

The Impact of Restrictive and Preventive Covid 19 Measures on Flu Hospitalizations in Children

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Annual influenza epidemic may affect all populations, but young children, adults older than 65, as well as people with chronic underlying medical conditions or weakened immune systems bear a high risk of severe course or complications [1]. In details, influenza virus may be responsible of significant morbidity in children, leading approximately 870,000 children under 5 years of age to hospitalization worldwide. Moreover, young children are also important vectors for the spread of influenza in the community and within families because they are either in close contact with each other in schools and with adults and the elderly in daytime [2].

In 2020, the novel coronavirus 19 (COVID-19) pandemic spread worldwide, so that both the World Health Organization (WHO) and the national governments have recommended a series of measures to prevent the infection. Apart from nationwide lockdown act, many Nations adopt facial mask wearing, physical distancing, remote work, school-closing, stay at home orders and travel restrictions.

The preventive measures were useful in containing COVID 19 spreading but also produced a decrease in the overall number of pediatric emergency room visits [3]. As for flu, COVID-19 control measures have likely tamped down respiratory viruses that would normally be ripping through the Northern Hemisphere. Influenza data reported to the WHO's FluNet platform from three Southern Hemisphere countries that serve as robust sentinel sites for influenza from Oceania (Australia), South America (Chile), and Southern Africa (South Africa) had very low influenza activity in the period time June-August 2020, which is usually the typical Southern Hemisphere influenza season [4]. As for the influenza season in Europe, in December and January we are used to face the peak of the infection and to have children hospitalized for flu complications. This year, despite widespread and regular testing for influenza, reported influenza activity still remains at a very low level. In details, influenza activity has been at baseline level since the start of the season, below the epidemic threshold, which is set at 10% [5].

The decrease in the rate of viral infection is likely caused by the decrease in incidence of infectious diseases because preventive measures are still in place. Even if restrictive and preventive measures were finalized to contain COVID 19 pandemic, they have potential to impact transmission of flu as well. Of note, the overall reduced flu circulation is independent from the reopening of schools and of facial mask indication, with is actually request for children over 6 years of age.

Increased flu vaccination coverage may have contributed to the disappearance, too. In fact, flu vaccination demand increased among population, correlated to an increased fear of COVID 19-flu co-infection.

In conclusion, influenza virus circulation needs to be monitored to confirm the preliminary data. Finally, in the future preventive and hygienic measures could be considered and implemented during influenza epidemics to reduce flu transmission.

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