Patient Testing – Slow Vital Capacity Profiler & Elite Plethysmograph

Audience All personnel in the Pulmonary Function Clinic.

Purpose To describe the procedure for performing Slow Vital Capacity (SVC) on the Profiler and Elite Plethysmograph in the Pulmonary Function Clinic.

Slow Vital Capacity is a spirometry test that displays the volume of gas measured on a low complete expiration after a maximal inspiration without forced or rapid effort.

Requirements The following are required for Slow Vital Capacity testing:

- Ensure that at least four consecutive tidal breaths are stable before beginning SVC.
- SVC's should agree within 5% or 150ml.
- SVC's can be performed as inspiratory, expiratory or mixed IC/ERV efforts.
- A minimum of three (3) trials will be performed with two (2) trials with in 150ml, as per ATS standards.

Procedure The following is the correct procedure for performing a Slow Vital Capacity on a patient:

- Before beginning the test, zero the pneumotach by clicking the Zero Flow button. There must be no flow through the pneumotach during this procedure.
- Click the SVC tab. The SVC Data Collection screen will be displayed.
- Place nose clips on the patient.
- Instruct the patient to breathe normally through the pneumotach. If you have the Keystroke to Start Test option turned on (default), press the spacebar to begin data collection. The patient's breathing efforts are displayed immediately on the screen. The message bar will read (Waiting for Four Tidal Breaths).
- After obtaining a stable breathing pattern with a minimum of four tidal breaths, instruct the patient to inspire slowly and maximally then exhale slowly and maximally. Instruct the patient inspire maximally again.
- Instruct the patient to return to normal breathing, then press the spacebar or click the Stop button to end the test. The results in the data table are displayed immediately and the volume/time graph is rescaled if needed.
- To perform additional SVC efforts, repeat the above test procedure. The computer will rank the efforts in descending order based on vital capacity and select the best effort. Therapist will select the best effort.

This form documents the approval and history of the policies and procedures for the Pulmonary Function Laboratory. The Medical Director signs all policies verifying initial approval. Annually thereafter, the Director and/or designee may approve reviews and revisions.

Date	Approved by:	Signature
11/07	V. Cardenas, MD Medical Director Pulmonary Laboratory	
6/09	V. Cardenas, MD No changes to the policy	
7/10	V. Cardenas, MD No changes to the policy	
2/12	A. Duarte, MD Medical Director Pulmonary Function Laboratory No changes to the policy	
5/14	A. Duarte, MD Medical Director Pulmonary Function Laboratory No changes to the policy	
5/16	A. Duarte, MD Medical Director Pulmonary Function Laboratory Changes to the policy	
11/17	A. Duarte, MD Medical Director Pulmonary Function Laboratory No changes to the policy	
8/19	A. Duarte, MD Medical Director Pulmonary Function Laboratory No changes to the policy	
8/21	A. Duarte, MD Medical Director Pulmonary Function Laboratory No changes to the policy	
8/23	A. Duarte, MD Medical Director Pulmonary Function Laboratory No changes to the policy	