

# Gasto cardíaco por ECOTT vs Fick

## Parte 1: Descriptivos

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2025-06-08

### Descriptive characteristics of participants

A total of 243 TTE cardiac output measurements were performed in 81 different time points, from a total number of 52 unique participants. The number of time points assessed per patient was 1 (n = 37), 2 (n = 8), 3 (n = 5), 4 (n = 1), 9 (n = 1). The summary of characteristics of participants is shown in **Table 1**.

Variable	Total sample (N = 52)
Age (years)	
Mean (SD)	45.7 (16.5)
Sex, n (%)	
Female	22 (42.3%)
Male	30 (57.7%)
BMI (kg/m <sup>2</sup> )	
Median (IQR)	25.9 (22.5 - 30.3)
BMI categories, n (%)	
Normal	19 (36.5%)
Overweight	17 (32.7%)
Obesity class I	7 (13.5%)
Obesity class II	8 (15.4%)
Obesity class III	1 (1.9%)
Comorbidities, n (%)	
No comorbidities	10 (19.2%)
Overweight/obesity	33 (63.5%)
Type 2 diabetes mellitus	11 (21.2%)
Systemic arterial hypertension	7 (13.5%)
Alcoholism	3 (5.8%)

Variable	Total sample (N = 52)
Chronic obstructive pulmonary disease	3 (5.8%)
Chronic kidney disease	2 (3.8%)
Type 1 diabetes mellitus	2 (3.8%)
Epilepsy	1 (1.9%)
Human immunodeficiency virus infection	1 (1.9%)
Malnutrition	1 (1.9%)
Parkinson's disease	1 (1.9%)
Pulmonary arterial hypertension	1 (1.9%)
Diagnosis, n (%)	
Sepsis	24 (46.2%)
Trauma/Surgical	16 (30.8%)
Acute respiratory distress syndrome	11 (21.2%)
Acute kidney injury	8 (15.4%)
Cardiovascular	5 (9.6%)
Pancreatitis	4 (7.7%)
Diabetic ketoacidosis	3 (5.8%)
Upper gastrointestinal bleeding	1 (1.9%)

## Patient status at the moment of measurement

Out of the total number of measurements, 31 (38.3%) measurements were taken while the patient was under vasopressor use. The number of measurements taken while the patient was under inotropics use was 3 (3.7%). A total of 5 and 1 participants underwent changes in vasopressor and inotropics use in between measuring time points, respectively. The mean blood pressure was 83.6 (SD: 11.5) mmHg; and heart rate, 94.7 (SD: 19.7) bpm; and median FiO<sub>2</sub>, 0.33 (IQR: 0.28 - 0.4). A summary of the blood gas analysis is shown in **Table 2**.

The ventilation mode at the moment of measurement was Without MV (n = 32, 39.5%), MR (n = 2, 2.5%), HFNC (n = 5, 6.2%), Spontaneous (n = 5, 6.2%), CPAP|PS (n = 20, 24.7%), ACV (n = 17, 21.0%). Of the participants who were under IMV (CPAP|PS or ACV), the median PEEP value was 5 (IQR: 5 - 5.5) cmH<sub>2</sub>O; FiO<sub>2</sub>, 0.38 (IQR: 0.3 - 0.47); Pmax, 22 (IQR: 19.75 - 25); and mean Vt 377.9 (SD: 109). In those with the ACV mode, the median Pmes and DP were 22 (IQR: 16 - 23) and 14 (IQR: 12 - 17) cmH<sub>2</sub>O, respectively.

Variable (Unit)	N = 81 <sup>†</sup>
lactate (mmol/L)	
Mean (SD)	1.64 (1.47)
Median (Q1 - Q3)	1.40 (0.80 - 1.90)
FiO2 (%)	
Mean (SD)	0.36 (0.16)
Median (Q1 - Q3)	0.33 (0.28 - 0.40)
pH	
Mean (SD)	7.47 (0.40)
Median (Q1 - Q3)	7.44 (7.38 - 7.50)
HCO3 (mmol/L)	
Mean (SD)	25.18 (6.34)
Median (Q1 - Q3)	25.00 (21.00 - 28.70)
base deficit (mmol/L)	
Mean (SD)	2.09 (9.87)
Median (Q1 - Q3)	0.40 (-4.10 - 7.30)
PaO2 (mmHg)	
Mean (SD)	70.58 (14.49)
Median (Q1 - Q3)	69.00 (62.00 - 76.00)
PaCO2 (mmHg)	
Mean (SD)	37.36 (10.39)
Median (Q1 - Q3)	36.00 (30.00 - 42.00)
SaO2 (%)	
Mean (SD)	0.94 (0.04)
Median (Q1 - Q3)	0.94 (0.92 - 0.96)
PvO2 (mmHg)	
Mean (SD)	37.32 (8.73)
Median (Q1 - Q3)	36.00 (32.00 - 41.00)
PvCO2 (mmHg)	
Mean (SD)	43.42 (10.53)
Median (Q1 - Q3)	43.00 (37.00 - 49.00)
SvO2 (%)	
Mean (SD)	0.66 (0.14)
Median (Q1 - Q3)	0.68 (0.56 - 0.76)
PAIvO2 (mmHg)	
Mean (SD)	187.60 (103.85)
Median (Q1 - Q3)	168.50 (120.00 - 216.00)
CcO2 (%)	
Mean (SD)	15.49 (4.09)
Median (Q1 - Q3)	15.51 (12.60 - 18.50)
CaO2 (ml/dl)	
Mean (SD)	14.24 (3.76)
Median (Q1 - Q3)	14.34 (10.98 - 16.99)
CvO2 (ml/dl)	
Mean (SD)	10.13 (3.73)
Median (Q1 - Q3)	10.00 (6.73 - 13.39)
DavO2 (ml/dl)	
Mean (SD)	4.11 (2.09)
Median (Q1 - Q3)	3.73 (2.80 - 4.81)
ExO2 (%)	

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