

IFC-022 Respiratory Viruses, Prevention and Control
Appendix A: Summary of Stage Specific Activities
09-01-11

	Outside Respiratory Virus Season	Respiratory Virus Season	
		Stage 1	Stage 2
TRIGGERS	This period occurs after Stage 1 ends in the spring (after 2 consecutive weeks with one or fewer influenza/week AND one or fewer RSV/week) and until Stage 1 begins again in the fall (when there are 2 consecutive weeks with at least one influenza/week OR one RSV/week).	<ul style="list-style-type: none"> • Begins when there are 2 consecutive weeks at least one influenza /week OR one RSV/week. • Return to Stage 1 (end Stage 2) when there are less than 5 influenza/week AND less than 5 RSV/week. • End Stage 1 (end respiratory virus season) after 2 consecutive weeks with one or fewer influenza/week AND one or fewer RSV/week. • The positives can occur in any age patient and in an outpatient or inpatient setting at the Johns Hopkins Hospital. 	<ul style="list-style-type: none"> • Begins when there are at least 5 influenza/week OR 5 RSV/week. • Ends (return to Stage 1) when there are less than 5 influenza/week AND less than 5 RSV/week. • The positives can occur in any age patient and in an outpatient or inpatient setting at the Johns Hopkins Hospital.
PATIENT TESTING	<p>Inpatients/Patients Being Admitted - An NP swab/aspirate must be obtained from anyone that meets the stage specific criteria described below.</p> <p>Outpatients – Decision to obtain an NP swab/aspirate is left to the clinical discretion of the provider.</p> <p>Respiratory virus test panels available:</p> <ul style="list-style-type: none"> • Order “Resp Virus Panel – Standard Pt. LAB (7961)” for patients not listed below. • Order “Resp Virus Panel – High risk immunocomprom. Pt. LAB (7962)” for any of the following patients: oncology, organ transplant, HIV, immunomodulatory therapy, ICU, pregnant, neonate or normal host with sudden onset respiratory failure. <p>Respiratory virus specimen collection options:</p> <ul style="list-style-type: none"> • NP swab/flocked swab (NPS) - PREFERRED: The provider collecting the swab must wear a mask with eye protection, gown and gloves. A fit-tested N95 or PAPR is not required. • NP aspirate (NPA) – Not acceptable for PCR/Immunocompromised Panel: The provider collecting the aspirate must wear a mask with eye protection, gown and gloves. A fit-tested N95 or PAPR is not required. 		

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	A specimen will be obtained from any patient for whom there is a clinical suspicion of a respiratory virus infection.	<p>A specimen will be obtained from:</p> <ul style="list-style-type: none"> • Any patient for whom there is a clinical suspicion of respiratory virus infection • Any patient with influenza-like symptoms (fever $\geq 100^{\circ}\text{F}$ and other symptoms such as cough, runny nose, sore throat, body aches) • Any patient with bronchiolitis or pneumonia (increasing oxygen requirement, sputum production) • Any child with apnea • Any child with reactive airway disease • Any child <6 years of age with known HIV infection (excluding neonates with known HIV during hospitalization after delivery) 	<p>A specimen will be obtained from:</p> <ul style="list-style-type: none"> • Any patient for whom there is a clinical suspicion of respiratory virus infection • Any patient with influenza-like symptoms (fever $\geq 100^{\circ}\text{F}$ and other symptoms such as cough, runny nose, sore throat, body aches) • Any patient with suspected bronchiolitis or pneumonia (increasing oxygen requirement, sputum production) • Any pregnant patient with unexplained respiratory symptoms • Any adult with COPD, asthma exacerbation, respiratory failure or unexplained cardiac disease exacerbation • Any elderly patient with unexplained new onset malaise • Any patient with nonspecific symptoms and a documented exposure to someone with a respiratory illness. • Any child with apnea or apparent life-threatening event (ALTE) • Any child with reactive airway diseases respiratory decompensation/failure or requiring increased respiratory support • Any child <6 years of age with known HIV infection (excluding neonates with known HIV during hospitalization after delivery) • Any child admitted to CMSC-6 unless medically contraindicated (i.e., post-op cleft lip or palate repairs, T&As, etc.) Any patient initially seen in the Pediatric ED or in the Pediatric PACU will be tested prior to transfer to CSMC-6. Any patient from a unit not able to be screened prior to transfer (i.e., Admitting, etc.) will be tested by CMSC-6 staff. Lack of initial testing will NOT impede transfers to CMSC-6.
ISOLATION PRECAUTIONS	<ul style="list-style-type: none"> • Droplet precautions (gown, gloves, mask with eye protection) - required for all suspect and confirmed cases of respiratory virus infection. (Prescription eye glasses are not considered adequate eye protection.) • For aerosol generating procedures (e.g., bronchoscopy, sputum inductions, intubation and extubation, open suctioning, cardiopulmonary resuscitation and autopsies): a fit-tested N-95 with eye protection OR a PAPR are required for all influenza positive patients and until influenza is ruled out. • Duration of isolation varies based on suspect/confirmed status, age and immune status of the patient, and degree of respiratory virus activity in the community (see below). 		

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<p>Duration of Isolation for SUSPECTED Respiratory Virus Infection</p>	<ul style="list-style-type: none"> • <u>Isolation can be discontinued if the DFA is negative AND respiratory symptoms have resolved. If the tests are negative (including shell vial/PCR) but the patient is still symptomatic he/she must remain on isolation until respiratory symptoms resolve.</u> • Isolation can be discontinued before respiratory symptoms resolve ONLY if the patient is an immunocompetent adult AND the DFA is negative AND there is an alternative diagnosis AND the physician or designee calls HEIC for approval. 	<ul style="list-style-type: none"> • Isolation can be discontinued ONLY if the DFA is <u>negative AND the shell vial or PCR is negative AND respiratory symptoms have resolved. If the tests are negative but the patient is still symptomatic he/she must remain on isolation until respiratory symptoms resolve.</u> • To discontinue isolation before respiratory symptoms resolve: <ul style="list-style-type: none"> ○ Immunocompetent adults: if the DFA is negative AND there is an alternative diagnosis, the physician or designee must call HEIC for approval ○ Patients in the Children’s Center and all immunocompromised patients: if the DFA is negative AND the patient never had respiratory symptoms AND there is a low level of clinical suspicion, the physician or designee must call HEIC for approval 	
<p>Duration of Isolation for LAB CONFIRMED Influenza, RSV, Adenovirus, Parainfluenza, Human Metapneumovirus, or Rhinovirus</p>	<p>To discontinue isolation for a patient with laboratory confirmed respiratory virus infection the following criteria must be met. Call HEIC for approval before discontinuing isolation.</p> <p>Immunocompetent Adults:</p> <ul style="list-style-type: none"> • If asymptomatic 5 days after onset: discontinue isolation; • If symptomatic 5 days after onset: continue isolation until respiratory symptoms resolve; <p>Immunocompetent Patients in the Children’s Center: A single DFA negative test is required to discontinue isolation. Obtain the specimen when the patient’s respiratory symptoms have resolved (no sooner than 5 days after symptom onset).</p> <ul style="list-style-type: none"> • If DFA is negative and patient is asymptomatic: discontinue isolation; • If DFA is positive: maintain isolation and test again in 5 days. <p>Immunocompromised Patients*: A single negative shell vial culture is required to discontinue isolation. Order “Resp Virus Panel – Standard Pt. LAB.” Test the patient when respiratory symptoms have resolved (no sooner than 5 days after symptom onset). Call HEIC to discuss any questions or concerns regarding a patient’s immune status.</p> <p>Rhinovirus positive patients:</p> <ul style="list-style-type: none"> • Isolation is only required if patient is symptomatic. • If patient is asymptomatic at time of initial positive test: no isolation and no additional testing is required. • If patient is symptomatic at time of initial positive test: above requirements must be met before isolation can be discontinued. 		

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VISITATION	<ul style="list-style-type: none"> No one with fever and respiratory symptoms may visit. Exceptions will be granted only with permission from the attending physician and nurse manager after consultation with HEIC. Anyone with respiratory symptoms but no fever should be discouraged from visiting but if they must enter the hospital they must put on a mask as soon as they arrive. Visitors to patients on droplet precautions should (1) perform hand hygiene and don gown, gloves and mask before entering the patient's room and (2) perform hand hygiene and don a clean mask when leaving the patient's room. The mask should be worn throughout the hospital even if the visitor is asymptomatic. 	<ul style="list-style-type: none"> No one with fever and respiratory symptoms may visit. Exceptions will be granted only with permission from the attending physician and nurse manager. Anyone with respiratory symptoms but no fever should be discouraged from visiting but if they must enter the hospital they must put on a mask as soon as they arrive. Visitors to patients on droplet precautions should (1) perform hand hygiene and don gown, gloves and mask before entering the patient's room and (2) perform hand hygiene and don a clean mask when leaving the patient's room. The mask should be worn throughout the hospital even if the visitor is asymptomatic. No children less than 12 years of age may visit any inpatient unit. Departments with higher risk may implement more strict restrictions. Exceptions may be made after consultation with HEIC and children are screened for fever and respiratory symptoms. 	
PATIENT PLACEMENT	<ul style="list-style-type: none"> A private room is preferred for any patient requiring droplet precautions. If cohorting is necessary, the following options are acceptable: <ul style="list-style-type: none"> Patients being ruled out for respiratory virus infection and not positive for another organism that requires isolation can be cohorted. If/when an organism is identified, patients should be moved to an appropriate cohort. Patients with RSV and no other organisms that require isolation can be cohorted. Patients with Influenza A and no other organisms that require isolation can be cohorted. Patients with Influenza B and no other organisms that require isolation can be cohorted. If necessary, patients with different respiratory viruses (i.e., Parainfluenza, adenovirus, human metapneumovirus, rhinovirus) and no other organisms that require isolation can be cohorted as long as neither patient is positive for influenza or RSV. Please refer to the bed placement algorithm or call HEIC if you have questions about bed placement. 		
PLAYROOM and RESOURCE LIBRARY	<ul style="list-style-type: none"> The Family Resource Library and the playrooms in the Children's Center will remain open. Children on isolation and their families/visitors cannot visit the playroom or the resource library. 	<ul style="list-style-type: none"> The playroom on CSMC-6 is closed. All other playrooms will remain open when a Child Life Specialist is on duty. Children on isolation and their families/visitors cannot visit the playroom or the resource library. 	
UNIVERSAL MASKING	None	Universal masking is REQUIRED for all staff and visitors entering all pediatric oncology patient rooms (CMSC-8 and boarders on other nursing units) and rooms of adult hematologic and BMT patients (5 th floor oncology units in the Weinberg building and boarders on other units).	
HOSPITAL PERSONNEL	<p>This section applies to all employees, faculty, residents, fellows, students and volunteers working in JHH or caring for JHH patients in inpatient and outpatient settings.</p> <ul style="list-style-type: none"> All persons with direct patient contact or working in clinical areas shall receive the influenza vaccine or complete a declination document annually. <ul style="list-style-type: none"> Any person with direct patient contact or working in clinical areas who 		

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	<p>has not been vaccinated for influenza in the current year (2010-11) must wear a surgical mask when within 6 feet of a patient. The dates of the mask requirement will be determined by HEIC and based on influenza activity in the local community.</p> <ul style="list-style-type: none"> • All personnel with respiratory symptoms AND fever must stay home. If they become ill at work they must call or report to their supervisor and must call or report to Occupational Health Services (OHS) (7:30am to 4:00pm, Monday –Friday, 410-614-1620; all other times 410-955-5000 and ask for the OHS nurse on-call. • Afebrile personnel who have respiratory symptoms must wear a mask during patient contact (≤6 feet). 	<p>complete a declination document annually.</p> <ul style="list-style-type: none"> ○ Any person with direct patient contact or working in clinical areas who has not been vaccinated for influenza in the current year (2010-11) must wear a surgical mask when within 6 feet of a patient. The dates of the mask requirement will be determined by HEIC and based on influenza activity in the local community. • No one with fever may work until 24 hours after fever has resolved (without antipyretics) • All personnel <i>with respiratory symptoms and a fever must call or report to their supervisor and must call or report to Occupational Health Services (OHS) (7:30 am to 4:00 pm Monday through Friday, 410-614-1620; all other times 410-955-5000 and ask for OHS nurse on-call).</i> • Testing is encouraged as antivirals may be indicated. The duration of furlough is virus specific. • OHS must clear personnel for return to work after febrile respiratory illness. After the following criteria are met, personnel must contact OHS for clearance instructions. <ul style="list-style-type: none"> ○ If NP swab/aspirate is <i>positive for influenza AND appropriate antiviral treatment was initiated</i> – contact OHS after 3 days of treatment AND at least 24 hours after fever resolved (without antipyretics). ○ If NP swab/aspirate is <i>positive for influenza AND NO antiviral treatment was initiated</i> – contact OHS 5 days after symptom onset AND at least 24 hours after fever resolved (without antipyretics) ○ Personnel with febrile respiratory illness <i>who do not get tested must also contact OHS for clearance</i> before returning to work. If treated with appropriate antiviral agents empirically they may contact OHS for clearance after 3 days of treatment AND at least 24 hours after fever resolved (without antipyretics). If not treated with appropriate antiviral agents they may contact OHS 5 days after symptom onset AND at least 24 hours after fever resolved (without antipyretics)

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			<ul style="list-style-type: none"> ○ If NP swab/aspirate is <i>negative for influenza by DFA and shell vial or PCR (this includes staff who are positive for other respiratory viruses)</i> - contact OHS at least 24 hours after fever resolved (without antipyretics). ● Afebrile employees who have respiratory symptoms must wear a mask during patient contact (≤6 ft).

* Definition of Immunocompromised for the Purposes of Isolation for Respiratory Viruses

Adult Immunocompromised Patient Definition

- Solid organ transplant
- Bone marrow transplant within the past year
- Cancer chemotherapy (within the last month)
- High dose steroid therapy (greater than 1 month or longer duration) being at a minimum dose (or higher) of: dexamethasone 3 mg daily, cortisone 100 mg daily, hydrocortisone 80 mg daily, and/or prednisone 16 mg daily
- Receiving anti-rejection drugs such as cyclosporine, imuran, etc.
- White blood cell count (WBC) ≤ 1000 and / or absolute neutrophil count (ANC) ≤ 500 for greater than 7-days.
- HIV positive/AIDS patient with CD4 counts less than 200

Pediatric Immunocompromised Patient Definition

- Solid organ transplant
- Bone marrow transplant within the past year
- Cancer chemotherapy (within the last month)
- High dose steroid therapy (greater than 1 month or longer duration) being at a minimum dose (or higher) of: dexamethasone 0.15 mg/kg/day, cortisone 5 mg/kg/day, hydrocortisone 4 mg/kg/day, and/or prednisone 0.8 mg/kg/day
- Receiving anti-rejection drugs such as cyclosporine, imuran, etc.
- White blood cell count (WBC) ≤ 1000 and / or absolute neutrophil count (ANC) ≤ 500 for greater than 7-days.
- HIV positive/AIDS patient with CD4 counts less than 200
- Genetically determined immunodeficiency syndromes causing no lymphoid function or requiring gamma globulin replacement therapy
- Neonates in the NICU