

# Assessing/managing COVID-19: 1. Triage

Written 1/4/2020



GEMS

Guidelines & Evidence Made Simple

# Red Whale

We have drawn this GEMS together based on the NHSE SOPs for primary care, NHS London Primary Care and Community Resource Pack (accessed 1/4/2020), BTS guidance, NICE pneumonia/COVID rapid guideline and pragmatism to fill any gaps. The situation is rapidly changing.

**This document can act as a starting point but is not a guideline!**

**Use your clinical judgement at all times, and be mindful of compassion fatigue when overworked, hungry or tired – look after yourself as well as your patients.**

The GMC has made it clear that professionals may need to deviate from established procedures, and that context will be taken into account if concerns are raised about a registered professional.

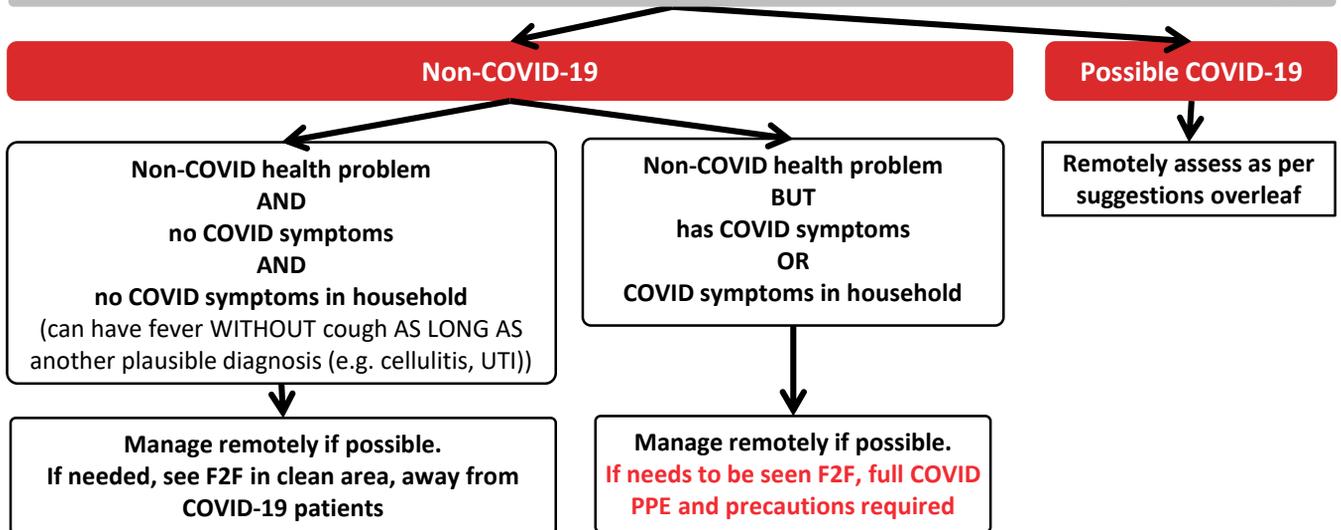
## REMOTE ASSESSMENT FIRST – for every primary care contact

**See patients F2F only if examination is likely to add value and the benefits outweigh risks of transmission.**

**COVID-19 typically presents with:**

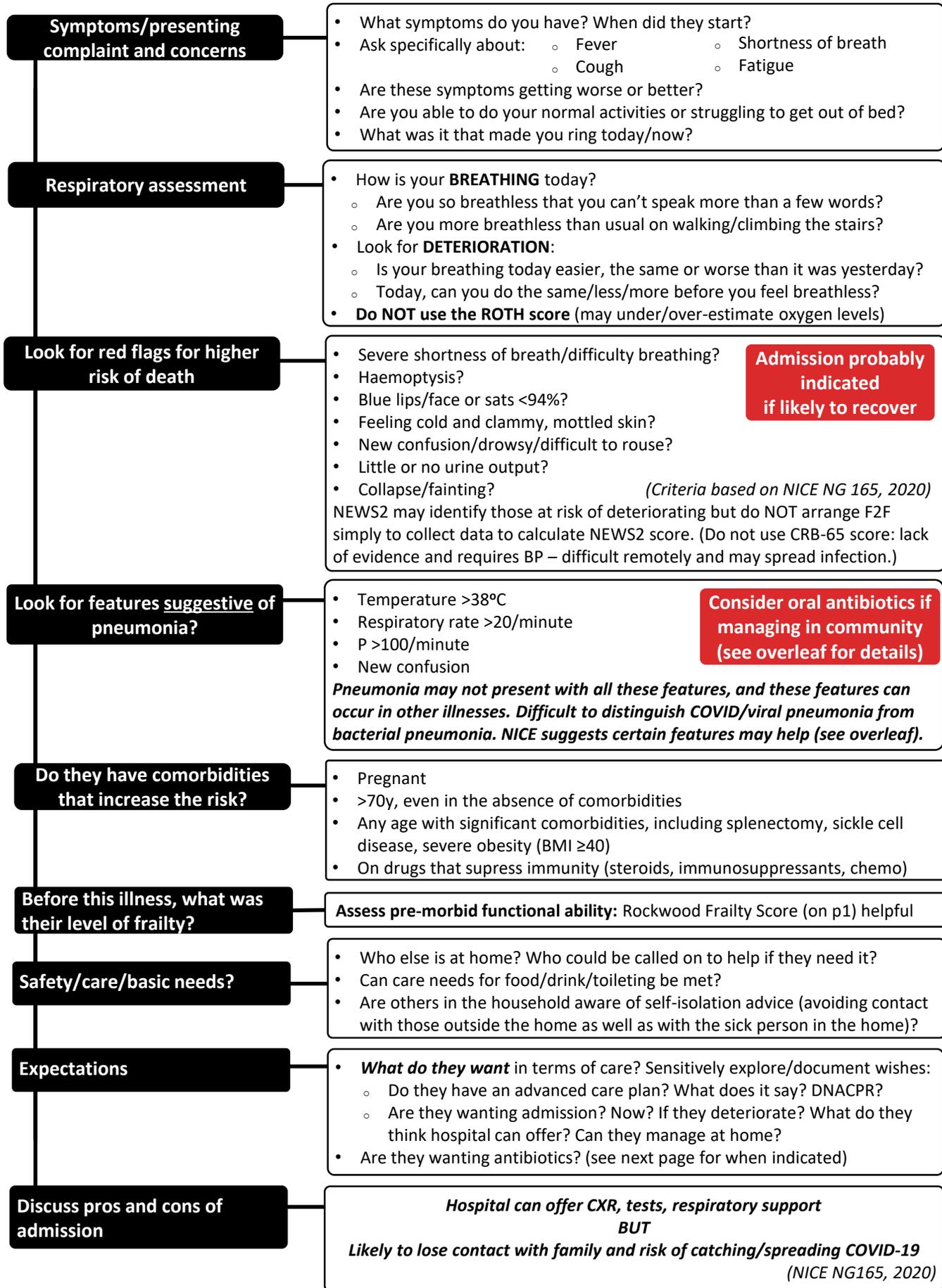
- **Fever ( $\geq 37.8^{\circ}\text{C}$ ) and/or a dry and persistent cough.** In a Chinese cohort, AT PRESENTATION only 34% had sputum, 20% had dyspnoea, 15% had myalgia, 14% had headache and about 5% had GI symptoms (NEJM 2020, DOI: 10.1056/NEJMoa2002032). Anosmia/loss of taste reported. Day 5 and week 2 deterioration are being reported.
- **Remember: ALL THE OTHER CAUSES OF RESPIRATORY PATHOLOGY WILL STILL HAPPEN.** Other patterns of productive cough, dyspnoea without cough/fever, diurnal variation and wheeze should make us consider other diagnoses. Bacterial pneumonia typically has a different clinical picture from COVID-related viral pneumonia (see section 3). Coryza or allergic symptoms make COVID *less* likely but not impossible.
- **Think carefully about children: risk of missing COVID/not protecting self:** only 40–50% present with fever/cough, URTI symptoms more common, and most have a mild course of COVID-19; **AND risk of missing other pathology:** could this be sepsis, croup, bronchiolitis, bacterial pneumonia, etc...?

Initial screen should identify whether COVID/non-COVID problem, and this should be managed accordingly



**CONSIDER FRAILTY: Rockwood Clinical Frailty Score (NICE states to use only as PART of a holistic assessment and not to use in learning disability. Score under 5 = likely to benefit from critical care. Score 5 or more = uncertainty around benefits of critical care admission (but little COVID-19-specific data) – take into account the whole picture.**

<i>Gives indication of functional ability prior to this illness. Higher scores are <b>less</b> likely to have positive outcome.</i>	<b>1. Very fit:</b> among the fittest for the age, exercise regularly.	<b>2. Well:</b> no active disease symptoms but not as fit as group 1.	<b>3. Managing well:</b> medical problems well controlled. Walks but not regularly active beyond this.	<b>4. Vulnerable:</b> not dependent on others for daily help, symptoms might limit activities.
	<b>5. Mildly frail:</b> typically needs help with some indoor activities (meal prep, housework) and for many activities outside (walking, shopping).	<b>6. Moderately frail:</b> typically needs help with all activities around home (meal prep, housework, bathing), may need some help dressing.	<b>7. Severely frail:</b> completely dependent but stable and may not die in next 6m.	<b>8. Very severely frail:</b> completely dependent and approaching the end of life.



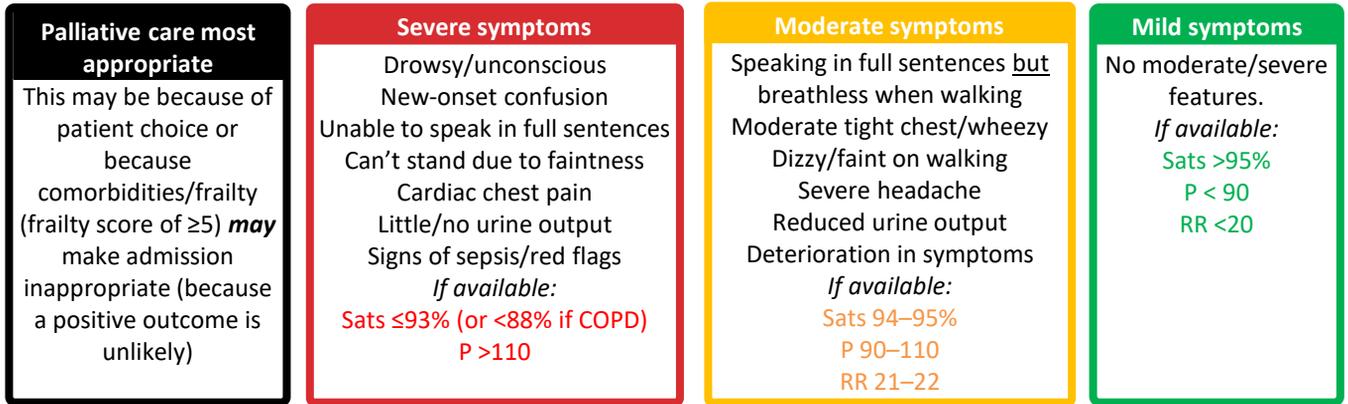


### Severity classification based on remote assessment (includes some observations in case these are available)

For all these scenarios, F2F assessment should only be done if **ABSOLUTELY ESSENTIAL**. Ask yourself:

- What is F2F assessment going to add?
- Why can't this be done by phone/video?

**If essential:** see at home/'COVID' base without exposing other patients to them. Wear appropriate PPE. To minimise risk to clinician: **FULL HISTORY TO BE TAKEN BEFORE VISIT** and **ONLY EXAMINATION ELEMENT** is done F2F.



### Comorbidity, frailty, patient preference

Underlying lung disease? See overleaf

Decline admission (now/in care plan)

No advance care plan and would like admission

Stay at home advice (them + household)  
Self-care advice  
Safety-net

- Conversation around whether admission appropriate; record decision/DNACPR
- Initiate palliative care
- Telephone/video care preferable, F2F if absolutely necessary

**999 admission**  
Tell call handler: likely COVID-19

### DECIDE IF SUITABLE FOR HOME MANAGEMENT/NEEDS ADMISSION

Do NOT offer antibiotics if:

Symptoms mild AND COVID likely to be the cause  
Antibiotics are NOT recommended as prophylaxis in those without these symptoms (inappropriate use risks shortage for those in need)

Offer antibiotics if (NICE NG 165, 2020):

- Likely bacterial pneumonia
- More severe symptoms and unclear if viral/bacterial pneumonia
- High risk of complications because of pre-existing comorbidity or immunosuppression or significant heart/lung disease

Doxycycline, 200mg on D1 then 100mg for 4d (total course 5d)

or

Amoxicillin 500mg tds for 5d

Use steroids only if indicated to manage another disease (e.g. COPD)

If suitable for home management, London guidance suggests:

- **Bronchodilator?** (4–8 puffs salbutamol through spacer) – can be trialled if available at home. DO NOT SHARE!
- **Follow-up:** within  $< 24$ h and then every 12–24h until well
- **Safety-net well, including patient to call 999 if deteriorates** (and tell call handler likely COVID-19)

### Features suggestive of pneumonia (NICE):

T  $> 38.0$ C RR  $> 20$ /min P  $> 100$  New confusion

Differentiating viral from bacterial pneumonia is difficult. NICE suggests the following (NG165):

### Features suggestive of bacterial pneumonia:

- Doesn't have typical COVID-19 symptoms
- Deteriorates rapidly after only a few days of symptoms
- Pleuritic chest pain
- Purulent sputum

### Features suggestive of viral/COVID pneumonia:

- Present after 1w of COVID symptoms
- Severe muscle aches
- Anosmia
- Breathlessness without pleuritic pain
- May have history of contact with COVID

# Managing respiratory disease during COVID-19

Based on NHS London Primary Care and Community Respiratory Resource Pack (correct on 30/3/2020), BTS guidance and the Primary Care Respiratory Society, written 30/3/2020



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## Asthma

### Background and maintenance treatment:

- Most asthmatics have mild–moderate disease with normal lungs when well controlled.
- No changes in maintenance therapy are required when well – no evidence of increased risk from ICS; biologics used in asthma therapy have not been shown to be immunosuppressant and should be continued.
- Given current pressures on health services, provision of a rescue pack for patients with a good understanding of their personalised asthma action plan may be sensible (BTS). Issue a peak flow meter so they can monitor at home. Rescue packs should be issued as acute and SHOULD NOT be on repeat. Each exacerbation requires review.
- Acute exacerbations of asthma should be treated in the normal way, including oral steroids ([www.GPCPD.com](http://www.GPCPD.com)).

### Acute asthma vs. COVID-19

Differentiating an acute exacerbation of asthma from COVID-19 may be difficult. Pragmatically, fever and change of taste/smell are unusual in asthma. Decide (as best you can) which is more likely. If COVID-19 suspected, remember:

- Oral steroids are NOT a treatment for COVID-19. *In practice, this means that if an asthmatic has mild COVID symptoms but with no significant asthma symptoms, we **should not** give prophylactic oral steroids.*
- However, if typical asthma exacerbation features are dominant (wheeze/bronchospasm), **oral steroids should be used** as per asthma guidelines, but for the shortest duration possible (until symptoms have improved).
- For those on *maintenance oral steroids* – follow sick day rules if unwell (BTS suggests that usually this would mean taking twice as much oral steroid while ill).

## COPD

### BTS guidance suggests:

- There is NO evidence for ‘just in case antibiotics’ OR using prophylactic antibiotics.
- Treat apparent exacerbations as you normally would, irrespective of possible organism, which means:
  - **Use antibiotics** if suspected bacterial infective exacerbations (more sputum/change in sputum colour).
  - **Consider oral steroids** for increased breathlessness: but first check that symptoms can’t be managed with increasing bronchodilators, breathing exercises, pacing. Have a lower threshold to use steroids in those with asthma–COPD overlap or previous raised eosinophils as they are likely to get greater benefits. Do not use if patient has a fever. If using, offer 30mg prednisolone for 5 days.
- Remember, anxiety can also drive breathlessness/tachycardia: a phone/video consultation can help reassure people.
- If oxygen sats are available, a significant change from baseline is:
  - Mild: <2% below baseline
  - Moderate: 3–4% below baseline sats
  - Severe: ≥5% below baseline sats
- If on LTOT, consider admission if sats <88% (on their usual oxygen flow) if admission likely to be helpful.

## Bronchiectasis

- Treat suspected COVID-19 in line with all other patients.
- For non-COVID exacerbations (may be hard to tell, but fever is present in COVID and may be less common in non-COVID exacerbations, whereas sputum production shows marked increase in non-COVID exacerbations):
  - Usually, routine collection of sputum is recommended in exacerbations. This is NOT recommended at present.
  - Treat a ‘usual’ exacerbation with standard antibiotics (usually 7–14d of doxycycline or amoxicillin). If no response, try empirical ciprofloxacin/levofloxacin and obtain specialist advice.
- See [www.GPCPD.com](http://www.GPCPD.com): Respiratory chapter>Bronchiectasis article for more on antibiotics/management.

## Interstitial lung disease

- Many have established pulmonary fibrosis and will not do well with intubation/mechanical ventilation. If possible, discuss ceiling of care and advance care planning.
- Likely to become hypoxic very quickly and will not have much reserve.
- Do not stop long-term prednisolone: consider increasing baseline doses in illness, as per sick day rules.

## Obstructive sleep apnoea

- Most of these patients have NORMAL lungs and should not be considered to have pre-existing lung disease.
- CPAP is used to correct daytime sleepiness. Obstructive sleep apnoea doesn’t affect their gas exchange.
- If admitted: remind them to take their CPAP machine with them.

We make every effort to ensure the information in these pages is accurate and correct at the date of publication, but it is of necessity of a brief and general nature. The information presented herein should not replace your own good clinical judgement, or be regarded as a substitute for taking professional advice in appropriate circumstances. In particular, we suggest you carefully consider the specific facts, circumstances and medical history of any patient, and recommendations of the relevant regulatory authorities. We also suggest that you check drug doses, potential side-effects and interactions with the British National Formulary. Save insofar as any such liability cannot be excluded at law, we do not accept any liability for loss of any type caused by reliance on the information in these pages. March 30 2020 For full references see the relevant Red Whale articles.