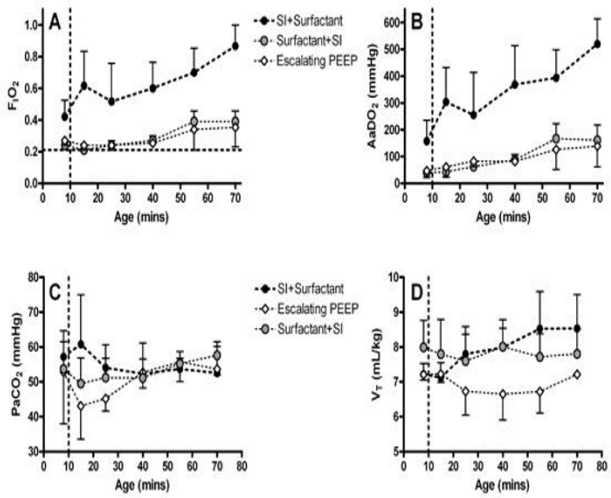
Conclusions: Exploring the interaction between type of recruitment manoeuvre and adjunctive therapies birth using methods which may be translatable to the clinical environment is feasible and may yield interesting results.

Figure 1. Influence of three different recruitment strategies at birth on FIO2 (**A**), $AaDO_2$ (**B**), $PaCO_2$ (**C**) and V_T (**D**)



[Figure 1]

1330

CAN NON-INVASIVE VENTILATION BE AN ALTERNATIVE TO MANAGE RESPIRATORY FAILURE IN CHILDREN WITH MODERATE TO SEVERE NEUROLOGICAL IMPAIRMENT?

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Background & aims: Invasive ventilation for respiratory failure in children

with moderate to severe neurological impairment is complex. We report the experience of non-invasive ventilation in these patients having moderate to severe neurological impairment in a 6 bedded paediatric critical care unit.

Methods: We retrospectively analysed a database of all children admitted unit at over a 33month period. We analysed the sub-group of children with moderate to severe neurological impairment who were ventilated, either invasively or non-invasively.

Results: Over the study period, of 362 (32.8%) who required ventilatory support, 92 were classed as having moderate to severe neurological impairment. Demographic details are shown in Table.

Of the patients receiving both non-invasive and invasive ventilation, 6 failed with NIV, requiring invasive ventilation, while in 3 others received NIV post-extubation.

There was no significant difference between the groups in terms of length of stay (p=0.112) or survival (p=0.98).

Conclusions: NIV is a safe mode to support children with moderateto severe neurological deficit.

	NIV exclusive	IV exclusive	Mixed IV/NIV	Total
Total patients	30	51	11	92
"Age [yrs] Median (IQR)"	5.40 (1.73-6.86)	5.54 (2.85-10.42)	4.93 (3.44-9.41)	5.54 (2.27-9.49)
Sex M:F	15:15	22:29	6:5	43:49
"Days ventilated Median (IQR)"	1.5 (0.25-4.75)	1 (1-2.5)	6 (1-8)	1 (1-4)
"Length of stay Median (IQR)"	2 (1-6.75)	2 (1-11.08)	4 (1-6)	2 (1-6)]
Readmitted (%)	4 (13.3)	7 (13.7)	2 (18.2)	13 (14.1)
"Survived (% of total patients)"	28 (93.3)	50 (98.0)	10 (90.9)	88 (95.7)
"PIM2 predicted mortality (%) Median(IQR)"	1.08 (0.70-1.31)	3.20 (1.28-5.54)	1.15 (0.98-3.39)	1.59 (1.1-3.71)

[Demographic Patient Profile]

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A COMPARISON OF DIFFERENT BEDSIDE TECHNIQUES OF DETERMINING ENDOTRACHEAL TUBE MALPOSITION

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Background: Endotracheal tube (ETT) malposition is common but rapid identification of exact position of the tube is difficult at the bedside.