Abstract 606 Table 1

	Dose (mg/kg)		Frequency (Hours)		Total daily dose (mg/kg/24h)	
	Median	Min - Max	Median	Min - Max	Median	Min - Max
Furosemide	1	0.5–3	12	6–24	2	1–4
Spironolactone	1	0.5–10	12	12–24	2	1–20
Chlorthiazide	10	1–25	12	12–24	20	2–50
Hydrochlorthiazide	15	10–20	12	12	30	20–40

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Background Diuretics are used in premature babies with chronic lung disease despite minimal evidence. The aim of this study was to assess the use of diuretics in neonatal units in England.
Method An electronic survey using Survey Monkey was sent to 108 units in the Medicines for Children Research Network Neonatal Network.
Results There were 66 responses with useable data from 55 unique units. 20% had a protocol for use. 49% would consider starting diuretics after 5 weeks of age and half would start diuretics in situations such as being unable to wean ventilation, unable to extubate, unable to wean off CPAP, chronic lung disease and chronic lung disease in the presence of a PDA. 70% had no rule when to stop diuretics, 22% stopped off supplemental oxygen and 8% off CPAP.

48% use chlorthiazide plus spironolactone in babies who are fully fed and 84% prefer furosemide in babies requiring intravenous treatment.

Table 1 shows the variation in the doses within diuretics.
Conclusions There is wide heterogeneity in the use of diuretics in England. The majority use chlorthiazide plus spironolactone in babies who are fed and furosemide intravenously.

607 RISK FACTORS FOR INTRAVENTRICULAR HEMORRHAGE IN LESS THAN 32 WEEKS GESTATION PRETERM INFANTS - PROSPECTIVE STUDY

doi:10.1136/archdischild-2012-302724.0607

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Chronic lung disease (CLD) of prematurity may complicate the postnatal development of the severe respiratory distress syndrome (RDS) and negatively affect the long term neurodevelopmental outcome of the premature infant.
Aim To evaluate the risk factors for CLD in ≤32 weeks gestation preterm infants.
Methods The study was developed in the Neonatology Dpt. of the Clinical County Emergency Hospital Sibiu between 01.01.2010–31.12.2011. The study group comprised 139 preterm infants with a mean GA of 30.26±1.93 weeks (24–32 weeks) and a mean BW of 1412.99±367.389g (600–2270g). The prospectively collected data were analysed using IBM SPSS 19.0 and were considered significant at a $p<0.05$.
Results CLD occurred with an incidence of 7.91% in the study group. The preterm infants that developed CLD had significantly lower GA (p 0.000), BW (p 0.000), and Apgar score at 1 minute (p 0.014). Significantly longer duration of the oxygen therapy (0.000), CPAP support (0.000), mechanical ventilation (p 0.003) and hospitalization (p 0.003) were found in those preterm infants that developed CLD compared with those without CLD. A significant association was found between CLD and apnea of prematurity, neonatal sepsis, nosocomial infection and ROP even after excluding deaths and outborn infants.
Conclusions Low GA, BW, the severity of RDS but also the presence of perinatal infection were the main risk factors identified in preterm infants with CLD.

608 REDUCED LIPOXIN A_4/LEUKOTRIENE B_4 RATIO IN EARLY CF BAL - IMPAIRED AIRWAY EPITHELIAL LIPOXIN A_4 SYNTHESIS CAPACITY

doi:10.1136/archdischild-2012-302724.0608

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Cystic Fibrosis (CF) is characterised by impaired muco-ciliary clearance, persistent neutrophilic inflammation and bacterial infection. Normal resolution of inflammation involves an active switch in mediators that predominate in exudates. Early in inflammation, Leukotriene B_4 (LTB_4) plays a role in neutrophil activation. Resolution and return to tissue homeostasis are signalled by the transcellular synthesis of Lipoxin A_4 (LXA_4) by the action of Lipoxygenase enzymes (LO) expressed in cells such as neutrophils and airway epithelial cells.

The aims of this study were to quantify LXA_4 production in the airways of children with CF and characterise LXA_4 synthesis by airway epithelial cells in CF.

LXA_4 and LTB_4 were measured in paediatric BAL samples by ELISA. We quantified the capacity of Non CF (NuLi-1) and CF (CuFi-1 Homozygous ΔF508) cells cultured as differentiated bronchial epithelia to synthesize LXA_4 by the action of 15-LO on 5(S),6(R)-DiHETE, (a precursor of LXA_4). Expression of 15-LO was measured by Western Blot.

Relative production of LXA_4 is significantly depressed in paediatric CF patients versus controls when compared to LTB_4. The ability of CuFi-1 cells to convert 5(S), 6(R)-DiHETE to LXA_4 was reduced as compared with NuLi-1 cells. The expression of 15-LO2 was reduced in CuFi-1 compared with Nuli-1 cells.

The ratio of LXA_4 to LTB_4 in the airway of young children with CF is depressed. Our results indicate that the contribution of airway epithelial cells to Lipoxin A_4 synthesis is reduced in CF. This may contribute to the persistence of acute inflammation and consequent lung damage in CF.

609 SPECIFITY OF TUBERCULOSIS AND RESISTENCE OF THERAPY BETWEEN IMMIGRANTS AND BOSNIA-BORN CHILDREN

doi:10.1136/archdischild-2012-302724.0609

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