UVM HEALTH PULMONOLOGY REFERRALS/CONSULT
Includes Pulmonary Function Testing Guidance

All referrals must include the most recent visit note and imaging reports per guidance below. Be sure imaging done outside UVMH is sent to UVMMC Film Library with reports.

ASTHMA
Referrals for patients who are refractory to routine controller (or beta-agonist treatment) or have evidence of aspirin sensitivity.

Required testing for referral: Spirometry with bronchodilator within the past 12 months.

COPD
Referrals for patients who are refractory to standard treatment. Please include information on historical medications that have been tried/failed AND number of exacerbations in the past 12 months in the clinical question.

Required testing for referral: Spirometry with bronchodilator within the past 12 months; PA and lateral chest Xray or CT chest (with or without contrast) within the past 12 months.

CHRONIC COUGH
Referrals for patients who already have been assessed for esophageal reflux and postnasal drip (and if present, empirically treated without effect) AND the patient is not on an ACE inhibitor.

Required testing for referral: Spirometry with bronchodilator within the past 12 months; PA and lateral chest xray or CT chest (with or without contrast) within the past 12 months.

PULMONARY NODULE
Required testing for referral: Dedicated chest CT (with OR without contrast) has been completed in the past 3 MONTHS.

INTERSTITIAL LUNG DISEASE (ILD)
Do not refer until ILD is confirmed with CT chest.

Patients with ILD are only seen at UVMMC or CVMC.

Required testing for referral: PFT (spirometry with DLCO) and CT imaging as noted above.

PULMONARY HYPERTENSION (PH)
Do not refer until PH or right heart failure is confirmed with echocardiogram.

Patients with PH are only seen at UVMMC.

Required testing for referral: PFT (spirometry with DLCO); 6MWT specifically for distance.

Pulmonary Function Testing Referral Guidance

Spirometry: (Flow-volume loop, FVC, FEV1, FEV1/FVC, PEFR)
To determine the presence of airflow limitation and the possibility of restriction, pre-op evaluation.

Lung Volumes: (TLC, RV, FRC/TGV, SVC, Raw)
To determine lung volume size and the presence of restriction or hyperinflation, airway resistance.

Diffusion Capacity: (DLCO)
To determine how well oxygen transfers from air to blood; commonly used to assess disease severity and monitor disease activity; also used in pre-op evaluation.

Maximal Inspiratory/Expiratory Pressures (MIP/MEP): To determine Inspiratory/Expiratory strength.

Maximal Voluntary Ventilation (MVV): May be helpful in estimating the level of ventilation that can be expected during exercise testing.

Bronchial Challenge Testing (Methacholine or Exercise): To determine the presence and degree of airway hyperresponsiveness, which may be helpful in making a diagnosis of asthma. *Usually, spirometry with and without bronchodilator is checked before deciding to order a methacholine or exercise challenge test.* For Exercise testing, indicate if the test is needed for scuba or military clearance.

Six-minute Walk Test (6MWT): To assess the need and titration for supplemental oxygen, or to determine exercise capacity (a formal "6-minute walk test" for distance). Indicate if the test is to be done on room air or on current home oxygen setting.

Cardiopulmonary Exercise Test (CPET): **Available at UVM Medical Center only**
To determine maximal exercise capacity and performance. Testing includes ABGs at rest and VO2max, continuous ECG monitoring. Testing is performed on a bicycle; if a patient cannot exercise vigorously on a bicycle, then the test is not appropriate. Spirometry, lung volumes and DLCO have been checked before deciding to order a CPET. Also, cardiac evaluation (i.e., stress test) is done before a CPET. *Please do not order to check VO2 max only* – the PFT lab does not have enough flexibility to do these measurements without a clinical indication for a full CPET.

FeNO (fractional excretion of nitric oxide – in exhaled breath): To diagnose eosinophilic airway inflammation, which may be helpful in making a diagnosis of asthma or monitoring asthma therapy.

Oscillometry: To diagnose increased airway resistance, increased respiratory system stiffness, or heterogeneity (unevenness) of ventilation, and distinguish peripheral vs. central lung disease. May be useful in patients who cannot perform spirometry.