

The UK medical response to the Sichuan Earthquake

Presented by Professor Tony Redmond

At 1448 pm on 12/5/08 an earthquake of magnitude 8.0 struck the Wenchuan area of Sichuan province, China



Impact

- The affected population was 46.24 million
- 15.1 million people required resettlement
- Half (52%) of all health facilities were destroyed or damaged.

Impact cont.

- There were at least 69,207 people killed with a further 18,194 reported missing three weeks later
- There were 374,216 people injured by the earthquake; almost 100,000 of whom were hospitalised

Medical assistance

- The decision to offer/receive UK medical assistance was taken at a Sino/British political level and the UK Foreign and Commonwealth Office funded the immediate response.

Medical assistance cont.

- Teams from other countries (Taiwan, Russia, Hong Kong, Japan, Italy, Macau, Germany, Cuba, UK, France, USA) began arriving in-country on May 15 and stayed until June 7.

The scale of the operation

- Treated 24410 cases at 11 sites
- Carried out 629 surgical operations
- Provided nursing to 3204 patients
- Trained 2767 staff over 73 sessions
- Set up 3 mobile hospitals where 1901 patients were treated

The scale of the operation cont.

From the fifth to the nineteenth day after the earthquake:

10,373 patients (10.5% of admissions) were transferred to 367 hospitals in 58 cities across 20 provinces and municipalities using 21 special trains and 99 chartered flights.

The scale of the operation cont.

- Over 5,000 medical staff and over 9,000 family members accompanied patients during their transfer
- This was the greatest long-distance peacetime transfer of wounded patients in China (and possibly in the world)

The scale of the operation cont.

- When the nearest major hospital to the epicentre in Mianyang received further damage in an aftershock, patients were transferred as far as Beijing – 37 hours by train.

The UK Team

- Plastic Surgeon x1
- Orthopaedic Surgeon x2
- Emergency Physicians x2
- Emergency Nurse Consultant x1
- Epidemiologist x1

保护临时家园

中国紧急医学救援队
波司登
BOSIDENG
世界名牌 民族品牌



救灾专用

救灾专用

救灾

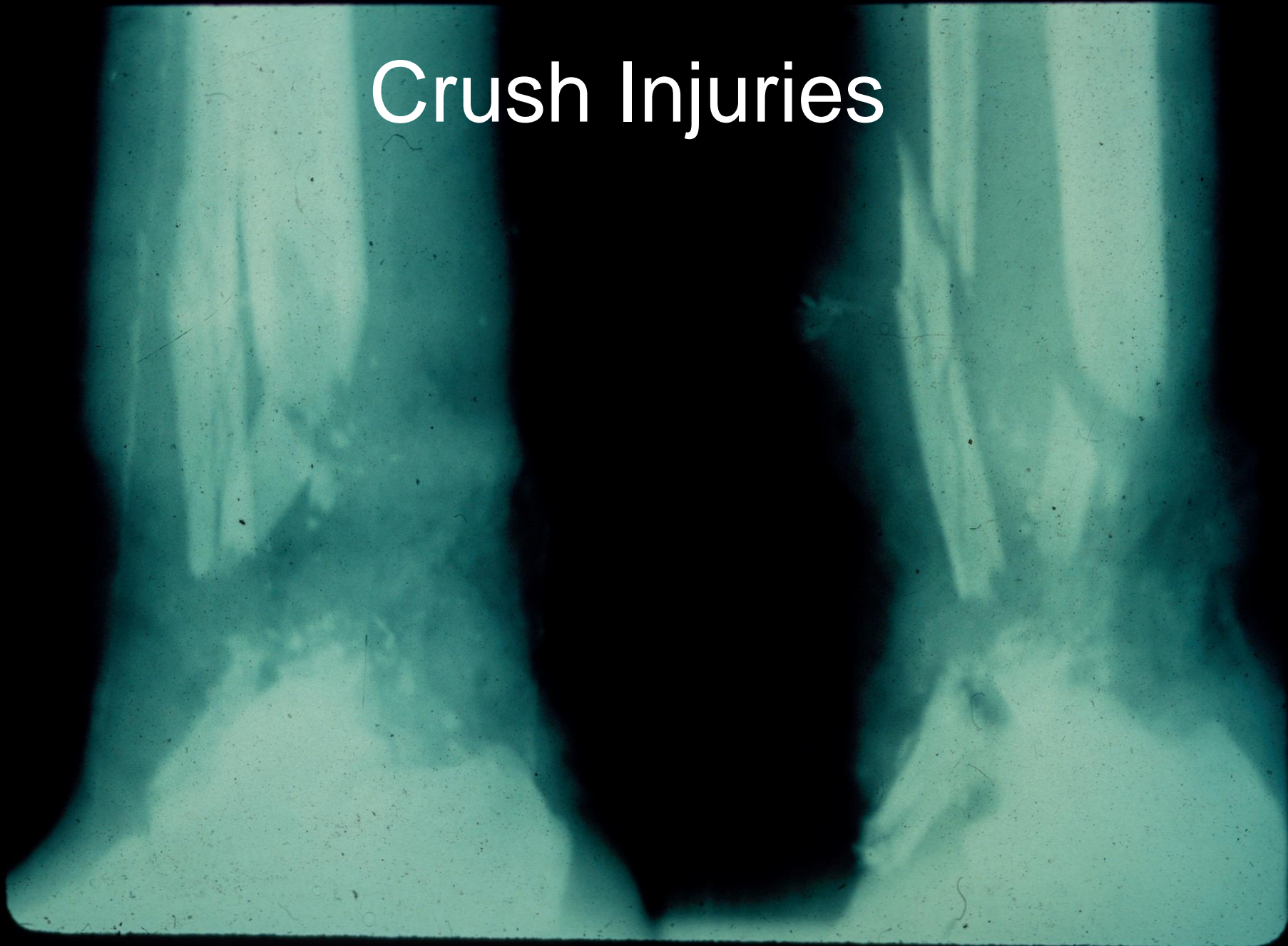
生产单位: 波司登有限公司
生产型号: M211A-2000
生产日期: 2003年3月



Types of injuries

- Peripheral limb injuries were the commonest injury encountered by the UK team and reported by the Chinese
- This is in keeping with the usual pattern of injury seen in survivors of major earthquake

Crush Injuries



Technical Assistance

- Public Health Advice
- Consultations
- Case discussions
- Ward rounds

Acute wounds



成都市

诚

至

+ 成都市第二人民医院

National Health Service

- Public-funded system – care free to all, subsidised cost for drugs

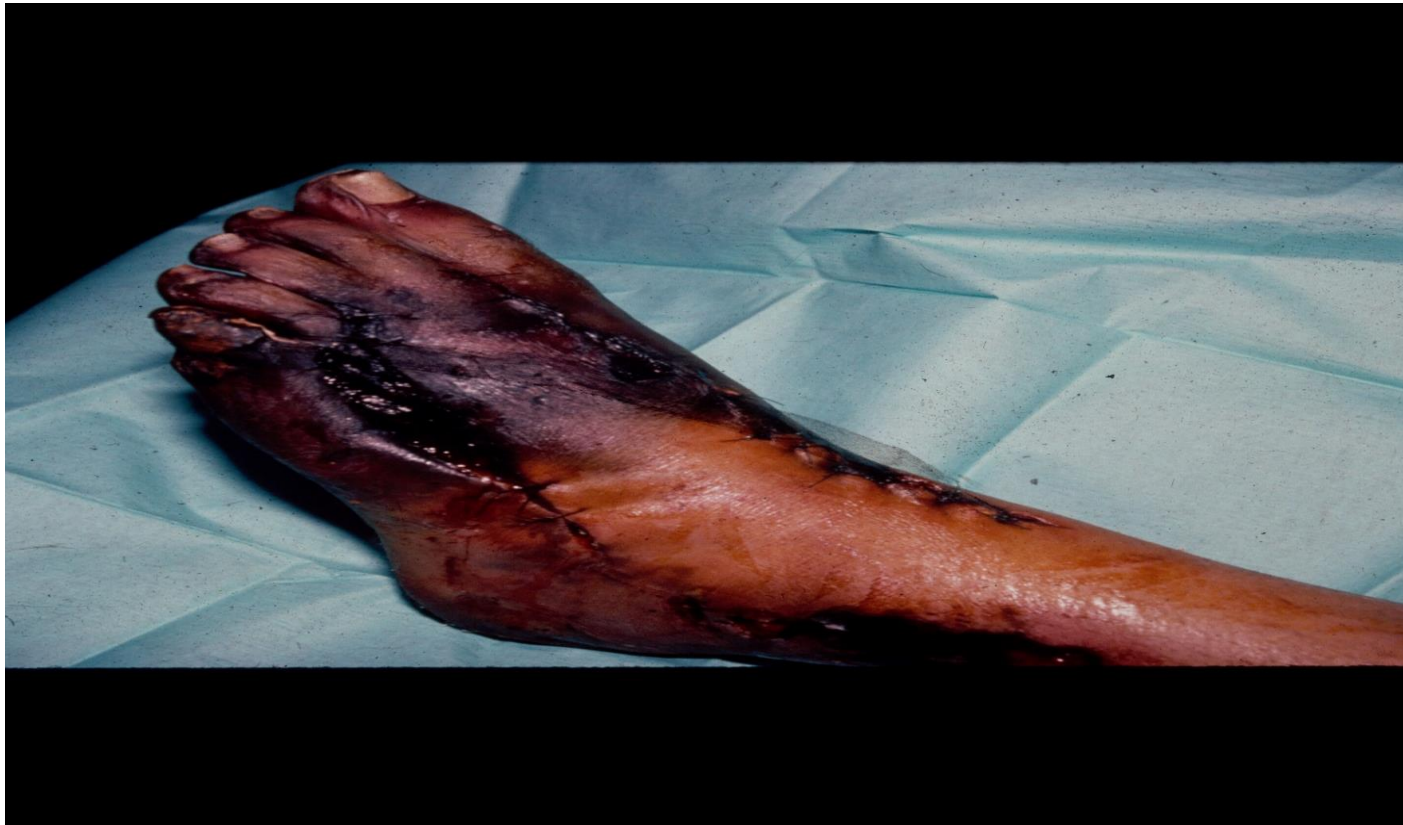
... sector – small, but growing, mainly through work

... Care – all patients registered with GP
... GPs to Acute Services

... medical/surgical services provided in local

... Care – specialist medical/surgical services in small no
... e.g. cardio-thoracic, neurosurgery, PICU, burns etc

Gas Gangrene



Deeply held beliefs

- That gas gangrene is contagious
- That plague can be released by earthquake
- That dead bodies are a public health risk
- That epidemics follow natural disasters



Amputations

- Earthquake injuries are not war injuries
- Infection takes time to develop
- Immediate amputation rarely indicated
- Guillotine amputation to be avoided

Published Early Amputation Rates after Earthquake

- China 5.5%-6.0%
- Bam 0.4%-10.8%
- Kashmir 0.6%-3.6%
- Haiti ?????

Published Incidence of Spinal Cord Injury after Wenchuan earthquake

- 189 in total
- 60,000 new cases occur each year in China irrespective of the earthquake
- Three quarters of that reported in Bam and less than a third of that reported in Pakistan



From Emergency Humanitarian Assistance to longer term Development and Cooperation

Conference Feb 2009

- In February 2009, a Sino-British Conference on Emergency Medicine, Disaster preparedness and Spinal Cord injury was held in Chengdu.
- The faculty was drawn from Chengdu, Nanjing, Beijing and UK
- UK funding also used to support the attendance of Chinese delegates from the more remote areas

欢迎晚宴

Welcome Banquet



Academic Collaboration Feb 2009

- In May, 5 senior UK medical students intercalating in Public Health were seconded to assist with data analysis and spearhead academic links between the Nanjing Medical University and Manchester Medical School.

Chinese doctors come to Manchester Sept 2009

- 3 doctors from Beijing and 3 doctors from Chengdu were funded to attend Prehospital Paediatric Life Support, Major Incident Medical Management Support (MIMMS) and Advanced Trauma Life Support (ATLS) courses in the UK during September 2009.
- This was part of the process of developing and adapting these types of courses for China.

Conference Dec 2009

- Sino British conferences on hospital major incident planning and the introduction of MIMMS courses into China were held in Chengdu and Beijing during December 2009.

Issues

- Fear of infection
- Fear of the dead
- Patient transfer
- Spinal Cord Injury
- International assistance