Devon Partnership NHS Trust

COVID-19
Initial Training Package

v.1.15 27 March 2020

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Introduction

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- The situation changes rapidly – please ensure you use up to date guidelines
- This pandemic is unprecedented and all mental health workers should expect to be acting outside of their usual skills and comfort zone
- This training is not exhaustive – it forms a fundamental basic package

Principles of this training

- At present MH wards are not expected to manage mentally unwell patients with moderate or severe COVID symptoms
- We are expected to identify and isolate with skill and speed
- We are expected to monitor and record physical health parameters with skill

Principles of this training

- This could be done via eLearning
- Ideally there should be the opportunity to talk through the slides with a
- Take the opportunity to ask questions and rehearse the skills
- Familiarise yourselves with the local arrangements
- Look after each other

Principles of the Training

- The training is divided into 5sections
- The first three are for all Staff
- The 4th is for medical staff
- The 5th is being developed and will be for all staff to be familiar with

Contents

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- **CSOP1:** NEWS, PPE, Social distancing and hygiene, SBAR
- **CSOP2:** Basic understanding of Covid-19
- **CSOP3:** Identification and initial management of suspected cases (identification, testing, isolating)
- **CSOP4:** Identification of the deteriorating COVID-19 patient, qSOFA and transfer
- **CSOP5:** Management of physical health issues previously sent to DGH

CSOP1: NEWS2, swabbing, Social distancing and hygiene, PPE

- You will rehearse your knowledge about:
  - How and when to take physical observations
  - How to record them
  - How and when to take a swab
  - What is social distancing?
  - Maintaining hygiene on acute wards
  - Putting on and removing PPE
  - Communicating via SBAR
  - Process to identify and isolate

Monitoring via NEWS2

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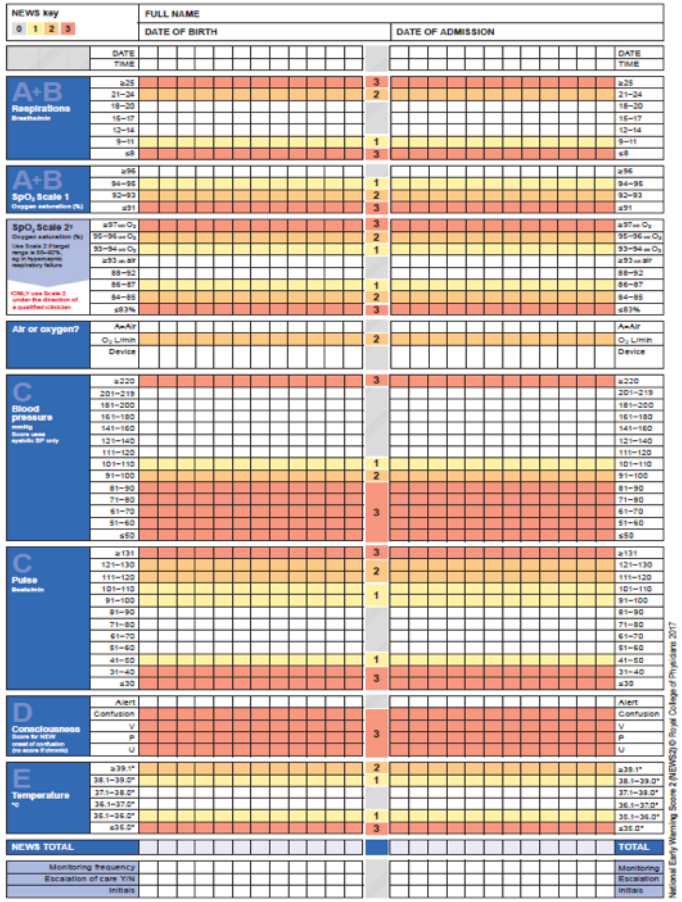
- Accurate repeated re-evaluation is vital in the ongoing care of COVID-19 patients
- **N**ational **E**arly **W**arning **S**ystem
- Use NEWS2 chart for **all** observation recording for **all** patients
- Decisions about continuous / intermittent monitoring should be made on an individual basis
- Unless providing comfort care, vital signs should be recorded on at least 4 hourly basis, inc:
  - Respiratory Rate, Oxygen Sats, Blood Pressure, Pulse, Temp, Mental Status (ACVPU)
  - Any worsening NEWS should be escalated to the medical team
- **All patients should have Temp checked Daily**
- **Use electronic measuring devices but practice manual techniques**



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Elements in the NEWS2

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- Taking Respiratory Rate
- Taking O2 Sats
- Taking Blood Pressure
- Taking Pulse
- Taking Temperature
- Judging Mental Status
- Taking a swab

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Principles

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- Clean equipment between patients
- Record **all** obs for **all** patients on NEWS2 sheets
- Unwell patients recording at least every 4 hours

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Measuring Respiratory Rate

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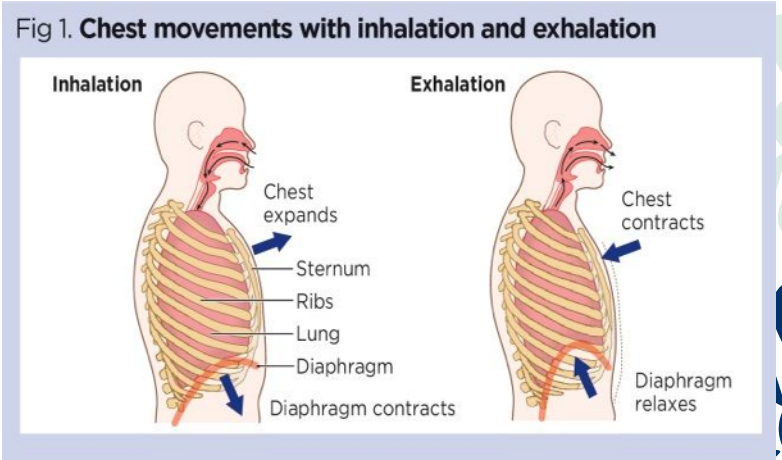
- Attempt to measure after period of rest (ideally 20 minutes)
- One breath in and one breath out = **1 respiration**
- Measure for one minute and document



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Measuring O_2 Saturations

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- Clean between users
- O_2 **sat**urations estimates the proportion of oxygenated Haemoglobin
- Signs of poor O_2 **sat**s are breathlessness, anxiety, increased respiration, blue colour to skin
- Use O_2 probe on finger, clean nail of dirt and polish
- Allow machine to measure for at least 30 seconds
- Clean between users

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Measuring Blood Pressure

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Practice with your ward machine now

- Clean between users
- Choose the right sized cuff
- Ensure rest before checking
- Ensure artery marker on cuff lined up with inside of arm
- Ensure no restrictions e.g. sleeves
- Clean between users

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Measuring the Pulse

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- Personal hygiene measures
- You will need a watch that has a second hand.
- Explain to the patient what you are about to do.
- Ensure that the patient is as relaxed as possible - one who is distressed may have a faster pulse.
- For convenience and ease it is best to record the radial pulse.
- Place your first and second finger along the artery - apply light pressure until you feel the pulse.
- Count the pulse for a full minute in order to detect any arrhythmias (abnormal rhythms).

Measuring Temperature

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- Clean between users
- Personal hygiene measures
- Use in ear thermometers
- Check that patient not lying on that ear (allow 20 minutes)
- Attach clean cover
- Check for obstruction e.g. Ear wax
- Pull Pinna up and back
- Insert so that the probe reflects off the ear drum
- Dispose of cover
- Clean between users

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Measuring Conscious Level

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- Talk to the patient and observe their behaviour
- **A**wake – THE ONLY NORMAL RESPONSE
- **C**onfused
- **V**erbal – patient responds to talking stimulation
- **P**ain – patient response to Painful stimulation and NOT verbal stimulation
- **U**nresponsive – the patient is unresponsive

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Taking a swab

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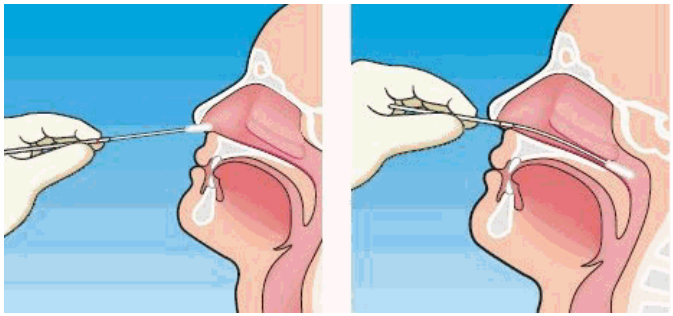
Discuss with medical staff, if patient meets criteria for COVID-19 testing. COVID-19 presents as an influenza type illness (fever ≥ 37.8 and at least one of the following respiratory symptoms, which must be acute onset: persistent cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing)

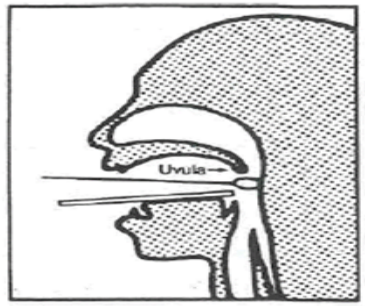
Inform Infection Control team that patient is being tested

Complete Red & White Virology form with patient details. The swab must be taken by a Doctor or Registered Nurse wearing gloves, apron, surgical mask and eye protection. Request COVID-19 test

ENSURE VIRUS ISOLATION (OR YELLOW COBAS PCR MEDIA) SWAB IS IN DATE. Discard if out of date and obtain in-date stock from Pathology supplies.

Label the swab container with a sticky label, or by hand (name, address, date of birth).





1. Vigorously swab only the posterior pharyngeal wall
2. Insert swab in the nasopharynx. Rotate the swab gently 5 times.
3. Put the swab in the in the viral transport medium and break the shaft at the painted breakpoint, leaving the cotton swab and end of shaft in the transport medium.
4. Firmly secure the cap. Place the container into first specimen bag.
5. **If in isolation** - Hold the specimen bag and in doorway, carefully place into a second specimen bag that your colleague is holding whilst wearing gloves.
6. Colleague to place double bagged specimen into the transit bag with virology request form
7. **Then: arrange collection**

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Social Distancing

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Why? Effective means to reduce spread

Maintain 2 metre distance where possible:

- Reduce ward patient numbers
- Spread out chairs
- Avoid queues at meals
- Encourage garden use
- Manage group activities
- Move group activities to larger spaces

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Hygiene for healthcare staff

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- Change into work clothes on arrival and change back when returning home
- Consider materials that can be washed > 60 degrees
- Bag items, avoid shaking, place straight in washing machine
- Regular handwashing for 20 seconds
- Wash down surfaces regularly (domestic staff routine)
- Ensure ward free of clutter and is clean
- Ensure washing of staff cutlery and staff areas
- Routine use of PPE is not recommended

Ward Routines

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- Cleaning routine – see gov.uk guidance and local guidance
- Daily temperature check of all staff and patients (isolate if >37.8 and follow isolation and testing principles)
- Social isolation routines
- Leave changes (see other guidance)

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Personal Protective Equipment

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- All staff bare below the elbow, hair tied back, no false nails, jewellery etc
- Wash hands with soap and water
- Additional cautions with aerosol producing procedures
- Spitting and NG feeding are not aerosolising processes so additional PPE is not necessary (though may choose to use eye protection)
- Restraint does not need additional PPE

PPE Quick Guide (NHSE 27.3.20)

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	Entry to cohort area (only if necessary) no patient contact*	Within 1 metre of a patient with possible/confirmed COVID-19*	High risk units where AGPs are being conducted eg: ICU/ITU/HDU	Aerosol generating procedures (any setting)
Disposable Gloves	No	Yes	Yes	Yes
Disposable Plastic Apron	No	Yes	Yes	No
Disposable Gown	No	No	No	Yes
Fluid-resistant (Type IIR) surgical mask (FRSM)	Yes	Yes	No	No
Filtering face piece (class 3) (FFP3) respirator	No	No	Yes	Yes
Disposable Eye protection	No	Risk assessment	Yes	Yes

*Personal protective equipment (PPE) for close patient contact (within 1 metre) also applies to the collection of nasal or nasopharyngeal swabs.

Putting on and removing PPE

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The correct order for **putting on** PPE is: APRON,MASK,GLOVES

PPE should be put on BEFORE entering the room/area

- **Clean your hands**
- APRON: Pull over head and fasten at back of waist

- FACE MASK: Secure ties at middle of head and neck
- Fit flexible band to nose bridge
- Fit mask snugly to face and adjust to fit
- Do not touch mask once fitted

- GLOVES: extend to cover wrists

Remember: keep hands away from face, limit surfaces touched, change gloves regularly/clean hands within room as needed.

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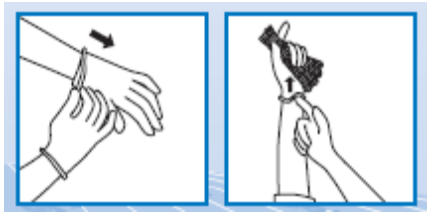
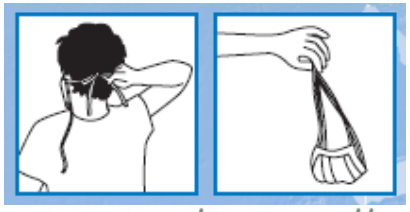
The correct order for **removing** PPE is: GLOVES, APRON, MASK

Gloves/ apron should be removed & disposed of into clinical waste bag before leaving the room/area, remove mask **after leaving**



- GLOVES: Grasp the outside of one glove with the opposite gloved hand; peel off
- Hold the removed glove in the gloved hand
- Slide the fingers of the ungloved hand under the remaining glove at the wrist
- Peel the second glove off over the first glove
- Dispose of gloves
- **Clean your hands**

- APRON: break ties
- Pull apron away from the neck and shoulders, break at collar to avoid lifting over head, touching inside only
- Fold or roll into a bundle
- Dispose of apron into orange waste bag
- **Clean your hands**
- **Leave room**



- MASK: unfasten the ties- first the bottom, then the top
- Pull away from the face without touching front of the mask
- Dispose of mask into orange waste bag
- **Clean your hands**

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Identify POSSIBLE COVID19:

- **either clinical or radiological evidence of pneumonia OR**
- **acute respiratory distress syndrome OR**
- **fever ≥37.8° C and ≥ one of persistent cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing**

Instigate immediate isolation of the patient in a single room with door closed, limited staff to enter only if essential and wearing correct PPE

Contact Infection Control team to urgently discuss risk of COVID19 according to current guidance including testing https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases

Risk / Positive Test

Mild Symptoms or clinically well	Consider discharge with individual advice on self isolation
Moderately Unwell, patient could be managed in psych	Contact Senior Nurse Manager or On-call Manager. Patient to be transferred to locally agreed interim isolation area Consider management with individual on psychiatric ward following discussion with acute
Severely Unwell,- patient needs acute hospital assessment or treatment	Clinician/Senior Manager to liaise with local acute trust site team to arrange admission, contact SWAST to arrange transport. Staff escort may be required.

No Risk / Negative Test

End isolation / Address other health concerns

Decontamination of patient area as per PHE guidance. Close area off until full terminal clean completed as per IPCT advice. Do not admit or transfer patients to the ward.
List all contacts – staff, patients, visitors.
Further advice to be given in the event of a positive result.

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Use SBAR to communicate

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	What is needed:	An example:
SITUATION	What has happened?	*"Hello doctor, I am calling about a patient X on Delderfield ward with a cough and a fever."*
BACKGROUND	What is their age? What is the psych diagnosis/legal status? Any relevant medication/medical problems	*"X is 37 years old currently under Section 2, admitted 3 days ago with a relapse of schizophrenia and are prescribed Olanzapine. He has inhaler for asthma"*
ASSESSMENT	What are the symptoms? What are their physical observations & result of any examination?	*"X started coughing earlier today. Their NEWS score is 3, with observations: RR=20, BP= 130/80, P=112, Sats 98%, T=37.9."*
RECOMMENDATION	What do you think has happened (or concerned about)? What would you like to happen?	*"I am worried they may have Covid-19. I have phoned infection control and started isolation measures. I would appreciate your advice about monitoring and prescribing analgesics."*

Have ready: NEWS chart, medication chart, and any other relevant charts e.g. blood glucose monitoring chart etc

Use SBAR to communicate

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	What is needed:	An example:
SITUATION	What has happened?	"*Hello doctor, I am calling about a patient Y on Delderfield ward with chest pain.*"
BACKGROUND	What is their age? What is the psych diagnosis/legal status? What medication are they prescribed?	"*X is 57 years old currently under Section 2, admitted with a relapse of schizophrenia 10 days ago and had Flupentixol depot 3 days ago.*"
ASSESSMENT	What are the symptoms? What are their physical observations & result of any examination?	"*X started complaining suddenly about chest pain at 6pm. They appear quite anxious. Their NEWS score is 2, with observations: RR=18, BP= 130/80, P=112, Sats 98%, T=35.8*"
RECOMMENDATION	What do you think is the problem? What do you think needs to happen & when?	"*I am not sure whether this is anxiety or heart related. I would appreciate your assessment please.*"

Have ready: NEWS chart, medication chart, and any other relevant charts e.g. blood glucose monitoring chart etc

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- **CSOP2:** Basic understanding of Covid-19

CSOP2: Basic understanding of Covid-19

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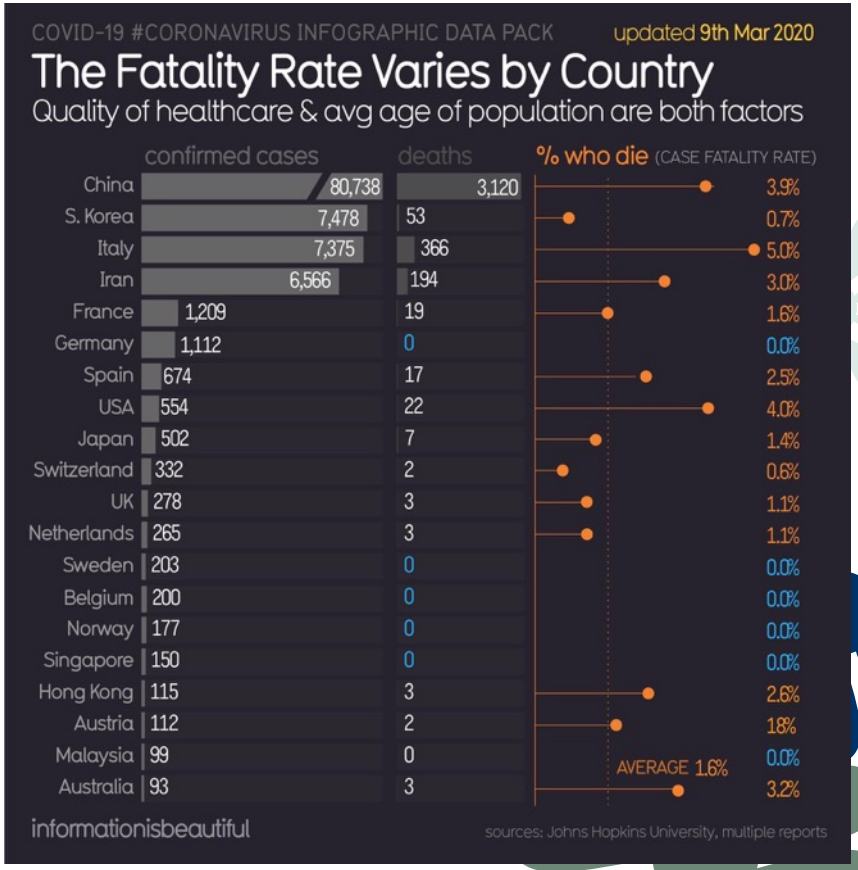
- You will learn:
- Basic information about the virus
- Case identification definitions
- Signs and Symptoms
- Who is at risk and how to reduce risk of transmission
- BLS and COVID

Background

- The virus probably originated in China in December 2019
- SARS CoV 2 is the virus
- **S**evere **A**cute **R**espiratory **S**yndrome **co**rona**v**irus 2
- High case fatality
- It is not yet possible to detect quickly and not yet possible to cure
- CoV 2 has been detected in blood, sputum, urine, faeces, and respiratory secretions from infected patients
- CoV 2 likely 1% or less fatality but highly variable



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A possible case is defined by patients meeting the following criteria:

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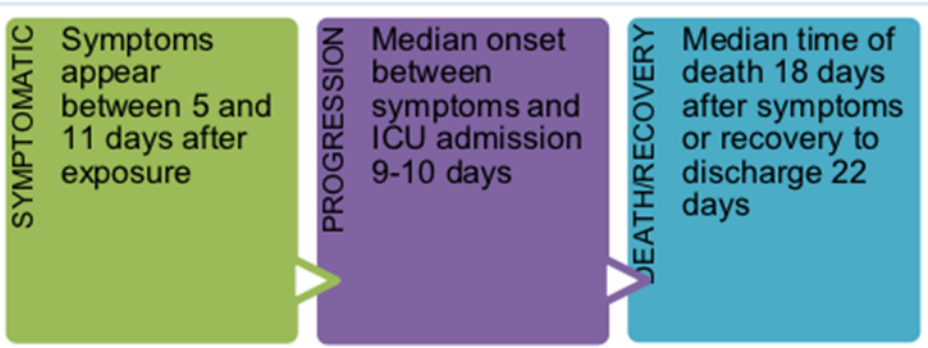
- Requiring admission to hospital (expected overnight stay) AND
  either clinical or radiological evidence of pneumonia OR
- Acute respiratory distress syndrome OR influenza like illness (fever ≥37.8°C and ≥ one acute respiratory symptom:
  - persistent cough (with or without sputum)
  - hoarseness, sore throat
  - nasal discharge or congestion or sneezing
  - shortness of breath, wheezing,

Symptoms progression



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Signs/Symptoms

- Fever (most but not all cases)
- Constitutional symptoms – fatigue, myalgia, anorexia
- Lower respiratory symptoms – shortness of breath, cough with or without sputum
- “Silent hypoxia” – respiratory compromise (Saturations<94%) without shortness of breath
- Gastrointestinal symptoms
- Atypical presentations are possible
- May present in hospitalised patients as a hospital-acquired pneumonia

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Symptoms	Coronavirus Symptoms range from mild to severe	Cold Gradual onset of symptoms	Flu abrupt onset of symptoms
Fever	Common	Rare	Common
Fatigue	Sometimes	Sometimes	Common
Cough	Common *Usually dry	Mild	Common
Sneezing	No	Common	No
Aches & Pains	Sometimes	Common	Common
Runny Nose	Rare	Common	Sometimes
Sore Throat	Sometimes	Common	Sometimes
Diarrhea	Rare	No	Sometimes for children
Headaches	Sometimes	Rare	Common
Shortness of breath	Sometimes	No	No

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Who is most at risk?

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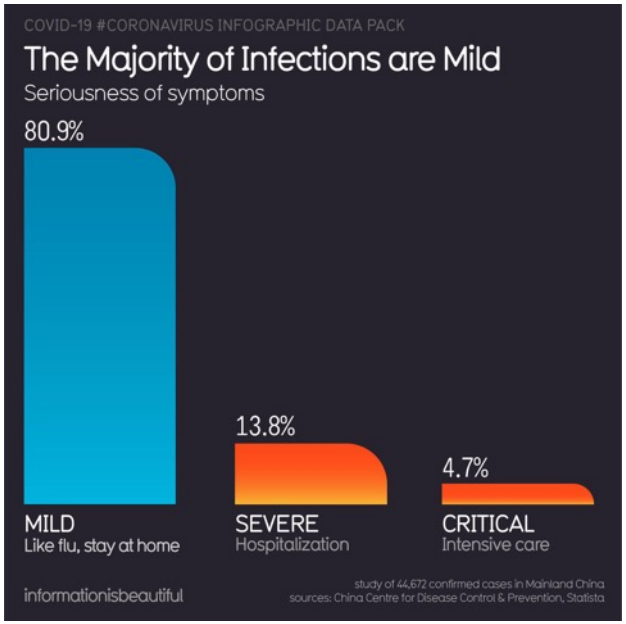

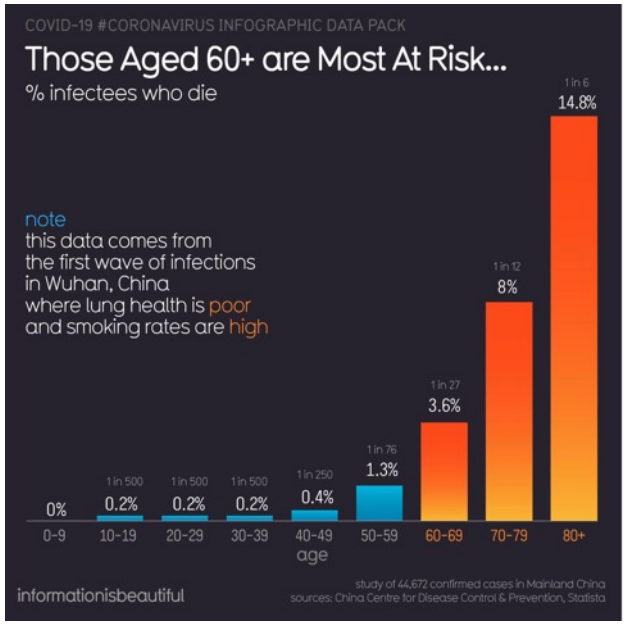

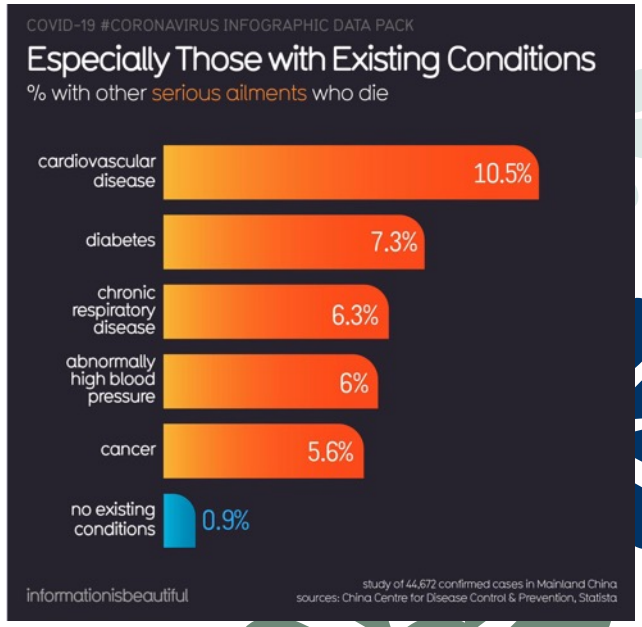

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How to avoid transmission

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Social Distancing

Washing hands… PROPERLY! Soap and water is more effective than alcohol gel.

Cleaning: The virus remains on hard surfaces for up to 72hrs and, for practical reasons, the virus will be gone by then. The virus fades faster on soft furnishings or clothes.

Identification and Isolation of cases

Wear PPE - the most likely time to be contracting the disease is when taking it off **incorrectly**. This should be practiced in your organisation.

Basic Life Support

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- Refer to latest Alert
- Do not perform CPR without appropriate PPE
- Await an anesthetist to manage the airway
- Life support has been shown to be very effective with continuous CPR only

- **CSOP3:** Identification and initial management of suspected cases (identification, testing, isolating)

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CSOP3: Identification and initial management of suspected cases (identification, testing, isolating)

- You will learn:
- Case definition
- Flow chart for management of initial case

CASE DEFINITION (as at 13/03/2020) A possible case is **defined by patients** meeting the following criteria (**see latest guidance**):

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Potential Case Identification

- Patient required admission to hospital (expected overnight stay) AND either clinical or radiological evidence of pneumonia OR
- Patient exhibits acute respiratory distress syndrome OR influenza like illness (fever ≥37.8° C and ≥ one acute respiratory symptom:
  - persistent cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing)

Examination and Findings

Further testing: Swabbing

- Physical examination usually non-specific Patients may have: pharyngitis, tonsil enlargement, respiratory signs – crackles, pleural rub
- Send Coronavirus Nasopharyngeal Swab
- (throat and nose) or sputum (if productive cough) as per protocol

  Sensitivity is not 100% - so do not stop COVID-19 treatment if –ve swab and high clinical suspicion

Send for Coronavirus Nasopharyngeal Swab

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CASE DEFINITION (2/2)

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Potential Case

•Either clinical or radiological evidence of pneumonia OR
•acute respiratory distress syndrome OR
•fever ≥37.8˚ C and ≥ one of persistent cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing, sneezing

Instigate immediate Isolation

Instigate immediate isolation of the patient in a single room with door closed, limited staff to enter only if essential and wearing correct PPE

+

Contact Infection Control team to urgently discuss risk of COVID19 according to current guidance including testing https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases c

Positive Covid-19 Test Result

	Actions to take	
Mild Symptoms or clinically well	Consider discharge with individual advice on self isolation	
Moderately Unwell, patient could be managed in psych	Contact Senior Nurse Manager or On-call Manager. Patient to be transferred to locally agreed interim isolation area	Consider management with individual on psychiatric ward following discussion with acute
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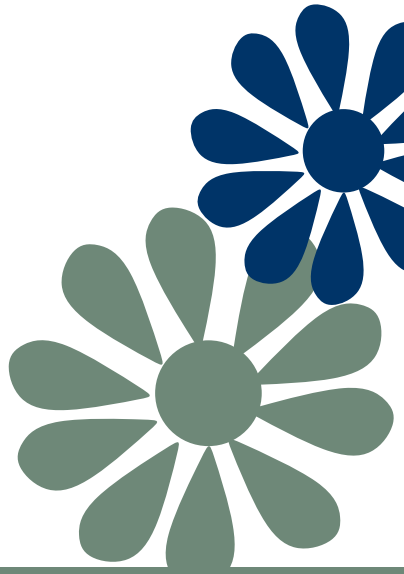
CSOP4: Identification of the deteriorating COVID-19 patient, QSOFA and transfer



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CSOP4: Identification of the deteriorating COVID-19 patient, QSOFA and transfer

You will learn:

- Additional information on COVID – tips
- Investigations to consider
- Imaging features
- General Management
- Fluid Management issues
- Oxygen Management issues
- Complications

COVID-19 Additional Information

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- Change in NEWS2 can be rapid
- Dyspnoea and rapid desaturation on walking for one minute seem important predictors
- Use qSOFA [**q**uick **S**epsis related **O**rgan **F**ailure **A**ssessment] (one point each) for communicating with medical teams:
  - RR > 22
  - SBP < 100 mm Hg
  - Altered Mentation (GCS< 15 or change)
- Use Frailty Score for communicating with medical teams

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Investigations
[Bracketed investigations only if necessary]

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- U&Es – ↑Creatinine
- LFTS – ↑Bili, ↑ALT/AST
- Other biochem – ↑CRP, ↑hsTnI, ↑Ferritin, ↑LDH
- FBC – Lymphocytopaenia, ↓Plt, ?↑Neutrophils
- Clotting - ↑PT or INR, ↑D-Dimers

- [ABG if sats <92% – hypoxia, ↑Lactate]
- [Blood cultures – as per usual indications]
- [Imaging – CXR +/- CT thorax]
- Coronavirus Swabs

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Imaging (see latest guidance)

- First line (and usually only imaging needed) is Chest X-ray
- Further imaging has a very limited role in the diagnosis of COVID 19 but remains useful in:
  - Staging the severity of the disease in known cases
  - Diagnosing other conditions in patients with unexplained respiratory symptoms

Abnormal CXR with typical COVID findings (Peripheral / basal opacities)

- No role for CT

Normal CXR with abnormal clinical features

- CT / CTPA

Should CT felt to be necessary in the COVID positive patients

- Consultant to Consultant discussion

General Management

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- Ensure isolation and PPE as per policy
- No antiviral or other therapies are shown to be effective (unless as part of a clinical trial)
- Give supplementary oxygen to maintain sats if patient has respiratory compromise or hypoxia - no piped oxygen on mental health wards therefore seek transfer
- Empirical antibiotics for suspected bacterial pneumonia according to guidelines – remember superadded bacterial infections.
- Corticosteroids should NOT generally be used
- Thromboprophylaxis if clotting normal
- NSAIDs should be avoided
- **Symptoms such as cough, fatigue, mild SOB may last several weeks and are NOT a once well enough to send home**

Fluid Management

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- AVOID vigorous fluid resuscitation – patients *rarely* shocked on admission (it may exacerbate ARDS)
- Assess fluid status and encourage oral rehydration where possible
- IV fluid for hypoperfusion (Max 2 litres/day) – no iv facilities on acute wards – seek transfer

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Oxygen Therapy

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- Piped oxygen is not available
- Piped oxygen requirements would be indication for transfer
- Suspected COVID Pneumonia:
  - Target SpO2 90-94%
- Suspected COPD or risk of Hypercapnia:
  - Target SpO2 88-92%

Do not use high flow nasal O2 without hospital medical review

Complications

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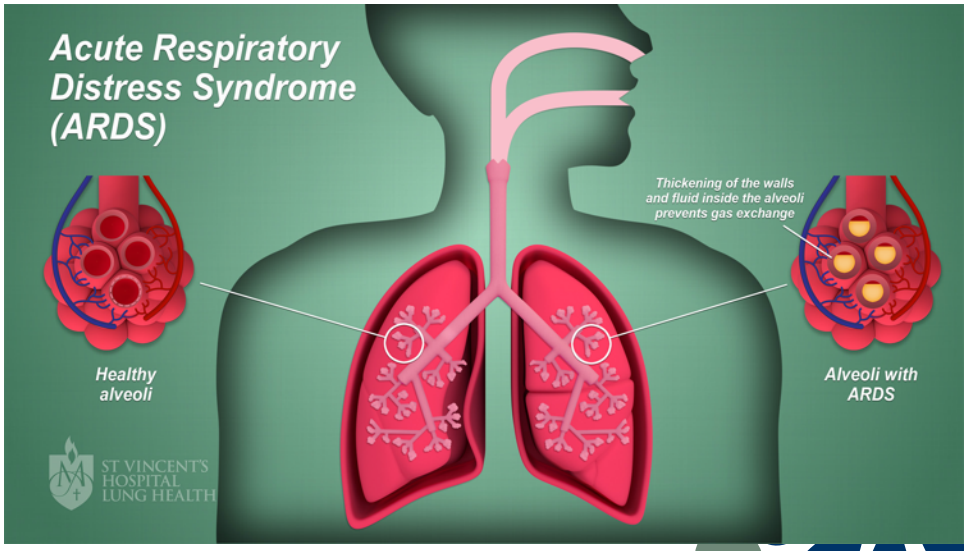
- Acute Respiratory Distress Syndrome and
- Respiratory Failure (early invasive ventilation should be considered)
- Sepsis +/- Septic Shock
- Disseminated intravascular coagulation
- Arrhythmias / Heart failure



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- **CSOP5:** Management of physical health issues previously sent to DGH

CSOP5: Management of physical health issues previously sent to DGH

- There may be circumstances when transfer of patients cannot occur to the DGH
- The following documents will be developed over time to support DPT clinicians

Management of issues often transferred to DGH

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Supplies have been coordinated to meet demand for these procedures

1. Suturing or wound management

Microsoft Word Document

2. Male and female catheterisation

3. Post ligature monitoring in uncompromised individual

4. Post suspected or actual overdose management

5. Post head injury monitoring in uncompromised individual

6. Post suspected Hand Fracture

7. End of Life Care

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