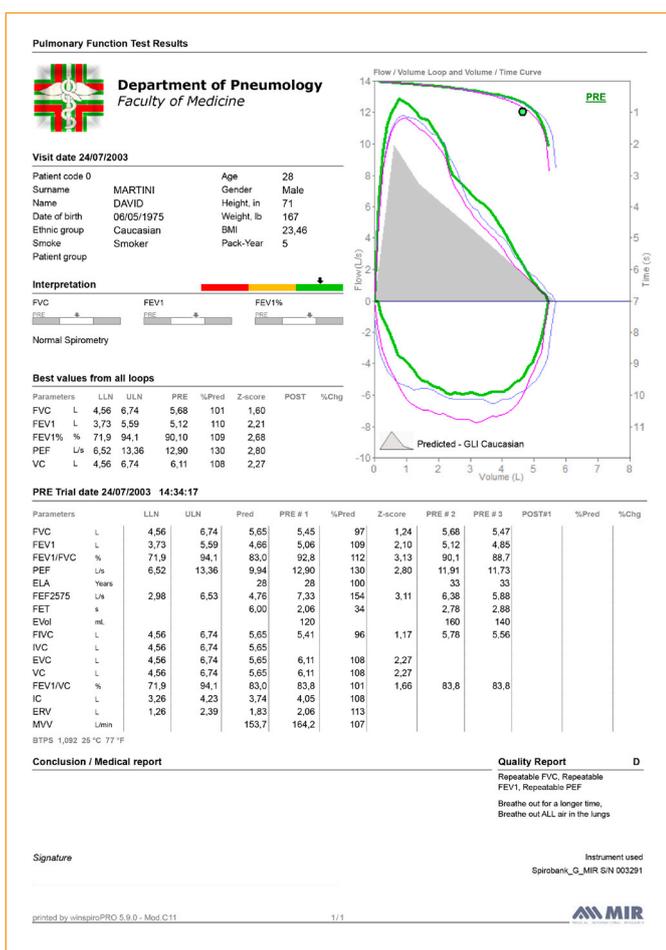




Innovation in Spirometry Oximetry Telemedicine

GLI-2012 predicted values for spirometry 3-95 year age range



MIR winspiroPRO software aligns to the most advanced international standards in respiratory medicine, enabling the **GLI (Global Lung Function Initiative)** equations referred to multi-ethnic reference values for spirometry for the 3–95-yr age range.

Unlike the majority of biological indices in medicine, such as plasma concentrations of chemical analytes or hormones, pulmonary function varies with age, standing height, sex and ethnicity. Therefore, test results need to be compared to predicted values, and lower and upper limits of normal (LLN and ULN, respectively) that are appropriate for the individual being tested.

Few equations take into account the changing relationship between lung function and height during the adolescent growth spurt. Almost invariably prediction equations cover a limited age range, such as childhood, school age or adulthood, leading to discontinuities as individuals move from one set of equations to the next.

Thus, there is a need for prediction equations based on a sufficiently large representative population sample across the entire age range, using up-to-date methodology. Urgent need to derive all-age reference equations that are valid worldwide, applicable to as many ethnic groups as possible.

The Global Lung Function Initiative (GLI) was established in Berlin in September 2008, acquiring ERS Task Force status in April 2010. The GLI was subsequently endorsed by the ATS.

The objectives of the GLI (Global Lung Function Initiative) are to establish improved international spirometry reference equations that:

1. are based on individual lung function data collected under standardized measurement conditions with documented equipment and software;
2. are modeled using modern statistical techniques to allow continuous equations across the entire age range from early childhood to old age;
3. allow flexible and appropriate methods of interpretation using

limits of normality, which adjust for the heterogeneity of between-subject variability according to sex, ethnic group, age and lung function parameters;

4. are clinically useful and can be incorporated into commercially available equipment;
5. are reported in such a manner as to give a clear indication of where the subject lies with respect to the “normal range”.

Source: ERS TASK FORCE
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