

## TABLES

**Table 1:** Demographics and general clinical data

	Total patients
	n=26
Age, mo, median (IQI)	1 (1-2)
PICU admission weight, gr, median, (IQI)	4200 (3375-5000)
Gestational age, days, median, (IQI)	268 (258-280)
Sex, male/female	16/10
Weight at birth, gr, median, (IQI)	2950 (2565-3457)
Breastfeeding, n (%)	18 (69)
Previous administration of palivizumab, n (%)	2 (8)
Apneas, n (%)	7 (27)
Comorbidities, n (%)	3 (12)
Atopy parents, n (%)	9 (35)
Smoking parents, n (%)	4 (15)
Siblings, n (%)	23 (89)

IQI= interquartile interval. PICU= Pediatric Intensive Care Unit.

**Table 2:** Ultrasonographic parameters in the first ultrasound depending related to radiological involvement of the lower lobes

Lower lobes involvement	Yes N=9	No N=17	p
Left DTf, %, (IQI)	35 (21-54)	18 (12-27)	0.025*
Right DTf, %, (IQI)	30 (12-35)	25 (17-36)	0.846
Left dExc, mm, (IQI)	6 (4.2-7.5)	6.9 (4.6-8.9)	0.491
Right dExc, mm, (IQI)	5.6 (3.5-6)	6.4 (5.3-7.7)	0.045*
Left SPcont, cm/s, (IQI)	1.3 (0.6-2.9)	1.8 (1.6-2.9)	0.263
Right SPcont, cm/s, (IQI)	1.4 (1.1-1.9)	1.9 (1.4-3.2)	0.120

DExc diaphragm excursion, DTf diaphragm thickening fraction, IQI Interquartile interval, SPcont speed of contraction of diaphragm

**Table 3:** Diaphragmatic ultrasound parameters with HFNC related to escalation of respiratory support.

	HNFC to HNFC N=21	HFNC to NIV N=6	HFNC to CMV <sup>a</sup> N=2	1 vs 2	2 vs 3	1 vs 3
Left DTf, %, (IQI)	25 (14-38)	22 (13-30)	46.5 (15)	0.600	<b>0.046*</b>	0.127
Right DTf, %, (IQI)	20 (14-31)	29 (23-32)	39.5 (35)	0.243	0.739	0.230
Left EXC, mm, (IQI)	6.2 (5.3-8)	6.2 (5.4-9)	6.1 (2.2)	0.726	0.505	0.827
Right EXC, mm, (IQI)	5.6 (4.8-7.5)	6.7 (5.6-8.3)	5.2 (1.1)	0.221	0.182	0.548
Left SPcont, cm/s, (IQI)	1.8 (1.2-2.2)	1.7 (1.3-4)	1.6 (0.3)	0.771	0.739	0.663
Right SPcont, cm/s, (IQI)	2 (1.2-2.3)	2 (1.2-3.2)	1.1 (0.3)	0.560	0.182	0.081
Left Inspiratory Time, seg, (IQI)	0.41 (0.34-0.55)	0.31 (0.24-0.47)	0.40 (0.05)	0.115	0.505	0.913
Left Expiratory Time, seg, (IQI)	0.67 (0.56-0.76)	0.55 (0.43-0.75)	0.28 (0.09)	0.232	<b>0.046*</b>	<b>0.038*</b>
Left I:E ratio (IQI)	0.65 (0.51-0.81)	0.59 (0.49-0.74)	1.48 (0.33)	0.683	<b>0.046*</b>	<b>0.038*</b>
Right Inspiratory Time, seg, (IQI)	0.43 (0.36-0.47)	0.39 (0.26-0.46)	0.42 (0.13)	0.307	0.505	0.956
Right Expiratory Time, seg, (IQI)	0.60 (0.47-0.72)	0.64 (0.36-0.70)	0.32 (0.26)	0.683	0.182	0.064
Right I:E ratio (IQI)	0.68 (0.57-0.90)	0.63 (0.56-0.89)	1.44 (0.72)	0.861	0.096	<b>0.022*</b>
Respiratory rate	44 (32-52)	34 (31-63)	76 (28)	0.755	0.143	<b>0.032*</b>

Abbreviations: DTf diaphragm thickening fraction, EXC excursion of diaphragm, SPcont speed of contraction of diaphragm, I:E Inspiratory:Expiratory, IQI Interquartile Interval .<sup>a</sup> Only two measurements were made in this group. Results show: Median (Interquartile Range)

**Table 4** Diaphragmatic ultrasound parameters with NIV related to escalation of respiratory support.

	NIV to NIV	NIV to CMV	p
	N=14	N=1	
Left DTf, %, (IQI)	22 (15-29)	67	0.133
Right DTf, %, (IQI)	26 (22-42)	36	0.714
Left AMP, mm, (IQI)	6.5 (3.9-9.5)	9	0.667
Right AMP, mm, (IQI)	6.7 (4.5-9.3)	4.4	0.533
Left SPcont, cm/s, (IQI)	2.3 (0.8-3.1)	2.7	0.667
Right SPcont, cm/s, (IQI)	1.7 (1.2-3)	1.7	1
Left Inspiratory Time, seg, (IQI)	0.39 (0.3-0.59)	0.33	0.667
Left Expiratory Time, seg, (IQI)	0.66 (0.57-0.86)	1.7	0.133
Left I:E ratio (IQI)	0.69 (0.44-0.92)	0.19	0.133
Right Inspiratory Time, seg, (IQI)	0.45 (0.32-0.5)	0.25	0.4
Right Expiratory Time, seg, (IQI)	0.64 (0.55-0.88)	1.3	0.267
Right I:E ratio (IQI)	0.57 (0.46-0.82)	0.2	0.133

Abbreviations: DTf diaphragm thickening fraction, AMP amplitude of diaphragm, SPcont speed of contraction of diaphragm, I:E Inspiratory:Expiratory, IQR Interquartile Range.

