Post Acute Covid-19: Recovery Follow-up in Primary Care

1. Post-COVID patient presents to GP with ongoing symptoms

Stratification of patients presenting might include:

- High risk of complications - intensive care unit admissions/ventilated patients
- Medium risk of complications - hospital ward admissions
- Low risk of complications - ED / community patients

2. GP consultation: history and examination. Investigations in primary care, as required based on symptoms – Management of post-acute covid-19 in primary care https://dx.doi.org/10.1136/bmj.m3026

Symptom Specific Recommended Management-see below*

3. GP supports self-management of common symptoms

Provides the TRFT Health Pathway COVID-19 Patient Information and Rehabilitation Booklet LINK

and direct to the NHSE Post Covid-19 Online Support Tool: https://www.yourcovidrecovery.nhs.uk/

4. Symptoms improve

5. Care remains in Primary Care

6. Symptoms do not improve 12 weeks post infection - REFER TO VAR (LTC) FOR PRE REFERRAL QUESTIONNAIRE (LINK)

Questionnaire will inform re patients with on going symptoms that have not resolved with self-management, or falls into any of the categories below refer to appropriate service, including those below.

7. Community Respiratory Team for post covid assessment if:

- Patient has underlying respiratory condition
- Non-improving or worsening breathlessness
- Patient requires short/long term ambulatory oxygen
- Patient experiencing disproportionate shortness of breath or breathing patterns (often in association with anxiety and in the younger population)

8. Community-based therapy for:

Holistic Assessment of need, symptoms severely impacting on life or not improving with time and self-management advice including:

- Mobility
- Self-care for daily activities
- Ongoing post viral fatigue
- Swallowing problems
- Voice change
- Weight loss/appetite

9. Rotherham IAPT Service

If patient experiencing Anxiety, depression, OCD, PTSD

10. Community Respiratory team for oxygen desaturation monitoring if:

- Ongoing shortness of breath that is limiting daily activities (that they didn't experience pre COVID-19).
- GP If the patient has progressive, deteriorating breathlessness
- These results, along with Ix results from primary care, are then reviewed with remote input from TRFT Respiratory team/ MDT if needed and advice given on any further investigations required or need to be seen in secondary care
- For further advice contact Community Respiratory Team (Mon-Fri 8.30-16.30) **01709**

Symptoms improve?

Yes

No

11. Patient discharged with guidance for on going self management

12. Referral to Virtual Covid Rehab MDT

If symptoms not improving within community services, the case is complex or there are needs spanning multiple domains, community teams refer to Virtual COVID Rehab MDT for discussion and advice. – THIS IS SOMETHING THAT THE ICS ARE LOOKING AT PROVIDING

*Symptom Specific Self Management

Post Covid Symptom	Considerations specific to COVID-19	Initial investigations to consider as part of clinical assessment	When to deviate from the pathway: Red Flags
Fatigue	• Very common post COVID • Consider impact of fatigue on role – e.g. caregiving, vocation, time off work and phased return. • Self-management advice in the TRFT Health Pathway COVID-19 Patient Information and Rehabilitation booklet LINK • Direct patient to NHSE/I www.yourcovidrecovery.nhs.uk • Reassure that with time and self-management fatigue usually improves gradually • If no improvement after 3 months, worsening of symptoms or impacting significantly on life, refer to Community Based Services	• Consider if blood tests are indicated in light of PMHx and clinical assessment. May include: • FBC, Fe, B12 and Folic Acid , renal function, TFTs, vitamin D • O2 sats • Assess and monitor fatigue using the Modified Fatigue Impact Scale https://www.sralab.org/sites/default/files/2017-06/mfis.pdf (cognitive and physical domains should be scored separately).	
Anxiety, depression and PTSD	• Common feature post COVID • Consider if fatigue/ pain/ sleep disturbance/ cognition is also contributing or co-occurring. Online support: Waiting for information from IAPT • PTSD especially in ITU survivors – ask about intrusive thoughts, flashbacks, nightmares, avoiding reminders of the event/illness. Also excessive/ obsessional cleaning/ checking, fear of going out. • Concerns re PTSD and/ or other mental health issues not improving refer to IAPT. In context of significant fatigue and/ or cognitive issues neuropsychological input will be required. Other resources: https://www.bps.org.uk/coronavirus-resources	• Consider a screening tools PHQ9 for depression or GAD7 for anxiety • Quality of life questionnaire - Work & Social Adjustment Scale (WSAS) • PTSD more likely in context of premorbid trauma • Mood impeding recovery/ causing protracted symptoms where physical examinations are normal. • Complex presentation i.e. contribution of several factors/ lack of progress despite physical recovery/ difficulties completing ADLs or work. Consider referral to IAPT • Systemic distress/ carer strain contributing to reactive distress/ relationship breakdown/ loss of support. Refer to Leeds Mental Wellbeing Service	• Suicidal ideation or immediate risk of harm to self or others refer to Mental health crisis team • Neurocognitive problems in the presence of a new or pre-existing neurological diagnosis; refer to Community Neurological Rehab Team

	https://www.mind.org.uk/information-support/coronavirus/		
Breathlessness	• Very common post COVID • Exertional breathlessness often persists for many weeks. Usual pattern is a gradual recovery. • Review at 3 months post Covid if not improving. • Unexplained crackles on auscultation refer for CXR. Depending on the results of this a HRCT scan may also be indicated. • Consider increased risk of VTE / PE post-COVID	**CXR**. If abnormal, repeat at 6 weeks if symptomatic, or 12 weeks if symptoms have resolved. • Bloods: FBC, U&E, LFT, Ca2+, TFT, BNP • Consider sputum sample if productive cough • ECG • O2 sats • Consider referral to Community Respiratory Service for oxygen desaturation monitoring if indicated (as per box 10 above) via ??????	• Acute onset (<48 hours) /severe sob O2<93% (if new for the patient) Bradycardia <60bpm Tachycardia >100bpm RR > 30 breaths/minute Refer PCAL for exclusion of Acute Pathology inc. PE. • Myocardial ischaemia (chest pain) • Syncope/postural dizziness • Heart failure • Shock (hypotension)
Cough	• Cough is a common symptom. • Dry cough likely to be post-viral and self-limiting though can persist for weeks as airways remain hyper-sensitive.	• Consider sputum sample if productive cough • reat with antibiotics according to current guidelines. If no improvement after 6 weeks request CXR • Follow the Cough Pathway. DO WE WANT TO ADAPT THE LEEDS PATHWAY OR ADOPT THE ROTHERHAM PATHWAY?	• Haemoptysis • Unintentional weight loss night sweats • and/or a strong smoking history • urgent 2 week referral is appropriate
Pleuritic Chest Pain	• Flitting chest pains 6-8 weeks post COVID not unusual and do not signify PE in absence of other typical clinical features. Oxygen saturation normal: PLUS normal chest x-ray: • Consider non-respiratory causes (e.g. infection or inflammation elsewhere). PLUS chest x-ray abnormal/showing	• Bloods: FBC, CRP • CXR • O2 sats	• Acute hypoxia, O2<93% (if new for the patient • Acute severe breathlessness, • Tachycardia >100bpm

	consolidation: • Symptoms may be explained by pneumonia and assess and treat appropriately		
Palpitations/Tachycardia	• Palpitations are common. Up to 30% at 3 months • Tachycardia may be driven by infection • If symptoms persist with no clear cause or if associated with Red Flags, Refer via usual pathways	• Blood tests (including thyroid function) • Erect and supine BP • ECG	• Syncope, • Myocardial ischaemia • Complete heart block
Anosmia	• Very common-up to 50% • 9 out of 10 patients significant improvement within four weeks • Reassurance, Olfactory training and safety advice https://www.entuk.org/loss-smell-video-interview-professor-claire-hopkins • Reassess	• Associated nasal symptoms • Neurological symptoms • ENT referral if anosmia >3 months.	• Anosmia>6 weeks with additional neurological symptoms-MRI recommended
Abnormal Liver Function (mild rise in liver transaminase)	• Mild abnormalities in ALT <3xULN will be common post Covid-19. • Approximately 25-30% of tested population in Leeds have abnormal ALT. • Check any past LFTs. • Check alcohol history • Stop any NSAIDS. Do not introduce statins at this stage. • If abnormalities are mild, statins could be continued	• ALT <x3ULN and new: Monitor monthly. It should normalise. Investigate at 3 months if not • ALT >x3ULN and new: Monitor again 2-4 weeks. Investigate at 1 month if not normalised or reducing. • Address any history of excess alcohol, optimise diabetic control, introduce exercise as possible. • Isolated raised bilirubin: Request conjugated/unconjugated bilirubin split. • Isolated raised ALP: Optimise vitamin D levels, Consider Ultrasound scan (to check biliary tract) with Doppler (to check vascular supply); Check BNP as cardiac impairment may give this picture	• Jaundice not attributable to Gilberts syndrome or not in isolation. • Acute liver injury ALT>10xULN • Start investigations immediately and refer for specialist
Reduction in kidney function following an episode of Acute kidney injury (reduced eGFR	• Observed in small proportion of recovering patients • Assess for improvement or worsening of eGFR over one year	• BP • Dip urine for blood and protein • Urinary Protein/Creatinine ratio • Monitor renal function 2 monthly	• Urinary Protein/Creatinine ratio > 50 • Haematuria

from pre-COVID baseline)	• Consider referral if progressive fall in eGFR or increasing ACR	• Review medication	• Sustained fall in eGFR > 5ml/min/month • eGFR<30ml/min (new for patient)

Resources:

BMJ paper on managing long term Covid
https://www.bmj.com/content/370/bmj.m3026

Post-discharge and Rehabilitation needs in Survivors of Covid-19 Infection – Stephen Halpin et
https://onlinelibrary.wiley.com/doi/epdf/10.1002/jmv.26368

Management of post-acute covid-19 in primary care
https://www.bmj.com/content/370/bmj.m2808