

## **Covid-19: an opportunity to vaccinate infants against rotavirus infections**

Press release from the French National Academy of Medicine

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As every year, seasonal viral epidemics - influenza and influenza-like illness (ILI), Respiratory Syncytial Virus (RSV) bronchiolitis, rotavirus acute gastroenteritis (AGE) - will affect infants over the coming winter. If, as feared, SARS-CoV-2 continues to circulate in France on an epidemic basis, difficulties are to be expected for children living in communities. Rotavirus is the first hospital-acquired infection agent in paediatrics, nurseries, medical practices, emergency rooms and hospitalization. It is responsible in France for a heavy annual burden on infants: 430,000 episodes of acute gastroenteritis, 181,000 consultations, 31,000 emergency room visits, 14,000 hospitalizations and about ten deaths. Two rotavirus vaccines benefit from the AMM (marketing authorization) and are currently available. Their effectiveness, estimated at 76% for AEGs, is between 85 and 95% for the severe forms of the hospitalized children. The risk of an acute intestinal invagination, the main adverse effect of this vaccination, must be taken into account despite its rarity (< 1 case per 10,000 vaccinated). Numerous studies in both developed and developing countries show that the benefits of vaccination, in terms of reducing morbidity and mortality, far exceed the risk of an intestinal invagination [1]. The vaccination against rotavirus is recommended in 15 European countries. This is unfortunately not the case in France where vaccines are marketed but are not reimbursed, leaving winter outbreaks of rotavirus AEG to rage every year with the same intensity. The persistence of SARS-CoV-2 circulation during the rotavirus outbreak will create new challenges. Although infants are little affected by Covid-19, the diagnosis can be evoked in the face of some clinical manifestations such as diarrhea, which is present in 15 to 20% of children. In such circumstances, a large number of RT-PCR tests will be required to screen for SARS-CoV-2 infection in infants with community-acquired diarrhea. There will also be organizational difficulties related to the eviction measures that must be implemented in the infant communities, particularly in the nurseries, in cases of acute diarrhea. Such a perspective must be carefully considered and requires consideration of the appropriateness of the vaccination of infants against rotavirus in France. The National Academy of Medicine,

- regretting the highly unequal access to rotavirus vaccination, currently not reimbursed because it is not recommended;

- stressing that this vaccination, indicated between 2 and 6 months, has been shown to be effective and that it would reduce the paediatric burden of rotavirus infections,
- recommends that infant vaccination be considered now in the rotavirus infection strategy to prevent the deleterious effects of an epidemic concomitant with the occurrence of Covid-19 outbreaks during the winter season.

[1] Arlegui H et al. Quantitative Benefit-Risk Models Used for Rotavirus Vaccination: A Systematic Review. *Open Forum Infect Dis* 2020; 7(4) : ofaa087.