

Abstract G156 Table 1

	Study participants n (%)	Mozambican cohort ⁵ %
Wheeze at any time in past	4 (16.7)	20.3
Wheeze in last 12 months	1 (4.2)	11.2
Cough at night in last 12 months	10 (41.7)	22.7

prescribing and monitoring. Whilst guidelines exist for the prescription of long-term oxygen [1], there is little available for its short-term use in children, similar to that for adults [2]

Aims and Methods Paediatric in-patient units in England were contacted to evaluate their practise regarding the use of oxygen based on the above guidelines. Information was obtained from the paediatric pharmacists and senior nursing staff in 68 units using a telephone questionnaire in 2010 and from paediatric pharmacists in 105 units using survey monkey in 2012.

Results Of the units contacted, 51.4% and 42% units respectively completed the survey in 2010 and 2012. The proportion of hospitals that reported they routinely prescribed oxygen increased from 11% to 42% between the two survey points. In 71% of units, prescribing was done on a drug chart. The oxygen was prescribed in percentage terms in 79% of units, and as flow rates in 81%. These were adjusted for the targeted saturations in 73%. Hospitals that have a protocol or guideline for prescribing oxygen have marginally improved from 40 to 43%.

Conclusion The results suggest that although there is an increase in the routine use of oxygen prescriptions, the majority of units neither have any guidelines for it nor use oxygen prescriptions. There is a need for the multidisciplinary development of guidelines and educational programmes to aid in the appropriate prescribing and delivery of oxygen in acute units.

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G158 RECRUITING ETHNIC MINORITY PARTICIPANTS TO A CLINICAL TRIAL: QUALITATIVE STUDY

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Objectives To compare the motives and experiences of different ethnic groups participating in a randomised double blind placebo-controlled trial of montelukast in preschool wheeze, and to assess parents' or guardians' understanding of trial procedures and their implications, including the collection of genetic material.

Design qualitative interviews with parents or guardians.

Setting Parents of children recruited following medical attendance with wheeze were interviewed in their homes.

Participants 42 parents, (20 of Bangladeshi origin, 10 white UK, 12 other ethnicities).

Results Anxiety related to wheezing was a common primary motive for trial enrolment. Parents viewed the trial as a route to improved treatment. Verbal delivery of trial information was more effective than study literature, especially for Bangladeshi families, with low parental literacy and high levels of trust in medical professionals contributing to this effect. All ethnic groups expressed a low

understanding and/or retention of essential study concepts such as randomisation and genetic testing.

Conclusions Bangladeshi families are particularly motivated to participate in clinical trials despite variable comprehension of study concepts. This motivation is more strongly contingent on strong researcher-subject rapport than on the quality of study literature. Trial teams seeking to recruit from South Asian populations should emphasise face-to-face verbal explanation of trial concepts and procedures and consider modified trial literature.

G159 THE USE OF STRUCTURED LIGHT PLETHYSMOGRAPHY TO ASSESS THE EFFECT OF FEEDING ON TIDAL BREATHING PATTERNS IN NEWBORNS

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Aims The aim of the study was to evaluate tidal breathing patterns in healthy newborns using Structured Light Plethysmography (SLP), and to compare the relative contributions of the ribcage and abdominal compartments in measurements taken pre and post feeding. The opportunities to non invasively measure neonatal lung function are limited. SLP is novel non-invasive method of assessing chest-abdominal wall movement, with potential application in a newborn and infant population.

Methods 17 healthy new-born (7 male and 10 female) from the Rosie Maternity Hospital were studied using SLP-based device, Thorax3D™. 8 out of 17 were pre-term; corrected gestation age ranged from 35 to 40 weeks. Median weight was 2.866 kg (ranged from 1.985 kg to 4.43 kg). Newborns were in clinically stable condition with no oxygen requirement. No sedation was used.

Pre and post feeding measurements of tidal breaths: inspiration time (ti), expiration time (te), respiration rate. The following parameters were calculated from Konno-Mead (KM) plots: overall phase, spread, principal angle, rotation direction, and ribcage vs. abdomen asymmetry. Principal angle and spread were calculated by performing Principal Component Analysis on the samples comprising the KM loop data. Ribcage vs. abdomen asymmetry was found for each point on the KM loop by evaluating the distance between individual points and the expected response given a zero phase difference. The Brown Forsythe test was used to test equality of group of variances, the Wilcoxon test for equality in mean and median for the paired data, and Mann-Whitney U test for equality in mean and median for the unpaired data. In all cases, a two-tailed test was performed.

Results Respiratory rate, inspiratory and expiratory times remain constant pre and post feeds. The paired samples (n = 8) showed a significant change in variation of ribcage vs. abdomen phase (p < 0.025). The unpaired data (n1 = 13, n2 = 19) showed change in variation of the principal angle, the overall phase and ribcage vs. abdomen phase (p < 0.05). Each data collection took approximately 15 minutes including parental consent.

Conclusion The results indicate that newborn breathing pattern become more stable after feeding, and that SLP provides a non invasive method of assessment of tidal breathing pattern in infants.