Dental aspects in Disaster Management

Dr Bernadette Pushpaangaeli
BDS (Fiji); MSc(DPH) UK; DDPH (RCS-Eng); FICD

Senior Lecture in Dental Public Health
Department of Oral health
Fiji School of Medicine

Dental aspects

Part 1:

• Dental skills applicable in support of mass casualty situations
• Additional functions for dentists under mass casualty conditions
Part 2:
DVI and the role of the dental profession

• Mass disaster
• Fire
• Trauma
• Crime related
• Medico legal aspects

Part 3:
Outcomes of the first regional meeting for medico legal practitioners – disaster management

Oct 3-5 2008; VIFM, Melbourne
Dental Practitioner’s Role in Emergency Health Services

Natural Disasters

• Could lose physicians and auxiliary personnel (doctors and nurses)

• Need assistance
Dentists could supply reinforcement related to their background:

Training

Manual Dexterity

Experience in management of various conditions

Dentists- experience in mx

- Haemorrage
- Shock
- Debridement
- Suturing
- Reduction and immobilisation of fractures
- Control of pain
- Control of infection
Additional functions - dentists

• First Aid

• Early management of chest wounds

• Preparation of casualties for movement

• Assistance in general surgical procedures

Dentists with special training

• Anaesthesia
• Oral surgery
• Public health

Particular value in relieving:
Anaesthetists, Surgeons, Radiologists
Public health officers
Of some of their duties
Dental skills Applicable in Support of Mass Casualty Situations

• Physician – pivot around which the whole effort revolves

• with the exception of the medical and nursing groups, the dental profession is the largest group of professionally trained health workers

In the event of the absence of medical doctors, physicians, GPs

• Who better to replace than the dentist

• No other profession has the undergraduate training that so closely parallels that of the physician
Dentist: Through Training & practical experience

- High degree of manual dexterity

- Well-developed co-ordination of hands & eyes in the treatment of patients

- Frequently under extreme conditions of pain and infection

Possible additional functions

It's True – in an emergency

- average dentist encounters problems beyond range of normal day-to-day experience

However
Training, skill & experience from practice

- Prepares the dentist for any additional training required to enable him to master, relatively quickly, new technical procedures

- Allowing acceptance of a share of the load

Where circumstances dictate

- Leadership to casualty care team
- With the possible exception of casualty sorting (triage)- normally carried out by the most experienced surgeon available:

Dentist:

must be prepared to be almost completely interchangeable with medical comrades at any point in the primary treatment services organisation
Assignment of a specific role to an individual dentist

Depends on
The state of organisation of the Emergency Health Services at the community level

therefore
• The functions a dentist would be expected to perform, cannot be clearly defined

Additional Functions of Dentists under mass casualty conditions could comprise

1. First Aid, including but not limited to:
   - artificial respiration
   - emergency management of open chest wounds
   - relief of pain
   - tx of shock
   - preparation of casualties for movement
2. Control of Haemorrhage

3. Attainment and maintenance of patient airway, intratracheal intubation including tracheostomy

4. Proper & adequate cleansing and treatment of wounds
5. Bandaging and splinting

6. Triage of facial & oral injury cases

7. Oral surgery

8. Administration of anaesthetics under medical supervision

9. Assisting in surgical procedures other than oral
10. Insertion of nasogastric tubes for lavage and gavage, as directed

11. Administration of whole blood & intravenous solutions as directed

12. Administration of parenteral medications as directed

13. Urethral catheterizations

14. Administration of immunizing agents, as directed

Dental associations:
  Policies on Civil Defence
Special skills

Policies point out:

- Those members of the profession having specialised training & experience should be assigned to posts where their services might be utilised to greatest advantage

Special skills

With very little additional knowledge & training:

• These dentists could relieve the radiologist, anesthetist, public health medical officer of some of their duties in emergencies
Joint training

• Dentists require additional training for responsibilities which fall under them in the event of a major disaster

• Physicians, dentists, dental undergraduates

Need a break?
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**Odontology**

- a sub-discipline of dental science
- is involved with the relationship between dentistry and the law.

As such, odontologists work in a variety of jurisdictions, and report to organizations such as the Coronial Services Centres, Supreme Courts, the County Courts, and the Magistrates Court.

**Forensic odontologists**

- Identification of the diseased
- Facial trauma analysis
- Analysis of bitemarks
- Disaster Victim Identification
Fiji

- PC 121 crash in the Namosi highlands
  no survivors

- Bus fire – Malaqereqere
  some survivors
  victims

Mx by local teams

- Plane crash
  Police, military, pathologist, AFL

Now:
Drills in the North and West
Fire authorities, Police, AFL
Bus fire 2008

• DNA
  through assistance of the AFP