

Supplementary Table 1. Results of the UK consensus Delphi Process to define life-saving Interventions.¹⁴

- 1 Intubation for actual airway obstruction
- 2 Intubation for impending airway obstruction
- 3 Surgical airway for airway obstruction
- 4 Surgical airway for impending airway obstruction
- 5 Needle thoracocentesis
- 6 Finger thoracostomy
- 7 Tube thoracostomy
- 8 Application of a chest seal (commercial/improvised)
- 9 Positive Pressure Ventilation for ventilatory inadequacy
- 10 Application of a tourniquet for haemorrhage control
- 11 Use of haemostatic agents for haemorrhage control
- 12 Insertion of an intra-osseous device for resuscitation purposes
- 13 Receiving uncross-matched blood
- 14 Receiving 4 units of blood/blood products
- 15 Administration of tranexamic acid
- 16 Laparotomy for trauma
- 17 Thoracotomy for trauma
- 18 Pericardial window for trauma
- 19 Surgery to gain proximal vascular control
- 20 Interventional radiology for haemorrhage control
- 21 Application of a pelvic binder
- 22 ALS/ACLS protocols for a patient in a peri-arrest situation
- 23 ALS/ACLS protocols for a patient in cardiac arrest
- 24 Neurosurgery for the evacuation of an intra-cranial haematoma
- 25 Craniotomy
- 26 Burr Hole Insertion
- 27 Spinal nursing for a C1-3 fracture
- 28 Administration of a seizure-terminating medication
- 29 Active rewarming for initial core temp <32 Celsius
- 30 Passive rewarming for initial core temp <32 Celsius
- 31 Correction of low blood glucose
- 32 Administration of chemical antidotes

Supplementary Table 2: Surrogates used for analysis of TARN database.23

	Defined LSI	Surrogate Applied
1	Intubation for actual or impending airway obstruction.	Intubation
2	Surgical airway for actual or impending airway obstruction.	Cricothyroidotomy, tracheostomy
3	Thoracostomy (needle/finger/tube).	Needle thoracocentesis, chest drain, tube drain into pleural cavity
4	Application of a chest seal (commercial/improvised).	Not searchable
5	Positive pressure ventilation for ventilatory inadequacy.	Manual, mechanical ventilation, respiratory arrest
6	Application of a tourniquet for haemorrhage control.	Direct compression of haemorrhage
7	Use of haemostatic agents for haemorrhage control.	Not searchable
8	Insertion of an intra-osseous device for resuscitation purposes.	Intraosseous cannulation
9	Receiving uncross-matched blood.	Not searchable
10	Receiving ≥ 4 units of blood/blood products.	≥ 4 units blood
11	Administration of tranexamic acid.	Tranexamic Acid
12	Laparotomy for trauma.	Laparotomy, Abdominal Packing, repair colon laceration, repair kidney laceration, repair liver laceration,
13	Thoracotomy or pericardial window for trauma.	Thoracotomy
14	Surgery to gain proximal vascular control.	Repair of artery
15	Interventional radiology for haemorrhage control.	Embolisation (interventional radiology)
16	Application of a pelvic binder.	Pelvic sling
17	ALS/ALS for a patient in a peri-arrest/cardiac arrest situation.	CPR, defibrillation
18	Neurosurgery for the evacuation of an intra-cranial haematoma.	Evacuation of EDH or SDH
19	Craniotomy/Burr hole insertion.	Craniectomy, open craniotomy, burrhole of cranium
20	Spinal nursing for a C1-3 fracture.	Spinal immobilisation AND C1,C2,C3 fractures OR Application of skeletal traction AND C1,C2,C3 fractures OR Spinal stabilisation AND C1,C2,C3 fractures
21	Administration of a seizure-terminating medication.	Anticonvulsant administration
22	Active/passive rewarming for initial core temp <32 degrees celcius.	Active warming
23	Correction of low blood glucose.	Glucose administration
24	Administration of chemical antidotes.	Not searchable

Supplementary Table 3: Comparison of previously published definitions of life-saving interventions.^{12,14,19}

Vassallo et al. ¹⁴	Lerner et al. ¹²	Newgard et al. ¹⁹
<ol style="list-style-type: none"> 1. Intubation for actual airway obstruction 2. Intubation for impending airway obstruction 3. Surgical airway for airway obstruction 4. Surgical airway for impending airway obstruction 5. Needle thoracocentesis 6. Finger thoracostomy 7. Tube thoracostomy 8. Application of a chest seal (commercial/improvised) 9. Positive Pressure Ventilation for ventilatory inadequacy 10. Application of a tourniquet for haemorrhage control 11. Use of haemostatic agents for haemorrhage control 12. Insertion of an intra-osseous device for resuscitation purposes 13. Receiving uncross-matched blood 14. Receiving 4 units of blood/blood products 15. Administration of tranexamic acid 16. Laparotomy for trauma 17. Thoracotomy for trauma 18. Pericardial window for trauma 19. Surgery to gain proximal vascular control 20. Interventional radiology for haemorrhage control 21. Application of a pelvic binder 22. ALS/ACLS protocols for a patient in a peri-arrest situation 23. ALS/ACLS protocols for a patient in cardiac arrest 	<ol style="list-style-type: none"> 1. Received >1 unit blood/blood products 2. Admitted to hospital for a spinal cord injury 3. Any advanced airway management 4. Thoracotomy or pericardiocentesis 5. Requirement for an emergency caesarean delivery due to injuries 6. Underwent intracranial pressure monitoring 7. Received interventional radiology for interventional or diagnostic purposes 8. Vascular, neurologic, abdominal, thoracic, pelvic, spine or limb-conserving surgery 	<ol style="list-style-type: none"> 1. Non-orthopaedic surgery (brain, spine, neck/pharynx, thorax, abdomen, vascular) 2. Mechanical ventilation > 96 hours 3. Blood transfusion 4. Intensive care admission \geq 2 days 5. In-hospital mortality

24. Neurosurgery for the evacuation of an intracranial haematoma 25. Craniotomy 26. Burr Hole Insertion 27. Spinal nursing for a C1-3 fracture 28. Administration of a seizure-terminating medication 29. Active rewarming for initial core temp <32 Celsius 30. Passive rewarming for initial core temp <32 Celsius		
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