

Content of the Lung Health Check – Manchester next phase work

The lung health check has six key parts:

- Heart & lung symptom questionnaire
- Calculation of lung cancer risk score
- Calculation of Qrisk2 score
- Quality assured spirometry
- Brief consultation with respiratory nurse (including smoking cessation advice) to discuss findings and next steps.
- Referral to a smoking cessation counsellor on the mobile unit or an appointment will be made prior to leaving.

Calculation of lung cancer risk score

The provider will use a structured data collection template to collect data from the lung health check. This used a lung cancer risk score calculator (PLCOM2012). The calculator will be an excel spread sheet and will be available on a laptop computer. To complete the risk score calculator the following data needs to be collected and inputted:

- BMI
- Level of education
- Age
- Ethnicity
- Past diagnosis of COPD, emphysema or chronic bronchitis
- Personal history of cancer
- Family history of lung cancer
- Smoking history
- Years since quit smoking

The participant will be provided with a standard list of questions to enable the LHC nurse to collect and use data items about level of education, smoking history, and diagnosis of lung disease and history of cancer that will be used in the calculation of risk.

For each participant the LHC nurse will input the data items into the lung cancer risk calculator. The calculator will then immediately calculate a person's lung cancer risk. This will be expressed as a percentage and represents the probability of developing lung cancer during the next six years. Inputting the eleven data items needed by the calculator should take less than one minute. The accuracy of the data entered into the risk calculator must be checked by a second registered practitioner.

Before commencement of the service the provider will undertake training sessions for the LHC nurses to ensure accuracy of the calculation, compliance with IRMER regulations, and how to interpret the risk scores.

A participant that has a risk score that is 1.51% or above is eligible to have a low dose CT scan. No participant with a risk score below this threshold will have a CT scan.

Quality Assured Spirometry

As part of the lung health check the provider will undertake quality assured spirometry. The provider will deliver pre-bronchodilator spirometry to ARTP standard following appropriate certified training.

Respiratory Health Questions

The provider will ask each participant about their lung health. The provider will use a symptom questionnaire

Consultation with Respiratory Nurse

As part of the lung health check each participant will talk to a respiratory nurse. The nurse must be UK NMC registered and have appropriate respiratory experience and qualifications. The nurse will answer any questions that may arise and provide reassurance and guidance. The nurse will discuss smoking with anyone that is a current smoker and provide a brief intervention to encourage people to quit smoking.

Going on to a low-dose CT scan

The provider should ensure that only those with a lung cancer risk score of 1.51% or above are offered a low dose CT scan. The provider should work with the low dose CT scan provider so that people eligible for a scan are able to access this service easily and are guided or escorted from the lung health check to the CT provider service as necessary.

The LD-CT provider will ensure radiation exposures are compliant with IRMER regulations and that low dose exposures are delivered.

Acceptance and exclusion criteria and thresholds

Exclusion criteria for a lung health check:

- On the palliative care register
- People that have never smoked
- A diagnosis of lung cancer in the last 5 years

Exclusion criteria for having spirometry as part of the lung health check:

- Active infection e.g. AFB positive TB until treated for 2 weeks
- Conditions that may be cause serious consequences if aggravated by forced expiration e.g. current pneumothorax, recent surgery including ophthalmic, thoracic abdominal or neurosurgery

Thresholds for referral for a low dose CT scan:

- All people advised to have a low-dose Ct scan will have a lung cancer risk of or above 1.51% as calculated using the lung risk calculator PLCOm2012.