large geographical area containing many community hospitals in North Wales. The Board represents the largest health organisation in Wales, with a budget of £1.3 billion and a workforce of over 17,000 staff. Providing primary, community, mental health and acute hospital services for the population of North Wales.

Introduction

For over seven years the Betsi Cadwaladr University Health Board aimed to standardise its defibrillators, with a long and complex tender that asked for one supplier to fulfil the equipment requirements of the entire region. When criteria changed to reflect resuscitation guidelines, the Board became aware of Mindray's devices and included them in its shortlist. After a series of trials across its three main sites, the Board selected Mindray to help standardise its defibrillator fleet.

Challenges

- The scale of the project required a supplier that could deliver enough devices for the entire North Wales region
- Providing both AEDs and manual devices to match the Board's requirements
- Providing extremely intuitive devices to minimise risk in high-pressure situations
- Ensuring devices are reliable with minimal maintenance requirements

The human factor

Useability is a vital quality for a defibrillator, with intuitive features able to save crucial time in a resuscitation attempt. Studies have shown that when a patient suffers cardiac arrest, success rates for defibrillation drop for every second between CPR and defibrillation shock¹. Every second counts, which is why Mindray defibrillators offer simple controls and clear on-screen instructions.

"It has been a long search for the right product but with Mindray's defibrillators we have found devices that are extremely user-friendly and consider the human factors at work in a resuscitation attempt. We particularly like the clear mode-selection dial on the manual defibrillators, helping users easily navigate the device in high-pressure situations."



Sarah Bellis, resuscitation services manager at Betsi Cadwaladr University Health Board

¹ Edelson DP, Abella BS, Kramer-Johansen J, et al. Effects of compression depth and pre-shock pauses predict defibrillation failure during cardiac arrest. Resuscitation. 2006 Nov;71(2):137-45.





"Our main concern as engineers is the reliability of the defibrillators and service support, resulting in manageable maintenance requirements. Mindray's products and support ticked all of those boxes, helping us standardise our devices with a company we trust."

Mel Lewis, head of EBME at Betsi Cadwaladr University Health Board

The Solution

A mix of manual and AED: Mindray provided over 300 BeneHeart D1 Pro AED devices and over 180 manual defibrillators.

Service reliability: Mindray's longstanding relationship with the Board demonstrated the reliability of our support team and maintenance services.

Intuitive designs: The BeneHeart D3 and D1 both scored the best for useability in the Board's trials.

Connectivity: The BeneHeart D3 and D6 are connectivityready with Wi-Fi capabilities.

Device reliability: Automatic daily self-tests and reliable long-lasting batteries ensure the device is ready for use when called upon while also minimising the maintenance burden.

Outcomes

Standardising training: Standardising with one supplier allows the Health Board to streamline the training process, improving patient safety.

Future proof: With connectivity-ready devices, the Board can meet future digital healthcare objectives including electronic patient record (EPR) connectivity.

Saving time: With only five seconds to shock on the D3 and D6, responses to cardiac arrests are rapid and efficient.

Minimising risk: Thanks to Mindray's intuitive designs the risk of delay or error when navigating the devices is mitigated.

Peace of mind: With reliable devices and service support the Board's engineers know their maintenance requirements will be well managed.

Conclusion

Standardising resuscitation equipment in hospitals is recommended by The Resuscitation Council (UK) guidelines and helps remove any variances in training and response, ultimately helping improve patient safety. By standardising their equipment for the entire North Wales region, the Betsi Cadwaladr University Health Board has taken a huge step to benefit their patients and medical staff. Combining the rapid shock times and intuitive operation of Mindray defibrillators, with reliable support and maintenance, this project has helped the region to deliver a comprehensive resuscitation service with devices and support they can trust.

Results from this case study are specific to the organisation featured. Results in other cases may vary.



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