This module will be used to address questions about the difference between absolute and relative change in FEV_1

Absolute vs. Relative Change in FEV_1

- Example patient:

Baseline FEV_1 = 60 % predicted
After treatment FEV_1 = 70 % predicted

Absolute change = 10 percentage points

Final (70) – Baseline (60) = 10

Relative change = 16.7%
Absolute change/Baseline; expressed as a percentage (x100%)

Final (70) – Baseline (60) = 10
10/ 60 = 0.167
0.167 x 100% = 16.7%

FEV_1 = forced expiratory volume in 1 second; % predicted FEV_1 = percentage of predicted normal FEV_1 for age, gender, and height

Absolute vs. Relative Change in FEV_1 [1-3]

- FEV_1 may be expressed as *absolute* or *relative*
- The absolute change is a subtraction, and the relative change is a ratio.
- Absolute change in FEV_1 is calculated by subtracting the baseline FEV_1 value from the current FEV_1 value
- Relative change in FEV_1 is calculated by dividing the absolute change value by the baseline FEV_1 value and multiplying by 100%

FEV_1 = forced expiratory volume in 1 second

1. Quan JM et al. *J Pediatr*. 2001; 139(6):813-820 2. http://ecp.acponline.org/primers/janfeb00.htm Accessed April 2020. 3. Thamrin C et al. *Eur Respir J*. 2010;36:212 222.