

challenge. Nijmegen questionnaire is suitable as a screening tool for early detection and also as an aid in diagnosis and therapy planning.

Aim To test the correlation between the Nijmegen score and the hospital anxiety/depression score in patients diagnosed with dysfunctional breathlessness.

Method The diagnosis was made on the basis of exclusion with a normal clinical examination, lung function and echocardiogram, or with symptoms disproportionate to measurements of severity of their respiratory illness. The physiotherapist further assessed patients with particular regard to their breathing pattern and the Nijmegen (Ni) score, with a score over 23 being regarded as diagnostic. Consecutive patients referred to the clinic over 24 months were reviewed. The following parameters were analysed- demographics, underlying respiratory illness, breathing and sleep pattern, Nijmegen score (Pre and Post Intervention), HAD scores and the interventional modalities.

Results 51 patients (males 20, females 31) were assessed. The mean age at presentation was 60.2 (range 20–84). 26/51 patients had chronic cardio respiratory illness. 28/51 patients had an abnormal breathing pattern, the most common being frequent sighing. 23/51 patients reported abnormal sleep pattern, frequent awakening being the commonest. 37 patients (males 17, females 20) had a pre intervention Ni score over 23 (mean 29, range 23–42). Interventions included patient education, cognitive-behavioural therapy, breathing exercises and training in a physiotherapist led clinic. The interventional period was 6 weeks and post 6 weeks the Nijmegen score fell below the diagnostic threshold in 29/37 patients (mean reduction 14, range 3–22, p value<0.001). HAD scores was used to assess the degree of mood impairment and there was no linear correlation (Pearson correlation) (Abstract P203 table 1) with the pre intervention Nijmegen score.

Abstract P203 Table 1

(n = 37)	Nijmegen score	Anxiety score	Depression score
Nijmegen score			
Pearson Correlation	1	0.362	0.171
Sig. (2-tailed)		0.28	0.311
Anxiety score			
Pearson Correlation	0.362	1	0.405
Sig. (2-tailed)	0.28		0.013
Depression score			
Pearson Correlation	0.171	0.405	1
Sig. (2-tailed)	0.311	0.013	

Conclusion There was no correlation between the Nijmegen score and the hospital anxiety/depression score in patients with dysfunctional breathlessness. A physiotherapy led dysfunctional breathlessness clinic was able to improve symptoms in 78% of the referred cases as measured by Ni score.

P204 THE BURDEN OF REPEATED ASTHMA ADMISSIONS AND ASSOCIATIONS WITH PSYCHIATRIC COMORBIDITY

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Rationale and Objectives While only 10% of asthmatics have “Difficult Asthma” they account for 80% of asthma-related expenditure. Aggravating comorbidities are common in patients with Difficult Asthma including Psychiatric disorders, such as major depression, which is present in 29%.¹ We sought to characterise the annual burden of repeated asthma admissions to our Hospital and assess the influence of psychiatric comorbidity on this group with Difficult Asthma.

Methods We systematically searched the hospital database for patients who had been acutely admitted on two or more occasions in 2010 for asthma at Southampton General Hospital (Southampton, UK). Data were collected retrospectively and covered patient demographics, admission details, asthma severity, physical and psychiatric comorbidity. Coding data for each admission was analysed to determine admission costs. Data were analysed using SPSS (V.19.0) to determine significant characteristics of this Difficult Asthma group and to assess the influence of psychiatric comorbidity on those parameters.

Results There were 396 admissions for acute asthma in 2010, involving 305 patients. Of these, 36 (11.8%) patients were admitted on =2 occasions, accounting for 32.1% of admissions. Repeated admission patients consumed 895 bed-days and were predominantly female (72.2%; p=0.012). They commonly had aggravating comorbidities, the most predominant being diagnosed psychiatric disease (69.4%; p=0.03). Those patients with psychiatric comorbidity showed significantly higher Body Mass Index (p=0.012), plus greater prevalence of obesity (p=0.05) and dysfunctional breathing (p=0.012) than patients without psychiatric comorbidity. They also showed trends for higher prevalence of other aggravating comorbidity like Gastro-Oesophageal Reflux Disease (p=0.07) and for greater median bed-days/length of stay. The annual cost for repeated asthma admission was £226 536 of which patients with psychiatric comorbidity consumed £164 660 (72.7% of costs).

Conclusions A significant proportion of patients with repeated asthma admission have psychiatric comorbidity. When present in such patients, psychiatric comorbidity is associated with obesity and dysfunctional breathing. Patients with Difficult Asthma and psychiatric comorbidity pose a significant burden on Secondary Healthcare resources. Optimal asthma care could benefit from targeting support and treatment for underlying psychiatric illness.

REFERENCE

1. Heaney LG, Conway E, Kelly C, *et al.* Prevalence of psychiatric morbidity in a difficult asthma population: Relationship to asthma outcome. *Respir Med* 2005;**99**:1152–9.

P205 MANAGING THE CHALLENGES OF RECRUITMENT OF PATIENTS WITH ASTHMA TO RANDOMISED CONTROLLED TRIALS

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Introduction Many trials do not recruit sufficient participants, particularly from primary care settings, making it difficult to get meaningful results. A recent Cochrane systematic review studying recruitment concluded there is still much to learn. Here we describe details of two MRC funded, primary care based, asthma randomised controlled trials, and their recruitment strategies and challenges.

Methods Trial 1: Examined whether short-term treatment with atorvastatin improves lung function, asthma control and quality of life in smokers with asthma (completed 2009). Trial 2: examined the same question using azithromycin (completed July 2011). The participant flow charts and trial documents of both trials were examined to establish recruitment details.

Results Trial 1: Target to randomise =80, target to complete =68, study extended by 3 months due to slow recruitment. Actual randomised =71, actual completed =60. 54/438 GP practices approached, participated. 2483 patients from practices and 356 from a database of previous trial participants received two mailings via GP surgeries, and then following an ethics amendment via telephone for a small number of surgeries. 331/2483 (11.7%) patients responded positively, and of these 286 were able to be contacted and telephone screened for eligibility, leaving 131 eligible participants. 129/131