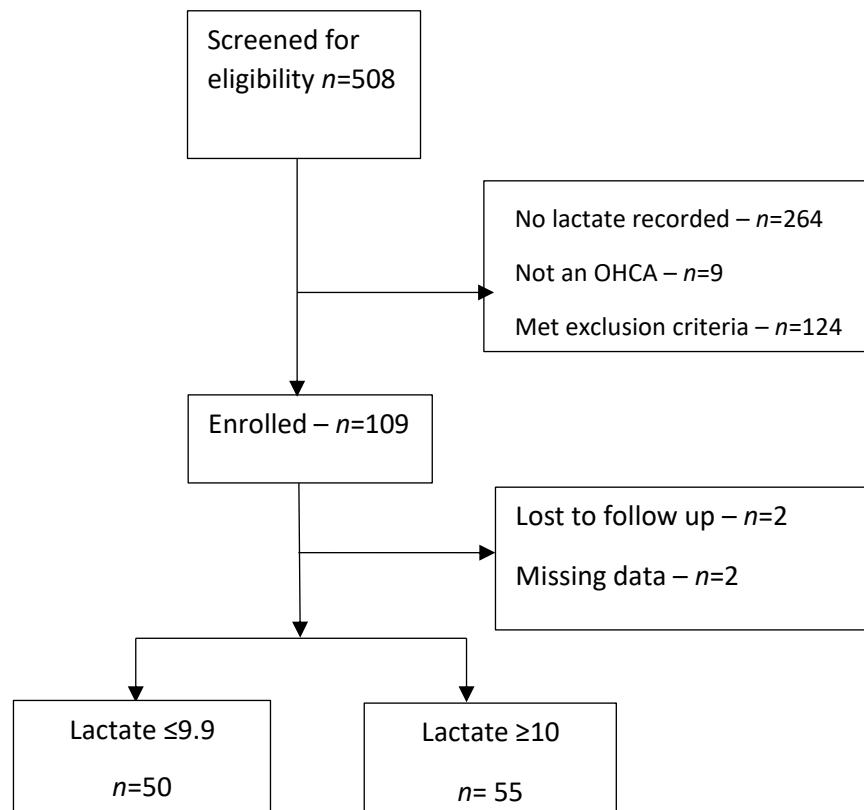


Participant flow



Baseline characteristics

	Group 1 (lactate ≤9.9)	Group 2 (lactate ≥10)	<i>p</i> value	95% CI
<i>N</i>	50	55		
Mean age (years)	63	60.3	0.4	-9.2 to 3.2
Sex (male)	39(78%)	28(50%)	<0.01	
Median lactate concentration (range)	7.3mmol/L (2.1-7.4)	14.2mmol/L (10.1-HI)		
Public location	7/50(14%)	7/54(13%)	0.87	
Witnessed OHCA*	25/49(50%)	31/53(56.3%)	0.44	
BCPR*	41/48(82%)	46/53(83.6%)	0.84	
Supraglottic airway	40(80%)	47(85.5%)	0.45	
Endotracheal tube	9(18%)	6(11%)	0.3	
BVM only**	1(2%)	2(4%)	N/A	
Initial rhythm shockable: VF	20(40%)	8(14.5%)	<0.01	
Initial rhythm non-shockable: asystole/PEA	30(60%)	47(85.5%)	<0.01	
Mechanical CPR	16(32%)	18(32.7%)	0.93	
Intravenous drug route	30(60%)	27(49%)	0.26	
Intraosseous drug route	16(32%)	24(43.6%)	0.22	
IV and IO drug route**	4(8%)	4(7.2%)	N/A	
Arrest to EMS arrival interval	9 minutes 13 seconds	9 minutes 58 seconds	0.62	-2.2 to 3.7
Arrest to ROSC interval	37minutes 38seconds	39minutes 13seconds	0.79	-11 to 14
Arrest to ROLE interval	45 minutes 57 seconds	47 minutes 3 seconds	0.71	-4.7 to 6.9
Number of adrenaline mg (mean)	4.8	4.3	0.18	-1.2 to 0.3
Number of shocks (mean)	3.2	0.98	<0.01	0.8 to 3.6
Time to first epinephrine interval (mean)	12minutes 48seconds	14minutes 3seconds	0.45	-2 to 4.7

Table 1. Participant characteristics by group

*Missing data, ** insufficient data to compute χ^2 . VF = ventricular fibrillation. PEA = pulseless electrical activity. ROLE = recognition of life extinct. ROSC = return of spontaneous circulation.

P- value for differences in OHCA characteristics between groups

Outcome measures

Primary outcome

	Group 1 (lactate ≤ 9.9)	Group 2 (lactate ≥ 10)	<i>p</i> value
Total conveyed to hospital (<i>n</i>)	15	17	
Survival to hospital with ROSC	11/50(22%)	14/55(25.5%)	0.67
Conveyed with CPR ongoing	4/50(8%)	3/55(5.5%)	0.61

Table 2. Primary outcome by group

P-value for outcome between groups

Secondary outcomes

	Group 1 (lactate \leq 9.9)	Group 2 (lactate \geq 10)	<i>p</i> value
ROSC at any time	18/50(36%)	19/55(34.5%)	0.87
Other outcomes			
Survived to 30 days**	1/15(7%)	1/17(6%)	N/A
Favourable neurological outcome (0-3 mRS)**	1/15(7%)	1/17(6%)	N/A
Deceased in ED	8/15(53%)	12/17(70.5%)	0.31
Survived \geq 24 hours	6/15(40%)	4/17(23.5%)	0.32
ROLE on scene	35/50(70%)	38/55(69%)	0.91

Table 3. Secondary and other outcomes by group

** insufficient data to calculate χ^2

P-value for outcome between groups

Secondary outcomes

	ROSC after arrival at hospital		ROSC any time	
	p value	95% CI	p value	95% CI
Numeric Predictors				
Lactate	0.99	-0.20 to 0.20	0.83	-0.18 to 0.22
Adrenaline	0.22	-0.27 to 0.12	0.11	-0.04 to 0.34
Defibrillation	0.16	-0.05 to 0.32	0.02	0.06-0.42
Age	0.89	-0.2 to 0.18	0.51	-0.13 - 0.25
Binary Predictors				
Sex	0.65	N/A	0.80	N/A
BCPR	0.16	N/A	0.30	N/A
Multilevel Predictors				
Asystole v PEA	0.09	N/A	0.10	N/A
Asystole v VF	<0.01	N/A	<0.01	N/A

Table 4. Logistic regression of independent predictors of ROSC after arrival at hospital and anytime

ROSC = return of spontaneous circulation. BCPR = bystander CPR. PEA = pulseless electrical activity. VF = ventricular fibrillation.

P-value for independent predictors of ROSC after arrival at hospital and anytime

CI = confidence interval

Adverse events

	Group 1 (lactate ≤ 9.9)	Group 2 (lactate ≥ 10)
Adverse events (<i>n</i>)	0	0

Table 5. Adverse events by group