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## Organisation and assessment of urgent paediatric telephonic hospital care during the COVID-19 pandemic<sup>☆</sup>



### Organización y valoración de la atención telefónica urgente hospitalaria pediátrica ante la pandemia COVID-19

Dear Editor:

In response to the pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the Spanish government declared the state of alert on March 14 (Royal Decree 463/2020). Due to the extraordinary increase in the demand for adult emergency care and the low impact on paediatric services, the Community of Madrid reorganised paediatric care, centralising paediatric emergency care preferentially in 2 tertiary care hospitals between March 21 and May 6.

During this period, telemedicine was one of the tools used by health care providers to facilitate the management and follow-up of patients with COVID-19 or with chronic diseases (such as diabetes or psychiatric disorders).<sup>1–6</sup>

In light of the new situation involving the lockdown, the reduction in the centres offering paediatric care and the overwhelming demand for health care call lines by adult patients, the hospital organized a new urgent call line for the paediatric population (age < 18 years).

The aim of our study was to describe the organization of urgent telephonic paediatric care offered from the hospital setting during the COVID-19 pandemic and learn how the service is perceived by health providers involved in its delivery.

We performed a descriptive study with collection of data between March 20 and May 3 at the Hospital Universitario Infantil Niño Jesús. During this period, phone calls received by the hospital switchboard seeking medical consultation were transferred to the personal mobile phone of the on-call paediatrician, facilitating distance work. The line was operative between 8AM and 9PM, 7 days a week. Daily shifts (morning/afternoon) were assigned through the Doodle scheduling tool, staffing each shift with 2 or 3 paediatricians. Paediatricians took the patient history by telephone and requested complementary photographs and videos to be submitted to the hospital email address. If needed, the paediatricians wrote prescriptions through the prescription system of the official board of physicians of Madrid. For the first week of telephonic care, we collected data on the reasons for consultation and the need for referral to the emergency department.

At the end of the telephone care programme, we made an anonymous survey of the providers that staffed the call line through an online questionnaire comprised of 13 items (Table 1).

The service received 1899 calls (a mean of 42 a day). We analysed the reasons for consultation for the 270 calls received in week 1: respiratory infection with fever (33.3%), fever without source (12.9%), gastrointestinal symptoms with vomiting and/or diarrhoea (9.3%), cutaneous lesions (9.3%), falls/accidents (5.5%), health-related questions (newborn care and vaccines) (7.4%), questions regarding COVID-19 (5.7%) and other (16.6%). Twenty-one percent of patients were referred to the emergency department, and the most frequent reason for referral was breathing difficulty, followed by fever without source.

Of the total of 52 physicians that staffed the call line, 32 participated in the survey (response rate, 60%). The median age of participants was 32 years (interquartile range [IQR], 27–44), 48% had less than 5 years of experience, 10% 5 to 10 years of experience and 37% more than 15 years. Also, 58% had worked in primary care in the past and 83% did on-call shifts in the emergency department. The median of shifts they covered in the call line was 4 (IQR, 2–7).

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**Table 1** Questionnaire administered to paediatricians regarding the urgent telephone care service set at the hospital.

Items	Answers
1. Age in years	
2. Years of experience as a paediatrician	< 5 years 5–10 years 10–15 years >15 years
3. Do you do on-call shifts as part of your usual practice?	Yes/No
4. Have you ever worked in primary care?	Yes/No
5. Write the number of shifts you have done in the phone care service:	
6. Phone services are useful to identify patients that require emergency care on site:	Strongly disagree - Disagree- Neither agree nor disagree- Agree - Strongly agree
7. Telephone service was useful to resolve medical concerns of parents regarding conditions that did not require emergency care:	Strongly disagree - Disagree- Neither agree nor disagree- Agree - Strongly agree
8. Audiovisual media (sending images and/or videos through email) have been useful:	Strongly disagree - Disagree- Neither agree nor disagree- Agree - Strongly agree
9. In the case of patients referred to the emergency department, the parents expressed reluctance to leave the house:	Strongly disagree - Disagree- Neither agree nor disagree- Agree - Strongly agree
10. In your opinion, patients used the urgent line appropriately:	Strongly disagree - Disagree- Neither agree nor disagree- Agree - Strongly agree
11. Do you think it would be useful to maintain telephonic care after the COVID-19 pandemic?	Strongly disagree - Disagree- Neither agree nor disagree- Agree - Strongly agree
12. Rate (on a scale of 1–10) the usefulness of telephonic care during the COVID-19 pandemic:	
13. Rate (on a scale of 1–10) how confident you felt delivering telephonic care:	

Ninety percent of respondents considered that urgent telephonic care was useful to identify patients that required referral to the emergency department, and 97% that it was useful to resolve other types of medical concerns. Also, 93.5% believed that audiovisual media was helpful. Only one physician reported low confidence in delivering care by telephone (3/10), while 73.6% of respondents gave this item a score of 8 out of 10. In terms of their perception of patients, 32% of paediatricians reported that parents seemed reluctant to leave the house to visit the emergency department and 55% believed that parents had used the telephone services appropriately. As many as 93.5% scored the usefulness of telephonic care during the pandemic at 8/10 or higher, and 64.9% would agree with prolonging this service.

During the crisis of the COVID-19 pandemic, our hospital established an urgent telephonic care service for the paediatric population staffed by the paediatricians of the centre in different shifts. The providers considered the service useful to identify patients that required urgent referral and to resolve health-related concerns. The respondents had a very positive opinion of this telemedicine tool.

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