

Standard Operating Procedure

Paediatric suspected COVID pathway

Blackwater Suite

Objectives:

1. Protect staff members and vulnerable patients from COVID – 19 infection through providing a safe pathway to isolate children with suspected COVID -19 while undergoing clinical assessment at CUH.
2. Create excess surge capacity to deal with a potentially substantial increasing volume of children presenting to CUH with features consistent with COVID-19 while allowing the hospital to maintain a high quality of care for children presenting with other medical and acute surgical conditions.

Background:

Corona Virus Disease – 2019 (COVID 19) is the disease caused by a novel coronavirus named SARS – CoV – 2. It belongs to the same family of viruses as SARS and MERS

The infectivity (R0) of the virus is estimated at 2.2, meaning that using current data, an infected person on average will pass the virus on to 2.2 more people. This is obviously highly context specific and may be more or less in Ireland. There is also limited data available in children, however children appear to have a milder clinical course with no reported deaths in children infected with coronavirus thus far. One case series of 9 infants in Wuhan showed that none required ventilatory support, ICU admission or suffered any severe complications, although four of them presented with fevers. A further study in Singapore captured 3 COVID-19 positive young children (< 3 years of age) who had a mild clinical disease. Although many therapies are currently being evaluated, the current strategies in managing COVID-19 are centred around supportive care and prevention.

It is recognised that asymptomatic carriage occurs. Health Care workers are thus at a significantly increased risk of becoming infected with coronavirus if recommended isolation and personal protective procedures are not followed.

Local context:

The Emergency Department in CUH sees approximately 15,000 children per year. After a recent redevelopment, there are 5 beds in an open clinical space and one isolation cubicle. Given the limited ability of the emergency department to decant to the inpatient wards, it is often not possible to isolate more than one child at a time.

One decontamination room is located close to the resuscitation cubicles, this room has been kitted out to an ICU level including a ventilator and an intercom with a live video feed. 7 other rooms across the ED have been identified as overflow isolation/resuscitation rooms and are being updated so as to be able to deliver an ICU level of care should the system become overwhelmed with unwell patients. International experience tells us that there may be a large amount of critically unwell adults presenting in respiratory distress.

It is for these reasons that a significant effort is being made by the emergency and paediatric departments to create a safe pathway for children presenting to the ED over the coming months.

The Advice for the approach to COVID-19 is changing at a rapid pace, therefore it is likely this document will need to be revised on an almost daily basis.

Pathway Overview

All children presenting to the main ED entrance will be briefly assessed by an experienced ED nurse. If the child is identified to be at an increased risk of COVID-19 he/she will be directed to the Blackwater Suite where an assessment by a paediatric/ED nurse and doctor will take place. The following section will give a detailed description of the proposed pathway.

Inclusion criteria: Which Children are to be sent to the Blackwater Suite for assessment?

Presence of one of Cough, Fever or increased work of breathing.

Exclusion criteria:

SpO₂ <94%

ICTS category 1 or 2

< 3 months of age

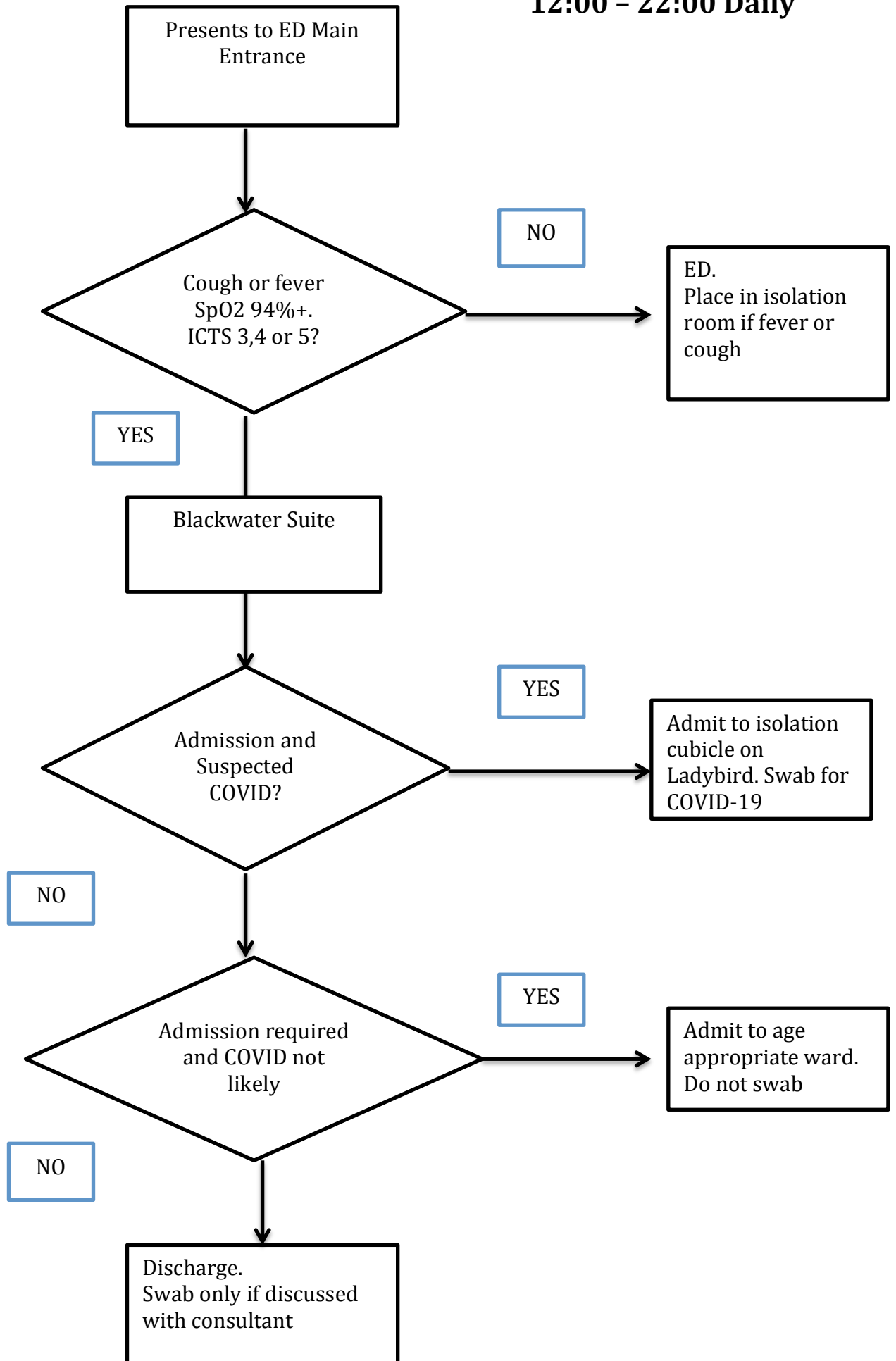
Stridor with associated increased work of breathing

Significant comorbid disease

Process:

The Blackwater suite is open between 12:00-22:00 seven days a week. Children presenting outside of these hours will be sent to the ED to undergo triage there. The child will be greeted by a triage nurse at the main entrance to the ED. A health care assistant (HCA) will take the patient's registration details from the parent while the child is assessed by the triage nurse. The registration details will be handed to the ED reception desk to register the patient. If the child is deemed suitable, they will be escorted by the HCA to the blackwater suite where they will be placed directly into an isolation room awaiting a nursing and medical assessment.

Blackwater Pathway 12:00 - 22:00 Daily



Registration:

The patient's ED label will be printed and fixed onto an ED Chart. The patient's details will be found in IPIMS under 'blackwater suite'. The patient's chart is at no time to enter the isolation room. The child's details are then to be entered in the registration book and their name to be placed into the appropriate cubicle on the white board. This will help to track patients in real-time and also keeps a record of their attendance and the tests that were performed on them. When a patient has been discharged, their chart is to be placed in the discharge tray. If a patient is to be admitted to the ward, book a bed through contacting bed management and the ladybird nurse in charge. On Ipims, place the patient in 'Blackwater Suite awaiting bed'.

Isolation of patients and PPE:

The child and parent are to remain in their isolation room at all times. A bathroom is available however this will need to be fully cleaned after each use. In view of the anticipated pressures that housekeeping staff are likely to face during this time, it is encouraged that children use commodes where possible. One parent per child and they are to remain in the isolation room with the child at all times. Parents should be screened for symptoms of COVID-19 ie cough, dyspnoea or fever.

All staff members entering a room must Don appropriate PPE as described in HPSC procedures. Measures to minimise aerosolization of particles should be chosen where possible, including judicious use of high flow nasal prongs and nebulisers. All items of PPE are to be doffed in the isolation room except for the face mask.

2 staff members are required to bring the patient up to ward. One member is to remain clean and will facilitate the patient's progress to the ward by opening doors etc.

COVID-19 Testing:

Testing consists of one NPA (Red) and one throat swab (green). These swabs are in short supply. Microbiology laboratory is to be contacted for more swabs when 2 or less remaining. The microbiology consultant is not required to authorise the swabs once it has been approved by a paediatric consultant.

It is acknowledged that the threshold for testing may be lowered over the coming days. There are limited COVID-19 daily tests in Cork therefore a prudent approach to testing must be employed.

The following groups are to be tested:

- Children who require admission with fever of unclear cause or with a respiratory issue are to be tested for COVID-19.
- The child meets the epidemiological criteria as defined in the HPSC algorithm
- Radiologically confirmed atypical pneumonia (multifocal infiltrates)

Children who are being admitted with a clear focus for their illness eg UTI do not need a COVID Swab.

Staff required:

Nursing: 2 paediatric competent nurses in the Blackwater Suite and one triage nurse located at the main entrance.

Medical: At least one doctor present at all times. Of note, the paediatrician on call should be contacted for all queries about patients in the ED or the wards.

Health care assistant: One health care assistant to be present at the front door to facilitate registration and transfer of patients to the Lee suite (adults) and the Blackwater Suite (children).

Housekeeping: One member of housekeeping will be required to decontaminate rooms in between assessments.

Review:

The efficacy of this pathway will be reviewed on a daily basis.

References:

1. SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients, February 19, 2020 DOI: 10.1056/NEJMc2001737
2. Evidence of SARS-CoV-2 Infection in Returning Travelers from Wuhan, China February 18, 2020 DOI: 10.1056/NEJMc2001899
3. COVID-19 in Singapore—Current Experience Critical Global Issues That Require Attention and Action. February 20, 2020. doi:10.1001/jama.2020.2467
4. Clinical Characteristics of Coronavirus Disease 2019 in China. February 28, 2020 DOI: 10.1056/NEJMoa2002032
5. <https://www.hse.ie/eng/services/publications/clinical-strategy-and-programmes/emp-irish-childrens-triage-system.pdf>

