



Lung Function Update

Exciting News! New recommendations for the interpretation of spirometric lung function measurements

Following a recent publication (Quanjer, Eur Resp Journal, 2012) new recommendations for spirometry growth charts, from the Global Lung function Initiative (GLI), have now been endorsed by all international respiratory societies and have been implemented at GOSH.

As we know, normal ranges for lung function are dependent on body size, age, sex and ethnicity (see Figure 1).

Previously each hospital selected their own preferred reference equations with which to interpret spirometry results. However, since use of different equations has been shown to lead to different interpretation, this meant that results from any given individual could differ depending on where they were assessed. This was particularly important during periods of rapid growth and transition of adolescents into adult care.

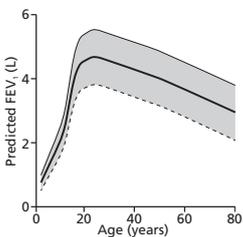


Figure 1: lung function increases rapidly during childhood to a peak in early adulthood, followed by a gradual decline.

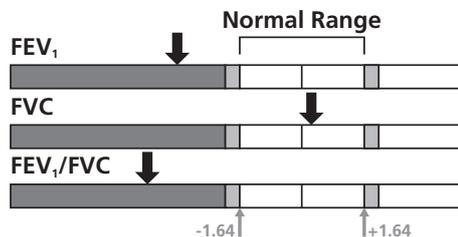


Figure 2: Pictogram showing subject's results for FEV_1 (upper bar), FVC (middle bar) and FEV_1/FVC ratio (as large black arrows) in relation to the normal range (shown in white and determined by ± 1.64 SD scores), mild reduction (light grey area) and lower than normal range (dark grey). Thus the patient illustrated has a reduced FEV_1 , a normal FVC, and a reduced FEV_1/FVC .

What's New?

International collaboration of more than 40 countries has resulted in standardised GLI spirometry reference equations that can be used globally for people aged from 3 to 95 years.

How does this impact clinical practice?

- Absolute (raw) values of lung function will not be affected.
- The predicted value for a given height and age may differ but will be a better reflection of your patient's results.
- You will need to refer to updated trend reports when comparing new measurements with those taken prior to this change to avoid unnecessary misinterpretation and anxiety of patients
- In addition to standardising the results for each patient within each department, results will be standardised across different institutions.

It is important to remember that for every person there is a range of results that is considered normal for their age and height. In future, lung function reports may include a diagram like Figure 2.

For further information please see the GLI website at www.lungfunction.org