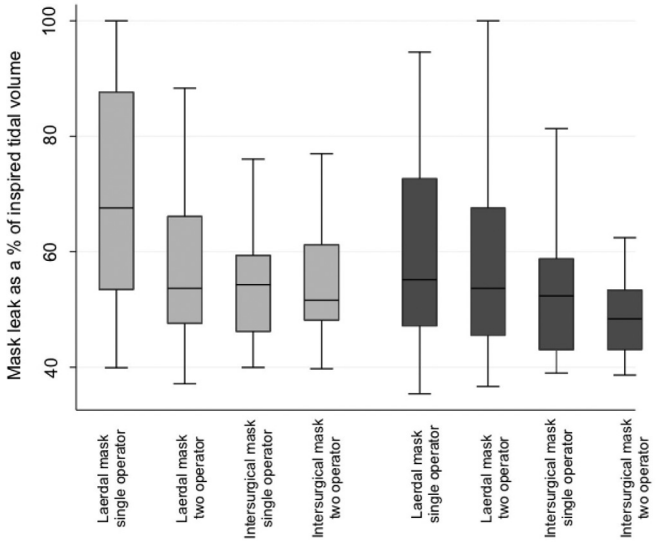
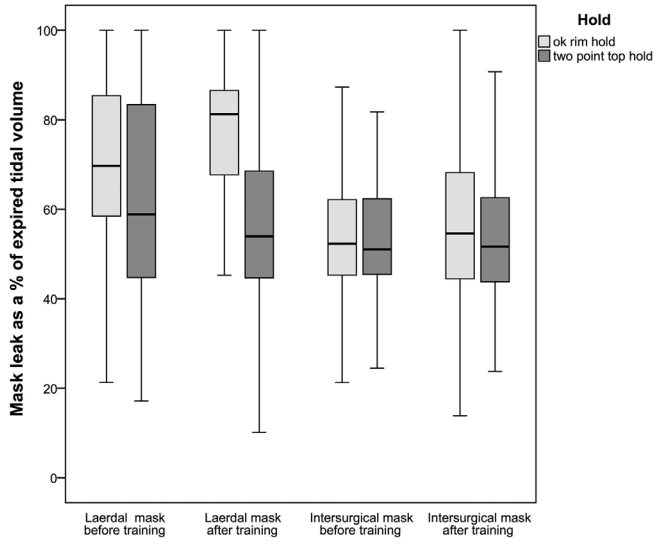


Abstract PS-224 Figure 1



Abstract PS-224 Figure 2

0.4) and chin lift manoeuvre (score: 2.3 ± 0.2 vs. 3.5 ± 0.2) during PPV, however mask leak was not significantly reduced.

Conclusion A self-instructional educational video on adequate bag mask ventilation significantly improves performance quality scores in novice health care providers.

PS-225 RISK FACTORS (RF) ASSOCIATED WITH ADVANCED NEONATAL RESUSCITATION IN = 34 W GA NEWBORNS: A MULTICENTER, PROSPECTIVE, CASE-CONTROLLED STUDY. THE ADVANCED NEONATAL RESUSCITATION (ANR) STUDY

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Abstract PS-225 Table 1

Variables	OR	P	95% (CI)
GA < 37wk (GA < 37)	3.0	0.001	(2.0–4.6)
Eclampsia (EC)	6.0	0.049	(1.0–36.6)
Maternal fever during labour (MFL)	7.8	0.001	(3.1–20.0)
Clinical chorioamnionitis (CC)	6.1	0.005	(1.7–22.0)
Fetal bradycardia (FB)	20.9	0.001	(11.3–38.6)
Abruptio placentae (AP)	21.7	0.001	(8.1–57.7)
MSAF	11.3	0.001	(7.3–17.6)
Emergency CS (ECS)	14.1	0.001	(8.6–23.1)
General anaesthesia (Ga)	17.2	0.001	(6.9–42.9)
PROM >18 h	2.10	0.003	(1.2–3.4)

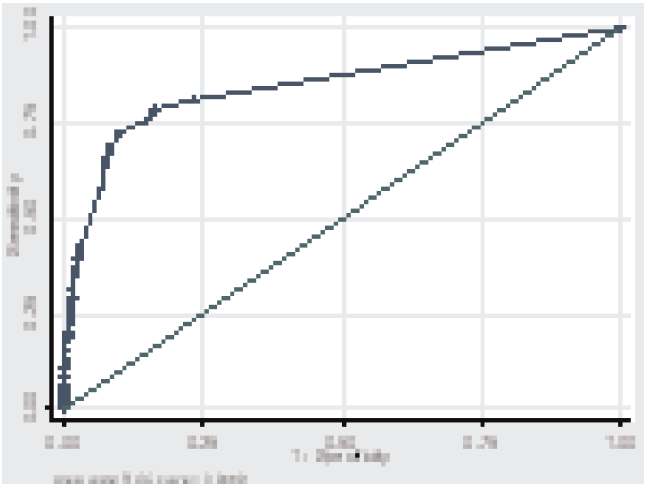
10.1136/archdischild-2014-307384.524

Background Approximately 1% of newborns (NB) require advanced resuscitation (AR) [intubation (ET), and/or chest compression (CC) and/or medication (ME)] at birth. The NRP recommends checking risk factors maternal (MF), intrapartum (IF) and fetal (FF) before each birth (evidence level of expert recommendation) but the need for a team with advanced skills after risk factors have been identified remains undetermined. This imprecision leads to underprovision of expertise which is unsafe or costly overprovision of expertise.

Objective To evaluate the relationship of RF and the need for AR in NB ≥34 w gestational age (GA).

Design/methods Prospective, case-controlled study conducted in 16 sites (ARG, CHL, USA and BRA) during 18 months. DR management followed NRP guidelines. Eligible cases were NB ≥34 w GA receiving AR at birth and the 4 consecutive NB not requiring AR were selected as controls for the study. Exclusion criteria: prenatal diagnosis of major congenital malformations. Univariate analysis and multivariate logistic regression (MLR) were used to estimate OR and the associated 95% CI.

Results From 61,593 deliveries, 58,429 NB were ≥34w GA (95%). Out of 219 NB receiving AR (0.37%), 23 were excluded, resulting in 196 cases and 784 controls. We found 21 RF



Abstract PS-225 Figure 1

Abstract PS-226 Table 1

	TP				SIB			
	40	60	80		40	60	80	
VR†	39.7(0.3)	59.8(0.5)	79.8(1)	p Value	39.8(0.2)	59.8(0.4)	79.6(0.7)	p Value
Inspiratory tidal volume†	27.9(16.6)	22.6(7.4)	19.3(4.1)	< 0.001**	33.4(17.7)	25.8(9.7)	24.4(5.1)	<0.001**
Mean Airway Pressure† (MAP)	8.9(2.1)	11(1.5)	11.5(1.6)	< 0.001*	5(2)	6.5(1.8)	8.2(1.7)	<0.001*
I/E Ratio†	0.26(0.25)	0.43(0.8)	0.48(0.18)	< 0.001*	0.35(0.25)	0.45(0.2)	0.67(0.23)	<0.001*

† Mean (SD) * RM ANOVA **RM ANOVA on ranks

statistically associated with AR. The MLR correctly classified 87% of the observations.

Conclusion NB of pregnant women presenting the following RF: GA < 37, EC, MFL, CC, FB, AP, MSAF, ECS, Ga and PROM (Premature rupture of membranes) >18 h have an increased need of Advanced Resuscitation (AR). Team trained to should be present at the delivery for pregnant women with the above risk factors.

MLR to AR

PS-226 EFFECTS OF DIFFERENT VENTILATION RATE (VR) TARGETS IN A MODEL OF NEONATAL MANUAL POSITIVE PRESSURE VENTILATION (PPV)

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10.1136/archdischild-2014-307384.525

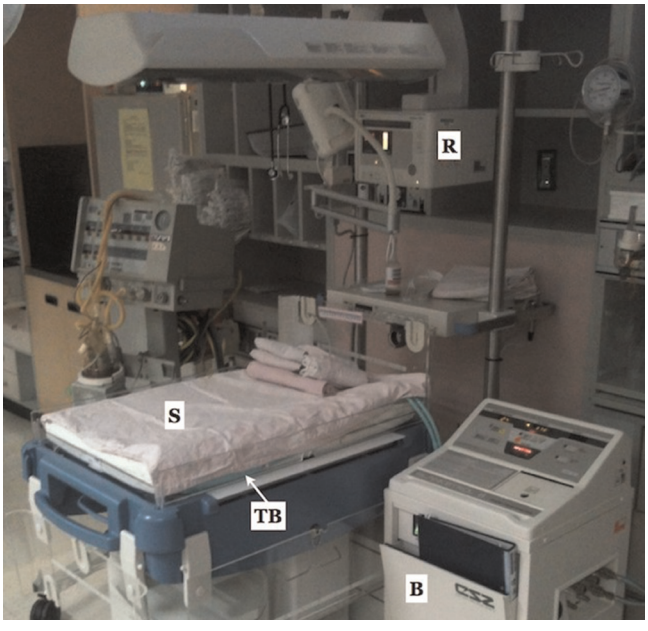
Background Current recommendations for manual PPV in the delivery room allow a VR range of 40–60 ventilations/min. However, not enough studies have explored the effects of VR on resuscitation.

Objective To evaluate the effect of different VR targets on other ventilatory variables during manual PPV.

Methods 20 physicians manually ventilated an intubated neonatal manikin with both a self-inflating bag (SIB) without a PEEP valve and a T-piece resuscitator (TP). Peak inspiratory pressure (PIP) target was 25 cmH_2O, PEEP was set to 5 on the TP and flow was kept at 8 l/min. VR (40, 60 and 80 vent/min) was paced by a metronome. Both, VR targets and PPV device sequences, were randomly assigned. Variables were compared by one-way repeated measures ANOVA.

Results Participants performed 9450 ventilations in 6 series of 90 seconds. For both devices there were no significant modifications in PIP and inspiratory time (T_i)between VR targets.

Conclusions Higher VR increased I/E ratio and provided higher MAP despite similar PIP. Further studies are needed to evaluate if targeting VR can influence the response to PPV in delivery room.



Abstract PS-227 Figure 1

PS-227 A RANDOMISED TRIAL OF USING THERMAL BLANKET TO IMPROVE THERMOREGULATION AMONG PRETERM INFANTS

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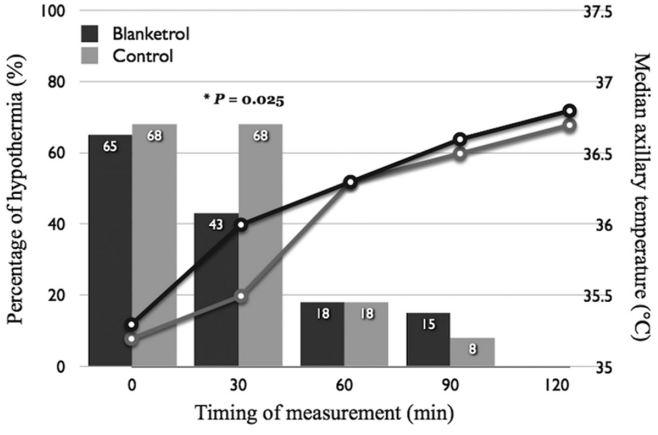
10.1136/archdischild-2014-307384.526

Background Thermal protection is critical in caring very low birthweight (VLBW).

Methods VLBW infants born at Chang-Gung Memorial Hospital were randomly assigned to TB or control group from February to July 2013. All infants were placed on a pre-warmed radiant warmer upon admission. For TB group, blanket of Blanketrol® II (Cincinnati Sub-Zero Products) was additionally applied (Figure 1) and system temperature was set 37°C. Individual's temperature, heart rate, mean blood pressure (MAP), and oxygen saturation were measured immediately at admission and at 30th, 60th, 90th, 120th minute later, respectively. We defined hypothermia as temperature <36°C and hypotension as MAP < index infant's gestational age (GA).



Abstract PS-227 Figure 2