

Preventing Respiratory Tract Infections (RTIs)

- There are only a few studies on preventing RTIs in patients with trisomy 21.
- The role of immune dysregulation and exaggerated inflammatory response in the high prevalence and severity of RTIs.
- Patients with trisomy 21 should be regarded as having a primary immunodeficiency of genetic origin and classified in a risk group for pneumococcal, influenza, SARS-Cov-2 and RSV RTIs. Vaccination (passive immunization) is essential and should consist of:
 - For pneumococcus:
 - A 4-dose reinforced primary vaccination schedule with PCV13.
 - Additional doses of PPV23 (maximum 3 doses)
 - For influenza:
 - Annual vaccination from the age of 6 months upwards. 2 doses/4-week intervals for primary vaccination. A single dose afterwards.
 - All family contacts and relatives must receive the vaccine annually.
 - For SARS-Cov-2:
 - Priority for vaccination (aged >40 years or <40 years + significant comorbidities).
 - Priority for a booster.
 - For RSV:
 - Palivizumab prophylaxis for all children with trisomy 21 during their first 24 months of life.

- At the current time, no other drug can be recommended to prevent RTIs in patients with trisomy 21. Some products could be the subject of a research agenda for patients with trisomy 21:
 - Pidotimob
 - OM-85 (Broncho Vaxom™)
 - Vitamin D
 - Azithromycin
- In children with trisomy 21, prescribing first-line antibiotics when faced with a RTI does not protect them against subsequent hospitalization, except perhaps for children aged less than 1 year.

