COVID-19 toolkit

Background

- Respiratory disease caused by a novel (new) coronavirus first detected in Wuhan City, Hubei Province, China and which has now been declared a pandemic by WHO
- Coronaviruses are a large family of viruses that are common in many different species of animals, including camels, cattle, cats, and bats
- See Trust Intranet site for hospital Covid-19 protocol collection (regularly updated):

Case definition (travel no longer part of definition but take a travel and contact history)

Main symptoms for case definition from PHE are:

Cough, Fever, Anosmia (loss of smell)

PHE’s current inpatient case definition:

Requires admission to hospital (a hospital practitioner has decided that admission to hospital is required with an expectation that the patient will need to stay at least one night)

and

have either clinical or radiological evidence of pneumonia

or
difficulty in breathing

or

influenza like illness (fever ≥37.8°C and at least one of the following respiratory symptoms, which must be acute: persistent cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing, anosmia). Gastroenteritis can also a presenting symptom of Covid-19 (diarrhoea and vomiting). Children can also be asymptomatic (so PPE in both Green and Orange areas).

Patient presentation

- Any child with viral or respiratory symptoms +/- fever has the potential to be infected with Covid-19
- Assess and manage viral illnesses as you would normally but understand the underlying infection could be Covid-19 and wear appropriate PPE (see below)
- Reassure families – so far, evidence shows the majority of seriously affected patients are older patients with co-morbidities. Treatment, as for most viral illnesses, is supportive
- There have been increasing reports of a Paediatric inflammatory Multi-System Syndrome Temporally related to Covid-19 (PIMS-TS), similar to sepsis and/or Kawasaki’s disease. If child appears septic, treat for sepsis, discuss with Cardiology if meets criteria for Kawasaki’s and presume Covid-19 positive. Discuss early with PICU (see below for RCPCH case definition and link to guideline)
- If discharging patient, give families Covid-19 patient information leaflet which contains safety-netting advice and directions to other sources of information online
- RCPCH advises that ibuprofen is safe in children with possible Covid-19 infection – don’t advise if child dehydrated and check for contraindications, eg renal disease
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Assessing patients

- Where possible, the aim will be to assess patients in Orange area cubicles after triage
- Use the Covid-19 clerking proforma – do not take notes into cubicles but laminated copies of this available in each cubicle as aide memoire (for surveillance but should also make clerking simpler)
- If admitting a patient, admit directly to ward cubicle, as for any other viral illness
- PPE – wear a plastic apron, surgical face mask, goggles and gloves when assessing patient. Full PPE with fit-tested masks only for patients in cardiac arrest and/or undergoing aerosol generating procedures (does not include nebulisers for wheeze). See PHE graphic below
- Do not examine the throat unless high suspicion of severe pathology, eg quinsy – if need to examine throat, ensure standard PPE and glasses, even in asymptomatic children. We will no longer be using Group A Strep RDTs routinely for the duration of the outbreak
- Remove PPE after assessment in cubicle in orange waste bag except for mask which taken off outside cubicle (PPE should be changed between each patient, even if in same room)
- Strict hand hygiene before and after every assessment
- Clean stethoscopes and goggles using green Clinel wipes between each patient

PPE (Personal Protective Equipment)

A visual guide to safe PPE

- General contact with confirmed or possible COVID-19 cases
  - Eye protection to be worn on risk assessment
  - Fluid resistant surgical mask
  - Disposable apron
  - Gloves

- Aerosol Generating Procedures or High Risk Areas
  - Eye protection: eye shield, goggles or visor
  - Filtering facepiece respirator
  - Long sleeved fluid repellent gown
  - Gloves

For more information on infection prevention and control of COVID-19 please visit:

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Common aerosol generating procedures in the ED

- Tracheotomy/tracheostomy procedures
- Manual ventilation
- Open suctioning
- Non-invasive ventilation, eg BiPAP, CPAP
- High-flow nasal oxygen (eg Airvo)
- Intubation

Nebulisers *not* included in this list – aerosol generated from nebuliser, not patient – but **first line Rx for wheeze should be inhalers, which can be used with nasal cannula oxygen** – see *BCH Covid wheeze and nebuliser guidance*, ED guidelines/Respiratory.

Cardiac arrest and major trauma calls:

- **team don full level PPE – minimise team size (PPE in gab boxes in Resus)**
- **do not listen or feel for breathing by placing your ear and cheek close to the patient’s mouth**

Other ED Covid-19 guidance


**Wheeze**: see *BCH Covid wheeze and nebuliser guidance*, ED guidelines/Respiratory

**Paediatric Inflammatory Multi-System Syndrome Temporally related to Covid-19 (PIMS-TS):**

RCPCH case definition:

- A child presenting with persistent fever, inflammation (neutrophilia, elevated CRP and lymphopenia) and evidence of single or multi-organ dysfunction (shock, cardiac, respiratory, renal, gastrointestinal or neurological disorder) with additional features. This may include children fulfilling full or partial criteria for Kawasaki disease
- Exclusion of any other microbial cause, including bacterial sepsis, staphylococcal or streptococcal shock syndromes, infections associated with myocarditis such as enterovirus (waiting for results of these investigations should not delay seeking expert advice)
- SARS-CoV-2 PCR testing may be positive or negative

References:

Public Health England, Coronavirus information, May 2020
RCPCH and BPAiIG. Tonsillar examination – infection control implications. March 2020
RCPCH. Anti-inflammatory medicines and Covid-19 – advice for parents and carers, April 2020
Lu et al. SARS-COV-2 infection in children. NEJM 2020, DOI: 10.1056/NEJMc2005073

Authors: Chris Bird, Jim Gray, Tina Newton
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