Rapid implementation of medical rehabilitation team at Spinal Injury Rehabilitation Centre, Nepal during earthquake 2015

Author’s Name: Dhakal R
Co-Authors: Gurung JB, Gyanwali S
Nepalese Academy of Physical Medicine and Rehabilitation (NAPMR)
Spinal Injury Rehabilitation Centre, Sanga, Nepal
Author’s email: RajuDhakal: yo_duniya@hotmail.com

Background:
Natural disaster causes significant number of spinal cord injuries (SCI). This requires coordinated efforts of foreign medical teams (FMTs) to support local or national team for medical/surgical management in acute care and medical rehabilitation settings at the time of disaster.

Objective:
To highlight the importance of coordination of national and international Physical Medicine and Rehabilitation Physician and multidisciplinary team (MDT) networks after an earthquake.

Methodology:
An account of the experiences and a descriptive study of the response of spinal injury rehabilitation center during the first four weeks after the earthquake in Nepal.

FMTs and Local Experts on the ground

Total No. of admitted patients: 115
Managed by a group led by physiatrists, FMTs and local experts together
Mean age – 35 years (3 - 86 years)

Out of 80 Earthquake SCI victims
Female: 48, Male: 32, Ratio: (1.5:1)

FMTs and local experts were divided into 3 groups after triaging in rehabilitation settings...
1. Acute/special care unit
2. Active medical rehabilitation unit
3. Step-down facility unit

MDTs (Foreign & Local experts) coordinated work:
- Performed acute/sub-acute medical care and rehabilitation
- Managed nutritional, recreational, psychological, vocational, educational and social concerns of the patients and their family
- Daily ward round by physician with other team like PT, OT, Psychologist, social workers, prostheses/orthotics etc.
- Patients have had been getting 2 session of therapy everyday.
- Case discussion and goal settings, referral and consultation.
- Interventions – wound dressings, cystometry, USG bladder etc.
- Education on medical rehabilitation in disaster settings and triaging, spasticity, pain management, neurogenic bladder and bowel etc.
- Tele-rehabilitation consultation with expert from Spine group almost everyday after 5pm (after office).
- Some special SCI cases with pregnancy, children and multi-trauma.
- All of them are/were getting free comprehensive medical rehabilitation including foods, clothes, medicines.
- Patients visitors are/were also getting free foods and hospitality.
- Almost all the patient has/had no home and some of them do not have family.
- Patient who had completed rehabilitation has been transferred to step-down facility.

Appreciation/Acknowledgement to FMTs:
We really appreciate FMTs support during critical time in spinal centre -
1. Quick Foreign Medical Rehabilitation team on the ground to support SIRC, Nepal with many medicines, equipments and funds.
2. They had placed their own life in risk and visited to Nepal during earthquake time. Even in their time we had 7.3 Richter earthquake still these people actively helped lot.
3. Developed quick triage sheet in rush hour to identify different disabilities.
4. Teams worked with our team as a colleagues and support us for medical and paramedical support from foreign medical teams.
5. Took a teaching session to SIRC staffs related to medical rehab staff.
6. Give us idea, how to develop Nepalese association of Rehabilitation Medicine and liaise with ISPRM.
7. Also gave feedback/Recommendations to SIRC within a few days.

Conclusion:
- Coordinated efforts of local experts with FMTs are very much helpful to take care of the large volume of earthquake victims with SCI in developing country like Nepal.
- FMTs should be coordinated by the centralized body. Injury and rehabilitation sub-cluster groups should be led by the experts who have experiences on medical care and rehabilitation of complex disability like SCI.
- Along with medical rehabilitation, community reintegration program should be included in the integral health care system after a disaster.
- Nepal Government should immediately initiate the formulation of a national policy to establish a national rehabilitation hospital and to produce sufficient manpower in rehabilitation medicine.

Acknowledgements:
1. Spine group, SIRC, Nepal
2. International Society of Physical Medicine and Rehabilitation, Rehabilitation Disaster Relief, (Dr. Tim Canady)
3. Nepal Melbourne Hospital Team (Prof. TimBoy)
4. Bangladesh Association of PM&R and the department of PM&R,ISMMS, Dhaka (Prof. TalimUddin)
5. Lymphology International
6. UK Trauma registry – UK Med
7. International Rehabilitation forum (Prof. Andy Iqbal)
8. All the regional FMTs who were on the ground to help Nepalese SCI victim.

Disclosure - Authors have no conflict of interest.

Thank you for your time.

Spinal Injury Rehabilitation Centre, Sanga, Nepal