

ONCOPEDES: A NOVEL MOBILE APPLICATION FOR EARLY DIAGNOSIS AND REFERRALS IN CHILDHOOD CANCER

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Abstract

Background The diagnostic delay in children and adolescents with cancer is a public health problem in Peru leading to high rates of advanced disease and mortality. We aimed to evaluate the implementation and utility of ONCOpedes, a mobile application that provides consultations, in reducing the latency to diagnosis (LD) and referral time (RT) in children and adolescents diagnosed with cancer in Peru. **Material and methods** A multicenter pilot study was conducted in the region of Callao between November 2017 and April 2018. Attending primary care physicians were trained in the use of ONCOpedes in 5 educational sessions. Patients younger than 18 years living in Callao and diagnosed with cancer from all the pediatric cancer units were analyzed in two groups: referred by the mobile application or by the conventional referral. **Results** ONCOpedes was successfully installed in the smartphone devices of 78 attending physicians of Callao. During this period, 23 new cases of cancer in children and adolescents from Callao were collected. Ten patients were referred through the application and 13 in a conventional manner. The LD and RT were reduced in the group referred by ONCOpedes by 66% and 68%, respectively; however, only the RT reached statistical significance ($p = 0.02$). **Conclusions** The implementation of the use of ONCOpedes was feasible in this pilot study, having a potential utility in improving the diagnosis and referral in children and adolescents with suspected cancer. A larger study at the national level is required to demonstrate the effectiveness of this telemedicine tool.

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