

Protocol of the project pain & disasters: assessment of critical issues and possible solutions

Daniele Mipatrini¹, Laura Elena Pacifici^{2,3}, Francesca Menegoni¹, Giuseppe La Torre¹, Rosanna Cerbo²

¹Department of Public Health and Infectious Diseases, Sapienza University of Rome

²Associazione Karol Wojtyła

³Croce Rossa Italiana

Article history

Received: March 1, 2016

Accepted: March 27, 2016

Published: March 31, 2016

Abstract

Background: Disasters cause almost 100 thousand deaths and affect 200 million people every year. Operators working in disaster zones reported problems in importing medications, in particular pain killers and narcotics, in areas of disasters. The importance of ensuring access to painkillers, including major analgesics, is pinpointed by the World Health Organization which through its "Access to Controlled Medications Programme" provides normative guidance, policy analysis and training of healthcare workers on this issue. Nevertheless the little evidence available on the assessment and treatment of pain in disasters suggests that the management of pain in disaster zones may be affected by several factors mainly due to the availability of drugs, the skills of health personnel and cultural issues.

Aim: The main aims of this project are: evaluating whether pain is correctly assessed and treated in disaster zones, assessing which are the main limitations to its treatment and producing suggestions and recommendations to improve its treatment.

Materials & Methods: In order to achieve our aims we will adopt a combined approach made by:

- A systematic review of the evidence will be conducted in the scientific databases Medline and Scopus.
- A review of grey literature concerning the issue on the Web pages of international organizations and NGOs working in the field of humanitarian aid.
- A survey among healthcare workers who took part to the international humanitarian actions.
- A survey among expert of the humanitarian field not necessary involved in projects on the field e.g. lawyer expert in international law, international organizations representatives working in the headquarters etc.
- A technical table with European experts in the field of pain treatment and/or disaster response.

Keywords: Disaster; pain; humanitarian response; emergency

Introduction

Disaster definition and impact

According to the definition of the International Federation of Red Cross (IFRC) "a disaster is a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own

resources. Though often caused by nature, disasters can have human origins [1].

Data presented on the World disaster report 2014 show the burden of disasters on global health. Between 2004 and 2013 disasters caused 99,820 annual average of deaths and affected on average 199.2 million people [2]. According to the United Nations the economic losses from disasters since 2000 are in the range of 2.5 trillion dollars [3]. In the last fifteen years the theme of disaster prevention and management became crucial in UN

activity: in 1999 was set The United Nations Office for Disaster Risk Reduction (UNISDR) and in 2000 United Nations and Member states adopted a strategic framework: the International Strategy for Disaster Reduction (ISDR) [4].

Recently Ban Ki Moon in person opened the mondial conference on Disaster Risk Reduction on March 2015 in Sendai, Japan. In his speech he stated that “disaster risk reduction is everybody’s interest – and it is everybody’s business” and that “the global annual price tag in damage now exceeds 300 billion dollars” [5].

Despite this big international interest and effort in the field many issues have to be addressed yet in order to assure a quick, effective and humane help to people hit by disasters.

Medication in disasters

According to a questionnaire developed by the International Federation of Red Cross in 2007 [6], almost half (42%) of the care givers who worked in disaster zones reported problems in importing medications in areas of disasters (e.g. Mozambique, Ukraine and Turkey). Operators interviewed referred that pain killers and narcotics were the most difficult to import. Since 2001 IFRC works on international legislation for disaster response through the IDRL Programme. On 30 November 2007, the state parties to the Geneva Conventions and the International Red Cross Red Crescent Movement unanimously adopted the “Guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance” (also known as the “IDRL Guidelines”) at the 30th International Conference of the Movement. In 2008, the UN General Assembly adopted three resolutions (Res. 63/139, 63/141, and 63/137) encouraging states to make use of them. On the issue of medications importation, management on the disaster area and disposal the IDRL guidelines suggest that over-regulation lead to bureaucratic bottleneck slowing the entry of relief while under-regulation lead to poor quality and uncoordinated efforts [6].

In 2011 United Nations proposes a MODEL AGREEMENT between UN the and State/Government of concerning measures to expedite the import, export and transit of relief consignments and possessions of relief personnel in the event of disasters and emergencies [7].

Pain in disasters

The International Association for the Study of Pain (IASP - 1986) defines pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or describe in term of such damage” [8]. Moreover the IASP pinpoints that “uncontrolled pain not only results in unnecessary suffering, but compromises the care of underlying diseases” [9].

The importance of ensuring access to painkillers, including major analgesics, is pinpointed by the World Health Organization which through its “Access to Controlled Medications Programme” provides normative guidance, policy analysis and training of healthcare workers on this issue [10].

In 2015 The IASP, “finding that pain management is inadequate in most of the world, asked to government and health care institutions to establish laws, policies, and systems that will help to promote, and will certainly not inhibit, the access of people in pain to fully adequate pain management. Moreover they ask to healthcare professionals to offer to a patient in pain the management that would be offered by a reasonably careful and competent health care professional in that field of practice” [11]. The importance of pain treatment in disaster zone is highlighted by the presence of analgesic medications in the Guidelines for medicine donations to hit countries developed in 1999 by WHO [12] that refers to the list of essential medications [13].

Nevertheless the little evidence available on the assessment and treatment of pain in disasters suggests that the management of pain in disaster zones may be affected by several factors mainly due to the availability of drugs, the skills of health personnel and cultural issues [14-21].

Aim

The main aims of this project are: evaluating whether pain is correctly assessed and treated in disaster zones, assessing which are the main limitations to its treatment and producing suggestions and reccomandations to improve its treatment.

Methods

The project is conducted by experts of the Association Karol Wojtyła and by reasearchers of the Department of Public Health and Infectious Diseases of Sapienza University of Rome.

In order to achieve our aims we will adopt a combined approach made by:

- A systematic review of the evidence will be conducted in the scientific databases Medline and Scopus by two researchers.
The following key words were searched:
Medline:((disaster[Title/Abstract])AND(pain*[Title/Abstract] OR analgesic*[Title/Abstract])) Scopus: TITLE-ABS-KEY(disaster*) AND (TITLE-ABS-KEY(pain treatment) OR TITLE-ABS-KEY(painkiller*) OR TITLE-ABS-KEY(analgesic*)) AND PUBYEAR > 1995.*
- A review of documents regarding the issue on the Web pages of international organizations and

NGOs working in the field of humanitarian aid. Our research focus will be on the legal framework for import and manage drugs on disaster zones, guidelines for healthcare workers and organizations, guidelines for drug donations. Moreover we will search for protocols for pain treatment in disaster areas.

- A survey among healthcare workers who took part to the international humanitarian actions. Participants will be recruited among members of NGOs, Governative Organizations, humanitarian organizations. The questionnaire is attached and includes some question related to pain treatment in disaster zones with a special focus on medication availability (*Attachment 1*).
- A survey among expert of the humanitarian field not necessary involved in project on the field e.g. lawyer expert in international law, international organizations representatives working in the headquarters etc. The participants will be recruited among the participants to the 21st International Humanitarian Conference 2016 in Geneve. (*Attachment 2*)
- A technical table with European experts in the field of pain treatment and/or disaster response. Experts will discuss the findings of the reviews and of the surveys in order to elaborating a document which summarizes the main findings and proposes concrete improvements.

References

1. What is a disaster? - IFRC [Internet]. [citato 30 dicembre 2015]. Recuperato da: <http://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/>
2. Guha-Sapir D, Hoyois P, Below R. Annual Disaster Statistical Review 2014, hte numbers and trend. 2014.
3. UNISDR. GAR - Global Assessment Report on Disaster Risk Reduction. 2015.
4. UNISDR [Internet]. [citato 30 dicembre 2015]. Recuperato da: <https://www.unisdr.org/>
5. United Nations Secretary-General Ban Ki-moon [Internet]. [citato 30 dicembre 2015]. Recuperato da: <http://www.un.org/sg/statements/index.asp?nid=8458>
6. International Federation of Red Cross. Introduction to the Guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance. 2011.
7. OCHA. MODEL AGREEMENT between the United Nations and State/Government. 2011.
8. Loeser JD, Treede R-D. The Kyoto protocol of IASP Basic Pain Terminology. Pain. 31 luglio 2008;137(3):473–7.
9. Jacox A, Carr D, Payne R. Management of Cancer Pain. Clinical Practice Guideline No.9. AHCPR Publication No. 94-0592. Agency for Health Care Policy and Research,; 1994.
10. World Health Organization Briefing Note. Access to Controlled Medications - Programme Improving access to medications controlled under international drug conventions - 2012.
11. Declaration of Montréal - IASP [Internet]. [citato 27 ottobre 2015]. Recuperato da: <http://www.iasp-pain.org/DeclarationofMontreal?navItemNumber=582>
12. WHO. Guidelines for Medicine Donations. 2010.
13. WHO. WHO Model List of Essential Medicines-19th List. 2015.
14. Herard P, Boillot F. Amputation in emergency situations: Indications, techniques and Médecins Sans Frontières France's experience in Haiti. Int Orthop. 2012;36(10):1979–81.
15. WHO. Emergency situations and controlled medicines. WHO Drug Inf. 1999;13(3):147–8.
16. Bukhari SKS, Qureshi JARH, Jooma R, Bile KM, Kazi GN, Zaibi WA, et al. Essential medicines management during emergencies in Pakistan [Gestion des médicaments essentiels pendant les situations d'urgence au Pakistan]. East Mediterr Health J. 2010;16(SUPPL.):S106–13.
17. WHO. Health aspects of disaster preparedness and response. Report from a regional meeting of countries of South East Asia; Bangkok, Thailand, 21-23 November 2005. Prehospital Disaster Med. ottobre 2006;21(5):s62–78.
18. Angeletti C, Guetti C, Papola R, Petrucci E, Ursini ML, Ciccozzi A, et al. Pain after earthquake. Scand J Trauma Resusc Emerg Med. 2012;20:43.
19. Guetti C, Angeletti C, Paladini A, Varrassi G, Marinangeli F. Pain and Natural Disaster. Pain Pract. 1 settembre 2013;13(7):589–93.
20. Sepehri G, Meimandi M-S. Pattern of drug prescription and utilization among Bam residents during the first six months after the

2003 Bam earthquake. Prehospital Disaster Med. dicembre 2006;21(6):396–402.
21. Malchow RJ, Black IH. The evolution of pain

management in the critically ill trauma patient: Emerging concepts from the global war on terrorism. Crit Care Med. luglio 2008;36(7 Suppl):S346–57.

Attachment 1:

QUESTIONNAIRE FOR HEALTHCARE PROFESSIONAL WHO WORKED IN DISASTER

According to your experience as healthcare provider in disaster zone:

1. Is the pain assessed?

- a) In the disaster area: <> always <>often <> sometimes <>never <>I don't know
b) During patients' transport to healthcare facilities: <> always <>often <> sometimes <>never <>I don't know
c) In the health care facility destination: <> always <>often <> sometimes <>never <>I don't know

2. In case the assessment is made, is it performed through standardized tools?

- a) In the disaster area: <> always <>often <> sometimes <>never <>I don't know
b) During patients' transport to healthcare facilities: <> always <>often <> sometimes <>never <>I don't know
c) In the health care facility destination: <> always <>often <> sometimes <>never <>I don't know

3. Is the pain treated?

- a) In the disaster area: <> always <>often <> sometimes <>never <>I don't know
b) During patients' transport to healthcare facilities: <> always <>often <> sometimes <>never <>I don't know
c) In the health care facility destination: <> always <>often <> sometimes <>never <>I don't know

4. Wich therapies against pain are available?

- a. In the disaster area:
- NSAIDs and Paracetamol <> always <>often <> sometimes <>never <>I don't know
 - mild opioids (codeine) <> always <>often <> sometimes <>never <>I don't know
 - strong opioids <> always <>often <> sometimes <>never <>I don't know
 - sedation <> always <>often <> sometimes <>never <>I don't know
 - local anesthesia <> always <>often <> sometimes <>never <>I don't know
- b. During patients' transport to healthcare facilities:
- NSAIDs and Paracetamol <> always <>often <> sometimes <>never <>I don't know
 - mild opioids (codeine) <> always <>often <> sometimes <>never <>I don't know

- strong opioids <> always <>often <> sometimes <>never <>I don't know
- sedation <> always <>often <> sometimes <>never <>I don't know
- local anesthesia <> always <>often <> sometimes <>never <>I don't know

c. In the health care facility destination:

- NSAIDs and Paracetamol <> always <>often <> sometimes <>never <>I don't know
- mild opioids (codeine) <> always <>often <> sometimes <>never <>I don't know
- strong opioids <> always <>often <> sometimes <>never <>I don't know
- sedation <> always <>often <> sometimes <>never <>I don't know
- local anesthesia <> always <>often <> sometimes <>never <>I don't know

5. Which therapies against pain are currently used?

a. In the disaster area:

- NSAIDs and Paracetamol <> always <>often <> sometimes <>never <>I don't know
- mild opioids (codeine) <> always <>often <> sometimes <>never <>I don't know
- strong opioids <> always <>often <> sometimes <>never <>I don't know
- sedation <> always <>often <> sometimes <>never <>I don't know
- local anesthesia <> always <>often <> sometimes <>never <>I don't know

b. During patients' transport to healthcare facilities:

- NSAIDs and Paracetamol <> always <>often <> sometimes <>never <>I don't know
- mild opioids (codeine) <> always <>often <> sometimes <>never <>I don't know
- strong opioids <> always <>often <> sometimes <>never <>I don't know
- sedation <> always <>often <> sometimes <>never <>I don't know
- local anesthesia <> always <>often <> sometimes <>never <>I don't know

c. In the health care facility destination:

- NSAIDs and Paracetamol <> always <>often <> sometimes <>never <>I don't know
- mild opioids (codeine) <> always <>often <> sometimes <>never <>I don't know
- strong opioids <> always <>often <> sometimes <>never <>I don't know
- sedation <> always <>often <> sometimes <>never <>I don't know
- local anesthesia <> always <>often <> sometimes <>never <>I don't know

6. Which kind of healthcare provider work in disasters? (more options available)

a) In the disaster area:

<> Doctors <> Nurses <> Volunteers <> Others

b) During patients' transport to healthcare facilities:

<> Doctors <> Nurses <> Volunteers <> Others

11. Concerning analgesic medications, which of the following barriers mainly caused the problems you had?

- Limitations due to Import-Export legislation <> yes <> no <> I don't know
- Limitations due to the presence of analgesic in the National Drug Register <> yes <> no <> I don't know
- Language <> yes <> no <> I don't know
- Medications Expiration date <> yes <> no <> I don't know
- Donation of unnecessary medications <> yes <> no <> I don't know
- Lack of logistic organization (storage, personnel, information services) <> yes <> no <> I don't know
- Lack of coordination among NGOs, Government and other actors <> yes <> no <> I don't know
- Others.....

12. Do you know the following international codes, guides or e leading model agreements and draft rules for international disaster operations?

- Sphere handbook <> yes <> no <> I don't know
- Red cross red crescent Code of Conduct <> yes <> no <> I don't know
- Max Planck guideline <> yes <> no <> I don't know
- Unitar model rules <> yes <> no <> I don't know
- ILA model agreement <> yes <> no <> I don't know
- Rec of the customs co-op council <> yes <> no <> I don't know
- WCO/OCHA model customs agreement <> yes <> no <> I don't know
- Others.....

13. Does your organization adopt the following international codes, guides or e leading model agreements and draft rules for international disaster operations?

- Sphere handbook <> yes <> no <> I don't know
- Red cross red crescent Code of Conduct <> yes <> no <> I don't know
- Max Planck guideline <> yes <> no <> I don't know
- Unitar model rules <> yes <> no <> I don't know
- ILA model agreement <> yes <> no <> I don't know
- Rec of the customs co-op council <> yes <> no <> I don't know
- WCO/OCHA model customs agreement <> yes <> no <> I don't know
- Others.....

14. Comment, please report any additional information on the subject of the questionnaire that you consider to be important.

.....
.....
.....
.....

15. Personal information:

Personal role on the disaster zone:

<> Medical Doctor <> MD Surgeon <> Nurse <> Other healthcare professional <> Volunteer

Typology of organization of affiliation on the disaster zone:

<> Governmental agencies <> NGOs <> International Organization <> Other (specify.....)

If possible, write the name of the organization of affiliation on the disaster zone:

.....

Attachment 2:

QUESTIONNAIRE ON THE PERCEPTION OF PAIN TREATMENT IN DISASTER ZONES FOR THE PARTICIPANTS TO THE 21ST INTERNATIONAL HUMANITARIAN CONFERENCE

1. *Do you think that pain is assessed?*

<> always <>often <> sometimes <>never <>I don't know

2. Do you think that the pain assessment is performed through standardized tools?

always often sometimes never I don't know

3. Do you think that pain is treated?

always often sometimes never I don't know

4. Do you think that analgesic medications are available?

always often sometimes never I don't know

5. Which analgesic medications do you think are currently used?

NSAIDs and paracetamol mild opioids (codeine) strong opioids sedation local anesthesia

6. Which kind of healthcare provider do you think work in disasters?

Doctors Nurses Volunteers Others.....

7. Do you think that healthcare workers (doctors, nurses etc.) are enough skilled on pain treatment?

totally a lot sufficient not enough not at all I don't know

8. Did you think that there any difficulty or limitation in the pain treatment?

always often sometimes never I don't know

9. Do you think that one of the following options can limit pain treatment? (more than one option available – Max 3)

- Pain is not considered a priority
- Painkillers are not available
- Health workers are not enough skilled in pain treatment
- Cultural limitations in the use of pain killers
- Legal limitations in the use of pain killers

10. Would you like that pain is treated in disaster zones?

<> always <> often <> sometimes <> never <> I don't care

11. Would you like that stakeholders and international organizations face the issue?

<> always <> often <> sometimes <> never <> I don't care

12. What do you think could improve the pain treatment and pain killers availability in disaster zones? (more than one option available – Max 3)

- <> International treaties
- <> Inclusion of pain killers in emergency kits of international healthcare professionals serving in disasters
- <> Training of international and local health professionals serving in disasters
- <> Improving the internal national legislation for opioid use in emergency situation
- <> Improving the international legislation on drug import in emergency
- <> Regulating drug donations

Participant's information

13. What do you do?

<> Student <> Work for international organization <> work for NGO <> Work for university
<> Work for national government <> movie maker <> Other.....

14. Which is your field of study/work?

<> Political science <> International relations <> health/healthcare <> law <> human rights
<> education <> Other.....

15. Have you ever taken part in a humanitarian response to disasters?

<> Yes <> Not