

**LETTER TO THE EDITOR**

Comment on: “Early advice on managing children with cancer during the COVID-19 pandemic and a call for sharing experiences”

We have read with interest the article “Early advice on managing children with cancer during the COVID-19 pandemic and a call for sharing experiences”, released on behalf of the SIOP.¹ As of April 15, 2020, nearly 1 850 000 cases have been confirmed worldwide.² Spain is the second most affected country with over 170 000 cases and 18 000 deaths (<0.5% deaths under the age of 19).³ In Spain, Pediatric Oncology departments are struggling to provide best care, following the recommendations provided by the government, international agencies, and scientific associations.^{1,4,5} However, health policies and guidelines change rapidly, and some crucial decisions are being made on the basis of controversial data, forced by the fast widespread of the pandemic.

Laboratory testing has become a cornerstone for diagnostic and preventive strategies. From January to February 2020, the only validated tests were based on nucleic acid amplification to detect SARS-CoV-2 RNA in respiratory samples.⁶ The vast global demand has created shortage of PCR test kits compromising its implementation,⁷ but in few weeks, commercial rapid tests have become globally available. This market scenario is promoting the generalized use of rapid tests⁸ based on antibodies. There are over 60 CE-marked rapid antibody tests and the number keeps growing.⁹ These tests, based on host immune response against SARS-CoV-2, are cheaper and less time consuming (10–30'). However, some aspects should be taken into account: (a) Serologic tests have limited effectiveness for early COVID-19 diagnosis, as seroconversion takes place in the second week after disease onset.^{10,11} (b) Currently available tests have a wide range of sensitivity and specificity.¹¹ (c) Cross-reactivity among viral strains can show false-positive results.¹² (d) Positive results do not warrant protection as great part of the immune response relies on binding antibodies and not neutralizing antibodies.^{11,12} (e) Seroconversion does not preclude the possibility of transmission. Antibody-rise coincides with a slow decline of viral loads in respiratory secretions.^{7,10}

For immunocompromised patients, there are additional aspects that need to be considered: (a) Serological immune response could be weaker/nonexistent, and data about latency are lacking. (2) Blood banks safety policies are emerging during the pandemic, but are still far from being validated. Due to potential infected, asymptomatic blood donors, some transfusion-dependent patients could be misdiagnosed based on serological methods.¹³

Most guidelines do not consider the peculiarities of immunocompromised patients. Recommendations on testing in this population are missing. PCR remains the gold-standard according to the World Health

Organization (WHO),¹⁴ which does not recommend serological rapid diagnostic tests for the general population.¹⁵ In the context of a hectic market race, particular attention should be paid to vulnerable patient populations such as children and adolescents with cancer. The decision to endorse non-PCR-based methods should be carefully weighted.

While we acknowledge the enormous effort by the SIOP to provide thorough and pragmatic recommendations about the management of children and adolescents with cancer in the context of the COVID-19 pandemic, we believe that the “testing recommendations” chapter on the guidelines should take our discussed considerations into account.¹ In our opinion, PCR should be the preferred testing method in our patients.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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