Introduction

An initial Spirometry test must be within certain predicted limits to be classed as “normal”. Predictions are based on age, sex, height and ethnicity. This initial test forms a baseline to compare all future tests, the annual changes becoming the main criteria for judging future results.

Routine Spirometry testing expects a year-on-year change of 0.03 litres (30ml) or less for FVC & FEV1, everything else being equal, according to the British Thoracic Society (BTS). This is an average with the actual range being between 17ml (0.017 litres) to 46 ml (0.046 litres) dependant on age.

Employees will often miss this target for all sorts of reasons, some of which are due to unexpected changes, but many are not. The practitioner must act when an employee fails to meet this criterion, but this does not necessarily mean that they must defer fitness and/or refer for review. All they must do, in the first instance, is attempt to understand why the readings are lower than expected.

Interpreting Spirometry can be a complex affair. MOHS has developed a framework to help practitioners decide appropriate actions and provide a uniformity of decision making. This framework includes the use of “Trigger Points” with clearly defined instructions.

Trigger Point 0

Annual change equal or less than 0.03 litres (<30ml).

1. Continue with annual routine spirometry. No additional action to be taken unless an employee reports unusual symptoms (regardless of score).

Trigger Point 1

Annual change 0.031 litres to 0.1 litres (31ml to 100ml).

(see next page)

1. This change probably does not warrant a deferral and referral in the first instance. However, if three consecutive tests show a change of between 0.03 litres and 0.11 litres, move trigger point 2.

2. Things to consider:

   a. Weight changes.
   b. Changed job role.
   c. Change in exercise habits or home life
   d. Changes in smoking or vaping status.
   e. Changes in home life.
   f. Other/new medical conditions.
   g. Cough, colds & flu
   h. Posture.
   i. Poor technique or motivation
   j. Medication compliance.
   k. Mealtimes.

3. In most instances, these small annual changes are probably due to one of the above factors, but practitioners should also review the questionnaire answers to identify new symptoms. If a practitioner can identify why a change has occurred, there may be no reasons to bring the next test forward.

Trigger Point 2

Annual change 0.101 litres to 0.3 litre (101ml to 300ml).

1. Compare this year’s questionnaire with previous questionnaires to see if the employee is reporting new or changed symptoms.

2. If no changes have been reported and none of the above points apply, consider escalation to Tier 3 review by an experienced advisor who may decide to escalate the case to Tier 4 with a physician.

3. Retest in three months’ time. If the result is no worse and no new symptoms have been reported, then consider retest in another 6 to 12 months. If worse, escalate to trigger point 3.

4. Consider extrinsic factors such as airborne contaminants both at work and at home. Identify agents such as respirable dust and airborne respiratory sensitisers.

5. If smoking or vaping, consider advice on cessation.

Trigger Point 3

Test to test changes greater than 0.3 litres (300ml).

1. At this stage, be sure of the potential causes of this amount of change. If it can be explained medically, for example lung scaring after recent injury or infection, then ensure that this is recorded.

2. Compare this year's questionnaire with previous questionnaires to see if the employee is reporting new or changed symptoms.

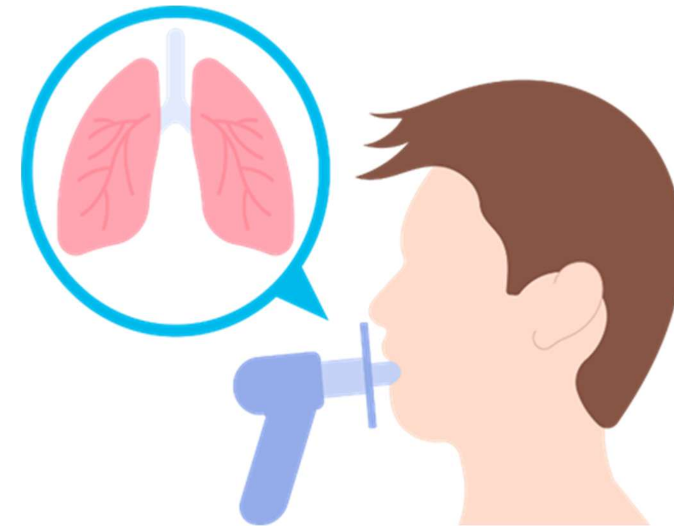
3. The practitioner must understand the employee's exposure. Where possible, gather evidence including what the employee believes is the cause. This case MUST BE ESCALATED to Tier 3 review by an experienced OH advisor. The advisor may wish to impose a temporary restriction on the employee. Expect at least some cases to be escalated to Tier 4 Physician review.

4. The practitioner will almost certainly increase frequency of surveillance to six monthly or even more frequently, to identify any further changes promptly.

5. If smoking or vaping, advice on cessation must be given.

A copy of this & other documentation can be found from https://mohs.co.uk/resources or using the QR code below.

23.21
Trigger Points for Spirometry Testing



mohs workplace health

MOHS Workplace Health Ltd

83 Birmingham Road
West Bromwich
B70 6PX
0121 601 4041
www.mohs.co.uk