

Table 1. Baseline characteristics at the time of data collection.

	Total (<i>n</i> = 354)	Invasive NAVA (<i>n</i> = 269)	Noninvasive NAVA (<i>n</i> = 85)
Day of life, day	43 (1–90)	36 (1–90)	53 (3–87)
Postmenstrual age, week	31 ⁺⁶ (24 ⁺² –36 ⁺⁶)	31 ⁺³ (24 ⁺² –36 ⁺⁶)	33 ⁺⁶ (24 ⁺² –36 ⁺¹)
Body weight, g	1,430 (550–3,260)	1,370 (550–3,260)	1,655 (645–3,070)
Ventilator setting			
FiO ₂ , %	30 (21–68)	30 (21–68)	28 (21–65)
PEEP, cmH ₂ O	6 (4–8)	6 (4–8)	6 (4–8)
NAVA level, cmH ₂ O/μV	1.5 (0–2.5)	1.5 (1.0–2.5)	1.2 (0–2.0)
PIP limit, cmH ₂ O	35 (20–65)	30 (25–35)	57 (20–65)
Apnea time, sec	3 (2–10)	3 (2–10)	5 (2–10)
Backup rate, /min	30 (16–40)	30 (16–40)	30 (16–30)

Abbreviations: NAVA, neurally adjusted ventilatory assist; FiO₂, fraction of inspired oxygen; PEEP, positive end-expiratory pressure; PIP, peak inspiratory pressure.

Values are median (range).

Table 2. Details of episodes of clinical deteriorations ($n = 7$).

Patient number	DOL (day)	Time	PMA (week)	Weight (g)	Diagnosis	Intervention	Changes on ventilator mode and settings
04	5	17:30	24 ⁺⁵	680	HS-PDA	Indomethacin therapy	NAVA (FiO ₂ 0.21, PEEP 6, NAVA level 1.2) → SIMV (FiO ₂ 0.3, PEEP 6/PIP 18, RR 30)
04	13	01:57	25 ⁺⁶	740	Clinical sepsis	Antibiotic therapy	NAVA (FiO ₂ 0.23, PEEP 7, NAVA level 2.0) → SIMV (FiO ₂ 0.3, PEEP 7/PIP 20, RR 40)
05	18	07:47	26 ⁺⁰	760	Clinical sepsis	Antibiotic therapy	NAVA (FiO ₂ 0.33, PEEP 6, NAVA level 2.0) → SIMV (FiO ₂ 0.5, PEEP 6/PIP 23, RR 40)
06	8	11:10	24 ⁺⁴	590	HS-PDA	Indomethacin therapy	NAVA (FiO ₂ 0.33, PEEP 6, NAVA level 2.0) → SIMV (FiO ₂ 0.5, PEEP 6/PIP 23, RR 40)
07	6	23:40	27 ⁺³	810	Clinical sepsis	Antibiotic therapy	NAVA (FiO ₂ 0.27, PEEP 6, NAVA level 2.0) → SIMV (FiO ₂ 0.38, PEEP 6/PIP 20, RR 40)
14	63	13:48	36 ⁺¹	2890	VAP	Antibiotic therapy	NAVA (FiO ₂ 0.45, PEEP 6, NAVA level 1.8) → SIMV (FiO ₂ 0.50, PEEP 6/PIP 22, RR 20)
16	29	03:40	27 ⁺⁶	785	NEC	No enteral feeding, antibiotic therapy, laparotomy	NAVA (FiO ₂ 0.40, PEEP 8, NAVA level 2.0) → HFO (FiO ₂ 1.0, MAP 13,5, Amplitude 42)

Abbreviations: DOL, day of life; PMA; postmenstrual age; HS-PDA; hemodynamically significant patent ductus arteriosus; VAP, ventilator-associated pneumonia; NEC, necrotizing enterocolitis; NAVA, neurally adjusted ventilatory assist; SIMV, synchronized intermittent mandatory ventilation, FiO₂, fraction of inspiratory oxygen; PEEP, positive end-expiratory pressure; PIP, peak inspiratory pressure; RR, respiratory rate; HFO, high-frequency oscillation; MAP, mean airway pressure.