

20 March 2023

Alert to clinicians- start of the respiratory syncytial virus (RSV) season

Background

Respiratory syncytial virus (RSV) is the most common cause of bronchiolitis and lower respiratory tract infection (LRTI) among young children. It is highly contagious with transmission mainly by respiratory droplets. The RSV season usually precedes the influenza season with the average onset at the end of February (range early February – mid-March) over the past 10 years (excluding 2020 and 2021).

RSV season update

The RSV season started in week 6 of 2023 (week starting 6 February 2023) (Figure 1). Among children aged <5 years, the RSV detection rate is currently at moderate levels and continues to rise steeply. Weekly reports documenting RSV circulation are available on: <https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/weekly-respiratory-pathogens-surveillance-report-week/>. Compared to mean circulation of RSV between 2014 and 2019, the detection rate of RSV appears to be rising more sharply in recent weeks, although within the range of what has been seen in the past (Figure 2).

Reports of increased RSV circulation and increased severe RSV-associated illness (hospitalisation) including among children aged >1 year of age during the northern hemisphere RSV 2022-2023 season (November to February) have been published from the United States of America <https://www.cdc.gov/rsv/research/rsv-net/dashboard.html> and Europe <https://www.ecdc.europa.eu/sites/default/files/documents/RRA-20221128-473.pdf>. It is possible that the RSV season in South Africa will follow a similar trend.

Alert to clinicians

Clinicians and paediatric hospitals/ intensive care units are reminded to anticipate an increase in paediatric admissions during the 2023 RSV season. Healthcare providers are encouraged to prepare and allocate adequate resources to respond to the surge in RSV cases.

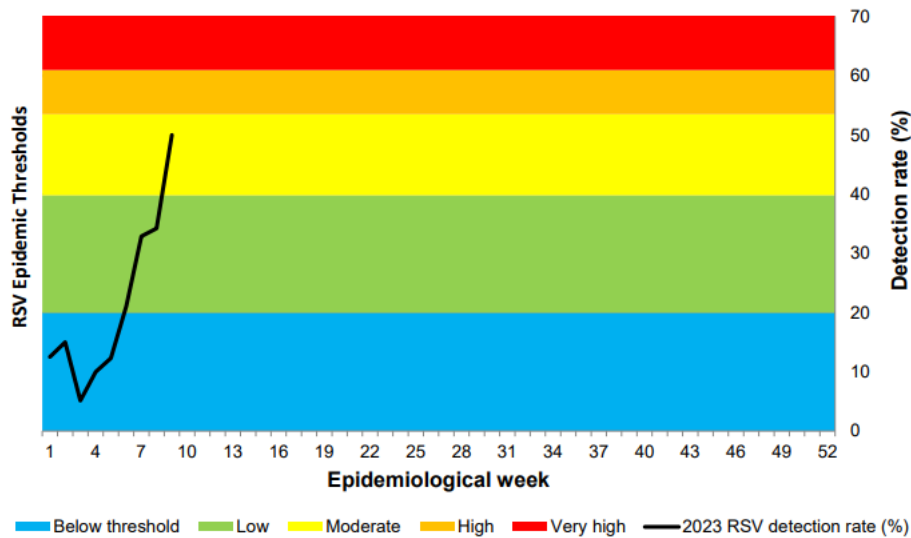


Figure 1: Respiratory syncytial virus detections and detection rate among patients aged <5 years, pneumonia surveillance, South Africa, 1 January 2023 to 13 March 2023, thresholds based on 2010-2019 data and generated using MEM*.

*Moving Epidemic Method (MEM), is a sequential analysis using the R Language, to calculate the duration, start and end of the annual epidemic, based on data from the previous 5 years, in this case 2015 to 2019.

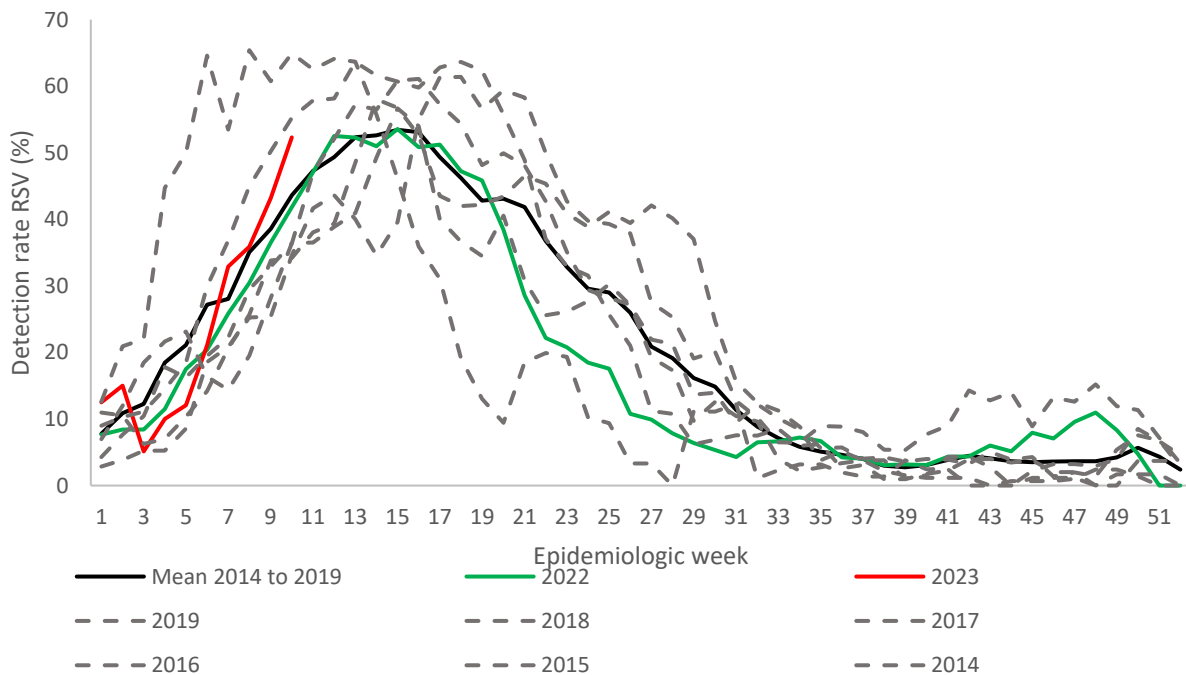


Figure 2: Respiratory syncytial virus circulation 2014 to 13 March 2023 (excluding 2020 and 2021), children aged <5 years, pneumonia surveillance, South Africa

Diagnosis of RSV

Clinicians should consider RSV in differential diagnosis for severe respiratory illness, especially in young children. The majority of infants with RSV-associated bronchiolitis do not require hospitalisation, but certain children are at risk of severe disease (hospitalisation). Infants aged <6 months may develop severe disease (hypoxia, severe respiratory distress (tachypnoea, nasal flaring or lower chest retractions), inability to feed or apnoea) requiring hospitalisation. In very young infants, irritability, decreased activity, and breathing difficulties may be the only presenting symptoms. Risk factors for severe RSV-associated disease include prematurity, congenital heart disease, chronic lung disease of prematurity, neurological disease, infants <6 months, immunodeficiency and lack of breast feeding.

Prevention of RSV

Prevention measures include isolation of children with influenza-like symptoms (sick children should not go to crèches or schools for a few days), and teaching children (and adults looking after infants) to practice sneeze and cough hygiene. Use of prophylactic antibiotics for children with upper respiratory tract infections is not recommended. The monoclonal antibody, palivizumab, administered monthly throughout the RSV season to infants and children at high risk of severe RSV disease, has been shown to be effective for prevention. However, high costs and the need for monthly intramuscular injections throughout the RSV season limit its use.