

Medical Devices - Management of Continued Care Using Tablet Devices

InterComms talks to Rob Lovelace of Tetratab

TETRATAB is starting to provide devices to the medical profession and has looked into certain key functionalities required to ensure patient care through the healthcare system.

Technology, and in particular information technology, is key to treat patients from the moment they receive first care of the medical condition to the point where they are fit for release. The main driver for medical devices is primarily to reduce paper administration but if tablet project can also improve consultant efficiency and avoid fatal errors.

Basic requirements – tough clean and value for money

Any device in the medical arena has to be at least semi rugged and cleanable. The device is going to get dropped or slide of a bed and it will certainly come in contact with bodily fluids. This baseline requirement excludes many of the consumer devices used today unless they have special bumpers which often makes them hard to clean.

The TETRATAB Casebook range is a low cost device that is already rugged and is not only cleanable but has a treatment that is antimicrobial to avoid disease transmission such as MRSA and C difficle. However this is just the start.

Patient records need to be secure

The device has to be secure and is often needed as a dedicated use device. Patient records will need to be accessed and they need to be done confidentially. Therefore

the devices need to have similar security policies to those in the military or police. In addition NFC identity cards are in common use and the need to read them in conjunction with the applications is key. This allows both secure data capture and where possible an error free process of issuing medication. Issuing the correct medication is essential and every year the health system strive to reduce the deaths that happen because of this.

Some NFC cards require to be constantly before the reader. They run high encryption algorithms on the NFC cards themselves the Casebook 3 also has a card holder so the card can be held in a fixed position to allow the user to use the device with the card held in one hand.

Taking a picture – close up

It is important to photograph wounds and other conditions. Not only does it add to the patient's record but it also allows a specialist clinician to look at the picture and decide if he needs to intervene or whether the wound is making good progress. This picture needs to be clear and the Casebook 3 comes with attachable lenses to take up close images if needed. Once taken - this image needs to be secure as it could be embarrassing for the patient or indeed invade their privacy if leaked - the effect of a major football player or star having a picture of a broken leg leaked into social media could have a big financial impact.



Data and signature capture

Having live data capture allows very accurate record taking – the Casebook 3 is a 2 in 1 device to allow not just touchscreen but also detailed reports to be typed. It has a stylus to capture signatures from the patient or medical staff.

Charged and connected

Hospital WiFi can be notoriously poor so we recommend that Wifi LTE devices are used allowing the device to follow the patient or the specialist no matter what the coverage. This also allows the device to be managed if stolen from a hospital or to accompany a patient home if necessary.

Charging solutions are also needed as space is at a premium in hospital let alone power supplies.



Operating systems

It is the application that is on the device that is key to the success of implementation. The user needs the choice of Android or Windows devices as often it can take a long time for an existing application to be re approved on a new OS.

So how are the devices to be used and what are the gains?

Live data capture and exploitable patient records will greatly improve patient care, helping hospitals to manage shortages and stocks better and more efficiently.

Drug tracking during administration is a key driver. Reducing errors and deaths in this area saves a lot of money and increases patient confidence.

Information accuracy will be increased and as the administration can be done at the bedside this in turn will improve patient / nurse presence.

The patient has a better experience, more inspired by the technology and the information for medical staff is richer.

By having dedicated devices patient information is more secure. The system is more real time and trends in patient condition and deterioration can be identified quicker and easier. This information will allow a clinician to see both data and photos and decide when appropriate to intervene.

All this leads to lower costs, less mistakes and above all better patient care.

For more information contact TETRATAB on:
<http://tetratab.com>