great apprehension in performing and interpreting spirometry. The NICE (CG12) COPD guidelines state that all healthcare professionals managing patients with COPD should have access to spirometry and be competent in interpretation of results; and that it can be performed by any healthcare worker who has undergone appropriate training and keeps his/her skills up-to-date.

Aims We conducted an audit on junior doctors during their respiratory placement to establish whether hands-on skills training and teaching on spirometry in real-life may improve their understanding of the technique and reliability of interpreting spirometry.

Methods Doctors at different stages of training (foundation year (FY), core medical (CMT), GP vocational (GPVTS) and speciality trainees (ST)) participated in the audit. We used a pre-designed questionnaire containing a balanced mixture of questions testing procedural skill (maximum score 15) and interpretation (maximum score of 33) of different spirometry results. Confidence was assessed using a separate questionnaire of four domains. Baseline data was collected within the first month of joining the respiratory rotation, followed by training on technique and interpretation of results assisted by an accredited pulmonary physiologist (total time of 45 minutes). The same doctors were reassessed on the questionnaires in 12–16 weeks.

Results 25 doctors completed the audit assessment (10 FY1, 5 FY2, 4 CT1, 2 CT2, 2 GPVTS and 2 ST3). Significant improvements from baseline were noted in the median (IQR) scores of performance of spirometry technique (6 (4, 8) to 9 (8, 11); $p<0.001$) and interpretation (11.5 (5, 15) to 18 (17, 24.5); $p<0.001$). Moreover, there were marked improvements in total (performance and interpretation) and confidence scores from baseline.

Conclusion This audit demonstrates that spirometry is easily taught and its interpretation is a useful skill to acquire irrespective of a future career in respiratory medicine. We suggest that training for Foundation Year doctors is effective and feasible, and should be included in training programmes as spirometry is more reliable in the diagnosis and management of common respiratory conditions than PEFR testing mandated in the GMC core procedures.

P240 ASSESSING THE ACCURACY AND CONFIDENCE OF CHEST X-RAY REPORTING BY MEDICAL DOCTORS

doi:10.1136/thoraxjnl-2012-202678.301

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Introduction The reporting of CXRs for medical patients admitted to hospital vary across Europe. Our local policy is that all admission x-rays are reported but this may not be available at the time of senior medical review on the assessment unit. Comparison between physicians and radiology reporting has suggested radiologists provide improved quality (1) and accuracy (2) of reporting. There are no current curriculum competencies for trainees nor is CXR reporting formally assessed in undergraduate or post-graduate examinations.

Aim To assess the accuracy and confidence of CXR reporting by all grades within the medical division for common chest diagnoses presenting to the medical assessment unit.

Method 10 CXRs were presented to all grades within the medical division with a short clinical history and one digital CXR. Doctors were asked to give a pre-test confidence (out of 5) in reporting CXRs and then also give individual confidence levels for each of their CXR diagnoses.

Results A total of 138 doctors completed the CXR quiz with average results and 95% confidence intervals shown in figure 1. The least well answered CXR diagnoses were left lower lobe collapse (38%), emphysema (45%), and mediastinal widening (57%). When correlated with average % confidence for each diagnosis, doctors were on average over-confident in the incorrect CXRs they answered; left lower lobe collapse (64%), emphysema (62%), bilateral pneumothoraces (74%). Interestingly, for the correct diagnosis, the average confidence for diagnosing effusions, TB and pneumonia were much less.

Conclusion SPRs and Consultants scored the highest marks with the highest average confidence levels. Junior trainees felt least confident about making their diagnosis and were less likely to be correct. We recommend that SPRs and consultants must review all the CXRs requested to ensure accuracy of diagnosis. There also needs to be discussion with the JRCPTB and educationalist about including CXR competency as part of a trainee's generic curriculum on the e-portfolio, something which is currently lacking.

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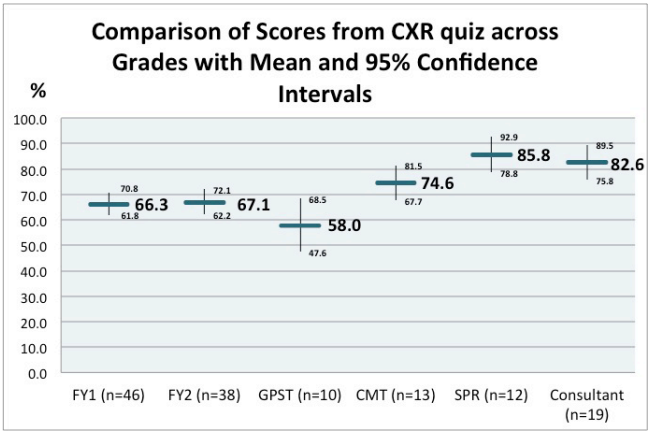

Abstract P240 Figure 1

P241 PATIENTS' PERCEPTIONS OF THEIR RELATIONSHIP WITH HEALTHCARE PROFESSIONALS REGARDING THEIR ASTHMA MANAGEMENT: A UK SURVEY

doi:10.1136/thoraxjnl-2012-202678.302

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Introduction and Objectives Asthma is one of the most common chronic conditions in the world, with 5.4 million individuals diagnosed in the UK alone. Here, we report data from a UK-based survey, conducted to assess how patients perceive the relationship with their general practitioner (GP) or nurse with regards to their asthma management.

Methods This was a cross-sectional online survey administered by YouGov plc (November 2011) to a panel of over 350,000 individuals. An e-mail was sent to panellists who had previously identified themselves as having asthma, inviting them to take part in the survey. Responses were collated and analysed by YouGov and Insight Research Group. The survey was completed by 1083 individuals; 49% were aged over 55 years and 45% were male.

Results Overall, 91% of respondents reported that their asthma consultations occurred in GP practises; 69% had visited a practize nurse and 60% a GP. A total of 76% of respondents described the relationship with their healthcare professional (HCP) about their asthma management as 'good' or 'very good'. However, over one-third of respondents had either never been invited to (18%), or had not always attended (17%), asthma reviews. Moreover, 56% of respondents were unaware of Personal Asthma Action Plans and only 12% were currently using one, although 90% of those doing so found it 'very' or 'fairly' useful. The majority of individuals placed

the responsibility for asthma control on themselves and not their HCP (Table), even among those with average or poor symptom control. Many respondents believed that lack of asthma control was inevitable, with 81% accepting that they would experience symptoms and 86% acknowledging that asthma would have an impact on their life.

Conclusions Patients have low expectations of the level of asthma control that can be achieved. Despite a good relationship with their HCP, many individuals do not attend regular asthma reviews, and awareness and use of Personal Asthma Action Plans is low. There is a clear need for continued education and initiatives to increase awareness among both HCPs and patients about asthma management plans and supported self-management.

Abstract P241 Table 1 Patient beliefs regarding the main responsibility for the management of their asthma

		Level of perceived control	
	All patients (n = 1083)	Very good or good (n = 859)	Average or poor (n = 224)
Responsibility			
Myself	70%	73%	58%
Myself and HCP	29%	26%	38%
HCP	1%	1%	3%

HCP, healthcare professional.

P242 PATIENTS OVERESTIMATE THEIR DEGREE OF ASTHMA CONTROL DESPITE THE PRESENCE OF SYMPTOMS: A UK SURVEY

doi:10.1136/thoraxjnl-2012-202678.303

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Introduction and Objectives Many patients with asthma overestimate the extent to which their symptoms are controlled, which may suggest that the real-world burden of the disease is greater than reported. This abstract reports data from a UK-based survey assessing the variation between patients' perceptions of asthma control and their symptoms.

Methods This was a cross-sectional online survey administered by YouGov plc (November 2011) to a panel of over 350,000 individuals. Panellists who had previously identified themselves as having asthma were invited by e-mail to participate in the survey. Responses were collated and analysed by YouGov and Insight Research Group. Overall, 1083 individuals completed the survey; 49% of respondents were aged over 55 years and 45% were male. Almost two-thirds (64%) of patients were using both reliever and preventer therapy and 17% were using reliever medication only.

Results Most respondents reported that their asthma control was 'very good' (37%) or 'good' (42%). However, 19% of respondents described having uncontrolled asthma (i.e. 'symptoms not very well managed') at least once a month and 10% reported lack of asthma control at least once a week. In the 2 years prior to the survey, 12% of individuals had visited an accident-and-emergency department due to their asthma (ranging from 1 to 5 visits). Moreover, 41% of individuals used reliever medication at least once a day, and almost two-thirds experienced frequent (at least 'sometimes') day-time symptoms and over one-third had frequent night-time symptoms (Table). The most common day-time symptoms were coughing (experienced by 65% of individuals at least 'sometimes'), wheezing (62%) and breathlessness (58%). Despite this, 91% of respondents were 'very satisfied' or 'fairly satisfied' (44% and 47%, respectively) with their level of asthma control, and 59% did not believe it was possible to improve control.

Conclusions Patients are generally satisfied with their level of asthma control despite evidence of poor symptom control, suggesting a disconnection between patient perception of asthma control and actual asthma control. This suggests a need for further education to help patients better recognize the symptoms of poor asthma control and how this can help them aspire to greater asthma control.

P243 ARE HEALTHCARE PROFESSIONALS AWARE OF COSTS OF RESPIRATORY INHALERS?

doi:10.1136/thoraxjnl-2012-202678.304

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Introduction In 2011, 3 of the top 5 most expensive drugs to the NHS were respiratory inhalers, the most expensive being Seretide 250 evohaler. To achieve best value from our respiratory spend, healthcare professionals (HCPs) should know the relative costs of inhalers, and that their patients are using these devices appropriately. We undertook a survey of HCPs to test their knowledge of respiratory inhaler cost and how well the devices are used.

Methods We created a Survey Monkey questionnaire concerning the costs of commonly prescribed respiratory inhalers (see table) allowing respondents to click on an approximate range of costs for one month's treatment at normal recommended dose. We also asked about awareness of the evidence for effective use of metered dose inhalers (MDIs) by patients and HCPs. The survey was disseminated by email from various databases in community and hospital care within NHS London and beyond, especially to those involved in respiratory care.

Results There were 1274 respondents, 21% were doctors, 38% nurses, 21% pharmacists and 15% allied healthcare professionals (AHPs), 70% had a respiratory interest and 89% were clinicians. Overall, the correct price range was identified by fewer than 50% of all respondents for the inhalers tested (except generic salbutamol), the worst being for Seretide 250 evohaler and Ventol in evohaler (see table). 76% of respondents were not aware that fewer than 10% of patients can use an MDI effectively and 87% were not aware that fewer than 10% of HCPs can demonstrate the correct use of an MDI. Having attended a London Respiratory Team (LRT) event significantly improved the correct response rate (see table).

Conclusions Most HCPs are not aware of the costs of inhalers and how poorly some inhalers are used. Increasing awareness of cost

Abstract P242 Table 1 Frequency of reliever medication use and asthma symptoms

Use of reliever medication						
	Never	<1/day	1–2/day	3–4/day	5–6/day	7–8/day
% of respondents	3%	56%	26%	12%	3%	1%
Day-time and night-time asthma symptoms						
	Never	Rarely	Sometimes	Often	Everyday	
Day-time, % of respondents	4%	31%	35%	20%	10%	
Night-time, % of respondents	20%	43%	19%	12%	6%	