

## Personal Reflections

### Organization of health care during COVID-19 and an earthquake in a children's intensive care unit in Zagreb, Croatia.

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Healthcare for children is complex, specific, and demanding. Children with life-threatening conditions are cared for in a pediatric intensive care unit and require round-the-clock care. Pediatric ICU nurses ultimately ended up caring not only for the patients themselves, but also for the parents/guardians. Support, compassion, patience, and understanding are integral skillsets of nurses more so when working with families with sick children. But when crisis strikes — be it a natural disaster or a global pandemic, or both, as was the case in Zagreb, Croatia in March of 2020 — the intensity of care escalates and foundational skills must be coupled with effective crisis management to ensure the continuity of safe, compassionate care and the ability to remain calm and decisive under pressure becomes indispensable.

All hospitals have guidelines and policies based on the principles of triage decisions when caring for patients with life-threatening illnesses. In Croatia, the provisions of Article 24 of the Law on Health Care confirms that healthcare is an activity of special state interest and is performed as a public service, within the health care network, organized on the principles of comprehensiveness, continuity, availability and comprehensive access, but with the conditions prescribed by the Law (Health Care Act, 2022). Health care network and comprehensive access is even more important during a crisis situation and therefore it is imperative that the Government of the Republic of Croatia, the Ministry of Health and the Office of National Security must help protect the nation by providing greater resources to hospitals to meet the challenges of crisis situations (Lujanac & Dušak, 2018).



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By creating guidelines and standard operating with crisis planning, a more complete and realistic picture of the expected scenarios was obtained (Lujanac et al., 2018). The purpose of the guidelines is to provide foundations in planning and assistance in increasing efforts to prepare for the eventual evacuation of the entire facility or part of it (Lujanac et al., 2018).

After the outbreak of the Covid pandemic and its spread across Europe, Croatia was hit by the first wave in the spring of 2020. Croatia reacted quickly to the first signs of the pandemic, adjusted protocols, and ensured a quick and effective response (Gazic, 2024). Health care of sick children was conducted according to all standardized procedures and protocols. In most disasters and epidemics of infectious diseases, health care professionals acted selflessly in providing services, considering their moral and professional responsibility, empathy, and commitment. During the peak of the pandemic, nurses from the pediatric intensive care unit were assigned to the Covid wards and provided health care to vitally endangered adult patients. This provided them with additional strength and motivation, knowing that they are able to meet any challenge, regardless of where they work. The quality of work of nurses and physical and mental health are related to appropriate working conditions (Gazic, 2024). Preserving the mental health of employees has become a priority, and organizations have introduced programs of support, counseling, and resources to deal with emotional challenges.

In the middle of the battle with the Covid-19 pandemic, the capital city of the Republic of Croatia, Zagreb, was hit by another disaster - an earthquake. The two most intense earthquakes were 5.5 and 5.0 on the Richter scale that occurred at 6:24 a.m. and 7:04 a.m. on March 22, 2020. The healthcare system was preparing for an escalation of new cases of COVID-19 five to seven days after the earthquake. However, the earthquake did not seem to have a significant impact on disease transmission (Civljak et al., 2020). Restrictive public health measures were introduced on March 16, including restrictions on public urban transport, travel between regions, closure of educational and other public institutions, with physical distancing measures generally applied (Svetina, 2021). The earthquake happened on Sunday, a non-working day for most employees. It was an indescribable feeling to be woken up by an earthquake. An additional strategy on the implementation of measures related to the pandemic was agreed upon a day earlier, however, what now? A new situation had arisen, everything agreed upon was no longer feasible.. Immediately after the earthquake, the nurse who worked the night shift called me and said in a frightened voice: *"The intensive care unit has collapsed!"*



Picture 1. Pediatric intensive care unit, University Hospital Centre Zagreb, Croatia

I needed to go to the Department, but I don't have transportation. She shakes again. At that moment, another colleague who was also at home called me and suggested we go to the hospital together. She came to pick me up and we went to the hospital together. I was anxious to get to the hospital as quickly as possible, unaware of the damage that would await us. Upon our arrival we climbed the familiar stairs to the fourth floor unable to imagine what might await us when we got to the Pediatric Unit (picture 1). It was eerily quiet and a draft could be felt from all sides. The situation felt similar to that of Croatia's Homeland War: eerie, desolate, and quiet.

During the air raid alert we stayed in the shelter/basement of the hospital and after the air raid alert ended we ran upstairs to the pediatric ICU to get baby food. I hoped that I would never again experience such a feeling of sadness and pain. I remember the looks of my colleagues who worked the night shift and stayed with the children who were not able to be transported because they were on ventilators and hemodialysis devices. The children who were to be transported were evacuated to an open area. We went to the parking lot, which was full of patients, children and adults, as well as medical staff (picture 2).

In the parking lot, I took over care of a nine-month-old tracheotomized infant from a colleague who had worked the night before. The child had chronic respiratory insufficiency but was stable and ready for transport. It was necessary to free up a place in the ward for other vitally endangered children. I used an ambu balloon to ventilate one child for about two hours in the car while the ground continued to shake with after shocks (picture 3).



Picture 2. Parking lot, University Hospital Centre Zagreb, Croatia



Picture 3. Nurse Mirjana ventilates the child with a manual balloon for breathing (ambu bag), University Hospital Centre Zagreb, Croatia

It was cold. And the snow began to fall lightly. Flocks of birds were in flight. Everything was disturbed, the sky was gray. The hospital provided us with a transport bottle with oxygen and a transport aspirator. Strangely, the child was extremely calm, as if he knew what kind of situation we were in. We settled in the area of the pediatric ambulatory area of the hospital where we stayed until the next day.

The ambulatory area was a relatively safe place, full of pediatric patients who received complete care. Parents were able to be with their children. Some nurses came from home, leaving their own children behind, in order to prepare the department as soon as possible and return everything to "normal". As I write this, my tears are flowing by themselves. Interestingly, tears did not flow then. All the people were extremely good that day!

Health care for children in the intensive care unit is specific, it must be comprehensive, regardless of whether it is carried out in peaceful or emergency situations. The patient always comes first. All prevention and protection measures are taken to preserve the health and life of the patient. In particular, it is necessary to prevent and reduce the stress of healthcare personnel in order to preserve their mental health and be ready for the next challenges, both everyday ones and unplanned, crisis situations.

#### References:

- Civljak R, Markotic A, Capak K. Earthquake in the time of COVID-19: The story from Croatia (CroVID-20). *J Glob Health*. 2020;10(1):010349. (accessed on 18.07.2024)  
Available at doi:10.7189/jogh.10.010349
- Gazić D. Human resource management in crisis situations in healthcare [master's thesis]. Koprivnica: North University; 2024 [accessed 17.07.2024] Available at: <https://urn.nsk.hr/urn:nbn:hr:122:463005>
- Health Care Act, Official Gazette, no. 150/08, 22/11. Available at: <https://www.zakon.hr/z/190/Zakon-o-zdravstvenoj-za%C5%A1titi>
- Lujanac D, Dušak M (2018). Preparedness of hospitals for crisis situations. *Shock online!* edition (Zagreb), Year XI, number 2, 19-24.
- Lujanac D. et al. Healthcare crisis management. *J. appl. health sci*. 2018; 4(1): 115-120  
Accessed on 17.07.2024. Available at *J. appl.health sci*.
- Svetina L. (2021) 'Earthquake in Zagreb during the pandemic - effects of complex crises', postgraduate specialist, Faculty of Medicine, Zagreb