The aim of the study was to investigate in a qualitative study the thoughts and feelings of women's experiences of asthma in pregnancy.

Methods NHS IRAS ethical approval and trust research governance were obtained; women gave written informed consent subject to the usual ethical guarantees. Twenty-two women with asthma and a pregnancy within two years were invited to participate. Seven women were interviewed when data saturation was achieved. Data collection took place between March 2012 and September 2012. Interviews were transcribed and analysed using a phenomenological 'Framework' Method involving familiarisation; identifying a thematic framework; indexing; charting; mapping; interpretation. Data were independently analysed by two researchers and consensus reached concerning themes.

Results

- Asthma and pregnancy
- Self-management including fears; lack of recognition of symptoms; poor knowledge of inhaled therapy
- Risk factors
- Anxieties including drugs, procedures, risks versus benefits
- General understanding of asthma
- Concealing symptoms

Pregnancy and post-natal experiences

- Impact of exacerbations on baby; breastfeeding benefits; changes to asthma, post-natal experience

Health professionals

- Lack of regular contact; midwife support; interaction with healthcare professionals, education

Conclusions These findings are globally relevant because maternal asthma is so prevalent. They illustrate participants' experiences of their asthma care and their views on its improvement. Similar to the international literature (Lim et al 2012), pregnant asthmatic women have concerns about their care and treatment, which might be alleviated by outreach, joint working between respiratory nurse specialists, midwives and GP practice nurses.

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P77 CREATION AND EVALUATION OF A 2D/3D MOLECULAR DATABASE FOR DRUGS USED TO TARGET THE RESPIRATORY SYSTEM

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Background Healthcare students and professionals could benefit greatly from using a holistic drug database as a reference point for clinical, physiochemical and structural information.[1] The involvement of certain drug therapy in the management of a condition can be facilitated by using 2dimensional and 3dimensional renditions.[2]

Objectives To compile an electronic molecular database of drugs used in respiratory conditions to include constructions in two and three dimension, representations of drug protein interactions and to assess its utility by carrying out a randomised control study on a pharmacy student cohort.

Design A repository of drugs pertaining to 'respiratory system' section of the BNF 64 was created to include structural information using molecular modelling software ex. Symyx®, VMD® and Sybyl®, clinical and physiochemical information. The database was compiled and uploaded onto the University's website. A randomised control study using validated questionnaires was carried out on students reading for a degree in Bachelor of Science in Pharmaceutical Science. Their performance was assessed at baseline, after two weeks from using the database and four weeks after. Statistical results were generated using SPSS® 17.

Results A total of, 46 2D structures and interactive 3D formats, and 21interactive representations of the 7PDB entries identified were created. A positive trend in student knowledge on drugs used in respiratory conditions was identified both immediately (post)and after a period of time (delayed), with students performing better after being exposed to the database during the intervention lecture as can be seen in Table 1. A significant improvement in the final marks was attained in the experimental group with respect to the control group for the first, second, third and fourth year undergraduate pharmacy students.

Conclusions Student understanding and knowledge is enhanced when teaching practices take on an innovative approach. In fact, 86% of the students deemed the electronic database to be a relevant reference point of information during the undergraduate course.

P78 IMPACT OF A PHARMACIST-LED ASTHMA AND COPD REVIEWS IN GENERAL PRACTICE

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Introduction Asthma and COPD account for a significant burden of disease in the UK. Despite comprehensive guidelines, over a 1000 people continue to die from asthma each year and COPD accounts for a leading cause of emergency admissions in the UK.

A joint initiative between a tertiary centre for respiratory disease and commissioning support unit (CSU), asthma and COPD reviews were undertaken by a specialist respiratory pharmacist in GP practices. This study assesses the impact of these reviews.

Aims and Objectives This study aims to assess the impact of the specialist asthma and COPD reviews in accordance with national guidelines and standards of care.

Methods The study was carried out during eight clinical sessions over a two month period, across three GP surgeries. The reviews included the following assessments:

- Quality of life: ACT and CAT scores
- Inhaler technique
- Assessing adherence to maintenance inhalers based on GP prescription records
- Assessing if patients were on the correct therapy in accordance with their diagnosis, symptoms and severity of disease

Patients were identified for review based use of high dose inhaled corticosteroid and bronchodilator preparations (ICS/LABA) and/or frequency of A&E and hospital admissions.

Results During the eight clinical sessions, 84 patients with asthma or COPD were reviewed (42.5% male). 63% of patients

Abstract P78 Table 1. Results of the Asthma and COPD Reviews

	Asthma	COPD	
Exacerbations in previous 12 months	**Oral antibiotics and/or oral steroids per patient**	**2.2 per patient**	**3.1 per patient**
Number of A&E attendances (n)	14	33	
Number of hospital admissions (n)	5	31	
Inhaler technique	Good technique (n)	21% (11)	42% (13)
	Moderate technique	19% (10)	29% (9)
	Poor technique	60% (31)	29% (9)
Beclomethasone dipropionate equivalence	pre review	1656.6mcg	NA
	post review	1000.0mcg	NA
Smoking history (n)	Current	26.4% (14)	29.0% (9)
	Agreed to stop following review	78.6% (11)	77.8% (7)
	Ex smoker	17.0% (9)	71.0% (22)
	Mean pack year history	29.4	37.4
Adherence to medicines in previous 12 months (mean)	Maintenance ICS/LABA or ICS	6.4 inhalers	10.3 inhalers
	LAMA	NA	10.8 inhalers
	Reliever inhaler	8.3 inhalers	8.7 inhalers
On correct therapy based on symptoms, diagnosis and disease severity (n)		26.9% (14)	45.2% (14)
If not on correct therapy, intervention made (n)	Step down	59.6% (31)	NA
	Stopping a part of treatment	3.8% (2)	25.8% (8)
	Querying the correct diagnosis	5.8% (3)	22.6% (7)
	Change drug class	NA	9.7% (3)
FEV1 % of predicted mean		NA	52.2%
ACT score mean		16.9	
CAT score mean		21.5	

had asthma (n = 53) with 37% COPD (n = 31), with a mean age 56.3 and 67.0 years respectively.

Table 1 shows a significant proportion of patients had uncontrolled disease based on their quality of life scores (QoL), use of reliever inhalers and frequency of exacerbations. Despite use of high dose medicines, this was likely to be due to poor adherence to maintenance inhalers and poor inhaler technique in a large proportion of patients. Interventions were made in most patients, including reducing the beclomethasone dipropionate (BDP) equivalence in the asthma group by 60.4%. Follow up showed that despite a reduction in inhaler therapy, QoL, peak flow measurements and reliever use all improved.

Conclusions Tailored reviews by the pharmacist resulted in significant interventions that improved QoL, adherenc to therapy, reduced unnecessary over prescribing of high dose medicines and resulted in a large proportion of patients to successfully stop smoking.

From screening to treatment of children with chronic lung disease

P79 THE IMPACT OF SOCIAL DEPRIVATION ON CLINICAL OUTCOMES IN CHILDREN WITH CYSTIC FIBROSIS (CF) IN A DEPRIVED AREA OF SCOTLAND

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Introduction Lung function tests and BMI are widely-used outcome measures in children with CF, and their preservation requires adherence to exacting treatment regimens.

We hypothesised that deprivation might affect the adherence to therapy of children in a deprived area of Scotland, thus reducing BMI and FEV_1 scores and increasing clinical input required.

Schechter (2003) demonstrated a link between deprivation and mortality in children with CF, although the mechanism remained unclear, and the study has not been repeated elsewhere. In an adult CF population in an affluent area of England, Jarad (2005) found no correlation between deprivation and FEV_1. This question has not previously been examined in a deprived paediatric population.

Method In February 2013, RHSC Glasgow had 95 children (4946) with CF under its care. All children over 2 years had their BMI centile calculated. In all children over four years, mean FEV1% predicted was calculated. The number of outpatient clinics and inpatient admissions over a three year period was noted for all children over three years old.

The Scottish Index of Multiple Deprivation (SIMD) ranks the 6505 postcode districts in Scotland in order of deprivation, and a rank was obtained for each child' postcode.

SMID rank was plotted against BMI, mean FEV1% predicted, outpatient appointments and inpatient admissions, with any correlations noted.

Result 83 children had BMI centile recorded (mean 45.4, range 0.4–98), 66 children had FEV1 % predicted calculated (mean 92.4%, range 50.4–146%). Mean SMID ranking was 2763 (range 33–6499.). The mean number of respiratory outpatient clinics attended was 23.1 (range 18–33), total outpatient clinics attended was 25.8 (range 18–48) and inpatient admissions was 4.3 (range 0–20) over three years.

No correlation was shown between SMID rank and BMI centile (r^2 = 0.0025), mean FEV1% predicted (r^2 = 0.0025), respiratory clinics attended (r^2 = 0.0121), total outpatients attended (r^2 = 0.0263) and inpatient admissions (r^2 = 0.0078).

Conclusion Relative deprivation does not correlate with BMI centile or FEV1% predicted in this population of CF children and is not associated with the level of clinical input required.

P80 ANTIBIOTIC USAGE AS A RISK FACTOR FOR NON-TUBERCULOUS MYCOBACTERIUM INFECTION IN CHILDREN WITH CYSTIC FIBROSIS

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Background There is a growing incidence of Non-Tuberculous Mycobacterium (NTM) in children with Cystic Fibrosis. This audit aimed to determine relevant risk factors for NTM acquisition in paediatric cystic fibrosis patients.

Methods Data was obtained from clinical notes for 66 patients aged 5–18 years old in a North-East CF clinic who had sputum or bronchoalveolar lavage screened for NTM between 2011 and 2012.

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P78 Impact of a pharmacist-led asthma and COPD reviews in general practice

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