Role of hospital pharmacy in response to emergencies or disasters

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Background & Objectives

• The role of hospital pharmacy in emergency preparedness is often neglected, especially in occidental countries with rare exposure to natural catastrophes or civil disturbance.

• This raises questions about what a hospital pharmacy service must do to prepare and support the management of crisis.

• This research work aims to review the disaster management guidelines for hospital pharmacies, both at international and national levels, to determine the role and responsibility of the hospital pharmacy service and to establish a local action plan.

Methods

This research work was conducted at three levels, each with a different investigation method:

• International level: Literature was systematically searched to summarize descriptions of roles played by hospital pharmacies in disaster situations.

• National level: A national online survey in Swiss hospital pharmacies was conducted to gather data on actual disaster plans.

• Regional level: Needs and expectations of hospital partners (members of the board, doctors, nurses, technical collaborators) were locally collected through semi-structured interviews.

Results

National study - Online survey

- 41 usable questionnaires were received out of 62 (66%)
- The average pharmacy service supplies:
  - 5 establishments
  - 700 beds
  - 150,000 outpatients cases per year
- Stockpile products and their percentage:
  - Infusion & rinsing solution 75%
  - Anti-infective 67%
  - Disinfectant 63%
  - Analgesic 54%
  - Anesthetic 50%
  - Antidotes 46%
- Percentage of institutions with a disaster plan:
  - 83% of the hospitals
  - 63% of the pharmacies

The main tasks identified were emergency drug supply (incl. autonomy calculation and antidotes distribution) and participation to crisis management at hospital level.

International study – Systematic literature review

- 219 articles discussing disasters and pharmacy were retrieved
- 29 of them provided valuable information and were classified into 6 categories
- Highlighted duties of hospital pharmacist were stock management and drug distribution

Regional study - Semi-structured interviews

Locally, expectations of 16 hospital partners were about preparedness of the pharmacy (drug and antidote stockpiles) and quick mobilization of the employees via emergency call lists to provide both logistic and clinical support.

Here are some of their statements:

- « Mass casualty incidents, with many wounded, require medical materials such as infusion tube, painkillers and anesthetic drugs. »
- « What should be known is which co-worker can assuredly be reached. In disasters, I think that the critical point is the number of people that can be recruited on short notice. »
- « Depending on the disaster, doctors will need advice. We, nurses, will probably have to give unusual medication. It would be nice to have someone who can answer our questions. »
- « In emergencies, we must be able to rely on someone who masters the medication circuit, in order to supply us and meet the needs. »

Conclusions

• A hospital pharmacy has to play a substantial role in disaster situations. Preventing measures like stock piling and stock management are key for success.

• Main tasks identified were emergency drug supply, participation to crisis management at hospital level in order to provide both logistic and clinical support.

• Priorities have to be set to guarantee optimal outcome and the survival of most patients.

• The gathered information was compiled and lead to the establishment of a disaster plan for pharmacy service in mass casualty incidents.

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