with 20% FBS. In some experiments, cells were treated with TNF- α (10 ng/ml) and exposed to ACTZ (500 mM) or media buffered to pH 6.8. In other experiments, baseline differences between PASMC proliferation from 3 experimental groups (control, Sugen/Hypoxia or Sugen/Hypoxia+ACTZ animals) were compared. Cell numbers were evaluated with a haemocytometer using trypan blue cell exclusion 1, 2 and 3 after stimulation in triplicates. RT-qPCR was conducted to determine the expression of proliferative, contractile and de-differentiation markers.

Results RPASMCs exposed to TNF- α for 24 hours showed significant downregulation of markers of a contractile phenotype and upregulation of proliferative and de-differentiation markers. Exposure to TNF- α also resulted in increased proliferation, which was significantly reduced by exposure to ACTZ or acidosis. ACTZ or acidosis treatment also restored mRNA levels of contractile markers. Additionally, PASMCs isolated from control, SU/Hx and ACTZ-treated animals retained their respective phenotypes *in vitro* across a panel of markers. Subsequent to stimulation with 20% FBS, PASMCs of SU/Hx rats underwent significantly higher rates of proliferation, while cells from ACTZ-treated rats proliferated similarly to controls.

Conclusion Acetazolamide partially restores RPASMC phenotypic switching and it may do so through induction of extracellular acidosis.

G567(P) EXPLORING PAEDIATRIC TRAINEES' EXPERIENCE AND TRAINING IN NEONATAL AIRWAY MANAGEMENT SKILLS

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Background Effective and timely airway management is crucial to successful neonatal resuscitation. Successful airway management requires training and maintaining ongoing experience, as well as a unique set of skills and equipment appropriate for the neonatal population. Level 1 trainees are required by the Royal College of Paediatrics and Child Health (RCPCH) to undertake 'advanced airway support, including tracheal intubations'. However, trends towards non-invasive respiratory support, fewer opportunities to practice at the workplace and lack of training have hindered the acquisition of these important procedural skills.

Aims To understand the experience and training of paediatric junior doctors and Advanced Neonatal Nurse Practitioners (ANNPs) in neonatal airway management skills, with a particular focus on neonatal intubation, use of videolaryngoscopy and laryngeal mask airways (LMA).

Methods An online survey was sent to trainee paediatricians and ANNPs in the UK and Ireland via deanery tutors, trainee representatives and the British Association of Perinatal Medicine (BAPM). Respondents reported their experience and training in neonatal intubation and LMA use.

Results The survey received 705 responses. Of these, 196 were junior trainees (ST1-3), 404 were senior trainees (ST4-8), 74 were ANNPs, 31 were clinical fellows. Experience levels were reported as: 42 (6%) no experience of intubation,

291 (41%) <5 term intubations and 235 (33%) <5 preterm intubations. 65% of respondents reported never receiving neonatal intubation training. Videolaryngoscopy is used mainly for difficult airway management (27%); only 7% prefer its use in neonatal intubation. 44% of respondents have had training in using LMAs in neonates, but only 6% have used it on a newborn infant. 70% of trainees strongly felt that a structured training programme would help them to become more confident in neonatal airway management.

Conclusion An alarmingly small number of paediatric junior doctors and ANNPs have formal neonatal intubation/LMA placement teaching, or exposure to practical experience. Developing effective strategies to train paediatric trainees in neonatal airway management is important. Videolaryngoscopy offers a powerful educational means for real-time coaching and teaching neonatal intubation.

G568(P) CHOOSING THE BEST WAY TO FAIL AN UNACHIEVABLE AUDIT STANDARD: ADMISSION HYPOTHERMIA VERSUS ADMISSION HYPERTHERMIA IN THE PRETERM NEWBORN

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Aim The National Neonatal Audit Programme (NNAP) standard states that 90% of babies admitted before 32 weeks gestation should have a temperature at admission between 36.5°C to 37.5°C.

In 2017, only 5 units achieved this standard, all of these admitted less than 25 babies. Failure may occur because of too many babies <36.5°C or too many babies >37.5°C. In units with more than 50 admissions, there is an inverse correlation between the proportion <36.5°C and >37.5°C ($r = -0.35$, $p = 0.0002$). The price of avoiding hypothermia is an increase in hyperthermia. But are both of these reasons for failure equivalent?

We aimed to compare the short term outcomes of hypothermic, normothermic and hyperthermic very low birth weight (VLBW) babies.

Method Data collected from inborn VLBW admissions between 2010 and 2017 were analysed to compare outcomes in the three groups.

Results Data were available for 1104 babies and are shown in the table 1. Outcomes in the hypothermic and hyperthermic groups were compared to the normothermic outcomes. The only statistically significant difference was the increased rate of major cranial ultrasound abnormality seen in the hyperthermic babies ($p=0.006$).

Abstract G568(P) Table 1

	<36.5	36.5 to 37.5	>37.5
n	155 (14%)	695(63%)	254 (23%)
Survival%	81.9	84.3	83.5
Major cranial ultrasound abnormality%	8.5	9	15.5
Bronchopulmonary dysplasia%	34.5	42.4	47
Retinopathy of prematurity treated%	4.5	4	6.3
Necrotising enterocolitis%	4.5	7.6	8.2