"We are forever being presented with new devices, but there's nothing else as good as the Janam XM60 when it comes to 2D barcode scanning. The other manufacturers' products were not nearly as good."

Industry:	Healthcare — Hospitals
Application:	MEDI-tasc from Sciamed
Challenge:	Improve accuracy, lower risk of patient misidentification and prevent errors in blood sampling for laboratory
Solution:	Janam XM60 mobile computers delivered superior 2D barcode scanning and excellent Bluetooth capabilities

The "Give and Take" of Blood Sampling in Scotland's Hospitals

Every day, throughout Scotland's hospitals and medical centres, phlebotomists and junior doctors are responsible for taking and administering blood and blood products to patients. There are two issues that may be problematic in this process, both potentially occurring at the patient's bedside. The first is the positive identification of the patient, as there are occasions when a patient's physical and mental state makes it difficult to ascertain his or her identity. The second concern is that each vial or tube of blood taken must be properly labelled for transport back to the hospital laboratory. As a result, several National Health Service (NHS) hospitals in Scotland prioritized the need for a mobile computing solution to address these concerns.

Sciamed Ltd., based in Scotland, delivered a comprehensive mobile solution with its MEDI-tasc application, Janam XM60 mobile computers and Zebra QL220 Bluetooth label printers. The MEDI-tasc software has built-in capabilities that ensure positive patient identification using the Community Health Index (CHI) unique patient identifier which will interrupt the bloodtaking process unless the match is identical. The Janam XM60s provide advanced barcode scanning, continuous Bluetooth printing and excellent ergonomics.

After two successful pilots with the Janam XM60 devices and fantastic feedback, Richard Forbes of Sciamed highlighted the program's success: "Phlebotomists and doctors can now go from step one to step five in about 30 seconds, a considerable improvement in productivity from the earlier process."

How does it work? During patient identification, the barcode on the patient's wristband is scanned right at the bedside. Although the wristband presented challenges for other mobile devices, the Janam XM60 quickly and accurately captures and decodes the 2D barcode. Each PDF417 barcode contains key patient demographics, including forename, surname, date of birth, gender and CHI number. The information contained in the barcode on the wristband and the data on the laboratory form must correspond. With a positive match, an audible "ping" is emitted by the Janam XM60s, enabling the phlebotomist or doctor to continue with the administration or sampling of blood. Without a positive ID, the system also identifies the mismatch on screen and with an audible alert.

"The 2D scanner on the Janam XM60 is very aggressive with its powerful Adaptus® scan engine, making it easier to read PDF417 barcodes on a small, curved wristband."
— Richard Forbes, Sciamed Ltd.

Scotland's good medicine — positive patient identification and blood labelling at the bedside.

Criteria and Observations »»

NHS Hospitals in Scotland — Mobility Needs:

- 2D barcode scanning
- Bluetooth
- Form factor
- Screen size

After identification is complete, there is still the matter of labelling and transporting the blood products. To speed this along, Janam's Bluetooth connection to the Zebra printers is "spot on," enabling rapid transfer of data and label printing. Each tube or vial is correctly labelled, ready for transport and testing in the laboratory. This process reduces the risk of the wrong test being performed.

"It's clear that patient misidentification and labelling errors are less likely to occur using a mobile computing solution with the capabilities of MEDI-tasc, Janam XM60s and Zebra QL220 label printers," said Richard Forbes, Sciamed.

As Janam's XM60 mobile computers proved to be instrumental in the successful rollout of this solution, Sciamed shared their criteria for choosing these devices:

» #1 — 2D barcode scanning
Janam XM60s offer superior 2D barcode scanning, particularly when capturing patient details from the small PDF417 barcode curved around the patient's wrist.

» #2 — Bluetooth printing
The Janam XM60's reliable Bluetooth capability connects to the Zebra printers quickly, in less than five seconds.

» #3 — Small, lightweight form factor
While the Janam devices are generally bigger than a mobile phone, they are much smaller than other handhelds. The XM60 captures data and is not cumbersome to carry.

» #4 — Screen size
The larger screen size means that patient details are viewed without scrolling through several screens.

Delivering Mobility for Better Patient Care

"The Janam XM60's entire package — size, weight, screen size, rugged build — is all good for this mobile solution, in addition to the excellent scanning."
–Richard Forbes, Sciamed Ltd.

Janam XM60 Delivered:

- » **2D barcode scanning:** Superior scanning, even on small, curved patient wristbands
- » **Bluetooth printing:** Spot-on, continuous printing with a reliable connection right at the patient's bedside
- » **Form factor:** Perfect size, right between a cell phone and an industrial device
- » **Screen size:** Bigger screen means less scrolling through several screens

About Sciamed Ltd.
Since its foundation in 1994, Sciamed has amassed considerable experience in supplying barcode tracking and Auto ID solutions to the NHS. Sciamed is based in Alford, Aberdeenshire, and is the leading provider of label printers, label printing software, labels, patient wristbands, ribbons, barcode scanners and portable data collection systems. The company also provides service, support and maintenance for a wide variety of thermal transfer printers and scanners.

Janam Technologies is a provider of rugged, handheld computing devices for mobile workers. Janam combines deep industry knowledge with advanced technologies to deliver products and accessories that increase productivity, reduce costs and improve customer satisfaction. Specializing in purpose-built mobile computers that scan barcodes and communicate wirelessly, Janam's products are ideally suited for mobile applications in retail, healthcare, hospitality, manufacturing and logistics.