



## **ARTP - Foundation Certificate in Spirometry**

### **Introduction**

All candidates that register for the ARTP Certificate in Basic Spirometry Measurement are required to complete a portfolio of evidence of their performance of spirometry measurements for assessment purposes. This forms part of the examination requirements.

The portfolio should consist of no more than **1** ring bind folder. Candidates must submit **only** the requested portfolio requirements as detailed below.

All pages in your portfolio must be numbered and recorded on the contents page so they can be easily located by the assessor. All of the work must be clearly divided into sections.

**ALL WORK SUBMITTED MUST BE YOUR OWN, PLEASE CONTACT ARTP ADMINISTRATION IF YOU ARE UNABLE TO MEET THIS CRITERIA**

Your portfolio must consist of the following sections:-

### **SECTION A**

1. The contents page
2. Your Curriculum Vitae
3. Your Spirometry Training Course attendance certificate and/or accreditation of prior learning
4. Background information about your work environment, which should include:
  - a. Local arrangements for spirometry testing
  - b. Method of referral e.g. GP, nurse led clinics etc.
  - c. Number of tests performed (weekly/monthly etc) and the type of patients you are testing, e.g. screening for occupational health, asthma, COPD etc
  - d. Where the tests are performed and the staff performing the tests, e.g. doctor, nurse, clinical physiologist or other.
5. An overview of the patient issues around spirometry. This should include the following:
  - a. A brief discussion of the contraindications to performing spirometry. This should state the absolute contraindications e.g. current chest infection and the relative contraindications.
  - b. A brief description of the instructions that the patient should receive PRIOR to having spirometry performed e.g. withholding bronchodilators, smoking etc.
  - c. A copy of your local protocol for performing spirometry including the guidelines that you use. *This should be a document that you or your team use and not a photocopy of guidelines.*



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- 6-7. With the aid of a diagram, describe the way in which **your** spirometer measures spirometry values. You should state the measurement principle of your device (e.g. is it flow measuring or volume measuring device?).

### SECTION B

The following sections should contain evidence gathered by you during your working practice. It must consist of traces, witness accounts and logs of verification and cleaning.

8. Calibration or verification of your spirometer.
9. Quality assurance of your spirometry service.
10. Cleaning of your spirometer.
11. Patient tests.
12. Problems encountered during testing.

### SECTION REQUIREMENTS – FURTHER DETAIL

#### 8. Calibration or Verification.

This section consists of **TWO** parts.

- a. A short piece of written work must be submitted explaining why your spirometer must be calibrated or verified regularly and a description of how you would do this. It should include a brief description of what you did/or would do if the calibration/verification was outside the expected value or range. For syringe calibration (physical control), a 3L calibration syringe should be used if available. However, a 1-litre syringe is acceptable. If a syringe is not available, calibration/verification of the spirometer should be undertaken at another practice or hospital. This is good practice for future measurements to ensure quality control.
- b. Produce a calibration/verification record for your spirometer.
  - i. If your spirometer produces a hard copy, provide evidence of at least 20 calibrations or verifications performed by you. These should be performed over a minimum of a one month period.

**Or**

- ii. If your spirometer does not produce a hard copy, design a system for recording your calibrations or verifications and record at least 20 results. These should be performed over a minimum of a one month period.

#### 9. Quality Control

This section consists of **TWO** parts.



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- a. Briefly explain the purpose of Quality Control in the context of a Spirometry service.
- b. Create a Quality Control record using either yourself or a member of your team. The person used for your QC record should have normal lung function.
  - i. Perform Spirometry and Peak Expiratory Flow daily, on the same person, over a period of at least two weeks (at least 10 results of each in total should be collected). These measurements can be made during the same forced expiratory manoeuvre if this is your routine practice.
  - ii. Record the values in a table.
  - iii. Calculate the mean value for the following values that you have recorded in your Quality Control record:
    - a. The FEV<sub>1</sub>
    - b. The FVC
    - c. The PEF.
  - iv. Calculate an acceptable range by using  $\pm 5\%$  of the mean value of the measurements obtained.

**Record all the spirometry results in your portfolio.**

### **10. Cleaning**

This section consists of **TWO** parts.

- a. Provide a cleaning procedure for the spirometer in your care. You must include your references for this and a copy of the work schedule to show that cleaning has been completed regularly.
- b. Describe what contingency plans you have in place for dealing with potentially infectious patients e.g. suspected TB, influenza etc.

### **11. Patient Tests**

You must produce **10 technically acceptable spirometry traces** for FEV<sub>1</sub>, FVC, FEV<sub>1</sub>/FVC%, PEF and VC (where possible) that you have recorded, along with the predicted normal values.

- **You must include the height, age, diagnosis, current drug therapy, smoking history and date of test for each patient included in this section**
- **You must highlight which test results you would select for each patient from those performed.**



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- Please ensure all patient data included in your portfolio is anonymised. Failure to do so will constitute a breach of patient confidentiality and will result in an automatic fail being awarded.
- You must include a signed witness statement from a senior member of staff at the place where you are employed indicating that all of the traces included have been performed by you.
- Traces must have been performed within a year of your portfolio submission date.

### **12. Problems Encountered During Testing**

You must provide **5 technically unacceptable spirometry traces** FEV<sub>1</sub>, FVC, FEV<sub>1</sub>/FVC%, PEF and VC (where possible) that you have recorded.

You should describe the problem that you encountered and explain what you did/would do to overcome the problems. The problems may include patient, technical or equipment issues.