between knowledge and confidence levels in our sample. Lack of awareness of their need for education may represent a barrier to
to doctors accessing training. Respiratory physicians are well placed to
lead improvements in ACP and general palliative care in hospital.

Respiratory education and training

P234 TRAINING DEFICIENCIES AND LACK OF CONFIDENCE AROUND KNOWLEDGE IN PRIMARY CARE NURSES TREATING ASTHMA AND COPD PATIENTS

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There has been an increasing shift of respiratory care from secondary to primary. We have undertaken a training needs analysis by questionnaire of primary care nurses who treat patients with Asthma and COPD in all 511 practices in the East of England. 63% responded. Nurses were asked to grade their confidence levels from high (5) to low (1) in aspects of Asthma and COPD. Chi-square was used for statistical analysis.

Results 1 ASTHMA. 65% had a diploma. 90% followed BTS/SIGN guidelines. There was a high confidence level in 27% for differential diagnosis, 52% for inhaler devices and how to use them, 24% for interpretation of spirometry, 59% for emergency treatment, 22% for dealing with children 5–12 years old. High confidence was significantly greater (<0.001) in those with an asthma diploma.

2. COPD. 35% had a diploma. 82% followed NICE or GOLD guidelines. 76% ran clinics. There was a high confidence in 57% diagnosis, 57% for management and monitoring, 26% for interpreting spirometry, 32% in emergency treatment. High confidence was significantly greater in those with a COPD diploma. Nurses were asked if they were aware of services and confident how to refer; 94% were

P235 THE BRISTOL COPD KNOWLEDGE QUESTIONNAIRE (BCKQ): ASSESSING THE KNOWLEDGE OF HEALTHCARE PROFESSIONALS INVOLVED IN THE DELIVERY OF COPD SERVICES

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Introduction Healthcare professionals (HCPs) involved in the delivery of COPD services and self-management interventions require appropriate knowledge to inform patients about their condition. Although patient knowledge is often assessed to encourage patient education and self-management, little is done to assess the knowledge of HCPs providing disease information to patients and to establish whether HCPs have a broad spectrum of knowledge to effectively support disease management.

Objective To assess the knowledge of HCPs involved in the delivery of COPD services.

Method The Bristol COPD Knowledge Questionnaire (BCKQ) was distributed to 108 HCPs working in primary and secondary care COPD services (Coventry, Leicester, Lothan, Nottingham and Northampton) to assess knowledge. The BCKQ is primarily an outcome measure for patient knowledge (White et al. 2006). It is a multiple choice questionnaire containing 13 topics, each with five statements giving a total of 65 questions for which there is a right or wrong answer. Positive scoring was with a mark being given for a correct answer. Incorrect responses indicate a knowledge deficit.

Results The overall findings revealed that HCPs had a mean score of 50 (77%) (minimum 24, maximum 62). The results from the BCKQ revealed particular gaps in knowledge in the breathlessness topic with a mean score of 3.5 (66%) (minimum 1, maximum 5) and across the medication topics, particularly inhaled steroids with only a mean score of 2.7 (54%) (minimum 0, maximum 5) of participants providing correct answers.

Conclusion The HCPs involved in the delivery of these COPD services had particular gaps in knowledge around breathlessness and medications. HCP gaps in knowledge could inadvertently impact patient knowledge and understanding of their condition and subsequently the ability of patients to effectively self-manage their COPD. Identifying gaps in knowledge can encourage HCP education and training to enhance HCP knowledge and subsequent patient care.


P236 THE USE OF LOCAL ANAESTHESIA FOR ARTERIAL BLOOD GAS SAMPLING - A MULTICENTRE SURVEY

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Background BTS guidance for Emergency Oxygen Use recommends that local anaesthesia should be used for all routine arterial blood gas (ABG) sampling [1]. Intradermal and/or subcutaneous local anaesthetic (LA) via small gauge needle has been shown to reduce pain associated with the procedure by more than half [2]. We aimed to quantify the prevalence of this practise and ascertain potential barriers.

Methods 160 FY1 doctors with at least eight months working experience, from five hospitals in London were given a ten-item anonymised questionnaire to measure practice and opinions regarding local anaesthesia before ABG sampling.

Results All 115 respondents (72% response rate) performed ABG sampling regularly, with 84% doing so at least weekly.

Only 27% of respondents had ever used intradermal and/or subcutaneous LA before ABG sampling, although only 5% did this regularly.

The commonest needles used were 25 gauge (orange) (49%), 28 gauge (insulin needle) (18%), and 23 gauge (blue) (16%).

70% of respondents had never used LA of any kind for ABG sampling. Topical LA use was rare.

14% of respondents had never heard of LA used for ABG sampling; 24% were unfamiliar with how to do it; 14% believed it was potentially dangerous; 34% claimed not to have time, 21% believed that LA would not reduce the overall pain of the procedure (Figure 1).

Allen’s test was usually performed by only 25% of doctors before ABG sampling.
Only 30% of respondents believed using LA would lead to less repeated ABG sampling attempts. 93% of respondents had never personally been sampled for an ABG, although 44% would prefer LA to be used on them.

**Conclusion** The regular use of local anaesthesia before ABG sampling among FY1 doctors is rare. Awareness of the technique is poor, and education is needed. Prominence and promotion in teaching sessions and local guidelines, along with quick access to supplies is likely to help to prevent unnecessary pain in unwell patients.


**P237** EMERGENCY OXYGEN THERAPY: DO MEDICAL STUDENTS KNOW MORE THAN DOCTORS?

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**Background** Oxygen therapy is a life safe drug which should be administered in accordance with British Thoracic Society Guidelines. 

**Objective** To assess the knowledge of medical students, foundation doctors and specialist registrars on emergency oxygen therapy in a district general hospital.

**Methods** A questionnaire was sent to all medical students, foundation doctors and specialist registrars, studying or working at our hospital. Six clinical scenarios were given and the student or doctor was asked to indicate how much oxygen they would administer from a choice of five possible options.

**Results** Out of a total of 283 surveys sent, there were 129 responses which included responses from 18 specialist registrars 33 foundation doctors and 77 medical students. The medical students answered 54.5% correctly, foundation doctors 58% correctly and specialist registrars 47.5% correctly. Overall, across all grades, participants wereistrars 47.5% correctly. Overall, across all grades, participants were

**Conclusions** This study demonstrates an important unmet need in undergraduate education as competence in, and safety of, oxygen prescribing by otherwise successful MBBS candidates was poor. Of the prescriptions available for analysis, only half used appropriate target saturations. Half of prescriptions for COPD scenario were safe but only one in five met all BTS standards. No prescriptions for hypoxia without respiratory disease met all standards and one in five was safe. We believe that this reflects the undergraduate teaching focus on oxygen in COPD. We recommend introducing a compulsory undergraduate e-learning module on oxygen delivery and prescribing as newly-qualified doctors need to be able to prescribe oxygen safely.

**P239** JUNIOR DOCTORS PERFORMANCE AND INTERPRETATION OF SPIROMETRY

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**Background** Spirometry is a fundamental respiratory function assessment tool. A significant proportion of junior doctors have a reflection that since the BTS emergency oxygen guidelines production, teaching on emergency oxygen has now become an integral part of medical student teaching which more senior doctors will not have benefited from. Education on oxygen therapy should be mandatory in medical schools and also to doctors in all grades throughout the trust.