

Call 0161 776 4009 or email info@dakotais.co.uk

Lancashire Teaching Hospital

Dakota delivers wristband printing and mobility solution



Challenges:

Lancashire Teaching Hospitals NHS Foundation Trust as part of the 2nd phase rollout of QCPR had a requirement to implement an e-ordering system for pathology tests, X-ray scans and referrals to other areas of the Trust. Initial issues included the misreading of barcodes on the specimen labels for the Analysers in the Pathology laboratories, labels that had a very indifferent scanning success rate. This proved to be very troublesome for the Pathology labs and was extremely time consuming.

Additionally, with their printed wristband solution, the Trust was encountering problems with the reliability of scanning neo-natal and child wristbands, it was identified there were issues reading the barcodes on the bands when they were placed around a patients wrist, largely due to the curvature of the band.

Lancashire Teaching Hospitals also wanted to incorporate a mobile, wireless printing solution at the bedside using Zebra QL+ mobile printers connected to their existing Cisco wireless network and hosted on a mobile cart provided by RDP Health.

Solution:

Dakota quickly identified that the reading of barcodes and their scannability was the core issue for the trust – it wasn't happening for them. After some initial investigations Dakota proposed an alternative label face stock being used as the current label was inappropriate for the application. The label was uncoated, therefore, it was less durable when printed via the Zebra Thermal Printers and susceptible to a small amount of "bleed".

Dakota proposed a matched Zebra solution using Zebra coated direct thermal media to aid scanning with the Trusts barcodes. Within a short space of time the reading of barcodes within the Pathology labs on the specimen labels improved dramatically. Of equal importance was the resolution of the scanning issue & reading of the 1D barcodes on both the children & neo-natal printed wristbands. This was causing staff considerable extra work & as with any project, introduced a risk of losing confidence in a printed wristband solution.

Dakota worked with the trust & proposed converting the barcode on the wristbands from a linear 1D Code39 symbology to a more compact 2D Datamatrix barcode. Dakota IS helped write a program to take the standard 1D Code39 data & convert this into a 2D Datamatrix barcode once the wristband was printed on the ward. This would aid scanning at the bedside as there were two x 2D barcodes applied to each band, one at each end of the human readable text meaning that the barcodes were much easier to access & therefore read.

This did present a further obstacle as the previous scanners deployed only had the ability to read 1D barcodes, therefore, Dakota proposed the new Honeywell Healthcare Imagers complete with anti-microbial, wipe down plastics that could read both 1D & 2D barcode Symbologies. This enhanced plastic coating meant the imagers could be periodically wiped down with special fluids as part of the Trusts cleaning regime to negate the possibility of cross-infection in the hospital.

Dakota was also tasked with helping re-design the wristband format to incorporate all the human readable information on the bands whilst not compromising the ability to read the text on the band itself. After a brief trial on selected wards the bands worked very well & the feedback from the staff was extremely encouraging.

Peter Aspinall, Head of IM&T, Lancashire Teaching Hospital NHS Trust commented:

"I personally, as Head of the Equipment Project, would recommend Dakota Integrated Solutions for their expertise to help any NHS Trust solve the issues they are likely to face in delivering wristband printing & mobility solutions. Dakota worked closely with Zebra to provide solutions to the issues we faced & propose new, more effective ways of deploying the technology.

Dakota's knowledge of the technology involved, including ZBI (Zebra Basic Interpreter) & 2D symbology, was invaluable in rolling out Electronic Systems across the Trust. Dakota have helped solve the technological challenges we faced in the project."