



SCIENTIFIC LETTER

Specific healthcare services for the paediatric population during the COVID-19 pandemic in the Balearic Islands (Spain)



Servicios específicos de atención sanitaria para población pediátrica durante la pandemia de COVID-19 en Baleares (España)

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The strategies of control of COVID-19 infection before the introduction of vaccines could be attributed to the early diagnosis of infected people, identification of risk factors and isolation of possible cases. Thus, specific services were created in different countries for people who were possibly infected in order to redirect people with fever or respiratory symptoms away from primary care (PC) and emergency departments (ED) to protect uninfected individuals and to provide diagnosis, treatment, and supportive

care to patients with COVID-19 in a separate setting.¹⁻⁴ This approach also provided continuity of usual care to the uninfected population and prevented infection of healthcare workers in PC and ED.⁵ In the Balearic Islands because of schools reopening, it was planned to reinforce healthcare services in areas with high densities of children, and this prompted the establishment of specific services.⁶ This manuscript describes the activities of two COVID-19 specific services for the paediatric population. The InfoCOVID Paediatric call centre was created to provide information about COVID-19 to families, school members, and contacts of children with suspected COVID-19. Families could also obtain an appointment with a paediatrician at a healthcare centre or at a Kid-COVID unit. It was attended by healthcare technicians, specialists in emergency call centres. The clinical status of a potential patient was assessed by phone

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Table 1 Visits at Kid-COVID clinics and telephone calls received by the InfoCOVID Paediatric call centre from September 2020 to April 2021.

Location	Professional	Monthly visited children September 2020–April 2021								Total
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
KC INCA	Nurse	–	40	111	110	115	184	155	72	787
	Paediatrician/GP	–	42	114	107	103	139	136	69	710
KC PALACIO	Nurse	84	562	323	162	142	243	363	142	2021
	Paediatrician/GP	83	572	326	160	138	208	344	134	1965
KC SON DURETA	Nurse	–	192	251	181	249	336	–	–	1209
	Paediatrician/GP	–	197	250	189	214	278	–	–	1128
Total KC		167	1605	1375	909	961	1388	998	417	11,068
InfoCOVID Paediatric call centre		2817	3607	2851	3047	3098	1661	1057	776	18,914

Source: Health Service of the Balearic Islands. Observatory of data.

with a questionnaire of severity of symptoms. Patients with signs of clinical instability were referred by phone to an emergency medical service for immediate evaluation. Children with underlying pathologies and considered at risk for complications were immediately referred to their PC paediatrician. The 3 Kid-COVID Majorca centres were temporary clinics established outside hospitals to care for possible COVID-19 cases and contacts (3–15-years-old). Each clinic had 5 stations. In order to optimize safety and the use of protective equipment, each station had a different structure (room and equipment) with specific functions and staffed by different professionals. A single companion was allowed for children younger than 15-years-old. Station A was the admission area where an administrator checked patient's data, entered data into their electronic clinical records, and assigned appropriate professionals to attend them using a QR code. Station B, where an auxiliary nurse recorded patient's vital signs (weight, temperature, and oxygen saturation). Station C attended by a paediatrician or a General Practitioner (GP) who recorded additional information, performed a physical examination and, if necessary, requested a PCR test or other tests and administered symptomatic treatment. The physician referred the child to a paediatric hospital emergency service if more complex investigations were required. Station D was attended by 2 nurses who managed the administrative work related to testing, collecting samples or administration of prescribed treatment, and gave guidance about patient care and isolation measures. Station E was the discharge area where an administrator scheduled an appointment for telephone reporting tests results and clinical follow-up. The InfoCOVID Paediatric call centre in the Balearic Islands received 18,914 telephone calls from September 2020 to April 2021, 6.9% of all calls related to COVID-19 for patients of all ages. During the same period the Kid-COVID clinics, displayed 4017 visits with nurses and 3803 visits with paediatricians or GPs. A total of 3764 PCR tests were performed and 2237 of them (59.4%) were positive (Table 1). Nearly 99% of the patients received the test results by telephone from their usual PC paediatric team. In conclusion, InfoCOVID call centre and the Kid-COVID clinics provided information, testing and other services to control the spread of COVID-19 in children. These services allowed other hospital healthcare units and PC to continue with their

usual activities without compromising the safety of patients and professionals.

Ethical considerations

Ethical approval was not sought because the analyzed data comprised information routinely collected by health services overseen by the Regional Health Service Observatory. This information is always completely anonymized.

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Conflict of interest

The authors declare no conflicts of interest.

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References

- Desborough J, Hall Dykgraaf S, de Toca L, Davis S, Roberts L, Kelaher C, et al. Australia's national COVID-19 primary care response. *Med J Aust.* 2020;213:104–60, <http://dx.doi.org/10.5694/mja2.50693>.
- Kidd MR. Five principles for pandemic preparedness: lessons from the Australian COVID-19 primary care response. *Br J Gen Pract.* 2020;70:316–7, <http://dx.doi.org/10.3399/bjgp20X710765>.
- Baugh JJ, Yun BJ, Searle E, Chyn A, Bernhardt JM, LeClair K, et al. Creating a COVID-19 surge clinic to offload the emergency department. *Am J Emerg Med.* 2020;38:1535–7, <http://dx.doi.org/10.1016/j.ajem.2020.04.057>.
- Sussex National Health Service (NHS): infection prevention and control. Primary care covid-19 hot hubs and home visiting guidance; 2020 April. Available from:

- <http://www.sussexccgs.nhs.uk/wp-content/uploads/2020/04/Primary-Care-Covid-19-hot-hubs-and-home-visiting-guidance.pdf> [accessed 10.8.20].
5. COVID-19 in children and the role of school settings in COVID-19 transmission, 6 August 2020. Stockholm: ECDC; 2020. Available from: www.ecdc.europa.eu/en/publications-data/children-and-school-settings-covid-19-transmission [accessed 8.8.20].
 6. Servicio de Salud de las Islas Baleares. Protocolo de uso de los dispositivos asistenciales pediátricos para la COVID-19. INFOCOVID Pediátrico, Kid-COVID y EduCOVID: Relación de los centros educativos con el Servicio de Salud de las Islas Baleares. Palma; 2020. ISBN 978-84-09-24789-9.