

Virtual Pulmonary Rehab - (VPR)

Site Applicability

All VCH and PHC Ambulatory and Community sites providing Virtual Pulmonary Rehab (VPR).

Practice Level

Profession	Setting	Basic Competency
PT	Ambulatory and community sites providing Virtual Pulmonary Rehab (VPR)	Assessment of client for eligibility for VPR Lead virtual exercise program Evaluation of client for expected outcomes from virtual exercise program
RT, RN	Ambulatory and community sites providing Virtual Pulmonary Rehab (VPR)	Assessment of client for eligibility for VPR Evaluation of client for expected outcomes from virtual exercise program

Requirements

Inclusion Criteria:

- Demonstrate ability to participate in a group setting.
- Have a medical provider referral, in which the patient is signed off as medically cleared for exercise.
- Be diagnosed with a chronic lung disease: COPD, asthma, bronchiectasis or pulmonary fibrosis with stable chronic symptoms of their lung disease.
- Have the [necessary technology](#) to enable joining the Virtual Exercise Program. *See intake step 1.3 for list.*

Exclusion Criteria:

- Concerns identified during initial assessment of history, symptoms, cognitive function, and mobility.
- Non- English speaking. For these participants the program will do one-on-one sessions with translation service.

Need to Know

This document has been developed with recommended guidelines for program facilitators to support the adaptation of delivering Pulmonary Rehab (PR) programs virtually.

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PR is an important non pharmacological treatment for those living with chronic lung conditions. Participants referred to PR may no longer be able to undergo in-person entry assessments to assess ability to exercise and provide outcome measures. Thus, a need arose to assess the safety of starting PR without an entry assessment and moving forward to a VPR model for participants who are unable to attend in person.

In order to ensure safety for some participants to start VPR without an in-person entry exercise assessment, participants need to meet the inclusion criteria stipulated above and undergo a risk screening assessment by the assessing clinician(s) and exercise clearance would need to be given by the referring provider. If this risk screening does not identify any concerning health factors that would put the participant at risk, then the participant would be medically cleared for VPR.

Facilitator Equipment and Supplies

For Program Facilitators to conduct VPR

- Computer or laptop with reliable internet connection
- Zoom application
- Large monitor, screen or projector to view participants
- Additional facilitator to manage virtual group, troubleshoot and visually monitor participants if possible
- Educational materials
- Exercise equipment: may include weights, resistance bands, a chair.
- Complete participant attendee list with safety plan as per program (information gathered from intake such as address, buzzer number, emergency contact and phone number)

Protocol

Assessment

Screening of participants using the current program intake process will result in a clinical decision to start VPR. Participants that are unable to exercise remotely due to frailty, high oxygen needs etc., will be offered the education component of VPR and/or placed on a waitlist for in person classes.

Instructions

To access the Reference Materials in the table below:

- Please sign up for an account in the [Learning Hub](#) using your health authority email or if you have an existing account in the [Learning Hub](#), login to access the resources

#	STEPS	DETAILED INFORMATION	REFERENCE MATERIAL
1	INTAKE	<p>1.1 Referral received</p> <ul style="list-style-type: none"> Participant is medically cleared for exercise <p>1.2 Complete Health History</p> <ul style="list-style-type: none"> Check for recent test results <ul style="list-style-type: none"> ECG Pulmonary Function Test or Spirometry Chest X-Ray <p><i>* time frame for accepted tests may vary at each site</i></p> <p>1.3 Call Participant</p> <ul style="list-style-type: none"> Does the participant verbally consent to using Zoom, being seen by other participants in group sessions, communicating via email, and accept the inherent risks related to privacy and confidentiality using these virtual means of communication? Does the participant understand the risks related to the exercise component of VPR, and can the participant understand and adhere to all components of the exercise checklists? <p>Does the participant have access to:</p> <ul style="list-style-type: none"> A tablet, laptop or desktop with a built in camera and microphone? A personal email address? Wi-Fi or network internet connection? <p>1.4 Appropriate exercise equipment at home as needed?</p> <p>Email or mail Participant Package 1 may include the following:</p> <ol style="list-style-type: none"> Welcome letter Release, waiver and consent Pulmonary Rehab Exercise Checklist Zoom Patient User Manual <p>1.5 Schedule and Send a Zoom Meeting Invite for the Initial Assessment</p> <p>1.6 Document as per program and VCH documentation standards</p>	<p>Referral forms:</p> <ul style="list-style-type: none"> VGH Coastal Richmond St. Paul's <p>Participant Package 1:</p> <ul style="list-style-type: none"> VGH Coastal Richmond <ul style="list-style-type: none"> Checklist Waiver Zoom Manual St. Paul's <p>Zoom Patient User Manual:</p> <ul style="list-style-type: none"> VCH-Zoom-Patient-Manual <p>Zoom Manual for Staff:</p> <ul style="list-style-type: none"> VCH-Zoom-Manual

2	INITIAL VIRTUAL ASSESSMENT	<p>Participant to return signed copy of waiver back to program via email or verbal consent to be documented by clinician</p> <p>2.1 Review Zoom Competency and Participant Environment</p> <ul style="list-style-type: none"> • How to change between views/pin screen • How to unmute/mute • How to use chat function • Ensure participant has a safe environment to exercise in and their camera is set up so participant can be seen during the class • Sturdy chair/non-swivel without wheels • Zoom etiquette: Do not take the device to the restroom, do not change clothing in front of the device <p>2.2 Participant assessment and review goals</p> <p>Use the questionnaires listed on the side as needed:</p> <ul style="list-style-type: none"> • Select the appropriate Health Related Quality of Life (HRQL) questionnaires that will be used based on the participant's respiratory diagnosis: CAT (COPD), K-BILD (ILD), or EQ-5D (other respiratory). Complete the mMRC, ESS and DASI as applicable. <p>2.3 Complete Sit to Stand Test Virtually</p> <ul style="list-style-type: none"> • Using information from the participant health history and DASI score assess whether a Sit to Stand (STS) can be performed safely over Zoom. • If a sit to stand (STS) test can safely be performed, complete per site standards. <p>2.4 Review Options for Remote Monitoring, Oximeter, and Exercise Equipment</p> <ul style="list-style-type: none"> • Discuss the exercise equipment to be used during class • Therabands, if provided, will be mailed prior to program start date • Review whether they will be using remote monitoring or are able to purchase an oximeter from a pharmacy <p>2.5 Schedule participant on Zoom for VPR and send Participant Package 2 which may include the following:</p> <ol style="list-style-type: none"> a) Welcome Letter, if not already sent out b) BORG scale 	<p>Online Assessments:</p> <ul style="list-style-type: none"> • DASI • CAT • MMRC • KBILD • Epworth Sleepiness Scale <p><i>Email for license to use</i></p> <ul style="list-style-type: none"> • EQ-5D <p><i>Free to register to use</i></p> <p>Participant Package 2:</p> <ul style="list-style-type: none"> • VGH • Coastal • Richmond • St. Paul's
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		c) Pulmonary rehab education manual and other educational materials d) Remote monitoring options if available 2.6 Document as per program and VCH documentation standards	
3	VPR START	3.1 Program Details VPR Ideally, at least two facilitators will be present at every exercise session. One leads the exercise portion and the other observes, keeps time and addresses self-management questions. 3.2 Preparation: <ul style="list-style-type: none"> • Allow for early sign on to Zoom • Review checklists with participants • Address participant's questions/concerns (use breakout rooms in Zoom for privacy or the chat feature) • Assess remote monitoring device(s) are working appropriately if applicable 3.3 Education: <ul style="list-style-type: none"> • Is booked together with the exercise session (the same zoom link will be used as the exercise session). • Prior to the program start date, the lecture schedule is developed, reviewed with the guest lecturers, finalized and sent to the participants. • The format of education is primarily PowerPoint presentation or other visuals that can be viewed via the Zoom share screen function. • Any presentation topics requiring handouts is to be emailed to the participants in PDF format • Some locations may place participants on mute due to larger class size 3.4 Exercise Session: <ul style="list-style-type: none"> • Combinations of warm up, cardio, arm and leg strengthening exercises and cool down. 3.5 Participant Values: <ul style="list-style-type: none"> • HR, SpO₂ and/or BORG is to be recorded pre, during and post exercise as per site requirements. 	Participant Manuals: Richmond: <ul style="list-style-type: none"> • Living Well With COPD VGH and St. Paul's: Part 1: <ul style="list-style-type: none"> • PR Manual Part 1 Part 2: <ul style="list-style-type: none"> • PR Education Manual Part 2 Coastal: <ul style="list-style-type: none"> • Living with Lung Conditions Manual

		<p>Participants are encouraged to verbally report their BORG scale value or type it into the Zoom chatbox.</p> <p>3.6 Document as per program and VCH documentation standards</p>	
4	FINAL ASSESSMENT	<p>Schedule participant on Zoom for final assessment and send Participant Package 3 which may include the following:</p> <ul style="list-style-type: none"> a) End of program questions b) Lecture Evaluation Questionnaire c) Health Satisfaction Survey <p>4.1 Development and Evaluation of Home Exercise Program</p> <ul style="list-style-type: none"> • Interim care plan with exercise prescription to be completed. Copy sent to provider as per program process. <p>4.2 Update Health History and PR Assessment Outcomes</p> <ul style="list-style-type: none"> • Repeat HRQL questionnaires as per program process • A repeat Sit to Stand test is to be done via Zoom if it was done at the start of the program. <p>4.3 Provider Communication</p> <ul style="list-style-type: none"> • Program summary is to be sent to the respirologist and/or referring physician/nurse practitioner. • If applicable, a respiratory action plan is to be reviewed and shared with the participant and the provider <p>4.4 Send Participant Package 4 which may include the following:</p> <ul style="list-style-type: none"> • Care plan if applicable • Home Exercise Program • Respiratory Action Plan if applicable • Certificate of Achievement 	<p>Participant Package 3:</p> <ul style="list-style-type: none"> • VGH • Coastal • Richmond • St. Paul's <p>Participant Package 4:</p> <ul style="list-style-type: none"> • VGH • Coastal • Richmond • St. Paul's

Site Specific Practices

Refer to [Appendix A](#)

Expected Outcomes

- Participant receives and understands essential Pulmonary Rehabilitation and Education Materials
- Participants are linked with appropriate community resources and supports

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- Participants learn how to self-monitor their symptoms in everyday life and during exercise
- Participants learn about the components of an exercise routine and how/when to progress
- Program facilitators feel safe and supported in their clinical decision making

Documentation

- Consent for VPR should be documented as per Virtual Visit documentation guidelines. If verbal consent is obtained it should be documented in appropriate participant chart.
- Pulmonary Rehab documentation for virtual participants should be as comprehensive as for in-person participants, and should follow the best practice standards of the rehab center and professional body.

Patient and Family Education

- Links to each site education manuals found in section 3.0

Related Documents

Related Policies

- [Zoom Application Use](#)

Guidelines/Procedures/Forms

- [Infection Prevention and Control](#)
- [Technical Considerations](#)
- [Virtual Documentation Resources](#)
- [Virtual Physiotherapy Practice](#)

Definitions

- **Program facilitator:** Clinician or therapist delivering the program
- **Pulmonary rehabilitation (pulmonary rehab/PR):** is a medically supervised program of exercise, education, and social support. This program will be done virtually via telephone/virtual applications approved by Vancouver Coastal Health and Providence Health Care.
- **Pulmonary symptoms:** at rest or during activity; includes shortness of breath at rest or with mild exertion; wheeze, cough, mucous production or unusual fatigue or shortness of breath with usual activities.
- **Remote Monitoring:** a telehealth system which provides a participant with an oximeter for VPR facilitator(s) to monitor oxygen saturations and heart rate
- **Respiratory disease:** COPD, interstitial lung disease, chronic asthma.
- **Virtual visit:** a means of delivering care using a videoconferencing platform
- **VPR:** Virtual Pulmonary Rehab

Appendix A: Site Specific Reference Material

Instructions

To access the Reference Materials in the table below:

- Please sign up for an account in the [learning hub](#) using your health authority email or if you have an existing account in the [learning hub](#), login to access the resources

Providence Healthcare	<p><u>St. Paul's Intake Referral</u></p> <ul style="list-style-type: none"> Participant Package 1: <ul style="list-style-type: none"> Welcome to Pulm Rehab Letter PR Exercise Checklist PHC Patient Notice Virtual Health Release Waiver and Disclaimer - 9-24 Participant Package 2: <ul style="list-style-type: none"> Modified Borg Dyspnoea Scale Participant Package 3: <ul style="list-style-type: none"> PR Feedback Form Participant Package 4: <ul style="list-style-type: none"> Pacific Lung Action Plan PR Certificate PR HEP Resources <p>Participant Manuals</p> <ul style="list-style-type: none"> Part 1: PR Manual Part 1 Part 2: PR Education Manual Part 2
Coastal	<p><u>North Shore Intake Referral - Coastal</u></p> <ul style="list-style-type: none"> Participant Package 1: <ul style="list-style-type: none"> Breath Assessment Virtual Health Email Template (Zoom) Release, Waiver, and Consent for Virtual Pulmonary Rehabilitation PAMs Score PRE Tech Serve Workshops Participant Package 2: <ul style="list-style-type: none"> Breath Education Group Virtual Health Email Template Breath Follow-Up Group Virtual Health Email Template COPD Assessment Test (CAT) Participant Package 3: <ul style="list-style-type: none"> PAM Score Post Participant Package 4: <ul style="list-style-type: none"> Physician Letter Self-Management Plan <p>Participant Manuals</p> <ul style="list-style-type: none"> Living with Lung Conditions Manual

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<p>Richmond</p>	<p><u>Intake Referral - Richmond</u></p> <ul style="list-style-type: none"> Participant Package 1 <ul style="list-style-type: none"> 2021 PR Checklist Release Waiver and Disclaimer VCH Zoom Patient Manual Participant Package 2: <ul style="list-style-type: none"> BORG Rating of Perceived Exertion Virtual Pulmonary Rehabilitation Confirmation Letter Participant Package 3: <ul style="list-style-type: none"> Richmond Pulmonary Rehabilitation Program End of Program Survey Lung Disease Management Survey Participant Package 4: <ul style="list-style-type: none"> Certificate of Completion Template COPD Flare-Up Action Plan PR Final Summary Pulmonary Rehab Exercise <p>Participant Manuals</p> <ul style="list-style-type: none"> Living Well With COPD
<p>Vancouver</p>	<p><u>Intake Referral - VGH</u></p> <ul style="list-style-type: none"> Participant Package 1: <ul style="list-style-type: none"> Release, Waiver, and Consent for Virtual Pulmonary Rehabilitation Zoom Patient Manual-VCH VCH/PHC Pulmonary Rehabilitation Program Checklist Welcome Letter – Email Template Participant Package 2: <ul style="list-style-type: none"> VGH Pulmonary Rehabilitation – Exercise Equipment Remote Monitoring & Borg (Shortness of breath scale) Participant Package 3: <ul style="list-style-type: none"> VGH Pulmonary Rehabilitation – End of Program Questions Champion Lung Fitness Program Lecture Evaluation Participant Package 4: <ul style="list-style-type: none"> Certificate of Achievement Template COPD Flare-Up Action Plan VGH Pulmonary Rehabilitation – Respiratory Care Plan <p>Participant Manuals</p> <ul style="list-style-type: none"> Part 1: PR Manual Part 1 Part 2: PR Education Manual Part 2

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Approved By: <i>(committee or position)</i>	PHC	VCH
	Endorsed By: Professional Practice Standards Committee PHC Privacy	Endorsed By: VCH Risk Management VCH Privacy and Legal VCH Virtual Health (Regional SharePoint 2nd Reading) VCH Operations Directors VCH Professional Practice Directors Final Sign Off: Vice President, Professional Practice and Chief Clinical Information Officer, VCH
Owners: <i>(optional)</i>	PHC	VCH
	Developer Lead (s): <ul style="list-style-type: none"> physiotherapist, PHC 	Developer Lead(s): <ul style="list-style-type: none"> Community Respiratory Therapist, Richmond Community Respiratory Program Respiratory Therapist - Pulmonary Rehabilitation, Department of Medicine – Respiratory, VA Development Team Member(s): <ul style="list-style-type: none"> Asthma Educator / Community Respiratory Therapist, Programs - Acute & Chronic Health Regional Physiotherapy Practice Lead, Physiotherapy-Regional Professor/Respirologist, Department of Medicine - Respiratory Clinical Informatics Specialist - Generalist/Ambulatory, Clinical & Systems Transformation Project (CST)

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