



License applied: CC-BY-NC 4.0

## DOI:10.38173/RST.2020.20.2.14:147-152

Title:

CASE STUDIES OF A PEDIATRIC WARD IN A COVID-19 HOSPITAL FOR SUSPECTED PATIENTS

Ramona Mihaela NEDELCUŢĂ
Gigi CĂLIN
Cristian NEDELCUŢĂ
Ion SCURTU
Anca Roxana BĂLEANU
Bogdan-Petre STĂNOIU

**Section:** MEDICAL SCIENCES

**Issue:** 2(20)/2020

Received: 2 September 2020	Revised: -
Accepted: 11 Octomber 2020	Available Online: 15 November 2020



### Autumn 2020 No. 2(20)/2020

ISSN-P: 2247-4455 / ISSN-E: 2285-9632

**Medical Sciences** 

# CASE STUDIES OF A PEDIATRIC WARD IN A COVID-19 HOSPITAL FOR SUSPECTED PATIENTS

Ramona Mihaela NEDELCUȚĂ <sup>1</sup>
Gigi CĂLIN <sup>2</sup>
Cristian NEDELCUȚĂ<sup>3</sup>
Ion SCURTU<sup>4</sup>
Anca Roxana BĂLEANU<sup>5</sup>
Bogdan-Petre STĂNOIU<sup>6</sup>

#### **ABSTRACT:**

THE COVID-19 PANDEMIC FORCED US TO LIVE IN A UNIQUE SITUATION IN 2020, A SITUATION THAT HAS NOT ENDED YET. THE ADAPTATION WAS MADE INDIVIDUALLY AND COLLECTIVELY, TO THE NEW CONDITIONS RESULTING FROM THE SPECIAL AND UNPRECEDENTED EPIDEMIOLOGICAL MEASURES TAKEN.

HOSPITALS HAVE BEEN FUNDAMENTALLY RESTRUCTURED WITH THE RESTRICTION OF HOSPITALIZATION CAPACITY TO MEET THE NEED FOR ISOLATION OF HOSPITALIZED PATIENTS, EACH BEING A POTENTIAL SUSPECT AT RISK OF CONTAMINATING OTHERS.

A COMPARATIVE STUDY, OVER SYMMETRICAL PERIODS OF TIME, DURING AND BEFORE THE PANDEMIC THAT REFLECTS THE CHANGE IN THE NUMBER OF HOSPITALIZED PATIENTS AND THEIR PATHOLOGY.

KEYWORDS: PANDEMIC, CHILDREN, COVID-19.

The pandemic has changed the way patients are hospitalized in accordance with the new rules of protection and isolation. The rules entered into force with the state of emergency, extended during the alert period provided for the isolation of the child in a ward,

<sup>1</sup> University of Medicine and Pharmacy of Craiova, Pediatrics Department, 2 Petru Rares Str., 200349, Craiova, Romania

<sup>&</sup>lt;sup>2</sup> University of Medicine and Pharmacy of Craiova, Pediatrics Department, 2 Petru Rares Str., 200349, Craiova, Romania

<sup>&</sup>lt;sup>3</sup> County Emergency Clinical Hospital from Craiova, Romania

<sup>&</sup>lt;sup>4</sup> Emergency University Hospital Bucharest, Surgery Department, Bucharest, Romania, 169 Independentei Street, 050098

<sup>&</sup>lt;sup>5</sup> Department of Anesthesiology and Intensive Care, University Emergency Hospital Bucharest, 169 Independentei Street, 050098, Bucharest, Romania

<sup>&</sup>lt;sup>6</sup> Department of Cell and Molecular Biology, University of Medicine and Pharmacy of Craiova, 200349 Craiova, Romania



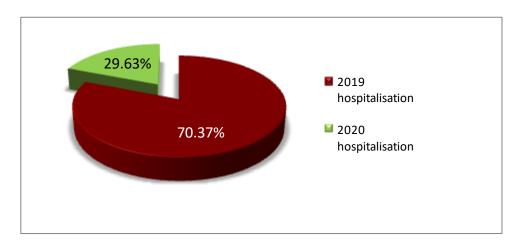
alone or with a relative, without interacting with other patients, the only interactions allowed, in extreme safety, being those with medical staff.

The restriction of the hospitalization capacity was attached to the norms of isolation of patients: in a single room, with its own bathroom. The result was a "cancellation" of previously available places, to this contributing additionally the organization of the decontamination circuits for the medical staff.

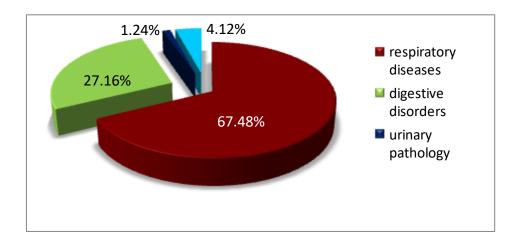
Specifically, out of the 45 hospitalization places, during the 6 months during which the study is carried out, 6 places remained "valid".

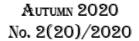
During the emergency period March - May, isolating children at home drastically reduced interactions and limited them to the family environment, significantly reducing the risk of illness. Subsequently, the relaxation of isolation measures and the resumption of interpersonal contact, knowing the tendency of children to socialize and minimize their importance of hygiene rules led to an increase in illness, without reaching the hospitalization rate of previous years, in the same time frame.

During the 6 months, 243 children were hospitalized in the COVID support section, compared to 1246 for the similar period of the previous year. All hospitalizations were made through the emergency service.



The distribution by types of diseases showed 164 cases with respiratory diseases, 66 cases with digestive disorders, with urinary pathology 3 cases, various pathology (sepsis, convulsions, jaundice, etc.) 10 cases.



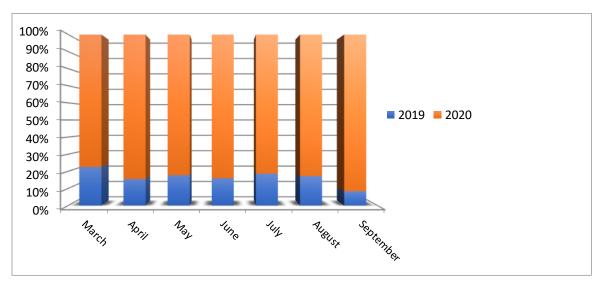




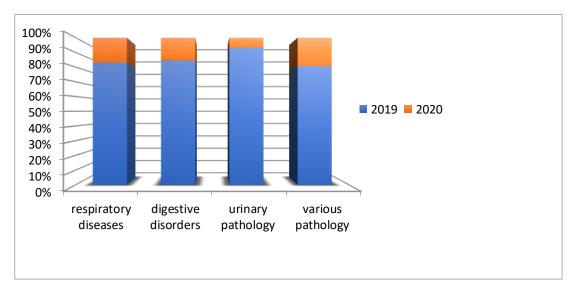
ISSN-P: 2247-4455 / ISSN-E: 2285-9632

The monthly distribution showed a number of 57 cases in March, 28 in April, 29 in May, 31 in June, 34 in July, 43 in August, 21 in September.

Compared to the same period last year, the number of hospitalized cases decreased drastically: in March by 196 cases, in April 153, in May 135, in June 164, in July 149, 208 in August, 231 in September.

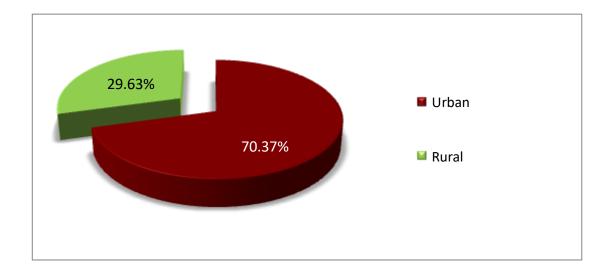


Regarding the general case, 801 of the total cases presented respiratory diseases, 362 were with digestive pathology, 41 with urinary disorders and 42 were with various pathologies (jaundice, sepsis, omphalitis, allergy, etc.).

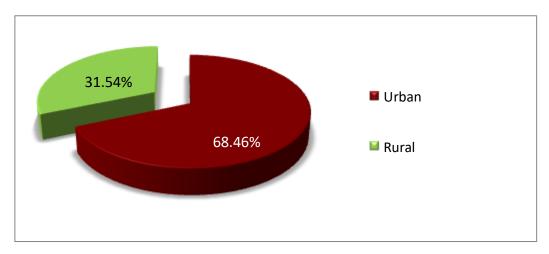


The predominance depending on the residency status, for hospitalized patients, was as follows: 171 urban patients (70.37%) and 72 from rural patients (29.63%).





During 2019, the distribution according to the residency status was: 853 urban patients (68.46%) and 393 rural patients (31.54%).



All hospitalizations in March-September 2019 were made through the UPU service, as opposed to 75% in 2019.

In conclusion, the pandemic period greatly changed the intra-hospital "routine", access to medical services or the hospitalization capacity of the wards.

The limitation, according to the norms implemented by the Public Health Directorates, of the possible contact between the patients classified as "suspects" determined the reduction of the hospitalization capacities, on the principle 1 patient - 1 room -1 own sanitary group.

The predominance of cases from urban areas is explained by easier access to medical services, as well as by limiting traffic between localities.

The low number of cases in the selected period of 2020 is explained by limiting the pathology transmissible through interpersonal contact, by increasing vigilance and empowering relatives, in order to combat at home mild symptoms (fever, cough, diarrhea, etc.).

The conscientious application of correct hygiene rules has led to a reduction in seasonal respiratory or digestive intercurrences, as shown by this comparative study.



## Autumn 2020 No. 2(20)/2020

ISSN-P: 2247-4455 / ISSN-E: 2285-9632

In summary, in addition to the shortcomings and upheaval created by the COVID-19 pandemic, there were also positive aspects, which consisted in making the population responsible, relieving the avalanche medical system of requests for trivial cases, easily resolvable outpatient, limiting the length of hospitalization, to ensure a continuous turnover of available beds.

The decrease of the pathology specific to the pediatric age was obvious, compared to the previous years and the main factor that determined it was the limitation of the children's interactions, in the absence of the community (nurseries, kindergartens, schools).



#### **REFERNCES**

- 1. Chan JF, Yuan S, Kok KH, To KK, Chu H, Yang J, et al. A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster. Lancet 2020;395:514e23.
- 2. **Zhang YP.** The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China. Chin J Epidemiol 2020;41:145e51 [Article in Chinese].
- 3. **Paules CI, Marston HD, Fauci AS**. Coronavirus infections More than just the common cold. JAMA 2020. https://doi.org/10.1001/jama.2020.0757.
- 4. **Zhang YH, Lin DJ, Xiao MF, Wang JC, Wei Y, Lei ZX, et al.** 2019-novel coronavirus infection in a three-month-old baby Zhonghua Er Ke Za Zh 2020;58:E006 [Article in Chinese].
- 5. **Wei M, Yuan J, Liu Y, Fu T, Yu X, Zhang ZJ**. Novel coronavirus infection in hospitalized infants under 1 year of age in China. J Am Med Assoc 2020. https://doi.org/10.1001/jama.2020.2131.
- 6. Cai JH, Wang XS, Ge YL, Xia AM, Chang HL, Tian H, et al. First case of 2019 novel coronavirus infection in children in Shanghai. Zhonghua Er Ke Za Zhi 2020;58:E002 [Article in Chinese].
- 7. **Park JY, Han MS, Park KU, Kim JY, Choi EH.** First Pediatric Case of Coronavirus Disease 2019 in Korea. J Korean Med Sci. 2020;35(11):e124.
- 8. Omigi C, Englund JA, Bradford MC, Qin X, Boeckh M, Waghmare A. Characteristics and outcomes of coronavirus infection in children: role of viral factors and an immunocompromised state. J Pediatr Infect Dis Soc. 2019;8(1):21-28.