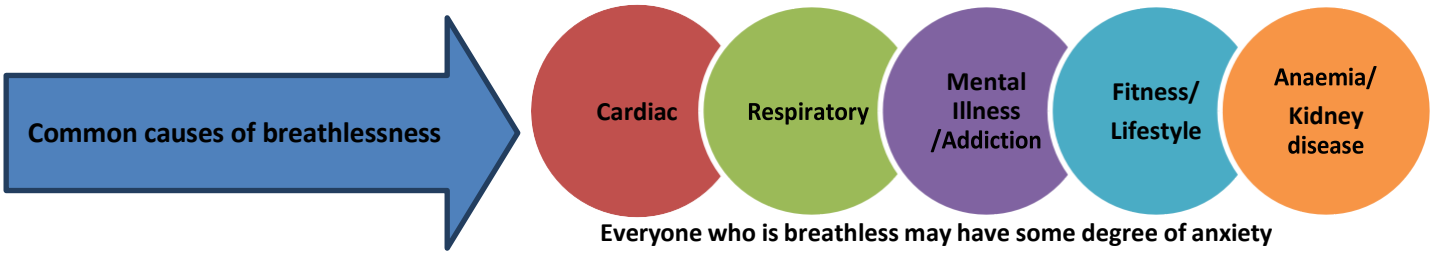
NHS Rotherham CCG
The Rotherham Foundation Trust

Rotherham Adult Breathlessness Assessment Algorithm



Everyone who is breathless may have some degree of anxiety

If the patient already has a diagnosis causing breathlessness reassess symptoms at each review and consider other causes if symptoms do not improve.

STEP 1 → The history and examination still constitutes 90% of most diagnoses

HISTORY	EXAMINATION
• Onset of symptoms and associated features e.g. chest pain, leg swelling, palpitations, wheeze or sputum • Smoking history including cannabis and other smoked drugs • Alcohol consumption • Impact of breathlessness on daily life • Levels of habitual physical exercise • Environmental and occupational risk factors • Co-morbid conditions • Medications and recent changes in therapy • Sleep Quality/ Mental Health especially anxiety/ Psychological Distress • Consider professional carer support and informal systems around the patient i.e. relatives, neighbours or social isolation	• Vital signs: BP, Pulse (rate and rhythm), RR, Temperature, oxygen saturation • Observe breathing pattern (use of accessory muscles) • Chest and heart auscultation • Peripheral oedema and JVP • Deconditioning/loss of quadriceps muscle bulk • Calf swelling • BMI, waist circumference, neck circumference • PEF % predicted (for age, sex and height) •

STEP 2 → Identify Type of Breathlessness (Code breathlessness using READ code 173)

Acute severe breathlessness (less than 48 hours)
Consider admission (Red Flags: O2<92%, cardiac sounding chest pain at rest, bradycardia <60bpm, tachycardia >100bpm, PEF<33% of best or predicted, RR>30 breath/mn)

OR

Chronic persistent breathlessness (daily for more than 6 weeks)
Continue to follow breathlessness algorithm

Provide patients with chronic persistent breathlessness resources, the breathless factsheet, and/or 'Taking Charge of your Breathlessness' leaflet

STEP 3 → Tier 1 Investigations for presentation of chronic breathlessness

The minimum tests required for **all patients** presenting with chronic breathlessness:

Initial Consultation	NT-ProBNP	Thyroid Function	Full Blood Count	Urea & Electrolytes	Liver Function Test
	Albumin/Creatinine Ratio	ECG	CXR in last 6/12 repeat if clinical concern/Sx change	Breathlessness Score – MRC Scale	
Subsequent Consultation Holistic Assessment	Screening for anxiety and depression– Assess the extent to which anxiety and/or depression are contributing to the breathlessness, and/or associated distress, and/or ability to self-manage			Peak Flow Diary Only refer for spirometry after following the Covid 19 spirometry pathway	
From the tests results identify possible contributory factors to the breathlessness and confirm suspected diagnoses through step 4 investigations					

STEP 4 → Tier 2 Investigations for presentation of chronic breathlessness

Based on history, examination and tier 1 investigations should further tests be carried out to confirm diagnoses or to provide further information? **Only order tests if you would act upon the results.**

Common Causes of Breathlessness	Further Assessment/ Tests	Further Management
Cardiac **Possible diagnosis:** Heart failure Angina/ IHD Valve disease Arrhythmias	• Prior history of myocardial infarction or NT-pro BNP > 500pg/mL (HF very probable) • 100 – 500 If clinical HF then HF probable. • Consider 24 hr ECG • Consider rapid access cardiology if history of angina	• If raised BNP consider ECHO and action results accordingly • Consider general cardiology referral
Respiratory **Possible diagnosis:** Asthma COPD Interstitial lung disease Pleural disease Pulmonary hypertension	• Ensure peak flow has been conducted if appropriate prior to spirometry & spirometry for covid pathway followed • Use Rotherham CCG guidelines for Asthma and COPD management • If all options have been ruled out – refer to breathing space.	• Refer to respiratory services if secondary care work up is required - such as concerns of lung malignancy
Mental Illness and Addiction **Possible diagnosis:** Depression Anxiety	• GAD 7 and PHQ9 • Addiction assessment • Audit score for alcohol Smoking assessment including non-tobacco eg cannabis, opiates	• Consider referral for I A P T Consider Addictions Team referral • Treat tobacco addiction via referral to Get healthy Rotherham
Anaemia/ Kidney Disease/ Malignancy	• Check B12, folate, and alcohol history for macrocytic anaemia • Check ferritin, iron indices, Hb electrophoresis for microcytic anaemia	• If clinical concerns consider advice from to a nephrology or hematology • If malignancy is considered refer via appropriate 2WW pathway
Neuromuscular weakness	• Neuro-muscular disease – Such as motor neurone disease – refer direct to STH.	

STEP 5 → Consider Contributing Factors to Breathlessness

- There may be more than one contributing factor to breathlessness.
- Breathlessness is likely to be multi-factorial without a single specific diagnosis. If a physical cause is identified still consider whether psychological factors are contributing to or a consequence of the breathlessness.
- **Order each of the possible contributory factors for the chronic breathlessness** (Cardiac/Respiratory/mental Illness/Fitness and Lifestyle/Anaemia and Kidney Disease) this allows prioritisation of investigations, treatments plans and referrals.
- If there is no obvious cause(s) of breathlessness fitness and lifestyle factors may need to be addressed. It may be beneficial to refer for therapeutic interventions for smoking cessation, alcohol reduction, weight management, physical activity improvement and psychosocial support. Collaboratively agree goals/care plan.

Guideline Adapted from IMPRESS Breathlessness Algorithm http://www.impressresp.com/index.php?option=com_docman&Itemid=82