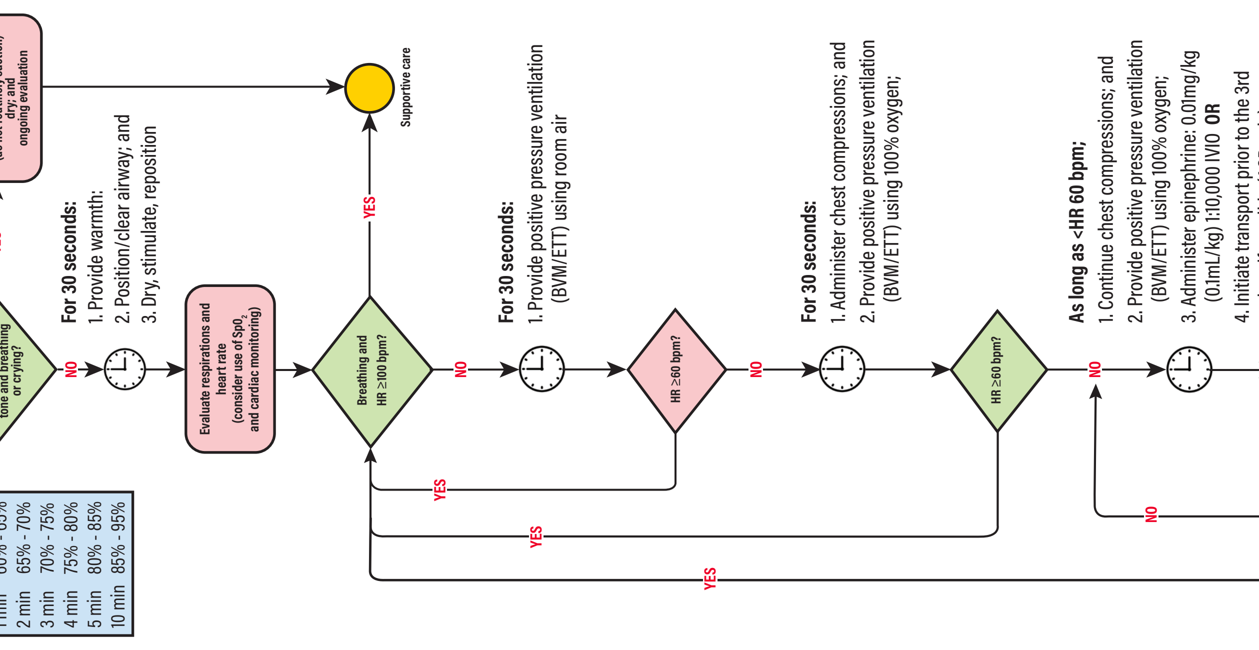
MEASURE FROM THIS END

CALCULATION BASIS

Resuscitation	
Epinephrine 1:10 000 (1mg/10mL) (IV/IO)	0.01mg/kg (0.1mL/kg) *min single dose 0.05mg
Epinephrine 1:1000 (1mg/mL) (ETT)	0.1mg/kg (0.5mL/kg) *min single dose 1mg, max 2mg
Amiodarone (150mg/3mL)	max 2 doses q4 min
1st dose	5mg/kg *max single dose 300mg
2nd dose	5mg/kg *max single dose 150mg
Defibrillation Doses	
1st shock	2J/kg
Subsequent shocks	4J/kg
Fluid Bolus	20mL/kg max 2000mL
Fluid Bolus ROSC	10mL/kg max 1000mL
Newborn Resuscitation	
Epinephrine 1: 10 000 IV/IO	0.01mg/kg (0.1mL/kg); Min dose 0.05mg (0.5mL q4min)
Epinephrine 1: 10 000 ETT	0.1mg/kg (1mL/kg); Max single dose 0.3mg (3mL); 1 dose only
Hypoglycemia	
Dextrose 10W 10g in 100mL	2 doses max; one every 10min
D10W Dose	0.2g/kg (2mL/kg)
< 2 years	max 5 g (50mL)
> 2 years	max 25g (250mL)
Seizure	
Midazolam (10mg/2mL) IV/IO	0.1mg/kg
IM/Buccal/IN	0.2mg/kg
Bronchoconstriction/Allergic Reaction	
Epinephrine 1:1000 (1mg/mL)	0.01mg/kg (0.01mL/kg, rounded to nearest 0.05mL). MAX single dose 0.5mg
Pain Management	
Morphine (10mg/mL) ≥1 year IV/SC	0.05mg/kg-0.1mg/kg (PATCH under 12 years); Max single dose 5mg q15min. Max cumulative dose 10mg
Fentanyl (100mcg/2mL) ≥ 1 year IV/IN	1mcg/kg; (PATCH under 12 years); Max single dose: 75mcg q5 min. Max cumulative dose 200mcg

NEWBORN RESUSCITATION ALGORITHM - 2023 UPDATE



Treatment

Targeted Preductal SpO_2 (Right Hand)	
1 min	60% - 65%
2 min	65% - 70%
3 min	70% - 75%
4 min	75% - 80%
5 min	80% - 85%
10 min	85% - 95%

3 - 4 - 5 KGS

RESUSCITATION	3kg	4kg	5kg
Epinephrine 1:10 000 (≥ 24hrs) IV/IO	0.05mg (0.5mL)	0.05mg (0.5mL)	0.05mg (0.5mL)
Epinephrine 1:1000 (≥ 24 hrs) ETT	0.5mg (1mL)	0.5mg (1mL)	0.5mg (1mL)
Amiodarone			
1st dose	15mg (0.3mL)	20mg (0.4mL)	25mg (0.5mL)
2nd dose	15mg (0.3mL)	20mg (0.4mL)	25mg (0.5mL)
DEFIBRILLATION DOSE (≥ 24 hrs)			
Initial shock (rounded for LP15)	6J	8J	10J
Subsequent shocks (rounded for LP15)	15J	15J	20J
Fluid Bolus (max vol) 20mL/kg	60mL	80mL	100mL
Fluid Bolus (max vol) 10mL/kg	30mL	40mL	50mL
NEWBORN RESUSCITATION (<24hrs)			
Epinephrine 1: 10 000 IV/IO	0.05mg (0.5mL)	0.05mg (0.5mL)	0.05mg (0.5mL)
Epinephrine 1: 10 000 ETT	0.3mg (3mL)	0.3mg (3mL)	0.3mg (3mL)
INTUBATION			
ETT size	3.0	3.0	3.0
ETT depth	9cm	9cm	9cm
iGel size	N/A	N/A	1.5
	3 KG	4 KG	5 KG

6 - 7 KGS

RESUSCITATION	6kg	7kg
Epi 1:10 000 IV/IO	0.06mg (0.6mL)	0.07mg (0.7mL)
Epi 1:1000 ETT	0.6mg (1mL)	0.7mg (1mL)
Amiodarone		
1st dose	30mg (0.6mL)	35mg (0.7mL)
2nd dose	30mg (0.6mL)	35mg (0.7mL)
DEFIB DOSE		
Initial	10J	15J
Subsequent	20J	30J
Bolus 20mL/kg	120mL	140mL
Bolus 10mL/kg	60mL	70mL
NEWBORN RESUSCITATION (<24hrs)		
Epi 1: 10 000 IV/IO	0.06mg (0.6mL)	0.07mg (0.7mL)
Epi 1: 10 000 ETT	0.3mg (3mL)	0.3mg (3mL)
INTUBATION		
ETT size	3.0	3.0
ETT depth	9cm	9cm
iGel size	1.5	1.5
	6 KG	7 KG

8 - 9 KGS

RESUSCITATION	8kg	9kg
Epi 1:10 000 IV/IO	0.08mg (0.8mL)	0.09mg (0.9mL)
Epi 1:1000 ETT	0.8mg (1mL)	0.9mg (1mL)
Amiodarone		
1st dose	40mg (0.8mL)	45mg (0.9mL)
2nd dose	40mg (0.8mL)	45mg (0.9mL)
DEFIB DOSE		
Initial	15J	20J
Subsequent	30J	30J
Bolus 20mL/kg	160mL	180mL
Bolus 10mL/kg	80mL	90mL
INTUBATION		
ETT size	3.0	3.0
ETT depth	9.0cm	9cm
iGel size	1.5	1.5
	8 KG	9 KG

10 - 11 KGS

RESUSCITATION	10kg	11kg
Epi 1:10 000 IV/IO	0.1mg (1mL)	0.11mg (1.1mL)
Epi 1:1000 ETT	1mg (1mL)	1.1mg (1.1mL)
Amiodarone		
1st dose	50mg (1.0mL)	55mg (1.1mL)
2nd dose	50mg (1.0mL)	55mg (1.1mL)
DEFIB DOSE		
Initial	20J	20J
Subsequent	50J	50J
Bolus 20mL/kg	200mL	220mL
Bolus 10mL/kg	100mL	110mL
INTUBATION		
ETT size	3.0	3.0
ETT depth	9cm	9cm
iGel size	1.5	1.5
	10 KG	11 KG

12 - 13 - 14 KGS

RESUSCITATION	12kg	13kg	14kg
Epi 1:10 000 IV/IO	0.12mg (1.2mL)	0.13mg (1.3mL)	0.14mg (1.4mL)
Epi 1:1000 ETT	1.2mg (1.2mL)	1.3mg (1.3mL)	1.4mg (1.4mL)
Amiodarone			
1st dose	60mg (1.2mL)	65mg (1.3mL)	70mg (1.4mL)
2nd dose	60mg (1.2mL)	65mg (1.3mL)	70mg (1.4mL)
DEFIB DOSE			
Initial	20J	30J	30J
Subsequent	50J	50J	50J
Bolus 20mL/kg	240mL	260mL	280mL
Bolus 10mL/kg	120mL	130mL	140mL
INTUBATION			
ETT size	3.5	3.5	4.0
ETT depth	10.5cm	10.5cm	12cm
iGel size	1.5	2	2
	12 KG	13 KG	14 KG

15 - 16 - 17 - 18 KGS

RESUSCITATION	15kg	16kg	17kg	18kg
Epi 1:10 000 IV/IO	0.15mg (1.5mL)	0.16mg (1.6mL)	0.17mg (1.7mL)	0.18mg (1.8mL)
Epi 1:1000 ETT	1.5mg (1.5mL)	1.6mg (1.6mL)	1.7mg (1.7mL)	1.8mg (1.8mL)
Amiodarone				
1st dose	75mg (1.5mL)	80mg (1.6mL)	85mg (1.7mL)	90mg (1.8mL)
2nd dose	75mg (1.5mL)	80mg (1.6mL)	85mg (1.7mL)	90mg (1.8mL)
DEFIB DOSE				
Initial	30J	30J	30J	30J
Subsequent	70J	70J	70J	70J
Bolus 20mL/kg	300mL	320mL	340mL	360mL
Bolus 10mL/kg	150mL	160mL	170mL	180mL
INTUBATION				
ETT size	4.0	4.0	4.0	4.5
ETT depth	12cm	12cm	12cm	13.5cm
iGel size	2	2	2	2
	15 KG	16 KG	17 KG	18 KG

19 - 20 - 22 KGS

RESUSCITATION	19kg	20kg	22kg
Epi 1:10 000 IV/IO	0.19mg (1.9mL)	0.2mg (2.0mL)	0.22mg (2.2mL)
Epi 1:1000 ETT	1.9mg (1.9mL)	2mg (2.0mL)	2mg (2.0mL)
Amiodarone			
1st dose	95mg (1.9mL)	100mg (2.0mL)	110mg (2.2mL)
2nd dose	95mg (1.9mL)	100mg (2.0mL)	110mg (2.2mL)
DEFIB DOSE			
Initial	30J	50J	50J
Subsequent	70J	70J	100J
Bolus 20mL/kg	380mL	400mL	440mL
Bolus 10mL/kg	190mL	200mL	220mL
INTUBATION			
ETT size	4.5	5.0	5.0
ETT depth	13.5cm	15cm	15cm
iGel size	2	2	2
	19 KG	20 KG	22 KG

24 - 26 - 28 KGS

RESUSCITATION	24kg	26kg	28kg
Epi 1:10 000 IV/IO	0.24mg (2.4mL)	0.26mg (2.6mL)	0.28mg (2.8mL)
Epi 1:1000 ETT	2mg (2.0mL)	2mg (2.0mL)	2mg (2.0mL)
Amiodarone			
1st dose	120mg (2.4mL)	130mg (2.6mL)	140mg (2.8mL)
2nd dose	120mg (2.4mL)	130mg (2.6mL)	140mg (2.8mL)
DEFIB DOSE			
Initial	50J	200J	200J
Subsequent	100J	300/360J	300/360J
Bolus 20mL/kg	480mL	520mL	560mL
Bolus 10mL/kg	240mL	260mL	280mL
INTUBATION			
ETT size	5.5	5.5	6.0
ETT depth	16.5cm	16.5cm	18cm
iGel size	2	2.5	2.5
	24 KG	26 KG	28 KG

30 - 32 - 34 - 36 KGS

RESUSCITATION	30kg	32kg	34kg	36kg
Epi 1:10 000 IV/IO	0.3mg (3.0mL)	0.32mg (3.2mL)	0.34mg (3.4mL)	0.36mg (3.6mL)
Epi 1:1000 ETT	2mg (2.0mL)	2mg (2.0mL)	2mg (2.0mL)	2mg (2.0mL)
Amiodarone				
1st dose	150mg (3.0mL)	160mg (3.2mL)	170mg (3.4mL)	180mg (3.6mL)
2nd dose	150mg (3.0mL)	150mg (3.0mL)	150mg (3.0mL)	150mg (3.0mL)
DEFIB DOSE				
Initial	200J	200J	200J	200J
Subsequent	300/360J	300/360J	300/360J	300/360J
Bolus 20mL/kg	600mL	640mL	680mL	720mL
Bolus 10mL/kg	300mL	320mL	340mL	360mL
INTUBATION				
ETT size	6.0	6.0	6.5	6.5
ETT depth	18cm	18cm	19.5cm	19.5cm
iGel size	2.5	2.5	2.5	3
	30 KG	32 KG	34 KG	36 KG

PEDIATRICS

AGE	RESPIRATORY RATE	HEART RATE
0-3 months	30-60	90-180
3-6 months	30-60	80-160
6-12 months	25-45	80-140
1-3 years	20-30	75-130
6 years	16-24	70-110
10 years	14-20	60-90

Normotension – SBP ≥ 90 mmHg + (2 x age in years)

Hypotension – SBP < 70 mmHg + (2 x age in years)

Weight (kg) = (age x 2) + 10

MIDDLESEX-LONDON PARAMEDIC SERVICE