Managing children in hospital with viral respiratory tract infections: summary flow chart - October 2023

Infant or child with presumed viral respiratory tract infection attending ED or paediatric assessment unit and requiring admission

Due to low MMR vaccine uptake in children, measles is once again circulating in the UK (Oct 2023) – if an unimmunised child presents with symptoms of measles (fever PLUS rash PLUS one of the following: coryza, cough, conjunctivitis), immediately isolate and facilitate testing as per national guidance and wear appropriate PPE as recommended in the national infection prevention and control manual for England *

Requiring admission to PICU/HDU

Prioritise rapid molecular testing (inc. SARS-CoV-2 / RSV / influenza A / influenza B) if limited testing capacity

If AGPs being performed (see Appendix 2) and virology results not available, initially admit to single room on PICU/HDU. May then cohort/ isolate as per 2 ward options

Management of respiratory virus positive children (RSV, influenza or SARS-CoV-2)

Transfer to virus specific cohort bay irrespective of whether an AGP is being performed. Choice of appropriate PPE as per national infection prevention and control manual for England (See Appendix 2). De-escalate where appropriate***

Management of respiratory virus negative children (RSV, influenza or SARS-CoV-2).

Can manage in a non-RSV, non-influenza A/B, non-SARS-CoV-2 respiratory cohort area.

Single rooms should be prioritised for highest risk children.**

De-escalate where appropriate***

Requiring admission to ward

Perform respiratory viral molecular testing (incl. SARS-CoV-2 / RSV / influenza A / influenza B). Use rapid molecular testing where locally agreed.

Can be initially admitted to undifferentiated respiratory bay unless AGP being performed (See Appendix 2). Single rooms should be prioritised for highest risk children.**

Management of respiratory virus positive children (RSV, influenza or SARS-CoV-2)

Transfer to virus specific cohort bay irrespective of whether an AGP is being performed. Choice of appropriate PPE as per national infection prevention and control manual for England (See Appendix 2). De-escalate where appropriate***

Management of respiratory virus negative children (RSV, influenza or SARS-CoV-2).

Can manage in a non-RSV, non-influenza A/B, non-SARS-CoV-2 respiratory cohort area.

Single rooms should be prioritised for highest risk children.**

De-escalate where appropriate***

*Epidemiological factors that increase the likelihood of a measles diagnosis include 1. **UNVACCINATED** 2. Age: measles more likely in teenagers/young adults with typical clinical presentation than in younger children 3. Contact with confirmed or strongly suspected case of measles (infectious from 4 days before the onset of symptoms to 4 days after). 4. Member of under-vaccinated community 5. Travel to area where measles is circulating 5. Attendance at mass gathering event 6. Partially vaccinated (although 95% protection following 1 dose of MMR)

** During periods of high prevalence of respiratory viruses, cubicles should be prioritised for the most clinically vulnerable children for protective isolation. This includes children with significant immunosuppression such as severe combined immunodeficiency (until they are immune reconstituted), post BMT: 1st 6 months post allogeneic BMT or 1st 3 months post autologous BMT, post solid organ transplantation: in the first six weeks following solid organ transplants; children with newly diagnosed leukaemia during induction (1st month) or children with relapsed leukaemia (case by case decision based on intensity of treatment for relapse) and children with cystic fibrosis aged under 2 years of age. The following conditions do not necessarily need isolation for vulnerability, however, clinicians should continue to adhere strictly to IPC guidance as these children are likely to develop severe disease if exposed to respiratory viruses: uncorrected haemodynamically significant congenital heart disease up to 2 years of age; children with pulmonary hypertension up to 2 years of age and children with cardiomyopathy up to 2 years of age; children with chronic lung disease (bronchopulmonary dysplasia) or other lower respiratory tract pathologies necessitating home oxygen or long-term ventilation, up to 2 years of age; children with significant upper airways pathologies requiring ventilatory support, up to 2 years of age; children with severe neuromuscular conditions (i.e. SMA type 1) requiring night-time ventilatory support or regular use of airway clearance technologies such as a cough assist machine/ vest (up to school age).

*** Immunocompetent children with respiratory viral infections can be de-escalated from a cubicle/cohort bay after a period of 5 days following the onset of their symptoms. For severely immunocompromised children and children presenting with severe infection, seek local IPC advice due to risk of prolonged transmission. For children with SARS-CoV-2, follow local IPC guidance.

Infection Prevention Society

RCPCH Royal College of Paediatrics and Child Health
Leading the way in Children's Health