

SARS-CoV-2 infection in children with Cystic Fibrosis: A Cross-sectional Multicenter Study in Spain. New waves, new knowledge.

Pedro Mondejar-López¹, Laura Moreno-Galarraga², Cristina De Manuel³, Enrique Blitz Castro⁴, Maynor Bravo-Lopez⁵, Silvia Gartner⁵, Estela Pérez-Ruiz⁶, Pilar Caro-Aguilera⁶, Veronica Sanz Santiago⁷, Alejandro López-Neyra⁷, Maria Luna-Paredes⁸, Miguel Garcia Gonzalez⁹, Jordi Costa¹⁰, Maria Cols-Roig¹⁰, Isabel Delgado-Pecellín¹¹, Silvia Castillo-Corullón¹², Marta Ruiz de Valbuena³, Patricia W. García-Marcos¹, Antonio Aguilar Fernandez¹³, Carlos Martín¹⁴, M^a Verisima Barajas Sanchez¹⁵, Orlando Mesa Medina¹⁶, Cati Bover-Bauza¹⁷, Joan Figuerola Mulet¹⁷, Belén García Avilés¹⁸, M^a Jesus Rodriguez Saez¹⁹, Carlos Garcia-Magan²⁰, Patricia Juarez Marruecos²¹, Jose Ramon Gutierrez-Martinez²², Isidoro Cortell-Aznar²³, David Gomez-Pastrana²⁴, M. Valle Velasco Miguelez²⁵, M. Isabel Barrio³, Manuel Sanchez-Solis¹, Óscar Asensio de la Cruz⁹, and Maria Dolores Pastor-Vivero²⁶

¹Hospital Clinico Universitario Virgen de la Arrixaca

²Instituto de Investigacion Sanitaria de Navarra

³Fundacion para la Investigacion e Innovacion Biomedica de Atencion Primaria de la Comunidad de Madrid

⁴Instituto Ramon y Cajal de Investigacion Sanitaria

⁵Hospital Universitari Vall d'Hebron Servei de Medicina Interna

⁶Hospital Regional Universitario de Malaga

⁷Hospital Infantil Universitario Nino Jesus

⁸Hospital Universitario 12 de Octubre

⁹Consorcio Corporacion Sanitaria Parc Tauli

¹⁰Hospital Sant Joan de Deu

¹¹Centro de Investigacion Biomedica en Red Enfermedades Respiratorias

¹²Hospital Clinico Universitario

¹³Hospital Universitario Materno Infantil de Canarias

¹⁴Hospital Universitario Miguel Servet

¹⁵Hospital Clinico de Salamanca

¹⁶Hospital Universitario Nuestra Senora de la Candelaria

¹⁷Hospital Universitari Son Espases Servei de Cirurgia Pediatrica

¹⁸Hospital Universitari Sant Joan d'Alacant

¹⁹Hospital Alvaro Cunqueiro

²⁰Hospital Clinico Universitario de Santiago de Compostela Servicio de Cardiologia

²¹Complejo Hospitalario Torrecardenas

²²Hospital Universitario Central de Asturias

²³Hospital Universitari i Politecnic La Fe Biblioteca

²⁴Hospital Universitario de Jerez de la Frontera
²⁵Hospital Universitario de Canarias
²⁶Instituto de Investigacion Sanitaria Biocruces Bizkaia

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Abstract

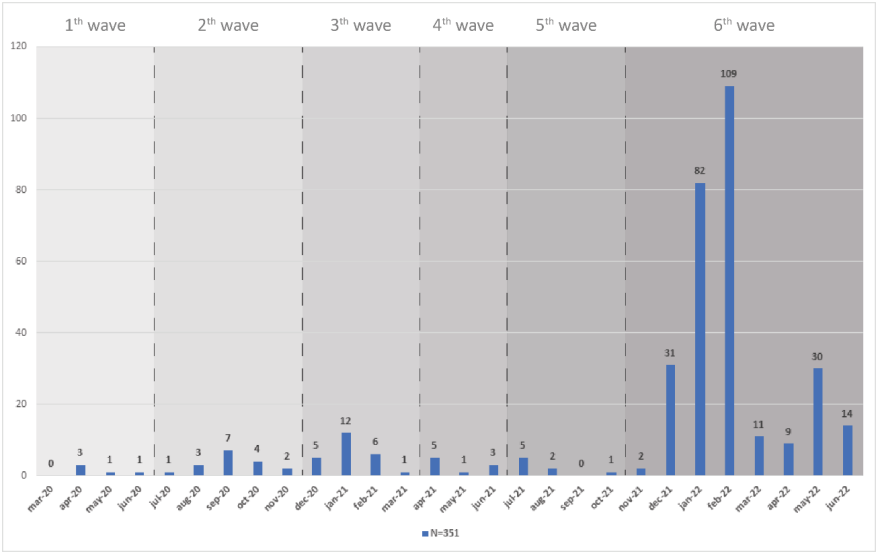
Introduction Viral infections are associated with pulmonary exacerbations in children with Cystic Fibrosis (cwCF), but after 3 years of SARS-CoV-2 pandemic, whether cwCF are at higher risk of developing COVID-19 or its adverse consequences remains controversial. **Methods** We conducted an observational, multicenter, cross-sectional study of cwCF infected by SARS-CoV-2 between March 2020 and June 2022, (1st to 6th COVID-19 pandemic waves) in Spain. The study aimed to describe patients' basal characteristics, SARS-CoV-2 clinical manifestations and outcomes, and whether there were differences across the pandemic waves. **Results** During study time, 351 SARS-CoV2 infections were reported among 341 cwCF. Median age was 8.5 years (range 0-17) and 51% were female. Cases were unevenly distributed across the pandemic, with most cases (82%) clustered between November 2021 and June 2022 (6th wave, also known as Omicron Wave due to the higher prevalence of this strain in that period in Spain). Most cwCF were asymptomatic (24.8%) or presented with mild Covid-19 symptoms (72.9%). Among symptomatic, most prevalent symptoms were fever (62%) and increased cough (53%). No multisystem inflammatory syndrome (MIS-C), persisting symptoms, long-term sequelae or deaths were reported. **Conclusions** Spanish current data indicate that cwCF do not experience higher risks of SARS-CoV-2 infection nor worse health outcomes or sequelae. Changes in patients' basal characteristics, clinical courses and outcomes were detected across waves. While the pandemic continues, and new SARS-CoV-2 variants are being identified, a worldwide monitoring of COVID-19 in pediatric CF patients is needed.

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FIGURE 1. Image Legends.docx available at <https://authorea.com/users/605288/articles/634830-sars-cov-2-infection-in-children-with-cystic-fibrosis-a-cross-sectional-multicenter-study-in-spain-new-waves-new-knowledge>



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