How to Perform a Pre / Post Bronchodilator Spirometry Test

Salbutamol (Ventolin), the most commonly used bronchodilator, should be administered using metered dose inhalation of 400ug salbutamol (4x100ug metered doses at 30second intervals) via a valved spacer device 2.

Test Procedure

1. Collect a urine sample (sample collection should be supervised – door closed, collector outside of toilet cubicle) prior to test for urine Salbutamol by QML pathology. (see attached pathology request form)
2. Perform spirometry according to the above. This will provide a ‘pre-bronchodilator’ result.
3. Administer the bronchodilator medication in the dose and method indicated for the test and according to the specific requirements.
4. Perform spirometry again as before, 10 to 15 minutes following administration of ventolin. This will provide the ‘post-bronchodilator’ result.
5. Ensure test acceptability and repeatability.
6. Interpretation of results: A positive bronchodilator response is marked by significant reversibility.
   This is evident if there is:
   a. An increase in FEV1 and/or FVC of ≥12% compared with pre-bronchodilator spirometry and ≥200mL increase in FEV1 and/or FVC compared with a pre-bronchodilator spirometry.