

SUMMARY OF WORKSHOP GROUP DISCUSSIONS: PRE-HOSPITAL TRAUMA CARE

The relationship between emergency medicine and the ambulance service is of paramount importance. The reality of the provision of primary medical care in the community needs more analysis. It was clear that methods of care delivery in the community when it was impossible for the ambulance service to respond were a problem. We discussed possible solutions including education in the community as a task for medical students.

The ambulance service itself is not a single entity and there was considerable discussion about how the service should be “unified” or might adhere to a common practice: how could its standards be made more consistent? A list of skills and abilities, which EMTs and different levels might obtain and which paramedics might require, was drafted. Clearly once these skills had been tested and reviewed they could be applied across the board, engendering single common practice. (a possible role for the London Ambulance Service).

Particular problems were noted in that some ambulance services were reluctant to take part in any common agenda. Particular problems with the difficulty of using ambulances of such different specifications and differing equipment from so many different sources were discussed. All agreed that there should be a common ambulance specification with a common stretcher type and common equipment specification. This might not be absolutely uniform but having so many different types of equipment was considered unsustainable in terms of maintenance and replacement. (This was also seen to be a problem in the emergency department with so many types of ventilator and resuscitation equipment).

Communications

The problem of radio communications was apparent. At present there are areas in the south that cannot receive radio communications. Two new booster stations are urgently required.

The problem of all radio communications (and indeed all communications) during an incursion was apparent. If radios are jammed then it is impossible to know who needs what and what is coming back to designated hospitals. It was also clear that there was some anxiety because ambulances tended to be targets during the early stages of any conflict (having a common GPS ability which was accessible by both Israeli and Palestinian authorities might be a way forward in that knowledge of position should also be immunity from attack).

A duplex radio system is an objective but this needs to be pursued with Israeli involvement and might best be discussed in an international forum.

The command and control structure of the ambulance service needs to be addressed so that there is a universal structure. It was thought that there might

need to be two control rooms in Gaza. These would be best located in, or close to, the trauma centres.

SUMMARY OF WORKSHOP GROUP DISCUSSIONS: HOSPITAL TRAUMA MANAGEMENT

Which hospitals truly have the capacity to manage major trauma here in Gaza?

This produced a lively discussion amongst the group and took up most of the allocated time. There was general agreement that the concept of major trauma centres (MTCs) should be implemented. It was agreed that 2 centres should be established.

It was agreed that the Shifa Hospital had the required facilities and specialties to fulfil this role.

The main area of discussion was over the site of the second MTC. The choice was between the Nasser Hospital and the European Gaza Hospital in Khan Younis. It was evident that the disagreement between the participants was probably centred on whether they worked at the respective hospitals.

The Nasser Hospital is sited within Khan Younis and is apparently the busier hospital because of its urban location. It does not however have the specialties of neurosurgery or vascular surgery.

The European Gaza Hospital has all the relevant specialties including neurosurgery and vascular surgery. Its position outside of the main urban area may mean that fewer patients are likely to go there. It was also mentioned that at time of incursion the hospital may not be easily accessible by ambulances or patients.

It was generally agreed that the most appropriate way forward was for the Shifa Hospital to be established as the first MTC and to wait before establishing a second. This would allow the systems required to be put in place and audited prior to establishing a second MTC.

What are the strengths and weaknesses of current trauma care within these hospitals?

Shifa: Large hospital within the urban environment. All specialties on site.

Nasser: Busy hospital. But no neurosurgery or vascular surgery

European Gaza: All specialties on site. ? Location a problem.

At the end of the discussion there was an agreement (although probably not unanimous) that the second MTC should be at Nasser and that the neurosurgeons and vascular surgeons would have to cover from European Gaza. It was discussed how feasible this was, but to a certain extent the problems with this were ignored.

What could be done to improve trauma care?

i) Within the A&E Department?

It was agreed that Trauma Teams for the assessment and management of the injured on arrival in A&E should be established. The leader, and preferably all members of the team, should be PTC trained. The team should comprise of a general surgeon, orthopaedic surgeon, anaesthetist or intensivist and two senior nurses.

ii) Post A&E?

It was agreed that there were probably enough general surgeons and orthopaedic surgeons to run a rota which did not interfere with other commitments, but there were problems with the number of anaesthetists. It was agreed that ED medicine with dedicated ED consultants would help this situation.

The implementation of universal trauma management protocols across all hospitals was considered a way to improve the overall care of trauma patients. It was also recognised that documentation was inadequate and that the setting up of a trauma registry (database) was essential.

RECOMMENDATIONS:

Cost-neutral interventions:

1. Establishment of Shifa Hospital as the first MTC initially with a second coming on line once the re-organisation etc assessed and data collection commenced.
2. Establishment of trauma teams – defined as *“the team that must attend when major injuries arrive”*
3. Trauma team to consist of a trauma surgeon (usually general surgeon) anaesthetist/intensivist (airway control), ED consultant if and when available, orthopaedic surgeon, two senior nurses. PTC trained.
4. Shift system would be required with a team leader. Senior director of team would be involved 24/7 and therefore required to be close to ED.
5. Hospital guidelines for trauma management.
6. Collection of data prospectively; trauma audit and benchmarking
7. Establishment of audit meetings

Interventions requiring additional funding:

8. Capacity building for hospital staff (trauma management training/establish ED as specialty/?extra staff)
9. Improvement in documentation/medical records
10. Tools for assessment (database)

11. Auditing

SUMMARY OF WORKSHOP GROUP DISCUSSIONS: REHABILITATION

Sadly in Gaza rehabilitation is a term used interchangeably with physiotherapy.

In MoH hospitals only physiotherapists are involved in rehabilitation and there are not enough of them. The available physiotherapists do not spend long enough with individual patients, they are not adequately supervised and lack sub-specialty skills (eg. cardiac or neurosurgical skills). There are no occupational therapists, psychologists or social workers and thus no multidisciplinary approach to the rehabilitation of patients. Furthermore there is little communication between the doctors and physiotherapists, or between the physiotherapists and patients/carers (and thus no real patient education). As a result of these deficiencies there is no effective acute phase rehabilitation for patients.

Formal referrals are made by MoH doctors to El Wafa hospital (NGO run and the only specialist rehabilitation hospital in Gaza), but there is a lengthy waiting list and there is no real awareness or use of the NGO led community based rehabilitation (CBR) programmes available in Gaza. Thus there is little effective active phase rehabilitation, and there is no planned follow-up of patients. This leads to high levels of long-term complications and a failure to ensure that patients fulfil their rehabilitation potential (in terms of physical, psychological, social, and economic indicators).

There is a general lack of physiotherapy equipment and assistive devices to support the rehabilitation of patients, but no information on the exact requirements.

There is no standardised data collection relating to the rehabilitation of patients, and no use of functional disability scales (to assess the severity and extent of disability and measure the impact of care) outside El Wafa hospital.

RECOMMENDATIONS:

Cost-neutral interventions:

1. Improve the documentation of rehabilitation input to the care of patients, including the routine use of approved functional disability scales.
2. Improve communication between doctors, nurses and physiotherapists.
3. Improve communication between physiotherapists and patients/carers, enhancing the level of patient education.
4. Highlight the importance of acute phase rehabilitation, with physiotherapists beginning work with patients as soon as they are medically stable.
5. Improve awareness and use of the NGO led CBR programmes in Gaza.

6. Arrange follow-up appointments for those patients with significant post traumatic disability.

Interventions requiring additional funding:

7. Increase the number of physiotherapists available within MoH hospitals, together with a formal system of supervision.

8. Provide sub-specialty training to increase the skill set of existing physiotherapists.

9. Create truly multidisciplinary rehabilitation teams within MoH hospitals, beginning by adding occupational therapists (now available within Gaza, trained to both diploma and degree level) and then psychologists and social workers.

10. In the absence of the funding necessary to achieve (9), consider creating "generic rehabilitation workers" by providing physiotherapists with core occupational therapy skills and greater awareness of the psychology of rehabilitation.

11. Conduct a detailed needs assessment to identify rehabilitation equipment requirements within MoH hospitals.