

# YNHHS Pulmonary Function Lab (PFT) Pandemic Reopening Guidelines- Phase IV (Updated- 11/7/2022)

## Goals:

1. Provide operational guidance to YNHHS system inpatient and outpatient pediatric and adult PFT laboratories to conduct PFTs safely during all phases of the COVID19 pandemic based on system, national, and international guidelines.
2. Minimize conduct of PFT tests that are aerosolizing procedures (almost all PFTs are aerosolizing procedures).
3. Using a phased approach (Phase I, II, III and IV), mitigate risk of exposure to patients and staff to the SARS-CoV-2 virus by adjusting for local prevalence of the virus, limitations in testing, staffing, equipment, and space, and provider determined acuity of each patient's need for testing.
4. Provide updated guidance to PFT labs as needed given the fluidity of the COVID19 pandemic. Each delivery network will operationalize guidelines adjusting to differences in staffing, space, and patient acuity, and disease prevalence.

**Prioritization, Screening and Scheduling during Phase IV;** should include patients with high acuity need for testing as determined by the healthcare provider and need for healthcare utilization. Each PFT laboratory will need to customize guidance.

## **COVID19 Screening for PFT:**

Patients scheduled for procedures in the Pulmonary Function Lab that require breathing maneuvers (ex. deep breathing, forceful exhalation) should undergo screening for high risk exposures, fever (>100°F), and symptoms (i.e., cough, dyspnea, myalgias, anosmia, dysgeusia) suggestive of SARS-CoV-2.

- Patients **NO LONGER** require any SARS-CoV2 PCR test prior to Pulmonary Function Testing.
- **ALL PATIENTS** will be screened for symptoms and fever upon check-in by a Respiratory Therapist, RN or ACA.
  - *Patients with new symptoms upon arrival;*
    - For patients with same day appointment with their physician or provider, discuss symptoms with the provider to determine next steps.
    - For patients without same day provider appointments, they should be sent home and directed to quarantine until diagnostic testing can be performed. (Either ordered by their physician or by calling the SARS-CoV-2 hotline 203-688-1700)
- For patients with a recent **Positive PCR test or Positive Home Antigen Test** (with the Positive result date being Day 0), Discontinuing Isolation Criteria for removing isolation is based on duration of illness and resolution of symptoms in most patients. Patient may schedule and perform a Pulmonary Function Test under the following conditions:
  - 10 days after the Positive PCR or Home Antigen test result for most patients. Plus, at least 24 hours of clinical improvement and without fever off anti-pyretics.
  - 20 days after the Positive PCR or Home Antigen test result for those patients with **severe disease** (requiring an admission to step down or ICU due to severity of COVID-19 disease) or with a **selected high risk immunocompromised condition or therapies**. Plus, at least 24 hours of clinical improvement and without fever off anti-pyretics.
    - High Risk Immunocompromised Conditions: Receiving ≥ 20 mg prednisone (or equivalent) for ≥ 14 days, HIV with CD4 count < 200, Transplant recipient, Leukemia or Lymphoma, Aplastic Anemia, Receiving Chemotherapy or Immunotherapy, or recipient of CAR-T cell therapy.

## **PFTs conducted during Phase IV:**

- Testing volume, capacity and staffing will be based on each PFT laboratories operational capacity.
  - Each delivery network will schedule accordingly to their operational needs based on resource, physical area, and demand requirement based on provider needs.
  - All Delivery networks will determine and implement best-practice, diagnostic, and clinical delivery in accordance to ATS, Infection Prevention, organizational and system wide approved practice established by PFT-Subgroups.

**Table I: PFT Tests permitted during COVID19 Phase IV**

Permitted testing	Technician PPE
Spirometry (Bronchodilators permitted*)	Respirator and Eye Protection
Lung Volumes (He, N2 and Pleth)	Respirator and Eye Protection
Diffusion	Respirator and Eye Protection
FeNO	Respirator and Eye Protection
MIPs/MEPs	Respirator and Eye Protection
MVV	Respirator and Eye Protection
Impulse Oscillometry	Respirator and Eye Protection
CPET	Respirator and Eye Protection
Step Testing	Respirator and Eye Protection
Bronchial Challenge	Respirator and Eye Protection
Sputum Induction with Nebulizer	Respirator and Eye Protection
Shunt Study	Surgical Mask and Eye Protection
Altitude Study	Surgical Mask and Eye Protection
Exercise Oximetry	Surgical Mask and Eye Protection
Six Minute Walk	Surgical Mask and Eye Protection
Arterial Blood Gas Sampling	Surgical Mask and Eye Protection

\* Nebulized medication administration permitted as approved by Infection Prevention and Pharmacy within the individual delivery networks.

- Bronchodilators may be delivered via Metered Dose Inhalers.
- Bronchodilators and other nebulized medications may be delivered via Small Volume Nebulizers with filtered exhalation.
- Unfiltered testing (CPET and Step testing) permitted in this Phase of prevalence with strong clinical indications.
- Bronchial provocation permitted with filtered exhalation and adequate room ventilation in this phase of prevalence in the absence of other conclusive testing.

### Recommended Phase IV Infection Control and Personal Protective Equipment (PPE) requirements

- Patients will be required to wear a surgical mask as much as possible during testing.
- Staff will be required to wear a respirator and eye protection for the procedures listed in Table I to avoid exposure to aerosols. Staff will be required to wear surgical masks while in the clinical space and when performing procedures that do not involve breathing maneuvers (tidal breathing.)
- In all circumstances, patients and staff will be washing their hands before and after testing.
- Single patient use/disposable patient interfaces encouraged.
- Non-disposable equipment should be disinfected according to the manufacturer’s instructions.
- In-line 99% bacterial/viral filters will be used between the patient and testing equipment when recommended by manufacturer. (Filters are unable to be used for CPET and Step Testing.)
- For testing without filters, patient breathing is to be oriented away from staff and other open spaces.
- The room must be disinfected in-between patients using hospital-approved wipes or cleaners.
- Procedure room ventilation to be evaluated by Facilities and Infection Prevention within the individual delivery networks to determine if HEPA filtration and/or UV disinfection units are recommended.
- Sufficient time should be allotted between patients to allow for room disinfection; the exact amount of time will vary depending upon the manufacturer determined drying time of the wipes or cleaners.

### References:

Wilson K, Kaminsky D, Michaud G et al. **Restoring Pulmonary and Sleep Services as the COVID-19 Pandemic Lessens.** American Thoracic Society. May 2020.

McGowan A, Sylvester K, Burgos F et al. **Recommendation from ERS Group 9.1 (Respiratory function technologists /Scientists) Lung function testing during COVID-19 pandemic and beyond.** European Respiratory Society. May 2020.

CDC. **Quarantine and Isolation Updated Jan. 2, 2022.** <https://www.cdc.gov/coronavirus/2019-ncov/you-health/quarantine-isolation.html>. January 2022.