Kent Surrey Sussex Academic Health Science Network

Spirometry for Commissioners

Spirometry is a widely used procedure that measures lung function. Since the introduction of QOF it has become widespread in General Practice without any accompanying Quality Control. Prior to this time it was almost an exclusively hospital based test. There has also been a sharp increase in the use by specialist community nurses.

It can be used to confirm the presence of airflow obstruction which is required to confirm a clinical suspicion of COPD or other respiratory conditions that cause airflow obstruction. It is also used to monitor a number of respiratory conditions. Quality assured spirometry can allow accurate diagnosis and treatment of a number of long term respiratory conditions. Poor use of this tool can lead to

- Inaccurate diagnosis
- Inappropriate use of expensive medication
- Unnecessary referral from primary care and the community into secondary care
- Unnecessary emergency admissions due to misdiagnosis

Quality Assurance of spirometry should look at services in:

- Secondary Care
    - Lung Function Labs
    - Outpatient spirometry
- Community Specialist Nurse Services
- Primary Care
    - Since the introduction of QOF in 2004 arguably most spirometry in England now happens in primary care, often with little formal training or monitoring

Quality Assurance needs to consider

- Performance of test
    - Equipment
    - Personnel
- Interpretation of results

and needs to look at initial accreditation and ongoing monitoring of all those areas. Current “gold standard” training is provided in the UK by the Association for Respiratory Technology and Physiology (ARTP). The course is administered by the Institute of Clinical Science and Technology (ICST) on behalf of ARTP.

There are 3 levels:

1. Performing Spirometry
2. Performing and Interpreting Spirometry
3. Interpreting Spirometry

It is also possible to gain accreditation via the ‘Experienced Practitioner’ route.

Arguably, quality assurance within Secondary Care and Community Specialist Services, should be part of the whole contract with the relevant services. Certainly lung function labs, secondary care interpretation and possibly specialist community teams should be provided to ATRP requirements. Outpatient spirometry may be viewed similarly to that provided in general practice

The situation in general practice may be different. The test should be *performed* to gold standard in view of the arguments about poor spirometry above. This would mean ARTP standards applied to equipment, maintenance and performance as well as accreditation and regular monitoring of staff. Interpretation in general practice is fairly basic but would require generalist clinicians to recognise normality, reversible airways obstruction, irreversible airways obstruction and traces that are not any of the preceding three categories. This would mean that a "silver standard" of training could be required of GPs and Practice Nurses with regard to *interpretation* and would be adequate for a safe and cost-effective service. There should be a local pathway for assistance in interpretation of traces that are not straightforward. 'Advice and Guidance' referral would be one mechanism but there are other possibilities.

There is a cost to training and this would not be insignificant if sourced from ARTP for every clinician with the primary care workforce. We await advice from NHS England as to how this may be funded however the current thinking is that it will be within the Primary Care Network (PCN) structure. In the interim 'silver standard' training in carrying out spirometry could be acceptable as a step towards ARTP accreditation. The risk of requiring everyone within primary care to undergo gold standard training at this point in time is that practices could conceivably disengage with spirometry thereby prejudicing patient care and their practice income. It may also lead to a significant increase in referrals, either to another service to perform spirometry, or secondary care clinics to diagnose and manage long term conditions that could otherwise be looked after in primary care moving care further away from the patient's home area. CCGs may wish to consider who pays for the accreditation and monitoring of the service, this could be from any training budget top sliced from General Practice as this would be considered a core activity. Any practice providing a spirometry service for other organisations would need to fund any training considered beyond core work themselves.

CCGs should give thought to

- Gold standard v silver standard training as appropriate
- The logistics of providing training for the performance of spirometry
- Accrediting trainers for the CCG area and accrediting "silver standard" training programmes for generalists who will interpret
- Including a training requirement within the contract with Community Nursing Respiratory Specialists
- Whether every practice will provide spirometry or whether to have one service provide for a geographical area. This could be within secondary care, community specialist service or interested general practices possibly within a federated structure.
- Ongoing Quality Assurance of primary care spirometry
- A local pathway for assistance in interpreting when required

We expect that The Cardiovascular and Respiratory Long Term Plan delivery board will be giving further guidance on this topic.

Further Thoughts on Accreditation v Standards

- We feel that CCGs should outline standards rather than accredit spirometry provided by practices (just for core spirometry) because:
    - Risk of disengagement by primary care as above

  - Accreditation would involve a significant expense
  - Accreditation would require some form of punitive measure if practices provided spirometry without it

- Suggested structure for standards

  - Equipment would require a log of daily calibration (biological) and annual servicing

  - Those performing spirometry would be expected to attend
    - Initial day of training with some form of assessment at the end of that day (2 sessions)
    - 6 weeks later submit traces and quality checklist to be assessed and feedback (1 session)
    - Update every 3 years with submission of recent traces and quality checklist (1 session)
    - This would require contract with a provider (possibly community team for 4 sessions/year x 2 personnel possibly)

  - Interpretation
    - At least 1 member of each practice (GP or practices respiratory trained Practice Nurse) would be expected to attend an annual half day interpretation training that would involve a case based test of 5 patients
    - That practice member would b e expected to feedback to the rest of the practice as appropriate
    - This session could be delivered as part of the Protected Learning Times

  - A practice would submit the equipment log and evidence of staff attendance at technique and interpretation sessions on an annual basis. The CCG could then provide a certificate or similar to show the practice has engaged in a Quality Assurance scheme for Spirometry that will be used as evidence for CQC and annual appraisal

- CCGs in collaboration with HEKSS could require Higher Education Institutions being asked to provide training for HCAs and new Practice Nurses to include basic spirometry technique teaching within their courses so that any new entrants to that workforce have already achieved the first level.

Education for Health have produced a useful FAQs document (2016)

https://www.educationforhealth.org/wp-content/uploads/Spirometry-FAQs.pdf

PCRS have a useful section on their website with information and links designed to describe the recently introduced process for joining the National Register for Spirometry. It covers the assessment and certification process, and recertification. It also lets you know about training options. There is also a Q&A available covering the questions asked most frequently: **https://www.pcrs-uk.org/spirometry**

Versions

Original: Simon Dunn, November 2014

Updated: Jo Congleton, Vikki Knowles October 2019