

North Yorkshire and York CCGs Remote assessment of Covid-19

See [advice on how to establish a remote 'total triage' model in general practice using online consultations](#)

In the absence of national guidance please follow the steps below as a minimum

1. Follow BMJ guide (more detail here <https://www.bmj.com/content/368/bmj.m1182>)
2. Risk stratify using symptom checker
3. Refer to detailed North Yorkshire assessment and management pathway (based on North West London guidance)
4. Use NICE traffic light guide to assess children as respiratory symptoms appear to be less prominent in children
5. Roth score may be helpful if no access to pulse oximetry
6. Be aware that ITU admission is likely to be based on [NICE guidance](#)
7. Cold sites to continue with essential services and assessment of non-covid patients (see [BMA/RCGP workload prioritisation guidance](#))

Planned guidance:

- Advance care planning
- Ethical decision making
- Palliative care

1. BMJ remote consultation guide (check for updates [here](#))

Visual summary

Covid-19: remote consultations

A quick guide to assessing patients by video or voice call

Version 1.3

25 Mar 2020

This graphic, intended for use in a primary care setting, is based on data available in March 2020, much of which is from hospital settings in China. It will be revised as more relevant data emerges.

Clinical characteristics

Based on 1099 hospitalised patients in Wuhan, China

- 69% Cough
- 22% Temperature 37.5-38°C
- 22% Temperature >38°C
- 38% Fatigue
- 34% Sputum
- 19% Shortness of breath
- 15% Muscle aches
- 14% Sore throat
- 14% Headache
- 12% Chills
- 5% Nasal congestion
- 5% Nausea or vomiting
- 4% Diarrhoea
- 24% Any comorbidity

1 Set up
 Prepare yourself and decide how to connect

Have current 'stay at home' covid-19 guidance on hand
 UK government advice: <http://bit.ly/ukgovisol>

Video is useful for
 Severe illness
 Anxious patients
 Comorbidities
 Hard of hearing

Scan medical record for risk factors such as:
 Diabetes Pregnancy Smoking
 Chronic kidney or liver disease COPD
 Steroids or other immunosuppressants
 Cardiovascular disease Asthma

2 Connect
 Make video link if possible, otherwise call on the phone

Check video and audio
 Can you hear/see me?

Confirm the patient's identity
 Name
 Date of birth

Check where patient is
 Where are you right now?

Note patient's phone number in case connection fails

If possible, ensure the patient has privacy

3 Get started
 Quickly assess whether sick or less sick

Rapid assessment
 If they sound or look very sick, such as too breathless to talk, go direct to key clinical questions

Establish what the patient wants out of the consultation, such as:
 Clinical assessment Referral Certificate
 Reassurance Advice on self isolation

4 History
 Adapt questions to patient's own medical history

Contacts
 Close contact with known covid-19 case
 Immediate family member unwell
 Occupational risk group

History of current illness
 Date of first symptoms

Most common presentation
 Cough Fatigue Fever Short of breath
 Cough is usually dry but sputum is not uncommon
 Up to 50% of patients do not have fever at presentation

5 Examination
 Assess physical and mental function as best as you can

Over phone, ask carer or patient to describe:
 State of breathing
 Colour of face and lips

Over video, look for:
 General demeanour
 Skin colour

Check respiratory function - inability to talk in full sentences is common in severe illness
 How is your breathing?
 Is it worse today than yesterday?
 What does your breathlessness prevent you doing?

Patient may be able to take their own measurements if they have instruments at home
 Temperature Pulse
 Peak flow Blood pressure
 Oxygen saturation

Interpret self monitoring results with caution and in the context of your wider assessment

6 Decision and action
 Advise and arrange follow-up, taking account of local capacity

Which pneumonia patients to send to hospital?
 Clinical concern, such as:
 • Temperature > 38°C
 • Respiratory rate > 20*
 • Heart rate > 100† with new confusion
 • Oxygen saturation ≤ 94%‡

Likely covid-19 but well, with mild symptoms
 Self management: fluids, paracetamol

Likely covid-19, unwell, deteriorating
 Arrange follow up by video. Monitor closely if you suspect pneumonia

Relevant comorbidities
 Proactive, whole patient care

Unwell and needs admission
 Ambulance protocol (999)

Reduce spread of virus - follow current government 'stay at home' advice

Safety netting
 If living alone, someone to check on them
 Maintain fluid intake - 6 to 8 glasses per day

Seek immediate medical help for red flag symptoms

Red flags

Covid-19:
 Severe shortness of breath at rest
 Difficulty breathing
 Pain or pressure in the chest
 Cold, clammy, or pale and mottled skin
 New confusion
 Becoming difficult to rouse
 Blue lips or face
 Little or no urine output
 Coughing up blood
 Other conditions, such as:
 Neck stiffness
 Non-blanching rash

* Breaths per minute † Beats per minute ‡ If oximetry available for self monitoring

2. Triage symptom checker

GREEN Signs and Symptoms

No significant dyspnoea

No Wheeze

Mild symptoms apart from fever >37.8c

Symptoms not significantly deteriorating

ACTION →Manage at home, safety netting, stay at home advice

AMBER Signs and Symptoms

Mild to moderate chest tightness/wheeze

Breathless on 1 flight of stairs or <50metres

Faint/dizzy

Significant headache

Significant reduction in fluid intake

Other clinical concerns

ACTION →Caution. Needs further assessment (direct observations, face to face or home visit)

RED Signs and Symptoms

Severe shortness of breath or wheeze

Severe chest pains

Extreme faintness or collapse

Signs of sepsis

Cardiac sounding symptoms

ACTION→If appropriate 999

Check if existing advanced care plan or ceiling of care

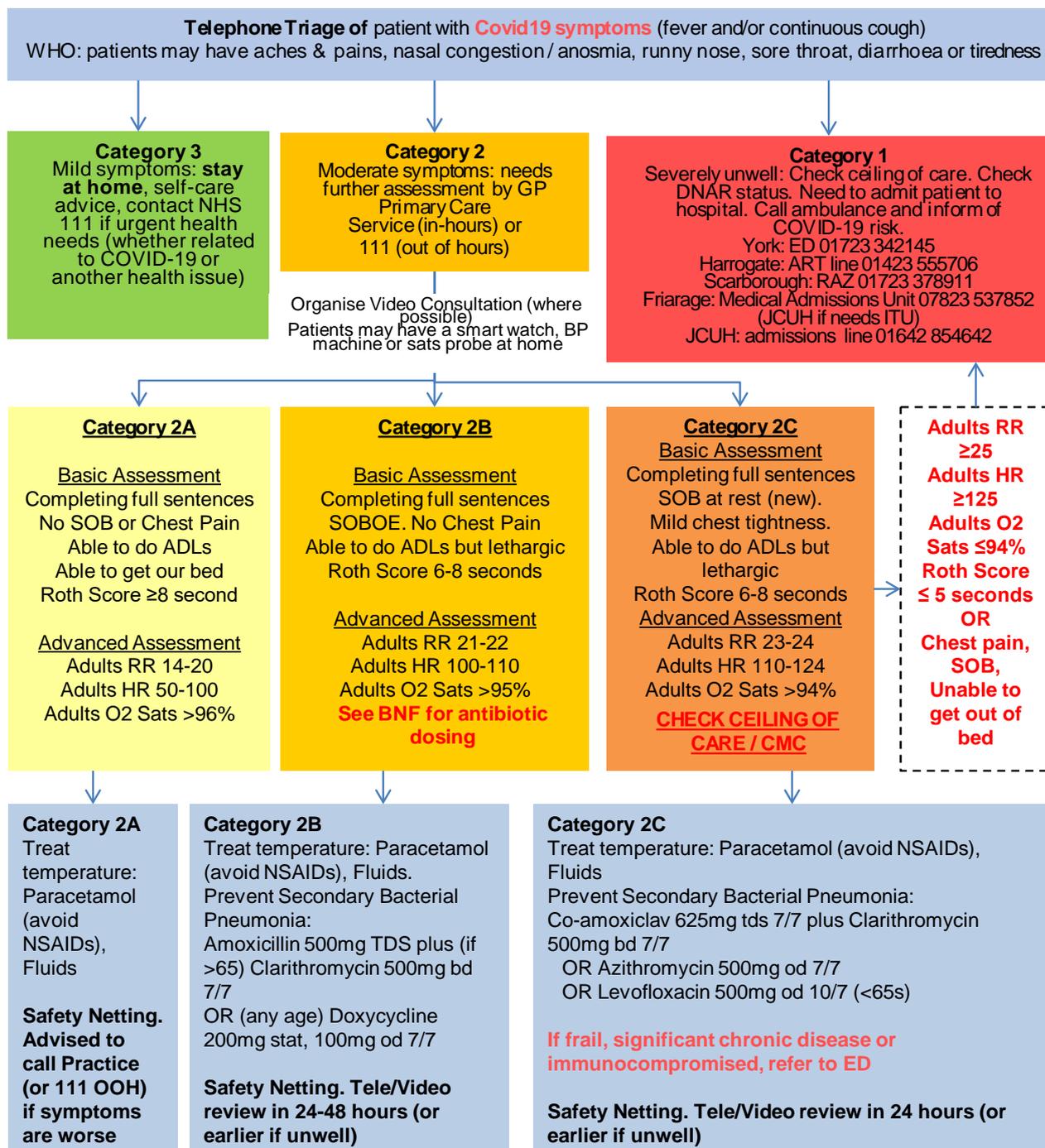
3. Assessment and management pathway

North Yorkshire and York CCGs

COVID-19 Treatment pathway

Version 1.0: 30 March 2020

This pathway was created for GPs during uncertain times, using clinical judgement and are currently not evidence based. HR, RR & O₂ sats are taken from sepsis and NEWS2 score – these may or not be sensitive for Covid-19. REMEMBER: Don't forget bread and butter medicine, not everything is Covid-19.



If known Asthma/COPD exacerbation, increase SABA or similar use. Only use nebuliser if patient uses them regularly for management. Do not prescribe nebulisers for those not already using them. Consider use of salbutamol + spacer as per BTS Covid advice. BTS do not consider nebulisers viral aerosol generating. Oral steroids are safe to use in patients with exacerbation of Asthma (non-covid), use with caution if suspected covid. SMART regimen may help avoid oral steroids.

4. For children, continue to use NICE traffic light system. Remember non-covid diagnoses

Traffic light system for identifying risk of serious illness

	Green – low risk	Amber – intermediate risk	Red – high risk
Colour (of skin, lips or tongue)	<ul style="list-style-type: none"> • Normal colour 	<ul style="list-style-type: none"> • Pallor reported by parent/carer 	<ul style="list-style-type: none"> • Pale/mottled/ashen/blue
Activity	<ul style="list-style-type: none"> • Responds normally to social cues • Content/smiles • Stays awake or awakens quickly • Strong normal cry/not crying 	<ul style="list-style-type: none"> • Not responding normally to social cues • No smile • Wakes only with prolonged stimulation • Decreased activity 	<ul style="list-style-type: none"> • No response to social cues • Appears ill to a healthcare professional • Does not wake or if roused does not stay awake • Weak, high-pitched or continuous cry
Respiratory		<ul style="list-style-type: none"> • Nasal flaring • Tachypnoea: <ul style="list-style-type: none"> – RR >50 breaths/minute, age 6–12 months – RR >40 breaths/minute, age >12 months • Oxygen saturation ≤95% in air • Crackles in the chest 	<ul style="list-style-type: none"> • Grunting • Tachypnoea: RR >60 breaths/minute • Moderate or severe chest indrawing
Circulation and hydration	<ul style="list-style-type: none"> • Normal skin and eyes • Moist mucous membranes 	<ul style="list-style-type: none"> • Tachycardia: <ul style="list-style-type: none"> – >160 beats/minute, age <12 months – >150 beats/minute, age 12–24 months – >140 beats/minute, age 2–5 years • CRT ≥3 seconds • Dry mucous membranes • Poor feeding in infants • Reduced urine output 	<ul style="list-style-type: none"> • Reduced skin turgor
Other	<ul style="list-style-type: none"> • None of the amber or red symptoms or signs 	<ul style="list-style-type: none"> • Age 3–6 months, temperature ≥39°C • Fever for ≥5 days • Rigors • Swelling of a limb or joint • Non-weight bearing limb/not using an extremity 	<ul style="list-style-type: none"> • Age <3 months, temperature ≥38°C* • Non-blanching rash • Bulging fontanelle • Neck stiffness • Status epilepticus • Focal neurological signs • Focal seizures
CRT, capillary refill time; RR, respiratory rate * Some vaccinations have been found to induce fever in children aged under 3 months			
This traffic light table should be used in conjunction with the recommendations in the NICE guideline on fever in under 5s .			

5. Roth score may be useful if no pulse oximetry

ROTH SCORE

Ask the patient to take a deep breath and count out loud from 1 to 30 their native language.

COUNT 1 To 30

Count the number of seconds before they take another breath

8
SECONDS

If the "counting time" is 8 seconds or less, this has a sensitivity of 78% and specificity of 71% for identifying a pulse oximeter reading of <95%.

If the counting time is 5 seconds or less, sensitivity is 91%.

RC GP Royal College of General Practitioners

But...

<https://www.cebm.net/covid-19/are-there-any-evidence-based-ways-of-assessing-dyspnoea-breathlessness-by-telephone-or-video/>

Easy to use and has been validated in one study against pulse oximetry in healthy volunteers and hospital inpatients but has not been validated in primary care.

- Ask the patient to take a deep breath and count out loud from 1 to 30 in their native language.
- Count the number of seconds before they take another breath.
- If the "counting time" is 8 seconds or less, this has a sensitivity of 78% and specificity of 71% for identifying a pulse oximeter reading of <95%.
- If the counting time is 5 seconds or less, sensitivity is 91%.

Of 50 experts, only 6 used the score (most had never heard of it). They were concerned that if used indiscriminately and as a substitute for holistic clinical assessment in the COVID crisis, this score could lead to harm by increasing the number of patients called in for physical examination.

Video <https://youtu.be/u3rUdkFJ9UI>