

questionnaire was sent to all ACPRC members and circulated to members of the Chartered Society of Physiotherapy, with a request for a response from each institution, providing information on the number of respiratory physiotherapists, their grading and the estimated percentages of various diagnostic respiratory cases seen on a daily basis. 149 responses were received: 70% (n=105) from acute trusts, 24% (n=36) from primary care organisations. 73% (n=110) of respiratory physiotherapists were employed by physiotherapy departments: 59% (n=89) as dedicated medical respiratory physiotherapy teams, the rest providing cross speciality respiratory physiotherapy cover. The results highlight the model of staffing most often seen in respiratory physiotherapy, with the team consisting of a range of staffing grades but no standard team structure nationally. The level of physiotherapy clinician leading the team varied from Band 7 to a Consultant Respiratory Physiotherapist (8A – 8D): the average was less than 1 at Band 8 nationally. 54% (n=81) of responders were ACPRC members, 19% (n=28) both ACPRC and BTS members. The survey identified that largely the respiratory physiotherapy workforce is not embedded within respiratory medicine departments which means that appreciation of multidisciplinary team membership is of even greater importance. Despite the survey identifying a higher number of respiratory physiotherapists compared to earlier audit results, it also highlighted a workforce capacity shortfall, leaving some respiratory patients untreated on a daily basis. In addition, there is a need to encourage membership of special interest groups such as the ACPRC and BTS to promote exchange and dissemination of good practice.

Abstract P225 Table 1 Comparison of numbers of respiratory specialist physiotherapists nationally, identified by two audits

Profession	RCP/BTS Audit 2008 National (Median no WTE)	ACPRC/BTS Physiotherapy (PT) Survey 2009 (Mean WTE)	
		Medical respiratory PT team	Cross speciality respiratory PT team
Respiratory Specialist Physiotherapist	1 (0.5–2)	3 qualified 0.76 assistant	6.83 qualified 1.62 assistant

P226 PREVALENCE AND TREATMENT OF PAIN IN HOSPITAL IN-PATIENTS WITH RESPIRATORY DISEASE

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Introduction and objectives Pain is common, with 43% of medical inpatients experiencing moderate to severe pain [Dix *et al* *BJA* 2004;92(2):235–237]. Factors contributing to inadequate pain relief include concerns about analgesic side effects, drug interactions and impact of treatment on co-morbidities. In respiratory in-patients we audited prevalence and severity of pain, adequacy of pain relief and contraindications to escalation of analgesia.

Methods Unselected adult inpatients (≥16 years) with respiratory disease managed on a respiratory specialist ward were included in the audit. Patients with lung cancer or chest drains were excluded. Diagnoses, investigation results and medications were collected from patient records and patients underwent pain assessment (Brief Pain Inventory). Analgesia was defined as inadequate if patients reported an average pain score or pain interference score (pain interfering with daily activities) >3/10 during the previous 24 h. For patients with inadequate analgesia, cautions and contraindications to analgesics and non-steroidal anti-inflammatory drugs (NSAIDs) were determined to establish whether analgesia could be escalated.

Results Of 101 patients interviewed, main respiratory diagnoses were: COPD (40%), pneumonia/LRTI (38%), asthma (13%) and other (10%). 52 patients reported any pain in the last 24 h, of which the sites of worst pain were chest (44%), back (25%), limb (19%) and other (12%). Of these patients, 85% (n=44) were assessed as having inadequate analgesia. Abstract P226 Table 1 groups those patients with inadequate analgesia by position on the WHO analgesic ladder and details the proportion of patients who have no contraindication to stepping up the ladder. Abstract P226 Table 1 also highlights the proportion of patients who may benefit from adjuvant NSAID therapy. Of those patients with inadequate analgesia, 82% (n=36) had no contraindication to escalation of analgesia and 32% (n=14) had no contraindication to treatment with NSAIDs.

Abstract P226 Table 1 Analgesic options for 44 patients with inadequate pain relief

	No analgesia	Paracetamol	Mild/moderate opioids	Strong opioids	
Step-up contraindicated	0	3	0	5	18%
Step-up possible	12	14	10	0	82%
NSAID contraindicated	11	12	5	2	68%
NSAID possible	1	5	5	3	32%
Total	12	17	10	5	

Conclusions Pain is common in hospital in-patients with respiratory disease. 44% of respiratory in-patients did not receive adequate analgesia. 82% of these had no contraindication to stepping up the pain ladder and 32% could have had an NSAID added to their treatment. Respiratory patients may benefit from closer assessment of their pain and options regarding prescribed analgesia.

P227 DISPARITIES IN CARE OF ADULT CF PATIENTS IN THE UK

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Background Studies in the late '80s and early '90s suggested that survival in UK CF patients was better in those from non-manual social classes and that adults attending specialist clinics (66% of the total) received more intensive care. Twenty years on, we assessed whether treatments and outcomes varied by specialist care and the socio-economic status (SES) of patients.

Methods The CF Trust provided 2008 annual review data for patients attending UK adult clinics (n=3182). Three models of care were identified: "centre", "shared" between specialist and non-specialist clinics and non-specialist "stand-alone". SES was estimated by Townsend scores at CAS ward level. Distance to clinic was calculated as the distance between the patients' home postcode and that of their clinic.

Results In 2008 most patients received "centre care" (94%) and few received "stand-alone care" (4%). There were no differences in rates of dornase alfa, pancreatic enzyme or IV antibiotic treatment between models. The highest rates of chronic *Pseudomonas aeruginosa* (PA) infections were in patients attending "centre care" ("centre" 62%; "shared" 56%; "stand-alone" 49%; p=0.01) but there were no differences in FEV₁ predicted. Most patients (91%) lived <50 miles of their clinic; the distribution of clinics broadly reflected that of patients. Although those living near their clinic were less likely to be using dornase alfa (<50 miles 43%; ≥50 miles 52%, p=0.003), there were no differences in chronic Pa infection or FEV₁ predicted. There were more patients than expected in the least deprived

quintile of SES (30%) and fewer in the most deprived (10%). There was a decreasing trend in dornase α treatment with increasing deprivation (least deprived 48%: 43%: 41%: 41%: most deprived 42%, $p=0.004$) although when stratified by disease severity this was only significant among patients with mild disease (70% \leq FEV₁% predicted <90%). There were no differences in chronic Pa infections or FEV₁% predicted.

Conclusion In the last 20 years, the proportion of adults attending specialist clinics has increased and the majority live near their clinics. Despite these improvements, there exist disparities in treatment by distance and SES and chronic Pa infections by model of care.

P228 PATIENT EXPERIENCE OF A NURSE LED THERAPEUTIC PLEURAL ASPIRATION SERVICE

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Traditional models of care utilise the skills of a doctor to perform Therapeutic Pleural Aspiration (TPA). The procedure is often unplanned, rushed and performed by training doctors requiring supervision. At Salford Royal NHS Foundation Trust, we have trained the UK's first Lung Cancer Advanced Practitioner Nurse (LCAPN) to carry out TPA, as a bridge to alleviating chest symptoms prior to initiation of more definitive anti-cancer treatment and/or pleurodesis or as part of Best Supportive Care. From April 2009 to July 2010, our LCAPN carried out 41 planned TPAs independently in 23 individual patients with cancer related pleural effusion (11 lung cancers, 6 mesotheliomas, 6 other primaries) on the day ward, producing a total of 53 327 ml of fluid (mean 1300 ml). Patients were identified as suitable for TPA by the Lead Lung Cancer Clinician who used results from CT scan or same day Thoracic ultrasound scan to guide optimal site for needle placement using local anaesthesia (LA). Fluid was removed using the TRU-CLOSE suction drainage system. At the end of each procedure, patients were asked to complete a self-administered questionnaire based on their experience of the procedure, process of consent and comfort. Overall, the service was rated as excellent by 100% of patients. In particular, the service was rated highly for scheduling of TPA, information giving, consent, comfort and ability of LCAPN to perform the procedure. 76% of patients experienced either no pain or only mild discomfort and 21% experienced moderate discomfort, although this generally occurred at the end of the procedure.

Conclusion Nurse led TPA for cancer related pleural effusion is an acceptable model of care for alleviating symptoms prior to more definitive anti-cancer treatment or as part of Best Supportive Care.

P229 CHOOSE AND BOOK: NOT A PATIENT-CENTRED SERVICE?

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Introduction As part of another study we monitored Choose and Book (C&B) referrals attending our respiratory clinic and asked their views on their referral process. High non-attendance and limited patient choice with the C&B system has previously been observed elsewhere, despite it being intended as a patient-centred service enhancement. We sought to gain insight into non-attendance of C&B referrals at our clinic by analysing the levels of satisfaction with the referral process expressed by those who attended.

Method C&B non-attendance/cancellation rates were calculated for the initial study recruitment period. Patients attending clinic were asked to confirm their referral route and their satisfaction with the referral system via a nurse-administered questionnaire.

Results 47/57 (82.5%) C&B patients attended clinic during the study recruitment period. 2/57 (3.5%) rearranged to a different clinic. 8/57 (14%) failed to attend or cancelled. 44/47 (93.6%) patients who attended clinic responded to the questionnaire. 18/44 (40.9%) patients reported limited or no choice regarding time/date or hospital location of the appointment. 4/18 (22.2%) said the appointment was arranged by their GP. A further 7/18 (38.9%) seemed unaware of the C&B system or that they had a choice. 5/18 (27.8%) would have chosen a different hospital and 3/18 (16.7%) would have chosen a different date/time. 3/18 (16.7%) failed to get their preference using the online/telephone booking systems. In 12/44 (27.3%) cases the GP either made or assisted with the booking: 4/12 (33.3%) patients were happy for the GP to choose, 4/12 (33.3%) described a consultative process, 2/12 (16.7%) felt choice was limited and 2/12 (16.7%) made no additional comment. Only 16/44 (36.4%) mentioned using the telephone/online booking systems. 5/16 (31.3%) commented that the choice of dates or location that this provided was important to them. Patient reported problems with the systems included limited options and inflexibility when booking or rearranging appointments and a lack of information. 12/44 (27.3%) specifically mentioned that they liked the choice and convenience the system offered.

Conclusion Our findings suggest that a high proportion of respiratory patients do not exercise true choice with Choose and Book. This supports observations in other patient groups. System and process obstacles seem to be exacerbated by lack of patient awareness and may be contributing to high non-attendance rates.

P230 INAPPROPRIATE REFERRALS TO THE RAPID ACCESS LUNG CLINIC (RALC)

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Introduction and Aims Urgent referral suspected lung cancer cases depends upon nationally agreed protocols (a suspicious chest x-ray, persistent haemoptysis in smokers over age 40, stridor and SVC obstruction). In order to best use resource intensive RALC facilities, it is important that these protocols are followed. We wished to look at inappropriate referrals to the RALC which serves our large lung cancer unit (450 cases per year).

Methods We looked at source of and reasons for referral, eventual placement of the referral, and the ultimate diagnosis of all inappropriate referrals during the calendar year 2009.

Results Of 452 referrals, 97 (21%) did not follow the protocol [68 (70%) primary, 14 (14%) secondary care, and 15 (15%) from the A&E department]; including 76 (78%) with a 'suspicious chest x-ray' and 6 (6%) with 'haemoptysis'. In 46, the chest x-ray report did not suggest cancer, 6 had a normal chest x-ray, 2 from primary care had no radiology, 9 from secondary care had CT scans not suggestive of lung cancer, 5 did not meet the haemoptysis referral criteria, 8 were under specialist care for lung cancer/other malignancies, 11 were under chest physician/surgeon review and 3 were inpatients. One preferred investigation elsewhere, 1 had already been processed through the RALC, and one was a nursing home resident. In every case, a lung cancer unit clinician communicated with the referrer and channelled these referrals in timely fashion to appropriate services: 51 (53%) to a general chest clinic, 16 (16%) to other hospital specialists, 15 (15%) back to their GP, and one to palliative care. Ultimately, only 3 (3%) were subsequently diagnosed with