Age	Score	2	1	0	1	2
Any	Sats	<90	90-94	>95%	90-94	<90
Any	Breathing	Stridor	Audible grunt or wheeze	No distress	Mild or Moderate Recession	Severe Recession
Any	AVPU	Pain	Voice	Alert	Voice	Pain
Any	Gut Feeling	Child looks unwell	Low level concern	Well	Low level concern	Child looks unwell
Any	Other	Oncology Patient	Patient on long term steroids or diabetic		Ex-prem or any syndromic conditon	Congenital Heart disease
0-1	Pulse	<90	90-109	110-160	161-180	180+
	RR	<25	25-29	30-40	41-50	50+
	Temp	<35^0	35-35.9^0	36-37.5^0	37.6-39^0	39^0+
1-2	Pulse	<90	90-99	100-150	151-170	170+
	RR	<20	20-24	25-35	36-50	50+
	Temp	<35^0	35-35.9^0	36-38.4^0	38.5-40^0+	40^0+
2-5	Pulse	<80	80-94	95-140	141-160	160+
	RR	<20	20-24	25-30	31-40	40+
	Temp	<35^0	35-35.9^0	36-38.4^0	38.5-40^0+	40^0+
5-12	Pulse	<70	70-79	80-120	121-150	150+
	RR	<15	15-19	20-25	26-40	40+
	Temp	<35^0	35-35.9^0	36-38.4^0	38.5-40^0+	40^0+

Total Score	Priority
0-1	
2-3	
4-7	
8+	Immediate review

Any child who scores 8+ should be considered for transfer to resus

Abstract O-009a Figure 1

Brain

O-010 COMPARATIVE NEUROPATHOLOGY OF LISSENCEPHALY WITH ARX MUTATION: CONSIDERATION OF NEOCORTICAL INTERNEURON DISTRIBUTION

M Itoh. *Mental Retardation and Birth Defect Research, National Center of Neurology and Psychiatry, Kodaira, Japan*

10.1136/archdischild-2014-307384.78

Background X-linked lissencephaly with abnormal genitalia (XLAG) is established as one disease entity. XLAG, showing severe neonatal seizure and developmental delay, is a rare disorder caused by mutations in the *aristaless-related homeobox* (*ARX*) gene, located in Xp22.13. *Arx*-null mice for human XLAG model showed loss of tangential migration of GABAergic interneurons.

Objectives We investigated subpopulation of GABAergic interneurons in the brain of an infant with XLAG, who had a nonsense mutation of the *ARX* gene, compared with those of age-matched normal control, Miller-Dieker syndrome (MDS) as a type I lissencephaly, and polymicrogyria of Fukuyama type congenital muscular dystrophy (FCMD) as a type II lissencephaly.

Methods We used paraffin-embeded brain tissues of two XLAG, three MDS and four FCMD, with an informed consent of their parents. We performed immunocytochemistry for interneuron and migration markers.

Results Glutamic acid decarboxylase (GAD) and calretinin (CR) containing (+) cells were significantly very few in the neocortex and located in the white matter and neocortical subventricular zone. In the neocortical subventricular region, the GAD+ and CR+ cells had Mash^{-1} protein, like a radial migration marker, and nestin protein. On the contrary, MDS showed relative low concentration of GAD+ cells. FCMD revealed random distribution of these marked cells.

Conclusions ARX controls not only tangential migration of GABAergic interneurons from the ganglionic eminence, but also may serve to induce radial migration from the neocortical subventricular zone. MDS and FCMD also demonstrated abnormal distribution of neocortical interneurons, but those severities are different in each type of lissencephaly.

O-011 CEREBRAL PERFUSION FROM INFANT TILL ADOLESCENCE ASSESSED WITH MR PSEUDO CONTINUOUS ASL

M Lequin, T Compagnoni. *Radiology, Erasmus MC Sophia Children's Hospital, Rotterdam, Netherlands*

10.1136/archdischild-2014-307384.79

Background and aim Arterial spin labelling (ASL) is a MR technique to assess brain perfusion without necessity of intravascular administered MR contrast [1]. Our aim was to obtain age dependent normal paediatric values of brain perfusion.

Methods In this retrospective study we included children aged 1–14 years recruited from our MRI database, collected from 2012–2014. In each age group 6 individuals were included having a normal MRI scan. All children were scanned on a 1,5 T MRI scanner (GE). A pseudo continuous ASL technique was