2005 ATS/ERS Spirometry Recommendation Changes

Unit 3 – The Quality Assurance Program

Volume Calibration Check –
  Volume Spirometers
  Flow Spirometers

Pages: 3-4; 3-5; & 3-6

The volume recorded when air is injected from the syringe into the spirometer must be within 3.5% of the syringe volume. For a 3.00-liter syringe, the injected volume should read between 2.90 and 3.10 liters, inclusive.
2005 ATS/ERS Spirometry Recommendation Changes

Unit 4 – Spirometric Technique
Pages: 4-7; 4-18; 4-19

Section E.2. There are 2 additional acceptability errors: obstructed mouthpiece and extra breaths.

Criteria for (Reproducible) Repeatable Spirograms –

The term “repeatable” now replaces “reproducible” when referring to the variability between measurements.

From only acceptable maneuvers:
   Highest and second highest FVC must be within 150 ml
   Highest and second highest FEV1 must be within 150 ml
   If both criteria met, test may be concluded; otherwise continue testing until both are met or a maximum of 8 maneuvers or the subject/patient cannot or should not continue

   If FVC ≤ 1.00 L, then repeatability targets are 100 ml
2005 ATS/ERS Spirometry Recommendation Changes

Unit 5 – Basic Spirometric Calculations
Pages: 5-1; 5-2; 5-4; 5-8; 5-10; 5-12; 5-32; 5-34;

Criteria for (Reproducible) Repeatable Spirograms –

The term “repeatable” now replaces “reproducible” when referring to the variability between measurements.

From only acceptable maneuvers:
   Highest and second highest FVC must be within **150 ml**
   Highest and second highest FEV1 must be within **150 ml**
   If both criteria met, test may be concluded; otherwise continue testing until both are met or a maximum of 8 maneuvers or the subject/patient cannot or should not continue

   If FVC $\leq 1.00$ L, then repeatability targets are **100 ml**

Unit 6 – Comparing Observed to Predicted Normal Values
Pages: 6-2; 6-5

Racial Adjustment for American-born Asians –

Until separate reference equations are published and accepted for American-born Asians, the NHANES III Caucasian predicted and lower limits of normal (LLN) values should be used and an adjustment factor of 0.88 should be applied to the FVC and FEV₁. Note that the Caucasian predicted and LLN values should be multiplied by 0.88 to obtain the American-born Asian predicted and LLNs.
Criteria for (Reproducible) Repeatable Spirograms –

The term “repeatable” now replaces “reproducible” when referring to the variability between measurements.

From only acceptable maneuvers:
- Highest and second highest FVC must be within 150 ml
- Highest and second highest FEV1 must be within 150 ml
- If both criteria met, test may be concluded; otherwise continue testing until both are met or a maximum of 8 maneuvers or the subject/patient cannot or should not continue.

If FVC ≤ 1.00 L, then repeatability targets are 100 ml