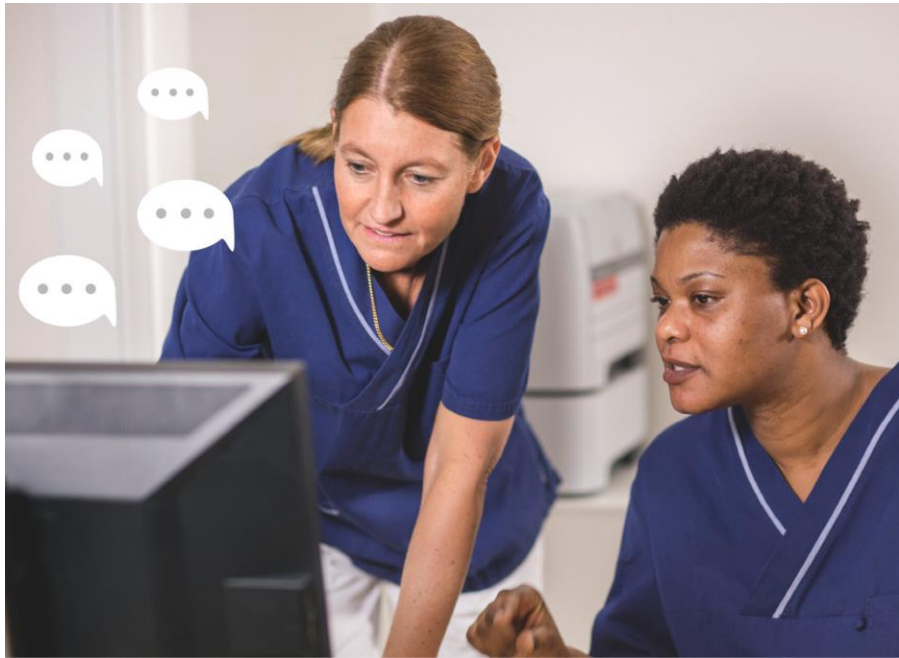


Presentation 3

How do you organise and prioritise routine asthma care

Hanna Sandelowsky, Sweden





Prioritisation of tasks in asthma care

	HIGH PRIORITY						LOW PRIORITY		
	"Should be done"			"Could be done"			"Could be done as an exception"		
Diagnostics	Spirometry: FEV1/FVC	Children with obstructive episodes: Spirometry, allergy test, ACT, length/weight	Patient history of allergen exposure		Allergy test (adults)	PEF registration Mannitol challenge	Methacholine challenge Diff Cap	NO Standardised Exercise challenge Irritant challenge	Non-standardised exercise challenge (children) Spirometry: FEV1/SVC
Treatments	Smoking cessation support	Smoking cessation support to parents							
	Optimise medication: Switch from SABA as needed to fixed or as needed ICS (+LABA) Continued medication during pregnancy Spray+Spacer at AEA				Nebulizers at AEA				
			Asthma Action Plan Patient/parent education	Inter-professional care					
		Follow-up, uncontrolled asthma	Follow-up, controlled asthma (steps 2-4)	Follow-up, controlled asthma (step 1)					

 = Pragmatic prioritisations during Covid 19 pandemic




Modified after the guidelines from The Swedish National Board of Health and Welfare 2015, rev 2017

Organisation of asthma care in primary care

– The Asthma/COPD team



Certified Asthma/COPD clinics

	 Doctor	 Respiratory/allergy nurse	 Physiotherapist
Competence			
Formal	Specialist in Family Medicine (=GP)	Specialist competence in respiratory medicine (university level)	Specialist competence in respiratory medicine (university level) recommended
Spirometry Driver's Licence	Mandatory	Mandatory	Mandatory
CME	Two days/year for "external CME", preferably based on interprofessional learning		
Interprofessional co-operation	Occupational therapist, nutritionist, social worker, smoking cessation counsellor		
Time	2 hours/week (for management of team)	4.8 hours/week/1000 registered patients (any patients) at the PHCC	1.3 hours/week/1000 registered patients (any patients) at the PHCC
Equipment	Spirometry, FEV ₁ /FEV ₆ , screening device, PEF meter, pulse oxymeter, spacer, nebulizer, oxygen, allergy tests (in vitro or/and intracutan) information and patient education material		
National Airway Register	Mandatory regular registering and regular analysis of own results		

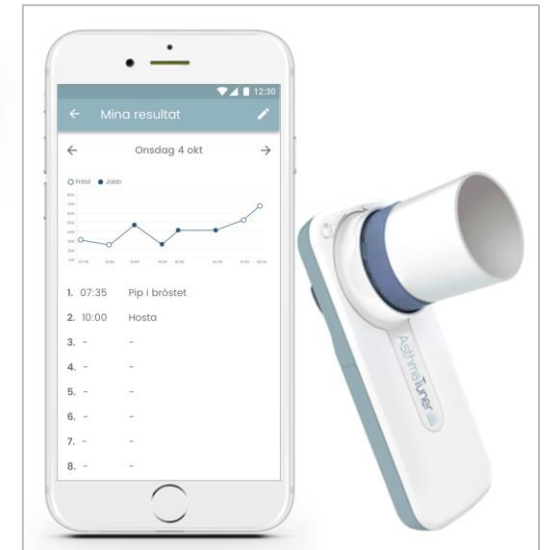
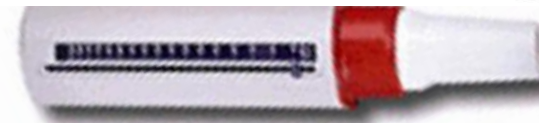
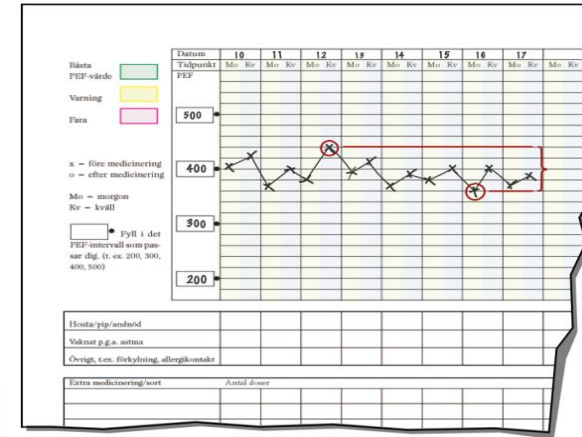
How do we diagnose asthma during the pandemic?

Remote lung function measures

- PEF diary
- App based technology
- Remote consultations to guide and support

Few allergy tests

- Not priority during pandemic
(shortage of staff + distancing recommendations)



How do we diagnose asthma during the pandemic?

Spirometry? Continue with stringent prioritisation!

× No:

- If patients (or HCP) show any symptoms of airway infection (1 week free of symptoms)
- Annual routine spirometries for COPD patients
- Annual routine spirometries for well controlled asthma patients
- New patients with clinically highly suspect asthma

✓ Yes:

- Normally high priority spirometries but postponed in spring 2020:
 - Uncontrolled asthma under treatment adjustments
 - Unclear diagnosis in patients on new asthma medication
- Candidates for sublingual immunotherapy (hyposensitisation)



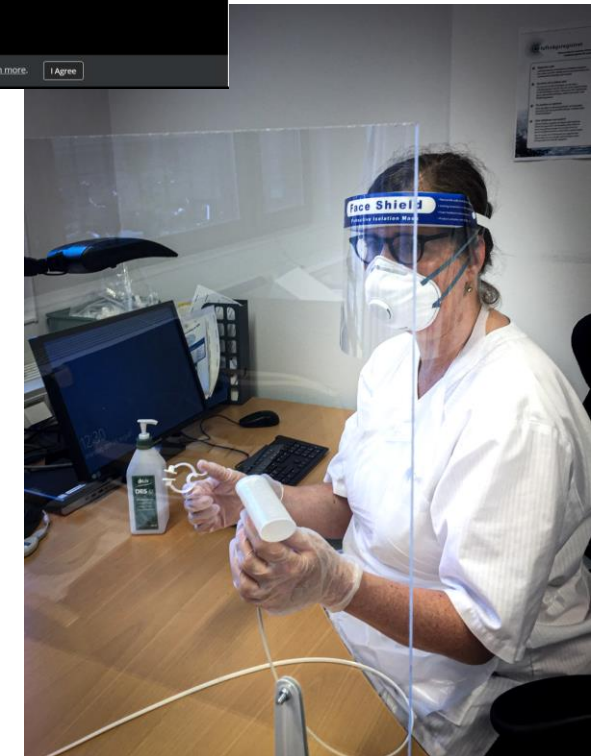
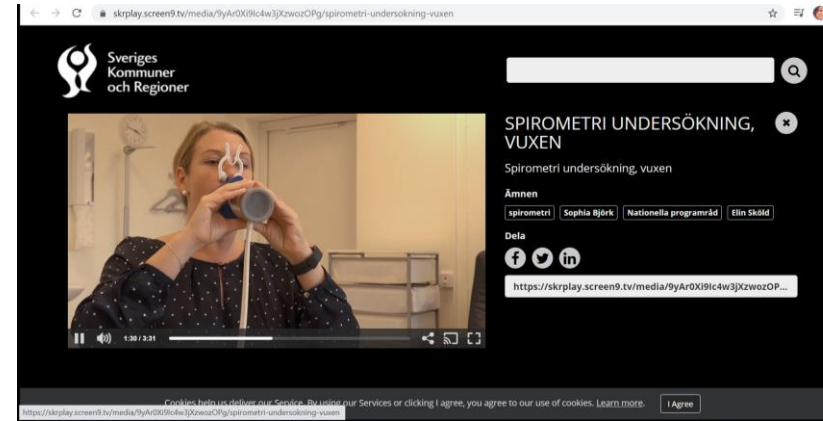
COPD6-meter®



Air Smart®

Advice for safe spirometry during the pandemic

- Demonstrate by watching a video
- Patient hand disinfection/wash
- Staff PPE:
 - Gloves
 - Apron
 - PPF 4 mask
 - Face shield
 - Glass protective barrier
- Placement of patient (expiration away from the staff)
- Use a filter in the device
- No DPI:s (unless patient's own). Use spray+spacer, disinfect afterwards.
- If obvious risk for coughing: perform only 1-3 forced outblows for FEV1 and slow outblows for VC (i.e., use FEV1/SVC instead of FEV1/FVC)
- Clean surfaces afterwards
- Evidence on the role of ventilation is unclear
 - Wait 15 min before opening the window or door
 - Keep your mask on during that time
 - Wipe surfaces off with disinfection after that time

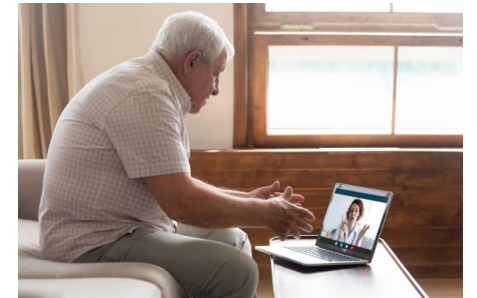


How do we assess patients during the pandemic?

Remote consultations

Platforms currently used globally:

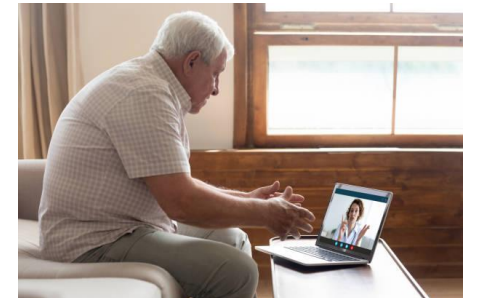
- Telephone
- Online services: national systems, Zoom, Skype, Facetime etc
- Smart phone/watch
- Smart phone apps: Whatsapp
- Chat (Sweden)
- Email



How do we assess patients during the pandemic?

App based technology examples

- **MyHealth** (UK; paid for) eg myCOPD and myASTHMA:
 - education (including inhaler technique)
 - PR, lung function reporting
 - self-management plan
- **SaniQ** (Germany; paid for):
 - digital health diary an allows documentation of PEF, FEV1, weight and O2 saturation
- **Hailie**TM (free):
 - medication monitoring for asthma and COPD including analysis of inhaler use
- **SMART PEAK FLOW** (free):
 - Smart sensor technology to track PEF
- **AsthmaTuner** (Swedish and English):
 - Clinically validated service for at-home treatment of asthma, and diagnostics. Treatment plan combined with a decision support tool, digital PEF monitoring, spirometry, patient education.



DELIVERING EFFECTIVE RESPIRATORY REMOTE CONSULTATIONS IN PRIMARY CARE

HEALTHCARE PROFESSIONAL (HCP)

- Review patient notes, if possible, and recent history
- (See checklist below)

- Connect and check patient can see/hear you. Are they the person you are expecting?
- Let patient know you may be typing during consultation so not looking directly at them
- Ensure privacy and check if anyone is with patient
- Contingency plan (what to do if cut off)

- Greet
- Provide reassurance to build rapport and put patient at ease

- Ask for description of concerns and priorities for the consultation
- Take a detailed and focused history
- Gather any physical assessments the patient is able to provide
- Discuss thoughts and conclusions and decide on a course of action

- Check understanding of agreed action
- Advise on reliable sources of information

- Make sure patient can access any prescriptions
- Propose follow-up consultation(s) schedule

Operational talk: instruct and guide patient to support the quality of consultation eg. ask patient to speak louder, reposition the webcam or change the lighting

PATIENT

- Check access to call system and points for discussion
- Have medications eg. inhalers near you
- (See checklist below)

- Connect and check HCP can see/hear you
- Let HCP know if anyone is with you
- Contingency plan (what to do if cut off)

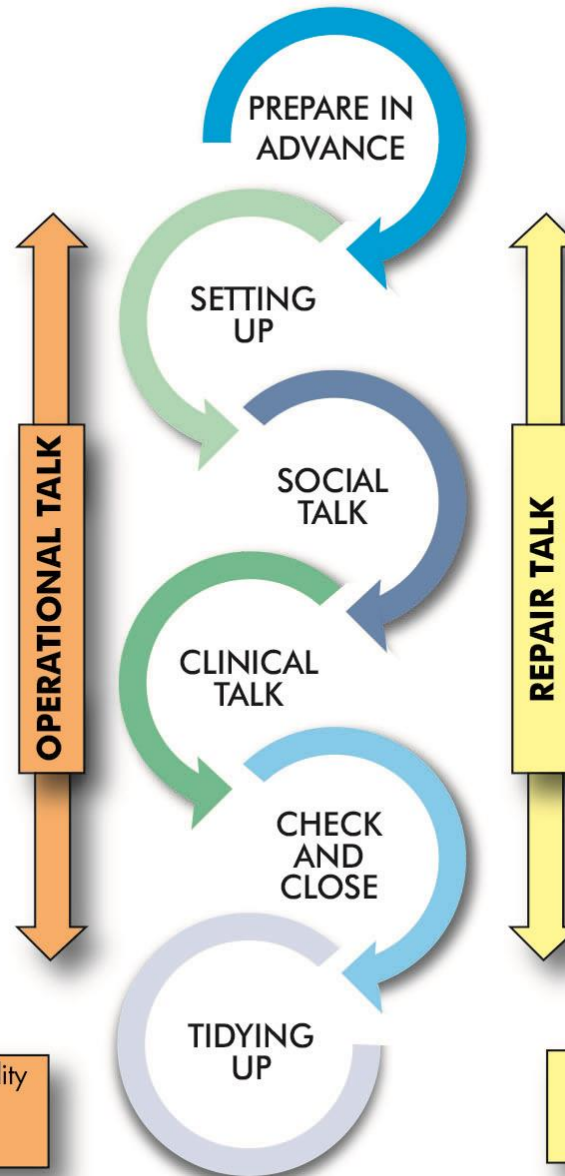
- Greet, non-clinical talk

- Provide a description of concerns and priorities for the consultation
- Provide any physical assessments the HCP requests
- Discuss thoughts and conclusions and decide on a course of action

- Agree and clarify understanding of plan of action
- Take note of advice on reliable sources of information

- Confirm you can collect any prescriptions
- Check how to arrange follow-up consultations

Repair talk: correct significant disruption to the flow of the consultation due to latency or technical breakdowns eg. pause, invite patient to continue talking when overlap/interruption occurs

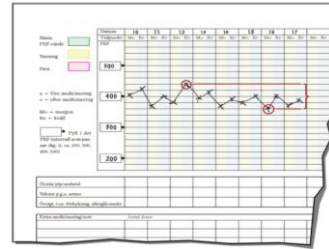


Team members: General practitioner

1. Diagnosis
2. The medical assessment
3. Initiate patient education
4. Prescribe medication
5. Initiate Asthma Action Plan
6. Refer to appropriate other HCP:s (e.g., nurse, physiotherapist, school nurse)
7. Plan for follow-up
8. Refer to pulmonary specialist if needed



Team members: Primary care Asthma/COPD nurse



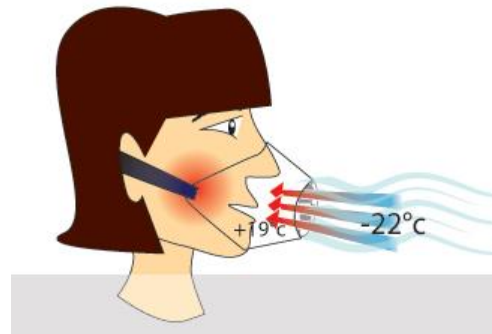
- Works together with GP
- Assessments and treatments
 - Asthma Control Test, lung function tests
- Structured smoking cessation treatments and support
- Patient education
 - Advice about **symptom triggers** (e.g. allergens, air pollution, smoky environments, smoking, infections, exercise, NSAID/beta-blockers, stress), **exercise, medication/inhaler technique**
- Follow-up, support and preventive measures
- Own clinic with booked appointments



Team members: Physiotherapist

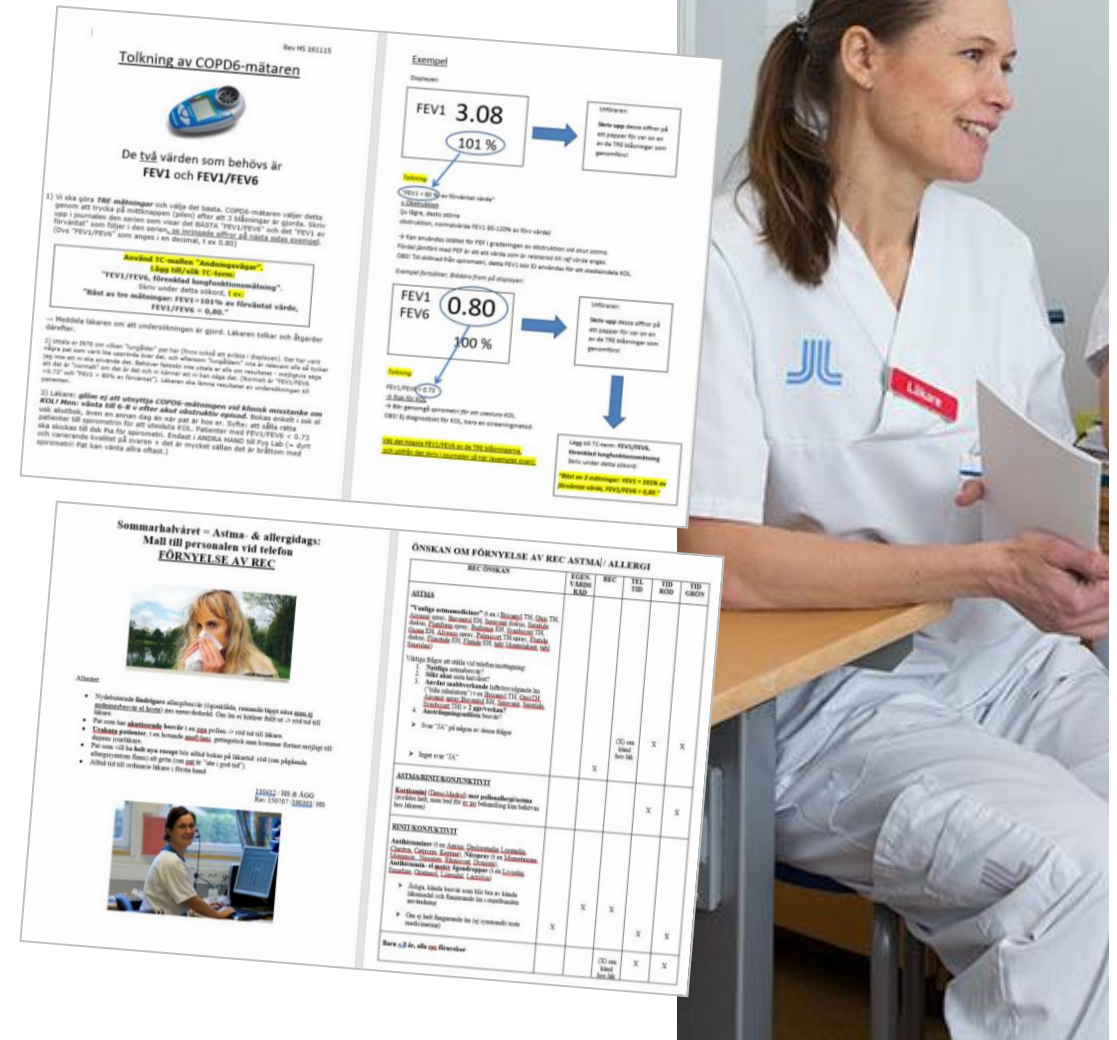
Exercise induced asthma

- Assessments: Exercise challenge with PEF
- Patient education
- Breathing aids and exercises
- Inhaler technique support



Team members: Asthma/COPD physician

- Supports the asthma/COPD nurse
- Supports the other GPs
 - Scheduled weekly "Open hour" for consultations + spontaneous dialogue
 - Weekly information at GP meetings / Staff meetings
 - Guidelines, cribs, local routines
- Dialogue with manager / stake holders
- Contact person with local pulmonologists
- Continuing medical education



Management of acute exacerbations during the pandemic in primary health care

Moderate asthma exacerbation

- Dyspnoea, O₂-Sat >90%.
- **USE** PPE
- **USE** outdoor facilities if you can
- **AVOID** nebulizers
- **USE** spray (MDI) inhaler + spacer
 - Preferably patient's own inhaler
 - Dosage of SABA: < 2 yrs: 4 puffs, > 2 yrs: 6 puffs, > 6 år: 6–10 puffs, adults 10-15 puffs
- Oxygen via nasal high flow (e.g. Optiflow)
 - **Risk for aerosols**
- Cleaning:
 - Spacers: follow manufacturer's instructions
 - MDI inhalers:
 - Take apart metal inhaler and plastic components
 - Metal inhaler: alcohol disinfection
 - Plastic: dish washing liquid & water → hydrogen peroxide 3% in 30 min (Caution! Use goggles!) → let air dry



APPENDIX: Useful tests that can be done remotely

- **Vital signs:** temperature, pulse rate and respiratory rate
- **Peak flow test**
<https://www.asthma.org.uk/advice/manage-your-asthma/peak-flow/>
- **1 minute Sit to stand**
- **Inhaler technique:**
<https://www.asthma.org.uk/advice/inhaler-videos/>
- **Pulse oximetry:**
<https://www.youtube.com/watch?v=Y-CWTqKilhQ>

Questionnaires:

- https://www.ipcrg.org/sites/ipcrg/files/content/attachments/2019-10-23/ipcrg_users_guide_to_copd_wellness_tools.pdf
- <https://www.ipcrg.org/resources/search-resources/users-guide-to-asthma-control-tools-2016>

Breathlessness questionnaires

- MRC Breathlessness Scale
- **Modified MRC**

COPD questionnaires

- COPD Assessment Test <https://www.catestonline.org/>
- CLINICAL COPD QUESTIONNAIRE (CCQ) www.ccq.nl

Asthma questionnaires

- Asthma Control Test <https://www.asthmacontroltest.com/>
- CARAT: <https://core.ac.uk/download/pdf/62692897.pdf>
- RCP 3 questions:
https://www.guidelinesinpractice.co.uk/nov_99_bucknall_asthma_nov99/304385.article#.VliASa1dHIU

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- **Vital signs: temperature, pulse rate and respiratory rate.**
 - <https://www.hopkinsmedicine.org/health/conditions-and-diseases/vital-signs-body-temperature-pulse-rate-respiration-rate-blood-pressure>
 - Respiratory rate: <https://www.youtube.com/watch?v=ccKGzZXNKYs> start 0.47 and <https://www.mayoclinic.org/how-to-measure-respiratory-rate/art-20482580>
- **Peak flow test** <https://www.asthma.org.uk/advice/manage-your-asthma/peak-flow/>
- **1 minute Sit to stand:**
- Instructions composed from this reference and others <http://rc.rcjournal.com/content/63/8/1040>
 - Use an armless chair with a height of 46 cm; you can put it against a wall to stop it slipping.
 - HCP needs a stopwatch used to measure the time and to count how many repetitions.
 - Demonstrate first then ask the patient to do it as correctly as possible for as many times as they can manage in one minute.
 - Put your hands on your hips or fold your arms across your chest to keep your arms still.
 - When I say "Go!" stand up and without delay sit down again as many times as possible within 1 minute.
 - Go at a speed which feels safe and manageable.
 - Stand up so your knees are straight, and when you sit, they'll be bent at right angles.
 - You may want to have your feet about 30 cm apart, and to push them back a little under your chair. Toes pointing forwards. Push down into your heels to stand up.
 - You can rest if you need during the minute.
 - Measurements before and after? Heart rate, oxygen saturation (SpO2), blood pressure, and symptoms of breathlessness and fatigue (rated with the modified Borg scale)
- **Inhaler technique:** <https://www.asthma.org.uk/advice/inhaler-videos/>
- **Pulse oximetry:** <https://www.youtube.com/watch?v=Y-CWTqKilhQ>

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- (or <https://cks.nice.org.uk/topics/chronic-obstructive-pulmonary-disease/diagnosis/diagnosis-copd/#medical-research-council-dyspnoea-scale>)
- And here's an example of it in use <https://www.wellingtonmedicalcentre.co.uk/information/forms/medical-research-council-mrc-breathlessness-scale/>

Modified MRC <https://bronchiectasis.com.au/wp-content/uploads/2015/09/BW-MMRC-Dyspnoea-Scale-doc.pdf>

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Thank you



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