#### Conclusions

1) Delay within-patient was significantly longer than withinoncology (p < 0.0001).

2) Over 60% patients visited their GP more than once.

3) Delay and stage were unrelated in our study.

4) Chest symptoms increased considerably during the pathway to treatment.

5) A number of common symptoms were associated with advanced disease.

# To wheeze, or not to wheeze: is it all asthma? P200 USE OF HYPERTONIC SALINE IN BRONCHOPROVOCATION FOR THE DIAGNOSIS OF BRONCHIAL ASTHMA

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**Purpose** To find out a simple, chief, standard & easily available agent for bronchoprovocation & also to determine the provocating dose of hypertonic saline, which will reduce at least 20% of  $FEV_1$  in bronchial asthma patient.

**Methods** A prospective case control study was carried out among 50 patients with bronchial asthma and 50 normal healthy control at Asthma centre in NIDCH, Bangladesh. Hypertonic saline of different concentration in doubling doses (1.8%, 3.6%, 7.2%), sequentially from lower to higher concentration was inhaled to both group by nebuliser and the test was terminated when drop of at least 20% FEV<sub>1</sub> had occurred. Patients were selected according to prefixed inclusion & exclusion criteria. Structured questionnaire was filled-up by each patient. Written consent was taken from every patient & control after proper explanation about the procedure & its outcome. **Results** In the control group M/F ratio was 1.27:1, age ranged from 11 years to 50 years and of 5 different occupations (student, service holder, businessman, housewife and worker). In patient group M:F was 1.38:1, age range from 11 to 50 years and five different occupation was same as control. There were no statistically significant differences between the two groups regarding age, sex and occupation. In control, graded amount of hypertonic saline (1.8%, 3.6%, 7.2%) was given by nebuliser inhalation. None of them showed fall of FEV<sub>1</sub> significantly (20%). But in patient group, with similar concentration of hypertonic saline inhalation, there was highly significant fall in FEV<sub>1</sub>,  $\chi^2$  test showed highly significant value,  $\chi^2 = 75.42$  and p<0.001. Conclusion Hypertonic saline induced broncho provocation is actually very safe, simple & cheap. So the people of third world countries can afford this test in minimum cost. Provocative dose of Hypertonic saline is 7.2% (20% fall of FEV<sub>1</sub>).

Clinical implications For the diagnosis of cough variant asthma & also in the suspected cases of bronchial asthma, we can performed this test confidently.

## P201 NO ABSTRACT ASSIGNED TO THIS NUMBER

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## P202 IMPACT STUDY OF 243 INDIRECT BRONCHIAL PROVOCATION TESTS WITH MANNITOL IN THE DIAGNOSIS AND MANAGEMENT OF ASTHMA

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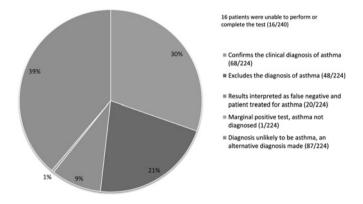
**Introduction and Objective** Our lung investigation unit introduced indirect bronchial provocation challenge tests with mannitol to replace direct bronchial provocation tests with Methacholine.

Mannitol challenge tests have practical and safety profile advantages. The sensitivity and specificity for  $PC_{20}$  Methacholine are 91% (84.2%–97.8%) and 90% (76.9%–100%) respectively.<sup>1</sup> The specificity of PD<sub>15</sub> Mannitol compares well to Methacholine at 98.4% (96.2%–99.4%), but the sensitivity of PD<sub>15</sub> Mannitol is lower at 58.8% (50.7%–62.6%).<sup>2</sup> The aim of the study was to review the clinical interpretation of mannitol challenge test results in the diagnosis of asthma.

**Methods** Data were collected on all Mannitol challenge tests performed between July 2008 and January 2011. A retrospective analysis of case notes was performed to assess the indication for the test, the interpretation of results and any subsequent changes in management.

**Results** 243 tests were performed and 240 sets of data analysed, 3 sets of case notes could not be obtained. 147 (61%) patients presented with wheeze and dyspnoea with a possible diagnosis of asthma, 48/ 134 (36%) tests were positive confirming the diagnosis and 13 (8.8%) patients were unable to perform the test. 89 (37%) patients presented with cough, 20/86 (23.3%) tests were positive and three patients were unable to perform the test. 68/69 (99%) of the positive mannitol tests were interpreted as confirmation of the diagnosis of asthma. The 155 negative tests were interpreted as false negative in 20 (13%) patients. In 87 (56%) cases additional tests were subsequently performed and an alternative diagnosis was made and in 48 (31%) cases the result was interpreted as true negative. Three of these patients (6%) represented and were subsequently diagnosed with asthma.

**Conclusion** Mannitol challenge tests are useful in confirming the diagnosis of asthma in patients with high pre-test probability of the disease. Physicians need to recognise the risk of false negative mannitol test results and perform additional tests when the diagnosis is uncertain and clinical suspicion remains high.



Abstract P202 Figure 1 Interpretation of 240 mannitol test results.

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## P203 CORRELATION OF NIJMEGEN SCORE AND HOSPITAL ANXIETY/DEPRESSION (HAD) SCORE IN DYSFUNCTIONAL BREATHLESSNESS

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**Introduction** Dysfunctional Breathlessness has an incidence of about 10% among the general population and can often coexist with other chronic cardio respiratory illness. Patients often have a degree of anxiety or depression and may pose a diagnostic and therapeutic