

## **Does a Crying Child Enhance the Risk for COVID-19 Transmission?**

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The pandemic of coronavirus disease (COVID-19) has led all of us to recalibrate both our personal and professional life [1]. In our routine pediatric outpatient practice for non-COVID cases *i.e.* well baby visits and kids presenting with afebrile, non-respiratory symptoms, a surgical facemask with proper hand hygiene and gloves has been recommended for health care professionals [2]. However, for those handling aerosol-generating procedures (AGP), respirators and additional personal protection equipment (PPE) are recommended [3]. Aerosol is defined as suspension of fine solid particles or liquid droplets in air or another gas. Aerosols of varying severity are generated on sneezing, coughing, talking and also during normal breathing [4]. AGPs are believed to produce aerosols and droplets as source of respiratory pathogens that exposes the health care workers to pathogens causing acute respiratory infections including Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) [5]. AGPs are generated on performing certain medical procedures like intubation, manual ventilation, non-invasive ventilation, tracheostomy insertion etc. on infected cases. However, it is not clear if the risk is due to direct airborne transmission or secondary exposure to respiratory droplets.

It is established that even loud speaking results in increased aerosol generation *i.e.* aerosol super-emission [6]. Extrapolating the same logic even a crying and screaming child should produce aerosol super-emission. Although an operational definition for AGP is in place, the relation to crying and its possible effects of increased aerosol generation has so far not been stressed.

In a pandemic situation, we need to ponder on some points: *a)* even infants and toddlers who come for routine vaccinations or non-respiratory complaints can be asymptomatic carriers or in pre-symptomatic period of transmission; *b)* implementing source control measures like face mask and social distancing in this age group practically difficult; *c)* crying, a common occurrence in this age group, also increases the risk of aerosol generation and transmission; and *d)* proximity of these kids to caregivers and their attenders along with sustained crying either due to anxiety or fear might further increase the risk and load of aerosol.

In view of the yet unknown increased risks posed by expected or unexpected crying of asymptomatic children in the transmission of COVID-19, it may be prudent to make every effort to avoid examining a crying child without adequate precautions.

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