multiple bone fractures - 56, bone fractures + visceral trauma - 24. 44 children had open bone fractures or fractures accompained with vast defects of soft tissues. Operative interventions in polytrauma are divided into urgent, elective and delayded. Urgent intervention (according to vital indications) are conducted together with anti-shock therapy in massive blood losses (injury of spleen, liver), crushing of lungs, cardiac tamponade, intracranial compression. Elective interventions are prformed after stabilization of patient's state and after bringing him out of shock.

Results: Sets for external fixation were used in acute period of trauma, in early and late posttraumatic period. Tipe of sets depended on character of injury and followed steps of treatment. Indications for external fixation in acute period and catabolic phase of traumatic disease were: 1. multiple fragmental fractures, 2. defects of bones, 3. vast defects of soft tissues, 4. long bone fractures accompained with severe brain trauma. Indications for external fixation in late period were mulunion, in postpond – ununion, deformations and shortening of extremities.

Conclusion: The usage of external fixation was an effective approach in treatment of children with severe complicated injuries of extremities. Advantages of external fixation in conditions of polytrauma were undiscutable: management in force effects, absence of secondary dislocations, good conditions for debridment and follow restorative treatment, mobility of patients. *Prebasp Disaster Med* 2011;26(Suppl. 1):s36–s37

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(A131) Surgical Help to Children in Disasters and Wars *L. Roshal*

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Purpose: To describe results of experience in providing surgical aid to children in technological and natural disasters in various countries of the world: Haiti, Algeria, Armenia, Afganistan (three times), Georgia, Egypt, Russia, Indonesia (twice), Iran, Pakistan, India, Japan, Gaza strip, Chechnya, and Yugoslavia.

Materials and Methods: The Russian specialized team consisting of highly qualified pediatric specialists (traumatologists, neurosurgeons, plastic surgeons, specialists in wound treatment, anaesthesiologists-reanimatologists and others if necessary) work at local hospitals in the disaster zone. All of them work as volunteers. The most serious pediatric victims were concentrated in one or two regional hospitals. The volunteer specialists work on a twenty-four hour basis together with local doctors. Every day they examine patients, control wound bandaging, and perform surgeries. For long tubular bone fractures metalosteosynthesis is used. Modern techniques are used for Crush syndrome and for extended and purulent wounds (water-based ointments, early autoplasty). Currently, the main difficulty in many cases is primary treatment of extensive wounds with their complete closure and the many indications for amputations. Conservative and sparing techniques are not often used.

Conclusions: Pediatric victims in technologic and natural disasters must be helped by pediatric specialists. Our experience in the countries to which we have responded have revealed that there are not enough local specialists who can provide highly professional aid to children. There is no known coordinating structure in the

world to efficiently organize specialized pediatric help to children in disasters and wars. *Prebosp Disaster Med* 2011;26(Suppl. 1):s37

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(A132) Animals and Refugees

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Disasters caused by natural and human-made hazards often result in mass-movement of populations. Within these movements, companion and production animals can have significant impacts on the internally displaced persons, refugees, and disaster managers. The humanitarian agency Sphere recently identified and highlighted the fact that animal welfare and protecting the livestock of rural communities (before and after disasters) is crucial to the survival of those disaster-impacted communities. Those who are faced with the decision to move will consider the impact and risk/benefit evaluation of housing, losing companion animals, or the loss of production animals necessary for food security and economic survival. Animal impacts also include the potential to spread zoonotic or animal transboundary diseases, raise security concerns within camps, loss of future breeding stock, feeding, housing, and maintaining accountability. Issues involved with animals and refugees in the evacuation decision process, during movement, and in ad hoc, developing, and mature refugee camps will be discussed. Prehosp Disaster Med 2011;26(Suppl. 1):s37

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(A133) Emergency Response and Vulnerable Older People: Some Keys for Better Practices D. Maltais, T. Maala

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Emergency response and vulnerable older people: some keys for better practices Danielle Maltais, Ph.D. professor and Taha-Abderrafie Maala, M.Sc student, Social Work Teaching Unit, Department of Human Sciences, University of Quebec in Chicoutimi (UQAC). In the event of a natural or technological disaster, certain groups of people, some of elderly, are more vulnerable than others because they do not have easy access to the community resources. For example, several older people, especially those with a physical or cognitive incapacity and those with a low income, do not generally have a car available which can hinder their evacuation during a flood, an earthquake or a hurricane. Moreover, several elders live in older buildings not built to resist to shocks of all kinds. Older people, particularly those with a physical or cognitive incapacity, those with a low income or those without a social network belong to groups at risk to undergo wounds, to die or develop post-disaster health problems. Considering this, several researchers and national or international government and private as well as non-profit organizations such as World Health Organization, the International Red Cross or HelpAge International produced several guides on intervention aiming to support workers caring for the elderly during a disaster. The purpose of this communication is to present the main outstanding facts and recommendations of these various documents in order to heighten the participants' awareness

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