



Case Study

The Medway PAS/EPR at Camp Bastion, Afghanistan

Introduction This case study follows the extraordinary story of the deployment of a hospital system in a live war zone in Afghanistan.

The story began when the Ministry of Defence appointed Logica to deliver an integrated Whole Hospital Information System (WHIS) under the most exacting of conditions at the Camp Bastion field hospital, in Helmand Province. Logica ran a competitive procurement for the MoD, as a result of which System C was appointed to provide its award-winning Medway PAS/EPR software to run the military hospital. Contracts were signed in September 2010 for a phased delivery with an Initial Operating Capability (IOC) to be delivered in January 2011.

Together, Logica and System C worked jointly with key MoD personnel to ensure the Medway application was suitable for use in a very high intensity military hospital. This was followed by training in the UK and in Afghanistan supported by System C and Logica staff, and deployment. With strong support from MOD, all this was achieved within 4 months. The system was declared operational in January 2011 and today Medway and WHIS support the staff at Bastion in providing the highest quality of care in one of the most remote and hostile environments in the world.

Camp Bastion Field Hospital Since 2003 the field hospital in Camp Bastion has provided care for sick and wounded UK military personal as well as members of the Afghan National Army and Police force, international troops and injured civilians. While most of the staff come from the UK, they are supported by significant numbers of US personnel as well as staff from nations such as Denmark, Estonia and Georgia.



Members of 203 Field Hospital at work in the hospital at Camp Bastion

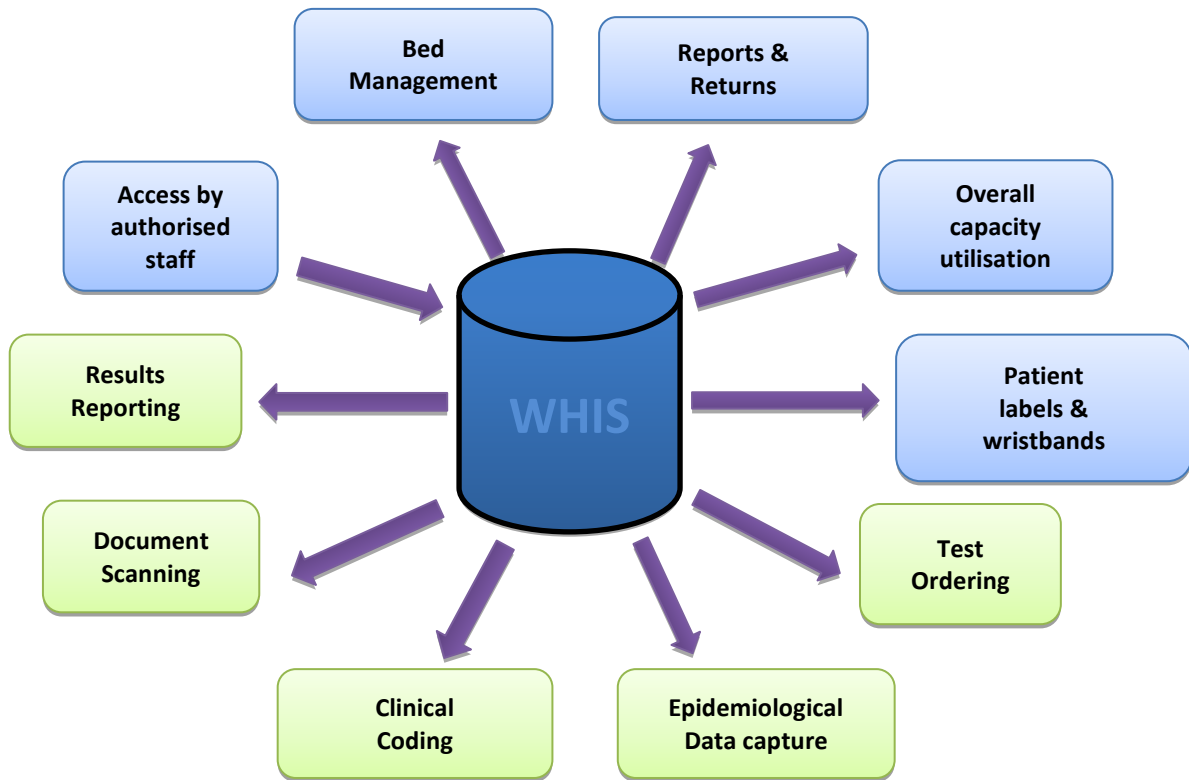
Most patients arriving at the field hospital are admitted with injuries arising from the war; however the hospital also handles more routine procedures, such as appendicitis, diarrhoea dehydration, hyperthermia and hypothermia.

The hospital has over 50 beds and an intensive care unit. Military admissions are short-term, with patients normally evacuated back to national facilities within 72 hours. However, Afghan nationals may stay longer.

As a field hospital, the hospital staff are rotated every three or six months. All new staff, many of them Reservists, receive pre-deployment training including training on WHIS, in a replica of the Camp Bastion hospital situated at the Army Medical Services Training Centre at Strensall near York before they leave for Afghanistan. Some staff, especially US personnel, arrive in Bastion without receiving this pre-deployment training on WHIS and this is provided in Afghanistan by System C and Logica staff.

Scope of the system

The Whole Hospital Information System is being used across all stages of the patient pathway in Camp Bastion, from arrival through to discharge. It replaces a paper-based system which was inefficient and very time consuming. WHIS is delivering real clinical benefit and the deployed clinical teams have been very positive about the system. It has also improved the quality of data capture and real-time oversight of the hospital both for local commanders and those based back in the UK.



Scope of WHIS



Members of the deployment team out in Camp Bastion

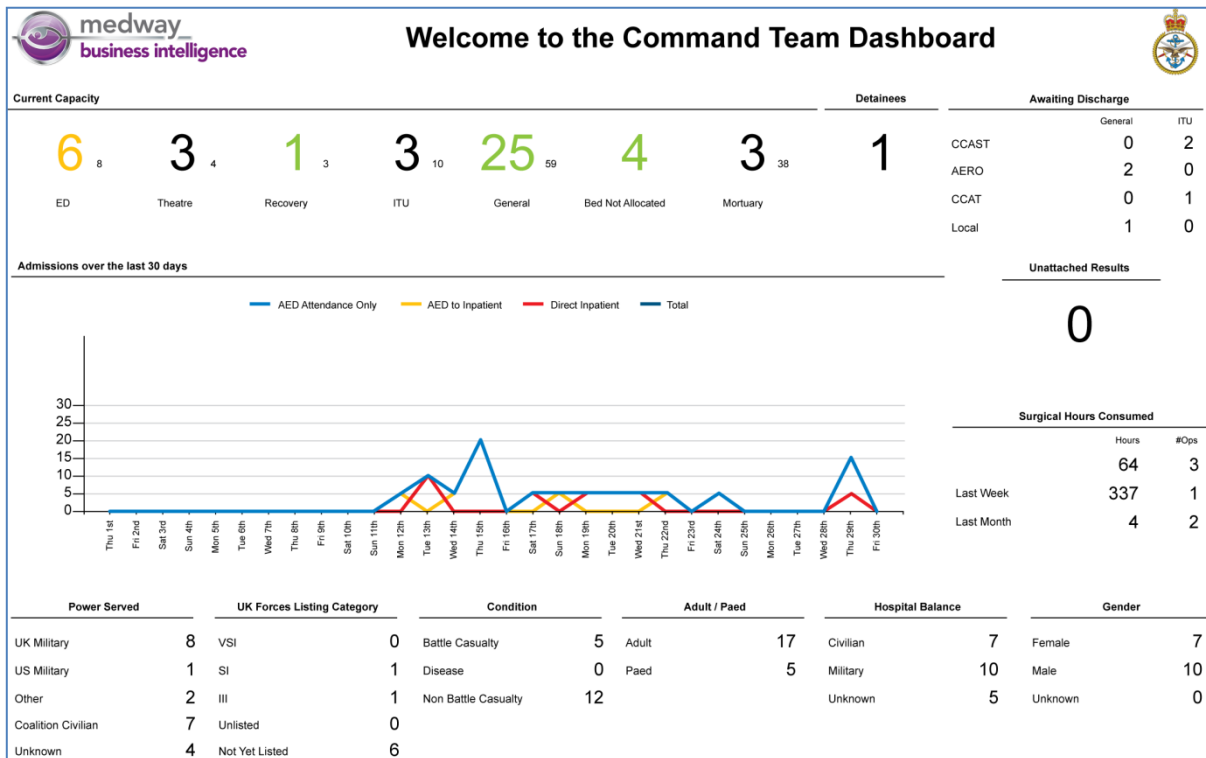
Configuring Medway PAS/EPR to meet MoD requirements

A key factor in awarding the contract to Logica and System C was the flexibility of System C's Medway PAS/EPR. Medway has configurable screens, forms, prompts, workflows and reports and this meant that the system could be configured to meet the MoD's specific requirements for a field hospital, without code changes and, most importantly, within the 4 months available for the deployment. The following are examples of some of the local deployment options made for Camp Bastion:

- The emergency department is a particularly high user of the system because of the high number of trauma cases at Camp Bastion. Speed is obviously of the essence here since the department often has to cope with the influx of a number of severely traumatised patients. Medway has been set up to allow the hospital to use pre-loaded trauma forms as a matter of course. This means that incoming patients can be registered and given their unique hospital number immediately – and even prior to their arrival - allowing the process of requesting treatments to begin without delay and without compromising accurate record keeping.
- The number of patients within the hospital fluctuates considerably. Medway's bed management facilities and business intelligence software allows the hospital command team access to real-time information about the use and availability of resources throughout the hospital departments so they can run the hospital with maximum efficiency.
- The field hospital needs to meet the constantly varying support requirements of the military forces in Helmand province. Some buildings are made of canvas, others are aluminium-frame buildings, but all are temporary structures which are altered to adapt to changing

circumstances and requirements. Medway can be updated on the spot to open or close down wards or add bed numbers. These changes are immediately reflected in the Medway Business Intelligence reporting software and in the 'red, amber, green' system of capacity alerts.

- Medway has been configured locally to reflect MoD working practices and terminology. The 'salutation' field name, for example, has been relabelled 'rank'. and the drop-down menus altered accordingly. This flexibility was a major attraction of Medway for the MoD.



Screen shot of WHIS Dashboard (all numbers are test data only)

Special deployment challenges

As well as the usual issues such as security and safety that need to be addressed when delivering a military project, the nature and location of this project has inevitably presented very significant challenges to the Logica and System C teams.

- Ease of use has been paramount due to the fact that the hospital staff are rotated every 3 or 6 months. Training is provided before staff go out –their ability to use WHIS effectively is a key part of their assessment to work in Bastion as competent clinical professionals. System C and Logica have to take this training on the road – from Wiltshire to Yorkshire as well as into Afghanistan.
- The system has to be extraordinarily robust because it has to stand alone. There is no remote support to the live system. The System C/Logica deployment team successfully

implemented WHIS in a two-week finite deployment. On-going support is provided via telephone calls to a help desk in England.

- The host site is in one of the most remote parts of the world, and communications between the host site and the UK are often difficult. All Logica and System C staff who deploy to Afghanistan have to be flown out on military aircraft and they must complete an MoD approved training course in supporting military operations before receiving approval to deploy.

Timescales:

Sept 2010 – contract signed.

Nov 2010 – product design, remedial work agreed, user acceptance

15 January 2011 – deployment started. Completed in 2 weeks, rather than the 8 weeks originally planned.

29 January 2011 – successful go-live

2 February 2011 – parallel paper-based system largely shut down

10 February – floor-walking support completed in 1.5 weeks. Deployment team arrive back in the UK.

Next steps – Final Operational Capability (FOC)

Under the next phase of this project, Logica will integrate Medway with other medical applications already installed at the Camp Bastion treatment facility as well as enhancing data capture and clinical coding to provide further clinical enhancement for the management and treatment of patients. This is scheduled for completion in Jan 2012 and will ensure that the MoD continues to provide first class treatment to UK military personnel, as well as its NATO and Coalition allies based in Afghanistan.

Logica: Logica acted as the prime systems integrator and contractor on the project.

Logica already works closely in partnership with the MoD in delivering its Primary Healthcare system, DMICP, which is deployed globally.

Logica used its wide knowledge and understanding of working with the MoD and, in particular, the Defence Medical Services (DMS) to ensure this Urgent Operational Requirement (UOR) was delivered within the very short timescales required by MOD.

System C: Developer of the Medway EPR, a family of products, built specifically for the UK health sector, which cover all aspects of patient management and care. Medway is today used in over 50 NHS Trusts. Full EPRs are deployed at a number of large acute Trusts, including Aintree University Hospitals NHS Foundation Trust and leading cancer specialist The Christie NHS Foundation Trust.

System C was also tasked with supporting Logica in Afghanistan for the deployment of the system and with providing a team of specialists to assist Logica with 'end user' training every 3 months to the new field hospital staff.