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HQSG/29/10/01

22 Jun 10

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MA/ACDS(H)
HD Med Ops & Plans

Iraq Enquiry – Request for Evidence

References:

A. PJHQ OPERATION TELIC 1 – Medical Post Operational Tour report

1. In preparation for the next stage of the Iraq enquiry HQ SG Med Ops & Plans were requested to submit any relevant documentation for the enquiry panel so that they may formulate their lines of questioning. After a search of the available data sources within the MOD, Permanent Joint Headquarters and Army Medical Directorate the following information has been found which may assist the panel.

Assumptions made at the start of the campaign.

2. A reviewed the medical support to Op TELIC 1 was conducted at the Reference and assessed that once planning was focussed on entry from Kuwait the UK medical mission was considered less demanding in term so supporting manoeuvre. It was considered that the following Role 1-3 support would be required:

a. 1 x 100 bed Primary Casualty Receiving Facility.

b. 2 x 200 bedded field hospitals.

c. 1 x Casualty staging Flight.

d. The Princess Mary Military Hospital Cyprus to be augmented to 90 beds

e. 1 x 200 bedded field hospital as a strategic medical reserve.

3. Where possible opportunities were taken to reduce the commitment by combined medical facilities with the US.

4. The strategic medical estimate conducted by Brig AH McG Macmillan was submitted to the SPG on 1 Sep 02. In it he details the estimated number of admissions to Role 3 that be generated by the operation, the number of Disease and Non Battle Injury (DNBI) admissions and the number of personnel who would require aeromedical evacuation as detailed below:

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a. Admissions to Role 3

	Best Case	Worst Case	Actual
Battle casualties	157 / 31 KIA	241 / 48 KIA	81 / 26 KIA
CW	152	212	nil
BW	15% of those exposed		nil

b. DNBI

	Predicted	Actual
Daily Rate	34	31

c. Aeromedical Evacuation

	Predicted	Actual
Weekly Rate	55	90

3. A long standing assumption in Defence planning has been that injured Service personnel returning to the UK would be referred to appropriate care in the NHS for continuing treatment. A joint MOD/DH plan was in place for the management of evacuated casualties; Reception Arrangement for Military Patients (RAMP), which ensures that the decision of where returning patients should be treated is made in conjunction with the DH. The number of personnel evacuated under these arrangements between 15 Feb- 18 Apr 03 is detailed in the table below:

a. Number of Patient Evacuated under RAMP

Service	Number
RN	51
RM	67
Army	666
RAF	107
Civilians	6
RFA	2
MOD	3
Total	**902**

4. Chemical and Biological Threat. It was assessed that the chemical and biological threat was not fully understood. The effectiveness of a chemical attack was assessed to be limited providing that Individual Protective Equipment was available. The biological weapons threat to the deployed force was deemed to be a the greater threat. As such planning addressed treatment regimes, restriction of movement policy, specimen collection and analysis and indications for evacuation.

Sustainment issues whilst deployed in theatre

5. In the early stages of the planning process shortfalls in medical material and equipment were identified that would need to be acquired prior to operations. The cost of these items was in excess of £35M, the equipment began to be delivered by mid Feb 03. Delays in delivery of some specialist items meant that some modules were delivered incomplete. This operational risk was managed by close monitoring of the module build programme by Medical Supplies Agency (MSA), Defence Medical Services Department (DMSD) and PJHQ.

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6. Medical re-supply in theatre was through 84 Medical Supply Squadron which was assessed to have arrived in theatre 2 weeks later than would have been ideal. The result was that the unit was immediately under pressure to process the incoming material and satisfy the outstanding unit demands. Additionally, the unit was greatly augmented by personnel who had no previous medical logistics experience.

7. It was recognised that tactical medical logistics did not go well due to several factors:

a. The recent responsibility for this service passing between Army Medical Services (AMS and Royal Logistics Corps (RLC).

b. Lack of tactical doctrine or opportunities to exercise this aspect of logistic support.

Identification of lessons learned – have any lessons been implemented

8. The following 5 major lessons identified and subsequent developments in the delivery of deployed medical support have now been incorporated in medical procedure on current operations.

a. Novel Haemostatics. It was determined from OP TELIC that the control of catastrophic bleeding in the first 10 minutes after led to a significant improvement in casualty morbidity and mortality rates. HEMCON® and subsequently QuikClot®, Combat Applied Tourniquet and improved First Field dressing were introduced to arrest the flow of blood and the equipment was incorporated into the Team Medic module and training provided in its use. The haemostatic agents have now been replaced by CELOX, a dressing impregnated with a haemostatic agent, which is easier to apply.

b. Medical Emergency Response Team (MERT). The operating environment is Iraq led to the establishment of Immediate Response Teams able to provide incident response throughout the area of operations. An essential element of the team was the medical component. This concept has now developed into the MERT concept of consultant led pre-Hospital Emergency Care personnel and equipment that can respond to serious casualties effectively bringing aspects of hospital care to the casualty to allow early advanced resuscitation to take place. Early indications are that MERT has contributed to the increasing number of unexpected survivors in Afghanistan. MERT is now established within UK doctrine.

c. UOR Platforms. Threats encountered in Iraq initially overmatched the vehicles in use. AMD were able to engage with the IPT during the development of Mastiff programme to develop a more suitable ground evacuation platform which included thermostatically controlled environment for the casualty and medic and was capable of providing improved protection. Its introduction has increased the confidence which the soldiers view the casualty evacuation chain and had a significant effect on the delivery of medical care in the battle space.

d. Digital Imagery (DI). Due to the number and severity of casualties during Op TELIC highlighted the need for a fast and accurate diagnosis to be made to expedite life and limb saving interventions. The introduction of digital

imaging and the ability to send the images to the UK for reporting allowed the timely and appropriate management of casualties at the Role 2 Enhanced medical Treatment facility. It has supported improved clinical outcomes of those suffering complex injuries. DI is available in Camp Bastion and will be enhanced by the introduction of a second CT scanner in Aug 10.

e. Medical Information Management. The benefits of capturing medical data from all elements of the operational medical chain to inform casualty care and treatment regimes were reinforced during Op TELIC 1.

(1) Operational Emergency Department Register (OpEDAR), a clinical tool which focuses on the needs of the emergency department in theatre. This evolved during the operation to inform manning, equipment and training requirements and is now a comprehensive electronic register which provides information on the effectiveness of drugs and predictions of stock consumption but also helps to identify standardised treatment for individual conditions and data on casualty demographics.

(2) The Joint Trauma Casualty and Compassionate Cell (JTCCC) weekly Case Conference at the Royal College of Defence Medicine (RCDM) was also introduced so that information could be exchanged between operational theatres and RCDM, providing consultants and Subject Matter Experts (SME) an interface to discuss casualty medical management and review working practices[1]. This information can then be used to reinforce the clinical treatment regimes and protocols in theatre with immediate effect and is a vital component to Healthcare quality Assurance and the continuing improvement in the delivery of care.

(3) Information is also sent to the Defence Analysis and Statistics Agency (DASA), DEC GM and DSTL where it is collated and analysed to inform future procurement and deployments. Electronic capture and exploitation of data is identified as the most effective way of improving patient care.

4) The Role 3 (UK) BSN is currently undergoing a number of enhancements to the electronic management of patient data, ongoing projects are:

(a) Whole Hospital Information System (WHIS)

(b) Laboratory Information Management System (LIMS)

(c) Patient Archiving and Communication System (PACS)

(d) Radiology Information System (RIS)

Annex:

[1] Unexpected Survivors and unavoidable Deaths. MACE report for op TELIC Iraq 2003. Published 2005 by ADMEM.

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A. Summary of Medical Improvements during Operation TELIC.

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Annex A to
HQSG/29/10/01
Dated 22 Jun 10

Summary of Medical Improvements during Operation TELIC

Haemostatic techniques

2004	Recombinant Factor VII
2005	Improved First Field Dressing Combat Application Tourniquet Quikclot® granules
2006	Team Medic capability Hemcon®
2007	Massive Transfusion Protocol

Medical Capability Developments

2005	Introduction of CT scanner
2006	Introduction of MERT and MERT-E Intra-osseous infusion introduced
2007	Intro of Javid Vascular Shunts

Policy Developments (SGPLs, SGOPLs, and JDPs)

03/06	Prevention and Management of Traumatic Stress Related disorders in Armed Forces Personnel Deployed on Operations
14/06	DMS Resuscitation Standards and Training Policy
19/06	Introduction of Haemostatic Techniques on Operations
24/06	The Prevention, Management and Reporting of Cold Injuries
28/06	Reservists Mental Health Programme
08/07	Prevention of Onset or Deterioration of Hypothermia in Trauma Cases
10/07	Management of Massive haemorrhage on Operations
02/08	Civilian Operational Deployment Assessment – Post-Operational Psychological Support
04/08	Treatment of Non-Entitled Children on Operations
05/08	Procedures for Archiving DNA Reference Samples
10/08	Medical Support to Persons Detained by UK Forces Whilst on Operations
JDP 4-03.1	Clinical Guidelines for Operations.

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