P185 AN EVALUATIVE STUDY OF BREATH SOUNDS TEACHING

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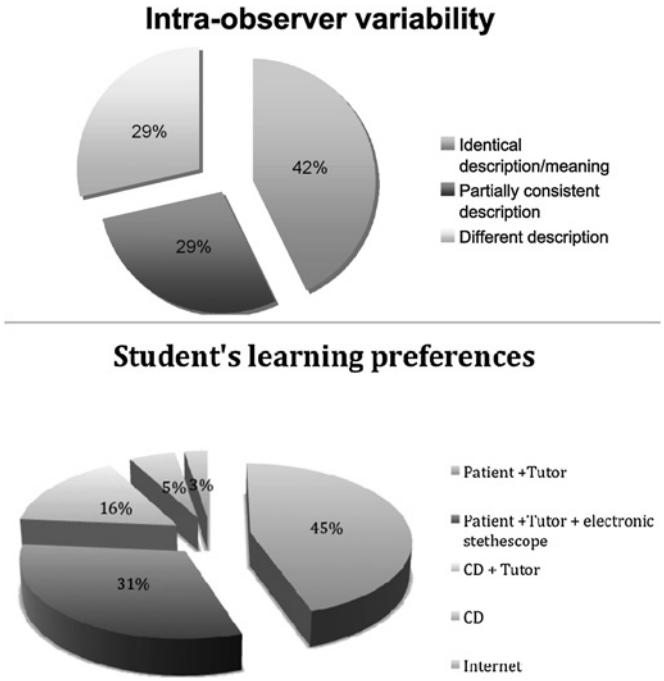
Introduction Recorded breath sounds on CD and electronic stethoscopes that can record and playback sounds open up new possibilities for teaching and analysing factors contributing to breath sounds variability.

Aims Assessment of the intra and inter tutor variability in describing recorded breath sounds and of medical students learning preferences for breath sounds teaching.

Methods Seven tutors (four consultants and three specialist registrars in respiratory medicine) were played twenty-two recorded breath sounds. Tutors were asked to "write down exactly how you would teach a student to describe the breath sounds". Within the twenty-two recordings five identical breath sounds were played twice, one sound was played at two different volumes and two patients were each played at two differing expiratory efforts. A feedback session with the tutors was subsequently held. A separate student evaluation comprised an anonymous questionnaire at the end of their clinical attachment. Twenty-one students were asked to choose their two preferred methods of learning chest auscultation.

Results All tutors gave a précis of the most important feature(s) rather than structured responses. There was a very large degree of inter-observer variability, which was difficult to quantify partly due to the lack of structured descriptions. Recordings at different expiratory efforts resulted in different descriptions from all tutors. When listening to identical pairs of recorded breath sounds 29% of the tutors' descriptions were concordant, 42% partly concordant and 29% different. Abstract P185 figure 1 shows the intra-tutor variability and students' preferred learning methods. For the vast majority of students, experience examining a patient with a tutor or with a tutor using a recording stethoscope was the preferred learning method. Twelve of the twenty-one students had experience of being taught with a recording stethoscope and ten of these students put it down as one of their two preferences.

Conclusions There was significant intra-tutor variability in describing breath sounds comparable with previous studies in this area. A structured methodology would assist in assessing inter tutor concordance. Both students and tutors preferred teaching with patients to recordings. A recording stethoscope was perceived to be a useful adjunct to teaching by students.



Abstract P185 Figure 1

P186 THE RELIABILITY OF THE RESPIRATORY PHYSICAL EXAMINATION

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Background We often teach and assess medical students performing the respiratory examination in a traditional way, rather than based on evidence. An essential component of the respiratory clinical examination is that it is precise. The reliability of the examination is a fundamental element of this precision. There needs to be agreement between physicians that a clinical sign can be elicited independently in the same patient when it is present. When learning about the respiratory examination, medical students should have knowledge of the reliability of the different elements.

Aims To establish medical students' knowledge of the reliability of different elements of the respiratory examination.

Methods A cross sectional questionnaire survey of clinical medical students (years 3–5) was undertaken. The questionnaire assessed the reliability of tactile vocal fremitus, tracheal position, auscultation of wheeze, whispering pectoriloquy, auscultation of crackles and chest expansion using a five point Likert scale. Demographic data were also collected. The results of the perceived reliability of different elements of the respiratory examination was compared with Cohen's κ coefficient values; a statistical measure of inter-observer reliability.

Results Of 104 questionnaires completed, 33% were male, 36% attached to respiratory firm, 11% graduate entry. Crackles, wheeze and percussion note are all regarded as reliable to very reliable signs by students. Perceived reliability of whispering pectoriloquy decreased as students become more experienced ($p=0.003$). There was no relationship between perceived reliability and graduate entry, previous respiratory attachment or gender. Factor analysis identified that tactile vocal fremitus and whispering pectoriloquy were grouped together separately from the other respiratory signs. Linear regression showed good correlation between students answers and actual κ values of reliability ($r=0.722$).

Conclusions Students have a good intuition of the reliability of elements of the respiratory examination. For example, as experience increases, they correctly perceive whispering pectoriloquy as a less reliable sign. Reliability of elements of the respiratory examination needs consideration when teaching and assessing students.

P187 DOES GREATER PHYSICIAN INVOLVEMENT WITH INTERVENTIONAL PROCEDURE CODING IMPROVE CODING OUTCOME?

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Background The Royal College of Physicians of London Health Informatics Unit has developed the Professional Record Keeping Standards. Trusts have a financial incentive to code activity accurately under Payment by Results. Coding inaccuracy is well described by the Audit Commission varying from 0.3% to 52% across Acute Trusts in England, with the potential for gross financial disparity, with particular inaccuracy in interventional specialties.[1] We have previously noted a 14.6% coding inaccuracy rate for endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA).[2] Given that the specific EBUS-TBNA tariff is approximately six times the conventional bronchoscopy tariff, EBUS-TBNA is a good model to illustrate the potential financial effects.