# СЕКЦИЯ 5 «ВОЕННАЯ И ЭКСТРЕМАЛЬНАЯ МЕДИЦИНА»

### УДК 614.0.06:616-083.98 ASIAN TSUNAMI: OVERVIEW OF MEDICAL ACTIVITIES IN SRI LANKA

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#### Introduction

The Indian Ocean tsunami of 2004 killed 31 000 people in Sri Lanka and produced morbidity primarily resulting from near-drownings and traumatic injuries. In the immediate aftermath, the survivors brought bodies to the hospitals, which hampered the hospitals' operations. The fear of epidemics led to mass burials. Infectious diseases were prevented through the provision of clean water and through vector control. Months after the tsunami, little rebuilding of permanent housing was evident, and many tsunami victims continued to reside in transit camps without means of generating their own income. The lack of an incident command system, limited funding, and political conflicts were identified as barriers to optimal relief efforts. Despite these barriers, Sri Lanka was fortunate in drawing upon a well-developed community health infrastructure as well as local and international resources. The need continues for education and training in clinical skills for mass rescue and emergency treatment, as well as participation in a multidisciplinary response.

### Aim

Provide an understanding of the impact of the disaster on different groups of the population affected, with a particular emphasis on the health sector and its response during the rescue, recovery, reconstruction, and rehabilitation phases.

#### Material and methods

Information was collected from PubMed database. We found articles with direct observation, interviews with key informants, and review of relevant documents, with information from World Health Organization (WHO) in the days immediately after the tsunami: using a modified version of the WHO Rapid Health Assessment Protocol they collected data on hospital characteristics; damage to buildings and communication, electricity, water, and sewage systems; adequacy and condition of health-care personnel, medical supplies, and morgue facilities; and anticipated medical needs. Questions initially were directed to provincial health office staff members.

### **Results and discussion**

The observations of this study are summarized into several main themes and are divided into the emergency phase; recovery, rehabilitation, transition; sustainable development; and lessons learned.

Causes of morbidity and mortality. The survivors of the tsunami described being hit by 2 successive waves of water that arrived a few minutes apart. Many persons who sustained even minor injuries from the first wave were unable to move or swim and did not survive the second wave. In most disasters, there are 3 to 5 times more injured persons than dead persons.

One characteristic feature of the tsunami was the small number of persons who were injured compared with the number of deaths. In Nagapattinam, India, only 2000 persons were injured, compared with 6000 persons who died. Most people either drowned or escaped unhurt. Overall, persons with a critical injury were a minority. The main morbidities encountered in the immediate aftermath of the tsunami included near-drownings and traumatic injuries. The small number of ventilators in the provincial hospitals limited the number of patients who could be treated for near-drowning. Overall, the number and types of injuries were considered minor, and local physicians, along with physicians visiting from unaffected areas, were able to manage these patients adequately. It was noted that few survivors with traumatic injuries were treated at the health facilities. Persons who handled the dead bodies reported observing a high proportion of bodies with traumatic injuries.

Transportation of the victims. During the immediate aftermath of the tsunami, all roads to the tsunami-affected areas were inaccessible. Clearing these coastal roads became an immediate priority. Members of the Sri Lankan Air Force Medical Corps, with a small fleet of helicopters, were the first to arrive on the scene, and they triaged and transported the injured persons to the closest unaffected hospitals. Because the tsunami did not affect ambulance services in the interior of the country, these vehicles were made available for service in the affected areas and to assist the military with ground transport. Hospitals along the coast, such as the Mahamodara Hospital in Galle, were damaged, and all hospitals close to the tsunamiaffected coastline were overwhelmed, necessitating the transport of patients to functional hospitals in the interior.

Handling bodies of the deceased. According to the Sri Lankan Judicial System, the physicians in charge of the district hospitals perform autopsies and other forensic pathologic duties. Specialized judicial medical officers (forensic pathologists) are available only in larger provincial hospitals. As such, it is customary to bring all dead bodies to the hospital when deaths occur outside the hospital. Hospital morgues are usually equipped to handle fewer than 5 to 10 bodies. With relatively few minor morbidities to address, the retrieval of dead bodies dominated the immediate response efforts of volunteers and survivors, many of whom were looking for the bodies of their relatives and friends. The pre-existing morgues could accommodate only a small fraction of the bodies brought in; therefore, the excess bodies were deposited on the grounds of the hospitals, in the hallways, and even in the wards, and normal hospital operations were completely disrupted. According to informants, more than a dozen hospitals were completely deserted by both staff and patients as they were inundated by dead bodies. Identification of the deceased was a major problem. Some hospitals fingerprinted and photographed the first few bodies that arrived at their morgues. However, as the premises were overwhelmed with dead bodies, and as rapid decomposition from prolonged water immersion set in, most procedures for identification of the dead were abandoned. DNA identification technologies were not available. Many bodies were buried in mass graves, circumventing traditional Sri Lankan burial rituals.

Pharmaceuticals. In the first few days following the tsunami, some pharmaceutical storage facilities were damaged, resulting in significant short-term shortages of medications. Medications and pharmaceutical supplies from unaffected parts of the country eventually were supplemented by international shipments of medications, which began arriving shortly after the disaster struck. In many instances, medications from abroad were needed and welcome. However, their brand names were unfamiliar and led to confusion in dispensing them. Some medications were expired, and those requiring refrigeration were stored inappropriately. It often was challenging to follow up on distributed medications. Stores of shipped medications were not always inventoried or supervised by trained personnel. According to informants, in some cases, medication containers lay at ports while there were shortages in the field.

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### Conclusion

While Sri Lanka was able to prevent the feared outbreaks of disease in the immediate aftermath of the tsunami, long-term recovery and reconstruction have been slow. Lessons learned from the experience with the Indian Ocean tsunami in Sri Lanka should serve to improve responses to future disasters in Sri Lanka as well as elsewhere.

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# СОВРЕМЕННАЯ РОССИЙСКАЯ АРМИЯ И ПРИНЦИПЫ ВОЕННОГО ИСКУССТВА НИККОЛО МАКИАВЕЛЛИ

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#### Введение

Военные конфликты являются неотъемлемой частью развития любого государства. Современные события показывают, что данный тезис является актуальным и в наше время. Естественно, что понятия военный конфликт и армия неразрывно связаны и что исход военного конфликта той или иной страны как раз прямо пропорционален тому, как организована ее армия. Многие философы рассуждали над проблематикой мира и войны, но лишь немногие — об армии. Одним из них был выдающийся философ XVI века Никколо Макиавелли.

#### Цель

Доказать актуальность проблематики структуры идеальной армии Макиавелли для современной российской армии, а также для отдельной личности.

#### Материал и методы исследования

Нами были проанализированы биография и труды Н. Макиавелли, проведена сравнительная характеристика армии времен Макиавелли и современной Российской армии. С помощью интернет-ресурса была исследована актуальность проблемы службы по призыву и контракту среди молодых людей. Также проведено анкетирование среди молодых людей в возрасте от 18 до 28 лет.

### Результаты исследования и их обсуждение

Проанализировав данный материал, можно определить двух оппонентов по вопросам организации армии: Макиавелли и Людовик XI. Военные формирования времен Макиавелли можно поделить на 4 вида: ополчение из граждан, кондотьеры, ордонансовые роты и феодальное ополчение. Несложно заметить, что российская армия напоми-