



New coronavirus: new challenges for pediatricians

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The 2019-nCoV epidemic has become a major challenging public health problem in China. For standardizing the diagnosis and treatment strategies of 2019-nCoV pneumonia, National Health Commission of the People's Republic of China has released the *Diagnosis and Treatment Standards of 2019-nCoV pneumonia*, and updated the standards to the 4th edition based on the status of epidemic and accumulated experiences in clinical practice now [1].

Children comprise a special population whose immune response system is distinct from adults. Therefore, pediatric patients infected with 2019-nCoV have their own clinical features and therapeutic responses. Herein, we formulate this recommendation for diagnosis and treatment of 2019-nCoV infection in children which is of paramount importance for clinical practice [2].

As of this report date, more than 20 pediatric cases have been reported in China. Zhejiang Province has the biggest number of pediatric cases (10), because of earlier and wider application of 2019-nCoV nucleic acid detection of clinical samples. All the ten pediatric patients, of age from 112 days to 17 years, are mild cases, and only three showed pneumonia. Based on the current data in pediatric cases, this recommendation focuses on pediatric respiratory infections caused by 2019-nCoV, not pneumonia only. To make it more helpful for first-line clinicians to judge patients' conditions, this recommendation is detailed in physical examinations, systemic symptoms, and clinical classifications, particularly in the definition of severe and critical cases. Since most pediatric cases are family clusters, a history of close contact with confirmed or suspected 2019-nCoV within 2 weeks prior to disease onset should be paid more attention to. Meanwhile,

considering the probability of vertical mother-to-child transmission, "newborns delivered by mothers with suspected or confirmed 2019-nCoV infection" is also considered as one epidemiological evidence. We highlight the principles of early identification, early isolation, early diagnosis, and early treatment in managing pediatric cases. As to treatment, rational medication is highlighted for mild cases. For critical cases, more invasive technique such as ECMO support can be used if indicated.

The current recommendation highlights the different clinical characteristics of pediatric patients, and provides optimized, detailed and applicable standards for clinical practice. Due to the limited pediatric cases and experiences, this recommendation is formulated mainly based on the standards and experiences in adult patients. With further case data collection and accumulated experiences in managing pediatric cases infected by 2019-nCoV, this recommendation will be updated and improved. With stringent prevention and control strategies, we believe we can win the fight against this epidemic.

References

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