



CLINICAL PRACTICE GUIDELINES

EFR

**EMERGENCY FIRST
RESPONDER**
- incorporating BTEC

2021 Edition (Updated June 2023)

PHECC Clinical Practice Guidelines

First Edition, 2001

Second Edition, 2004

Third Edition, 2009

Third Edition, Version 2, 2011

Fourth Edition, April 2012

Fifth Edition, July 2014

Sixth Edition, March 2017 (Updated February 2018)

Seventh Edition, August 2021 (Updated June 2023)

Published by:

Pre-Hospital Emergency Care Council

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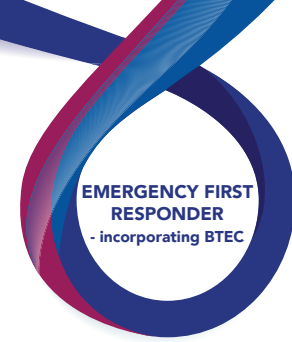
Web: www.phecc.ie

ISBN 978-0-9955288-9-5

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Table of Contents



FOREWORD	4
ACCEPTED ABBREVIATIONS	5
ACKNOWLEDGEMENTS	8
INTRODUCTION	10
IMPLEMENTATION AND USE OF CLINICAL PRACTICE GUIDELINES	11
CLINICAL PRACTICE GUIDELINES	
INDEX	13
KEY/CODES EXPLANATION	14
SECTION 1 Principles of general care	15
SECTION 2 Airway and Breathing	20
SECTION 3 Cardiac	23
SECTION 4 Circulation	24
SECTION 5 Medical	25
SECTION 6 Neurological	27
SECTION 8 Trauma	30
SECTION 9 Environmental	36
SECTION 10 Toxicology	38
SECTION 12 Maternal.....	40
SECTION 13 Paediatric	41
SECTION 14 Resuscitation	48
BTEC CPGs	52
APPENDIX 1 Medication Formulary	56
APPENDIX 2 Medications & Skills Matrix	67
APPENDIX 3 Critical Incident Stress Management (CISM)	77
APPENDIX 4 CPG Updates for Emergency First Responder	80

This Handbook comprises the 2021 Edition Clinical Practice Guidelines (CPGs). These guidelines outline patient assessments and pre-hospital management for responders at:

RESPONDER LEVEL

- Cardiac First Responder
- First Aid Responder
- Emergency First Responder

REGISTERED PRACTITIONER

- Emergency Medical Technician
- Paramedic
- Advanced Paramedic



I am delighted that there are now 357 CPGs in total to guide integrated care across the six pre-hospital emergency care clinical levels. These CPGs ensure that responders and practitioners are practicing to best international standards and support PHECC's vision that people in Ireland receive excellent pre-hospital emergency care.

I would like to acknowledge the hard work and commitment the members of the Medical Advisory Committee have shown during the development of this publication, guided by Dr David Menzies (Chair). A special word of thanks goes to Dr Brian Power who retired in 2020 and has made an enormous contribution to the advancement of pre-hospital emergency care in Ireland. I want to acknowledge the PHECC Executive, for their continued support in researching and compiling these CPGs and paving the way for the future development of the pre-hospital emergency care continuum.

I recognise the contribution made by many responders and practitioners, whose feedback has assisted PHECC in the continual improvement and development of CPGs and welcome these guidelines as an important contribution to best practice in pre-hospital emergency care.

A handwritten signature in black ink that reads "Jacqueline Burke".

Dr Jacqueline Burke, Chairperson
Pre-Hospital Emergency Care Council

Advanced Paramedic	AP
Advanced Life Support	ALS
Airway, Breathing & Circulation	ABC
All Terrain Vehicle	ATV
Altered Level of Consciousness	ALoC
Automated External Defibrillator	AED
Bag Valve Mask	BVM
Basic Life Support	BLS
Blood Glucose	BG
Blood Pressure	BP
Basic Tactical Emergency Care	BTEC
Capillary Refill Time	CRT
Carbon Dioxide	CO ₂
Cardiopulmonary Resuscitation	CPR
Cervical Spine	C-spine
Chronic Obstructive Pulmonary Disease	COPD
Clinical Practice Guideline.....	CPG
Continuous Positive Airway Pressure.....	CPAP
Degree.....	°
Degrees Celsius.....	°C
Dextrose (Glucose) 10% in water.....	D ₁₀ W
Dextrose (Glucose) 5% in water	D ₅ W
Do Not Resuscitate.....	DNR
Drop (gutta)	gtt
Electrocardiogram	ECG
Emergency Department	ED
Emergency Medical Technician	EMT
Endotracheal Tube	ETT

Foreign Body Airway Obstruction	FBAO
Fracture	#
General Practitioner.....	GP
Glasgow Coma Scale	GCS
Gram.....	g
Intramuscular	IM
Intranasal	IN
Intraosseous	IO
Intravenous.....	IV
Joules	J
Kilogram	kg
Laryngeal Mask Airway	LMA
Mean Arterial Pressure	MAP
Medical Practitioner.....	MP
Microgram	mcg
Milligram.....	mg
Millilitre.....	mL
Millimole.....	mmol
Minute	min
Modified Early Warning Score.....	MEWS
Motor Vehicle Collision	MVC
Myocardial Infarction	MI
Milliequivalent	mEq
Millimetres of mercury	mmHg
Nasopharyngeal airway	NPA
Nebulised	NEB
Negative decadic logarithm of the H ⁺ ion concentration	pH

Orally (per os)	PO
Oropharyngeal airway.....	OPA
Oxygen	O ₂
Paramedic.....	P
Peak Expiratory Flow Rate.....	PEFR
Per rectum	PR
Per vagina	PV
Percutaneous Coronary Intervention	PCI
Personal Protective Equipment	PPE
Psychiatric Nurse	PN
Pulseless Electrical Activity	PEA
Pulseless Ventricular Tachycardia	pVT
Respiration rate	RR
Return of Spontaneous Circulation.....	ROSC
Revised Trauma Score	RTS
Saturation of arterial Oxygen	SpO ₂
Spinal Motion Restriction	SMR
ST Elevation Myocardial Infarction	STEMI
Subcutaneous.....	SC
Sublingual.....	SL
Supraventricular Tachycardia	SVT
Systolic Blood Pressure	SBP
Therefore	∴
Total body surface area	TBSA
Ventricular Fibrillation.....	VF
Ventricular Tachycardia	VT
When necessary (pro re nata)	prn

The process of developing CPGs has been long and detailed. The quality of the finished product is due to the painstaking work of many people, who through their expertise and review of the literature, ensured a world-class publication.

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Welcome to the 2021 edition of the PHECC Clinical Practice Guidelines. This edition has been a long time in development and reflects the significant effort and contribution to the new CPGs by so many people.

As ever, a robust development and review process has been applied to the new and revised CPGs, including a detailed and comprehensive quality assurance process.

Pre-Hospital Care in Ireland has evolved significantly since the first editions of the CPGs. The suite of care the CPGs now enable is progressive and transformative across all levels of responder and practitioner.

The impact of Covid-19 has influenced these CPGs, both in posing challenges in continuing the regular Medical Advisory Committee meetings and discussions, while also giving rise to a specific suite of vaccination CPGs that enable PHECC practitioners to support the national Covid-19 vaccination programme.

For the first time, we have CPGs that enable practitioners to not convey patients to hospital as a matter of default. The non-conveyance CPGs are a step towards more alternative care pathways for our patients, in recognition that the traditional hospital-centric model for emergency care is not always appropriate or feasible. This suite of non-conveyance CPGs will be a key area for expansion and development in the next term of the Medical Advisory Committee.

Further developments include the designation of certain CPGs and elements of other CPGs as 'non-core'. This non-core element replaces the previous process of 'exemptions' accommodated for certain CPGs and recognises that not all Licenced CPG Providers need to implement every single CPG.

I would like to express my sincere thanks to all who contributed to this edition of the CPGs including the members of the Medical Advisory Committee, those who submitted queries for consideration, speciality groups and clinical programmes who provided expert external advice and feedback.

In particular, I would like to thank Dr Brian Power who retired from PHECC in 2020. Brian created the first edition of the PHECC CPGs and has managed the process of CPG development since then, including the majority of the development work for this suite of CPGs. Brian's contribution to the advancement of pre-hospital emergency care in Ireland has been significant and is the framework that supports responders and practitioners still. Since Brian's retirement, Ricky Ellis kindly and ably stepped into the gap, continuing to support MAC in the finalisation of the CPGs before handing over to Ray Carney, PHECC's new Clinical Programme Manager. Thank you both.

Finally, thanks to you, the responders and practitioners who implement these CPGs. I believe these CPGs will enable you to continue to provide expert compassionate pre-hospital care to patients every day of the year. PHECC greatly values your work and also your feedback.



Dr David Menzies, Chair Medical Advisory Committee



Clinical Practice Guidelines (CPGs) and the practitioner

CPGs are guidelines for best practice and are not intended as a substitute for good clinical judgment. Unusual patient presentations make it impossible to develop a CPG to match every possible clinical situation. The responder decides if a CPG should be applied based on patient assessment and the clinical impression. The responder must work in the best interest of the patient within the scope of practice for his/her clinical level. Consultation with fellow responders and/or practitioners in challenging clinical situations is strongly advised.

The CPGs herein may be implemented provided:

1. The responder maintains current certification as outlined in PHECC's Education & Training Standard.
2. The responder is authorised, by the organisation on whose behalf he/she is acting, to implement the specific CPG.
3. The responder has received training on, and is competent in, the skills and medications specified in the CPG being utilised.

The medication dose specified on the relevant CPG shall be the definitive dose in relation to responder administration of medications. The onus rests on the responder to ensure that he/she is using the latest version of CPGs, which are available on the PHECC website www.phecc.ie

Definitions

Adult	A patient of 16 years or greater, unless specified on the CPG
Child	A patient between 1 and less than or equal to (\leq) 15 years old, unless specified on the CPG
Infant	A patient between 4 weeks and less than 1 year old, unless specified on the CPG
Neonate	A patient less than 4 weeks old, unless specified on the CPG
Paediatric patient	Any child, infant or neonate

Care principles are goals of care that apply to all patients. The PHECC care principles for responders are outlined in Section 1.

Completing an ACR/CFRR for each patient is paramount in the risk management process and users of the CPGs must commit to this process.

Minor injuries

Responders must adhere to their individual organisational protocols for treat and discharge/referral of patients with minor injuries.

CPGs and the pre-hospital emergency care team

The aim of pre-hospital emergency care is to provide a comprehensive and coordinated approach to patient care management, thus providing each patient with the most appropriate care in the most efficient time frame.

In Ireland today, the provision of emergency care comes from a range of disciplines and includes responders (Cardiac First Responders, First Aid Responders and Emergency First Responders) and practitioners (Emergency Medical Technicians, Paramedics, Advanced Paramedics, Nurses and Doctors) from the statutory, private, auxiliary and voluntary services.

CPGs set a consistent standard of clinical practice within the field of pre-hospital emergency care. By reinforcing the role of the responder, in the continuum of patient care, the chain of survival and the golden hour are supported in medical and traumatic emergencies respectively.

CPGs guide the responder in presenting to a practitioner a patient who has been supported in the very early phase of injury/illness and in whom the danger of deterioration has lessened by early appropriate clinical care interventions.

The CPGs presume no intervention has been applied, nor medication administered, prior to the arrival of the responder. In the event of another practitioner or responder initiating care during an acute episode, the responder must be cognisant of interventions applied and medication doses already administered and act accordingly.

In this care continuum, the duty of care is shared among all responders/practitioners of whom each is accountable for his/her own actions. The most qualified responder/practitioner on the scene shall take the role of clinical lead. Explicit handover between responders/practitioners is essential and will eliminate confusion regarding the responsibility for care.

Classification of CPGs

The Taxonomy for Pre-Hospital Emergency Care CPGs has changed to a new method for configuring PHECC CPGs. There are now seventeen categories developed to group common themes and categories together.









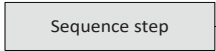

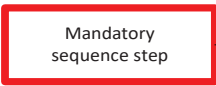

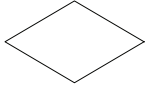

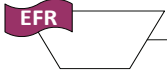





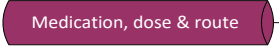

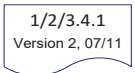
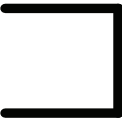
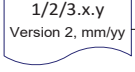
Basic Life Support – ILCOR 2020

Basic life support CPGs contained within this publication are in accordance with International Liaison Committee on Resuscitation (ILCOR) guidelines 2020.

SECTION 1 PRINCIPLES OF GENERAL CARE ... 15	SECTION 12 MATERNAL 40
1.4 Primary Survey – Adult 17	12.2 Pre-Hospital Emergency Childbirth 40
1.5 Secondary Survey Medical – Adult 18	SECTION 13 PAEDIATRIC 41
1.6 Secondary Survey Trauma – Adult 19	13.2 Primary Survey Trauma – Paediatric..... 41
SECTION 2 AIRWAY AND BREATHING 20	13.5 Foreign Body Airway Obstruction – Paediatric 42
2.1 Foreign Body Airway Obstruction – Adult 20	13.7 Abnormal Work of Breathing – Paediatric.... 43
2.3 Abnormal Work of Breathing – Adult 21	13.8 Asthma – Paediatric 44
2.5 Asthma – Adult 22	13.14 Seizure/Convulsion – Paediatric 45
SECTION 3 CARDIAC 23	13.21 Allergic Reaction/Anaphylaxis – Paediatric 46
3.1 Acute Coronary Syndrome 23	13.22 Basic Life Support – Paediatric 47
SECTION 4 CIRCULATION 24	SECTION 14 RESUSCITATION 48
4.3 Fainting..... 24	14.1 Basic Life Support – Adult 48
SECTION 5 MEDICAL 25	14.6 Post-Resuscitation Care 49
5.2 Decompression Illness (DCI)..... 25	14.7 Recognition of Death – Resuscitation not Indicated 50
5.3 Glycaemic Emergency – Adult 26	14.8 Team Resuscitation 51
SECTION 6 NEUROLOGICAL 27	BTEC CPGs
6.1 Altered Level of Consciousness – Adult 27	SECTION 1 PRINCIPLES OF GENERAL CARE ... 52
6.3 Seizure/Convulsion – Adult 28	1.4T Primary Survey - Adult 52
6.4 Stroke 29	SECTION 2 AIRWAY AND BREATHING 53
SECTION 8 TRAUMA 30	2.2T Advanced Airway Management – Adult 53
8.1 Burns – Adult 30	SECTION 8 TRAUMA 54
8.3 External Haemorrhage – Adult 31	8.3T External Haemorrhage – Adult 54
8.4 Harness Induced Suspension Trauma 32	8.6T Limb Injury – Adult 55
8.6 Limb Injury – Adult 33	
8.8 Spinal Injury Management 34	
8.9 Submersion/ Immersion Incident 35	
SECTION 9 ENVIRONMENTAL 36	
9.1 Hypothermia 36	
9.2 Heat Related Emergency – Adult 37	
SECTION 10 TOXICOLOGY 38	
10.1 Allergic Reaction/Anaphylaxis – Adult 38	
10.2 Poisons – Adult 39	

CODES EXPLANATION

EMERGENCY FIRST RESPONDER

	<u>Cardiac First Responder</u> (Level 1) for which the CPG pertains		<u>First Aid Responder</u> or lower clinical levels not permitted this route
	<u>First Aid Responder</u> (Level 2) for which the CPG pertains		Ring ambulance control
	<u>Emergency First Responder</u> (Level 3) for which the CPG pertains		Request an AED from local area
	An <u>EFR</u> who has completed Basic Tactical Emergency Care training and has been privileged to operate in adverse conditions		An instruction box for information
	A sequence (skill) to be performed		<u>Special Instructions</u> Which the Responder must follow
	A mandatory sequence (skill) to be performed		A direction to go to a specific CPG following a decision process [Note: only go to the CPGs that pertain to your clinical level]
	<u>A Decision Process</u> The Responder must follow one route		A clinical condition that may precipitate entry into the specific CPG
	A skill or sequence that only pertains to EFR or higher clinical levels		<u>Special Authorisation</u> This authorises the Practitioner to perform an intervention under specified conditions
	Given the clinical presentation consider the treatment option specified		Finding following clinical assessment, leading to treatment modalities
	<u>A medication which may be administered by a CFR or higher clinical level</u> The medication name, dose and route is specified		Reassess the patient following intervention
	<u>A medication which may be administered by an EFR or higher clinical level</u> The medication name, dose and route is specified		A Cyclical Process in which a number of sequence steps are completed
	<u>CPG numbering system</u> 1/2/3 = clinical levels to which the CPG pertains x = section in CPG manual, y = CPG number in sequence, mm/yy = month/year CPG published		A Parallel Process in which a number of sequence steps are completed
			

Principles of general care (Responder)

Care principles are goals of care that apply to all patients. Scene safety, standard precautions, patient assessment, primary and secondary surveys, and the recording of interventions and medications on the Ambulatory Care Report (ACR) or the Cardiac First Response Report (CFRR), are consistent principles throughout the guidelines and reflect the practice of responders. Care principles are the foundations for risk management and the avoidance of error.

PHECC Care Principles

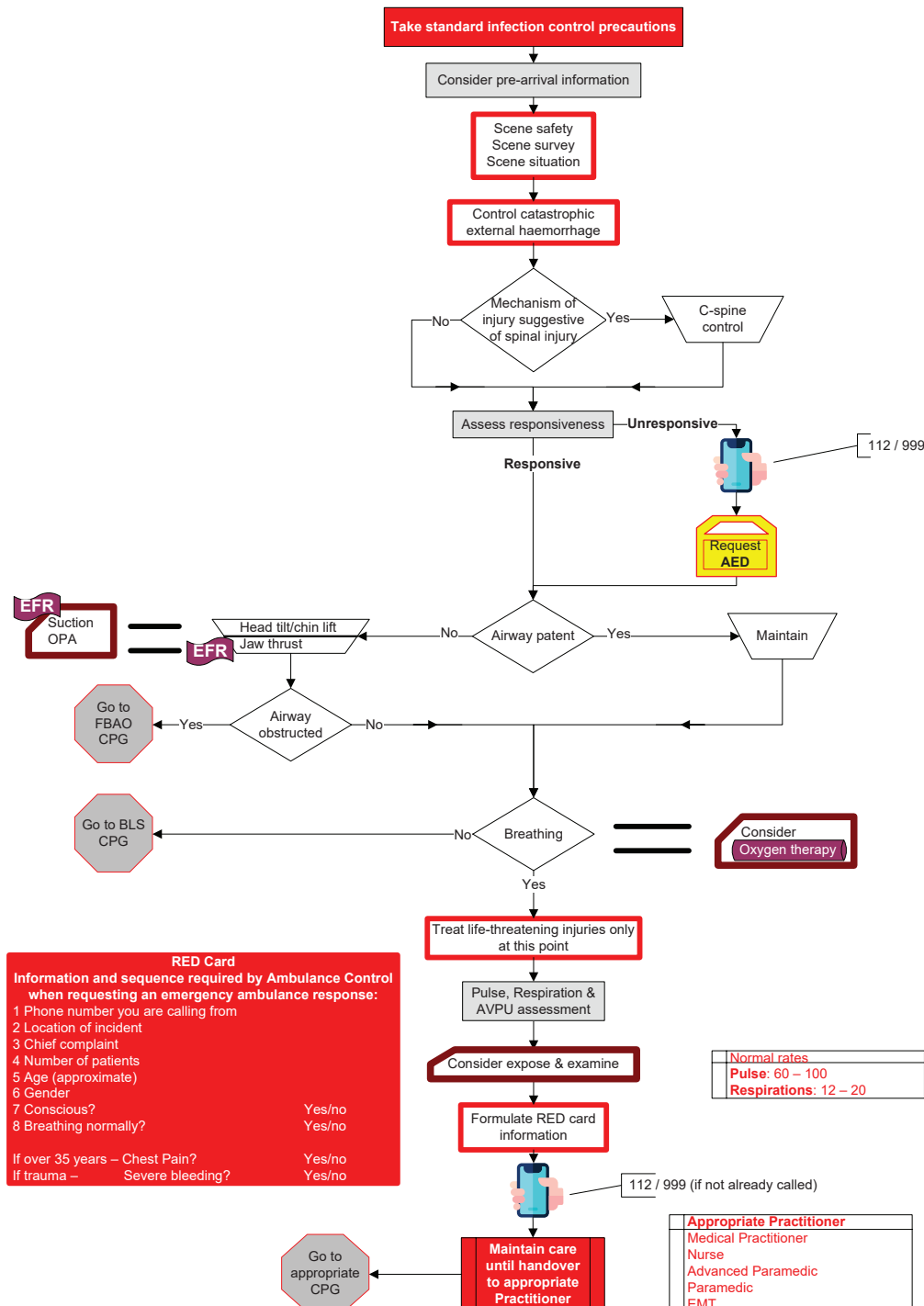
1. Ensure the safety of yourself, other emergency service personnel your patients and the public:
 - Review all pre-arrival information.
 - Consider all environmental factors and approach a scene only when it is safe to do so.
 - Identify potential and actual hazards and take the necessary precautions.
 - Liaise with other emergency services on scene.
 - Request assistance as required in a timely fashion, particularly for higher clinical levels.
 - Ensure the scene is as safe as is practicable.
 - Take standard infection control precautions.
 - 1.1 Ensure correct PPE is utilised in all situations and is compliant with latest guidance on standard, contact, droplet and airborne PPE. Place facemasks on patients when required. Handwashing and hand hygiene should be performed before and after all patient interactions. Utilise PPE checklists for correct donning and doffing procedures.
2. Call for help early:
 - Ring 112/999 using the RED card process, or
 - Obtain practitioner help on scene through pre-determined processes.
3. A person has capacity in respect to clinical decisions affecting themselves unless the contrary is shown (Assisted Decision-Making (Capacity) Act 2015).
4. Seek consent prior to initiating care:
 - Patients have the right to determine what happens to them and their bodies.
 - For patients presenting as P or U on the AVPU scale implied consent applies.
 - Patients may refuse assessment, care and/or transport.

5. Identify and manage life-threatening conditions:
 - Locate all patients. If the number of patients is greater than resources, ensure additional resources are sought.
 - Assess the patient's condition appropriately.
 - Prioritise and manage the immediate life-threatening conditions first.
 - Provide a situation report to Ambulance Control Centre (112/999) using the RED card process as soon as possible after arrival on scene.
6. Ensure adequate Airway, Breathing and Circulation:
 - Ensure airway is open.
 - Commence CPR if breathing is not present.
 - If the patient has abnormal work of breathing, ensure 112/999 is called early.
7. Control all external haemorrhage.
8. Identify the most important present condition and treat accordingly.
9. Place the patient in the appropriate position according to the presenting condition.
10. Ensure maintenance of normal body temperature (unless a CPG indicates otherwise).
11. Provide reassurance at all times.
12. Monitor and record patient's vital observations.
13. Maintain responsibility for patient care until handover to an appropriate responder / practitioner.
14. Complete a patient care record following an interaction with a patient.
15. Identify the clinical lead, this should be the most qualified responder on scene.
16. Ambulances, medical rooms and equipment should be decontaminated as appropriate following an interaction with a patient.

Primary Survey - Adult

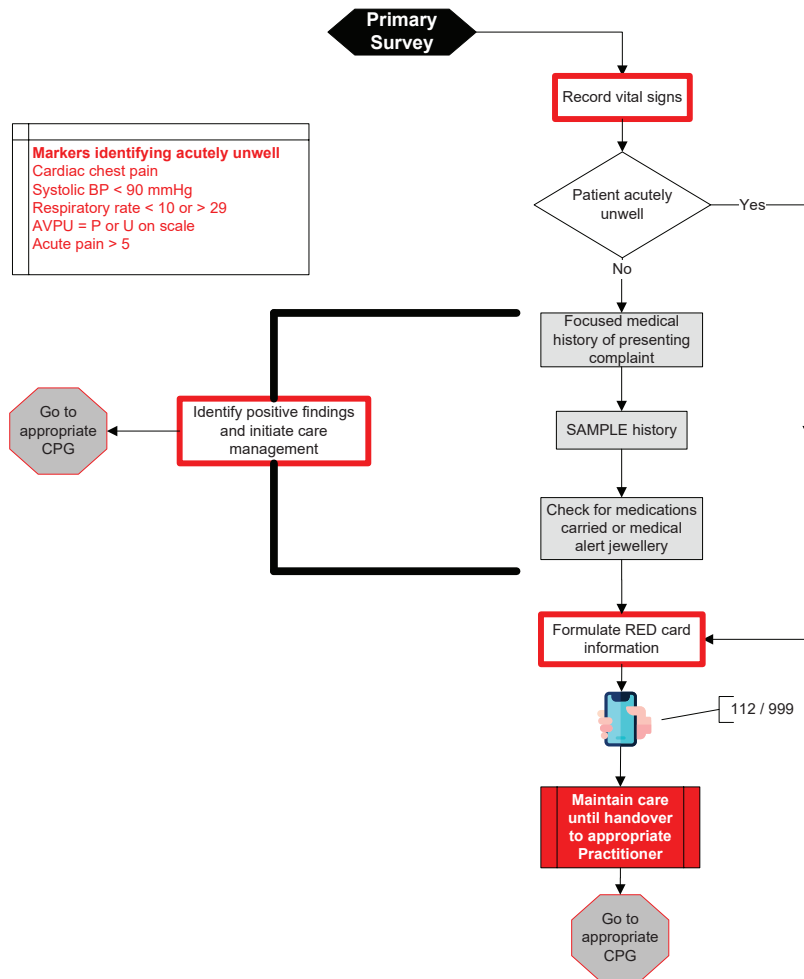
3.1.4
Version 5, 12/2020

EFR



Secondary Survey Medical – Adult

2/3.1.5
Version 2, 02/2021



Markers identifying acutely unwell
 Cardiac chest pain
 Systolic BP < 90 mmHg
 Respiratory rate < 10 or > 29
 AVPU = P or U on scale
 Acute pain > 5

Go to appropriate CPG

Identify positive findings and initiate care management

112 / 999

Maintain care until handover to appropriate Practitioner

Go to appropriate CPG

RED Card
 Information and sequence required by Ambulance Control when requesting an emergency ambulance response:

- 1 Phone number you are calling from
- 2 Location of incident
- 3 Chief complaint
- 4 Number of patients
- 5 Age (approximate)
- 6 Gender
- 7 Conscious? Yes/no
- 8 Breathing normally? Yes/no

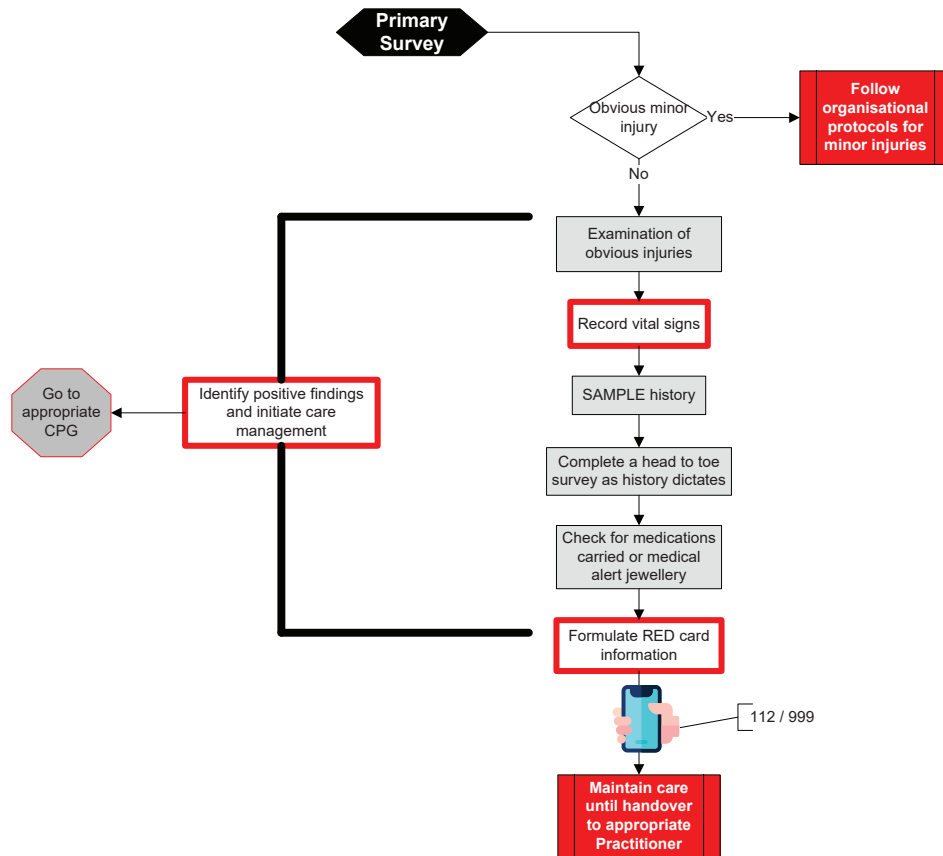
If over 35 years – Chest Pain? Yes/no
 If trauma – Severe bleeding? Yes/no

Analogue Pain Scale
 0 = no pain.....10 = unbearable

Appropriate Practitioner
 Medical Practitioner
 Nurse
 Advanced Paramedic
 Paramedic
 EMT

Secondary Survey Trauma – Adult

2/3.1.6
Version 2, 02/2021



RED Card
Information and sequence required by Ambulance Control when requesting an emergency ambulance response:

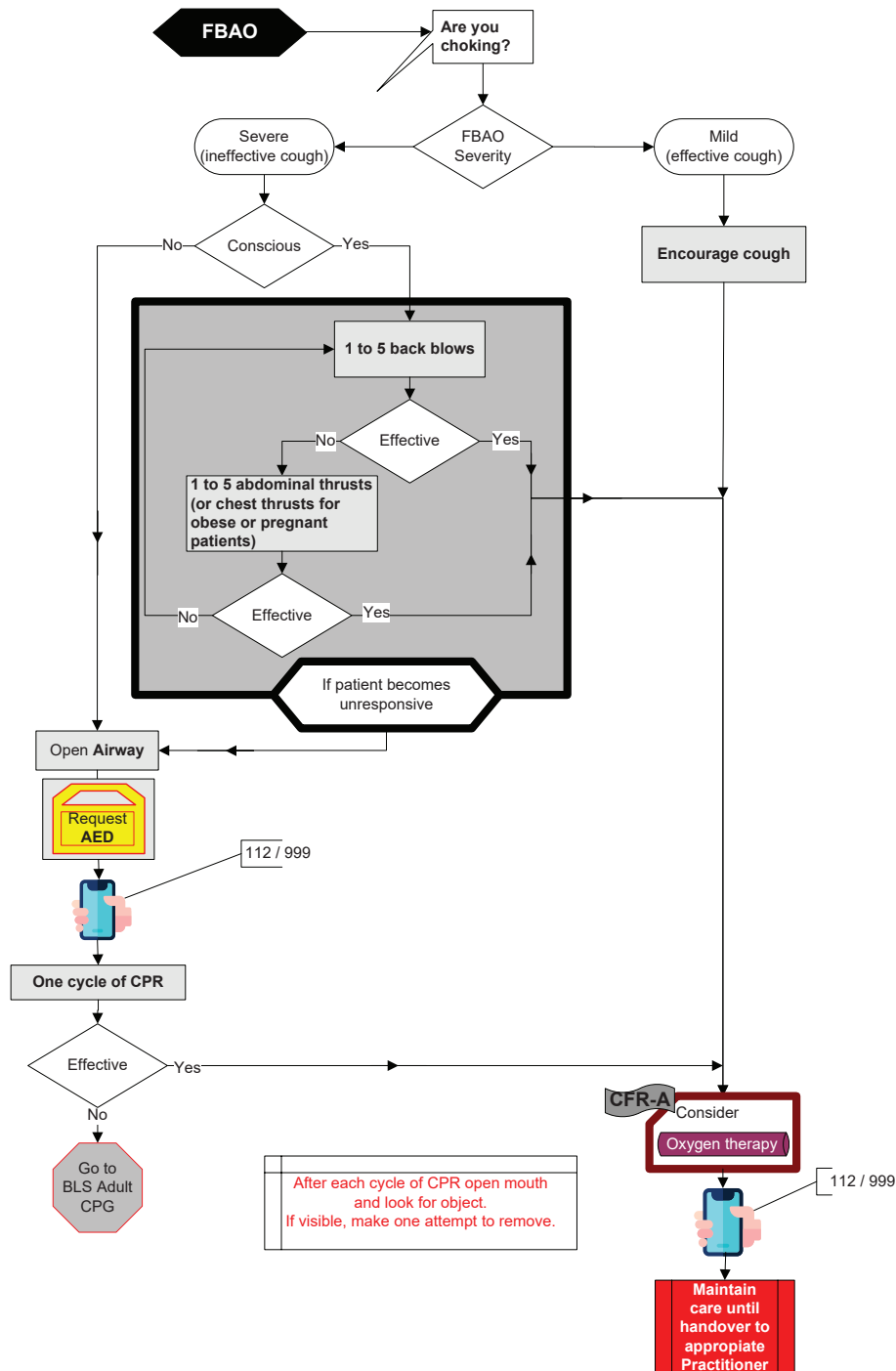
- 1 Phone number you are calling from
- 2 Location of incident
- 3 Chief complaint
- 4 Number of patients
- 5 Age (approximate)
- 6 Gender
- 7 Conscious? Yes/no
- 8 Breathing normally? Yes/no
- If over 35 years – Chest Pain? Yes/no
- If trauma – Severe bleeding? Yes/no

Appropriate Practitioner
Medical Practitioner
Nurse
Advanced Paramedic
Paramedic
EMT

Foreign Body Airway Obstruction – Adult

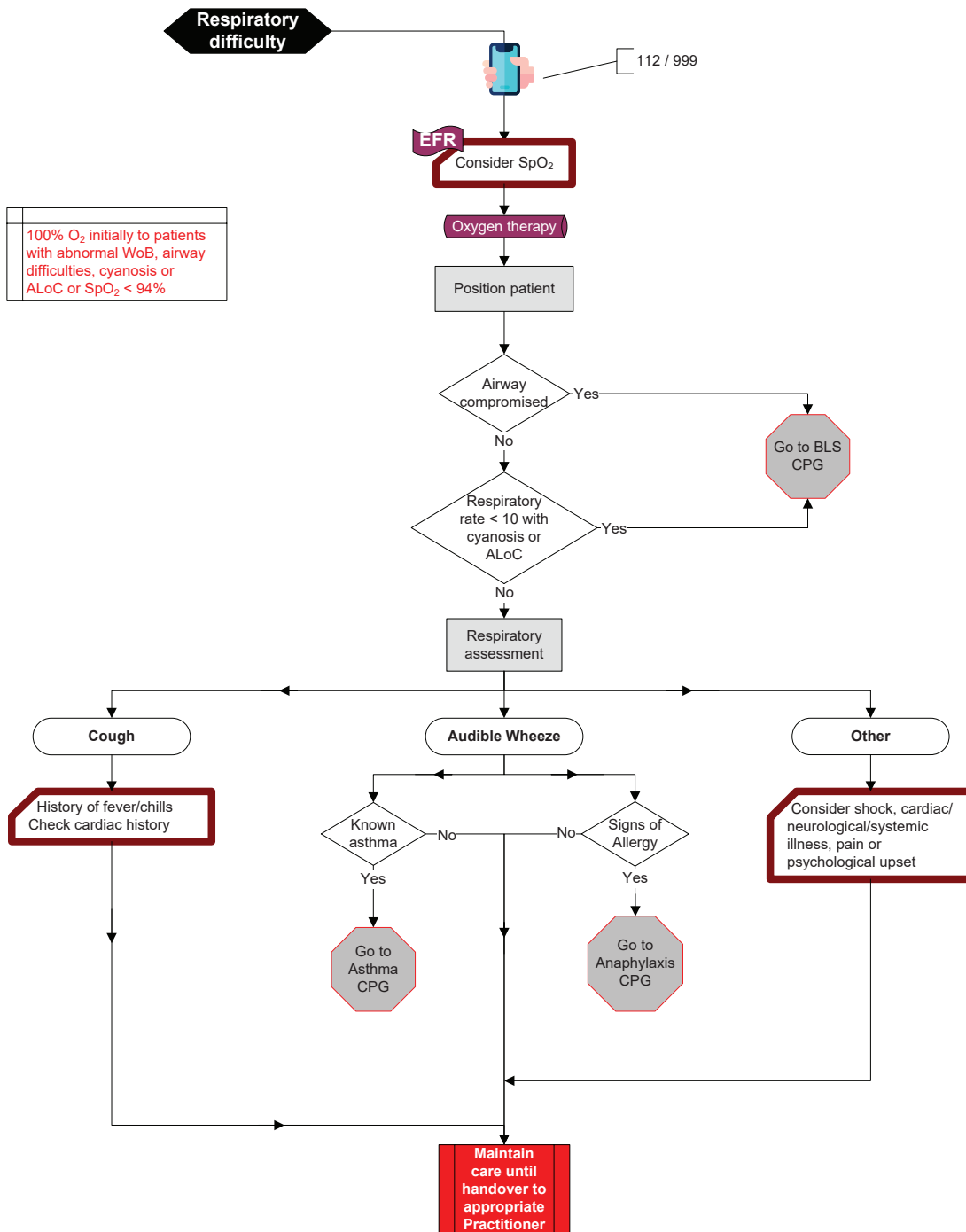
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Abnormal Work of Breathing – Adult

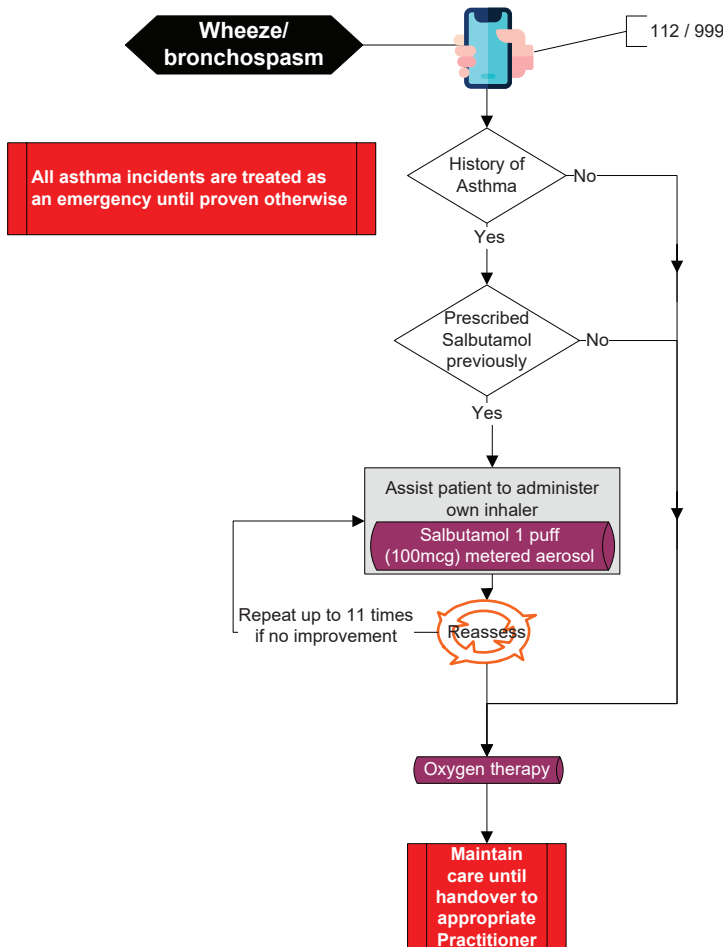
3.2.3
Version 4, 03/2021



Asthma – Adult

2/3.2.5
Version 4, 12/2020

FAR EFR



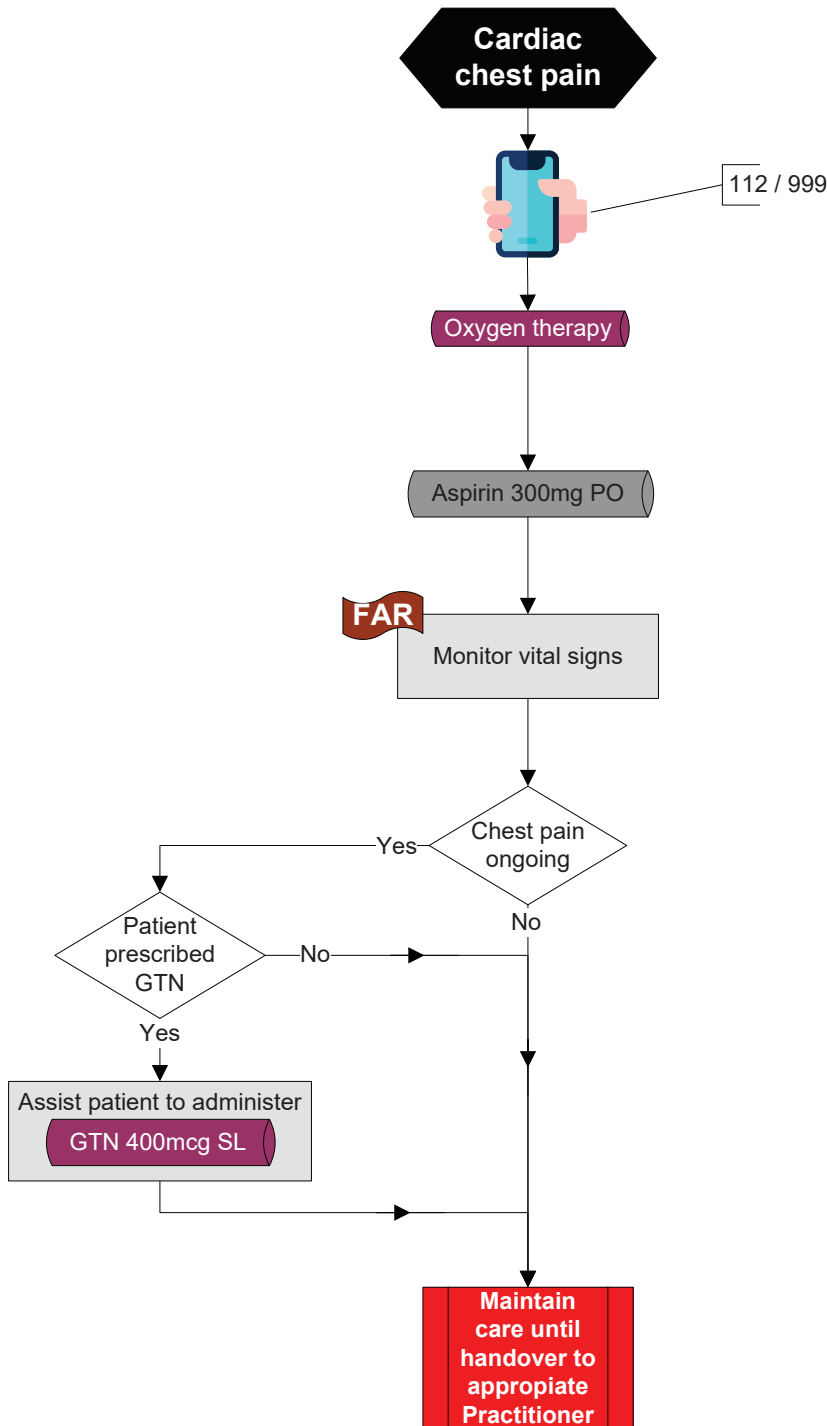
Life threatening asthma;
 Inability to complete sentences in one breath
 Respiratory rate > 25 or < 10/ min
 Heart rate > 110/ min
 and any one of the following;

- Feeble respiratory effort
- Exhaustion
- Confusion
- Unresponsive
- Blueish colour (cyanosis)

During an asthma attack;
 Do use a spacer device if one is available
 Do listen to what the patient is saying – they may have had attacks before.
 Don't put your arm around the patient or lie them down - this will restrict their breathing.
 Don't worry about giving too much Salbutamol, during an asthma attack extra puffs of medication are safe.

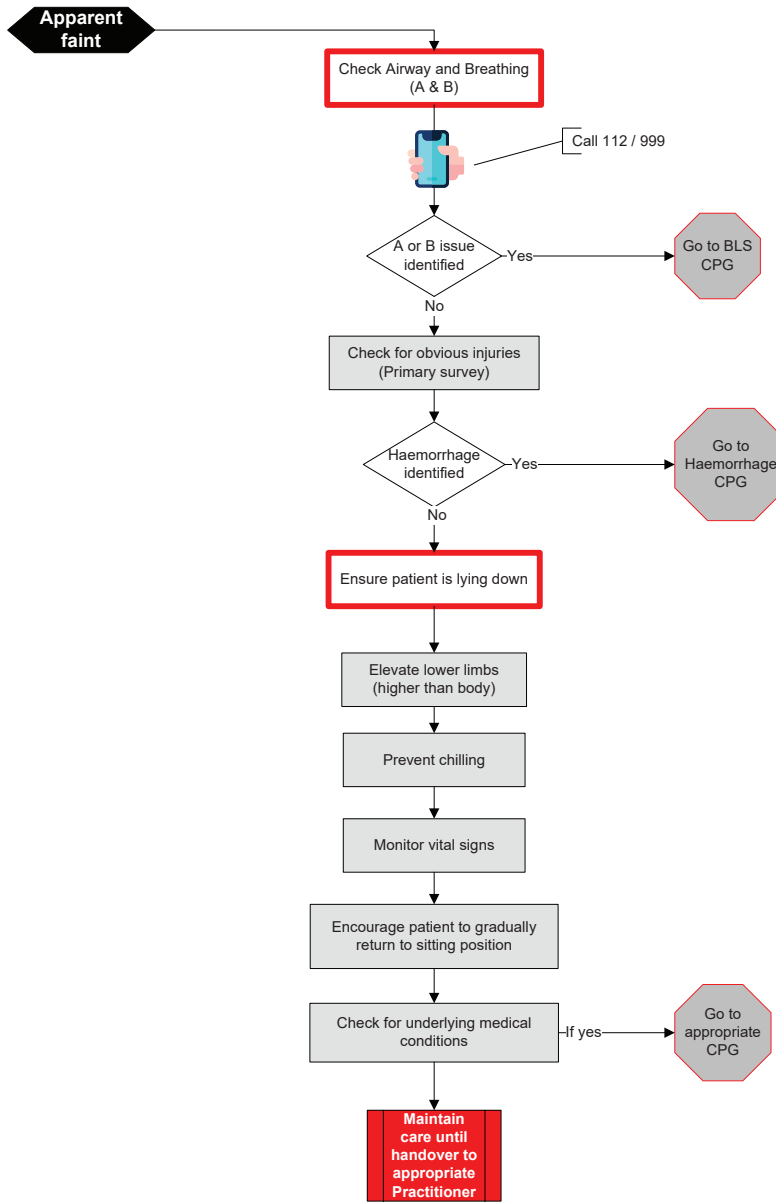
Cardiac Chest Pain – Acute Coronary Syndrome

1/2/3.3.1
Version 4, 03/2021



Fainting

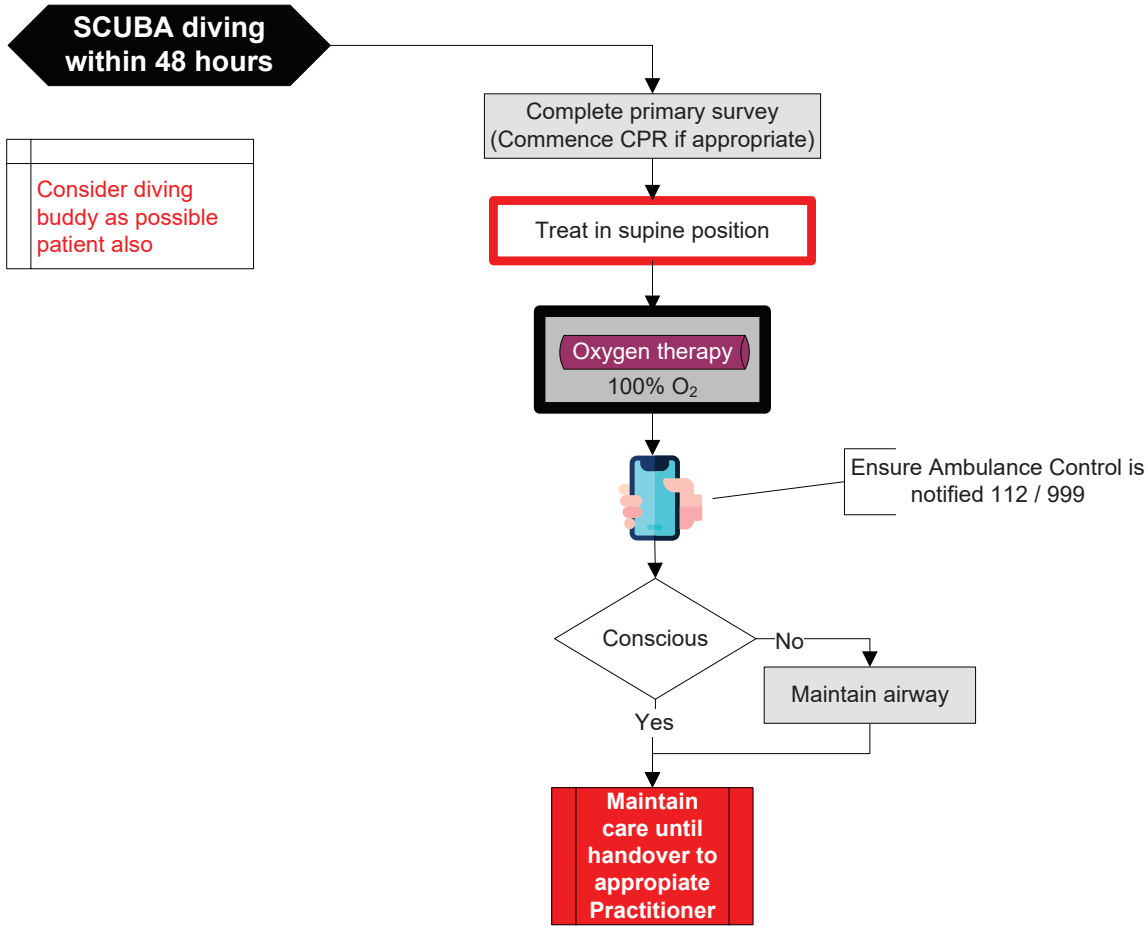
2/3.4.3
Version 2, 02/2021



Advise patient to attend a medical practitioner regardless of how simple the faint may appear

Decompression Illness (DCI)

3.5.2
Version 2, 12/2020



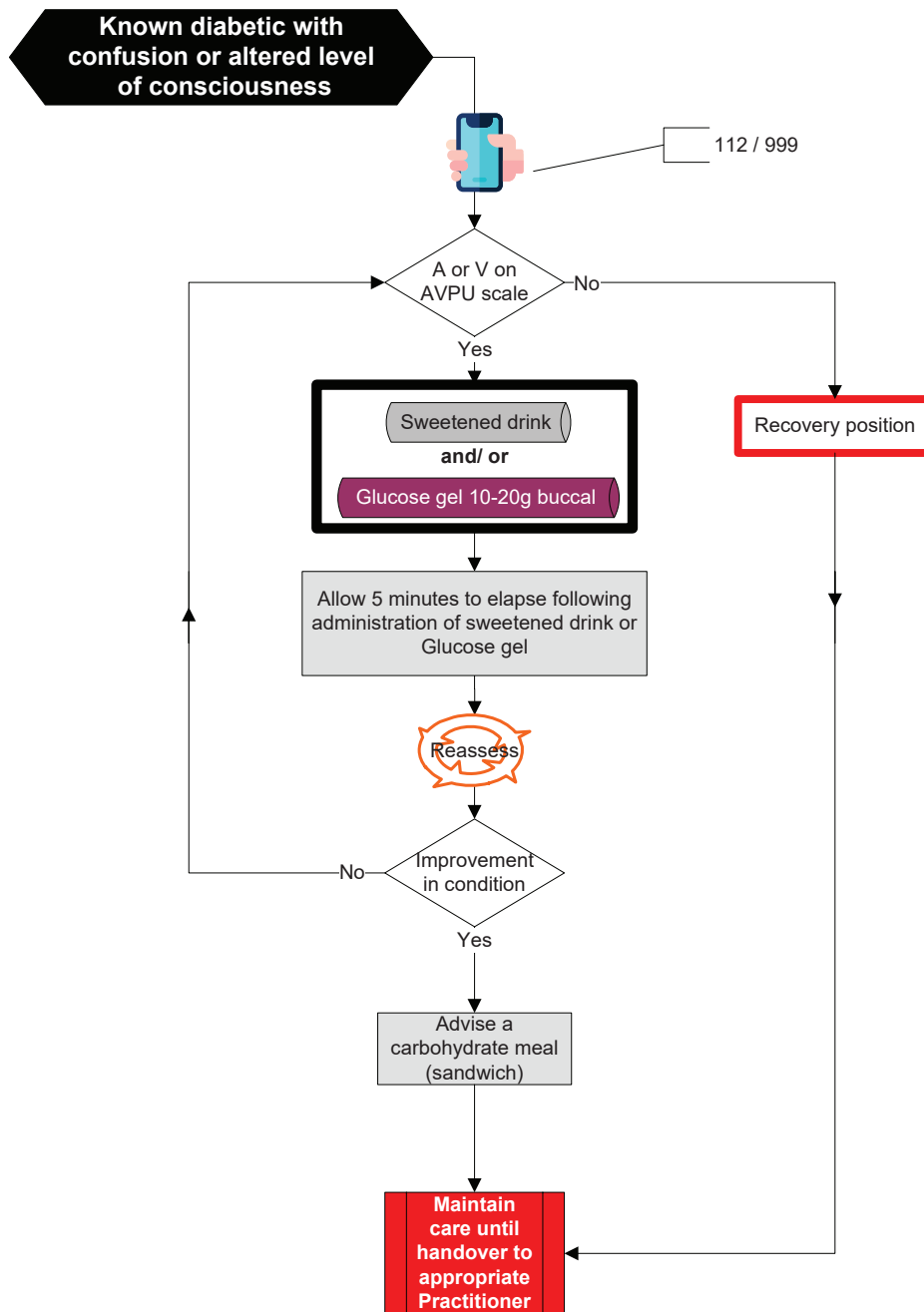
Consider diving buddy as possible patient also

Transport dive computer and diving equipment with patient, if possible

Transport is completed at an altitude of < 1000 ft. above incident site or aircraft pressurised equivalent to sea level

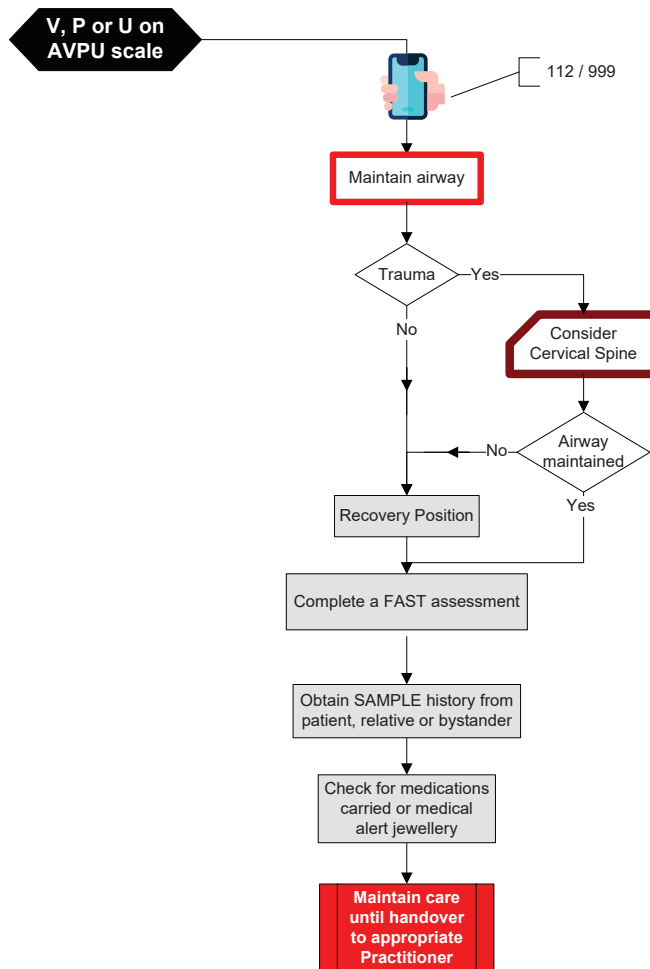
Glycaemic Emergency – Adult

2/3.5.3
Version 3, 02/2021



Altered Level of Consciousness – Adult

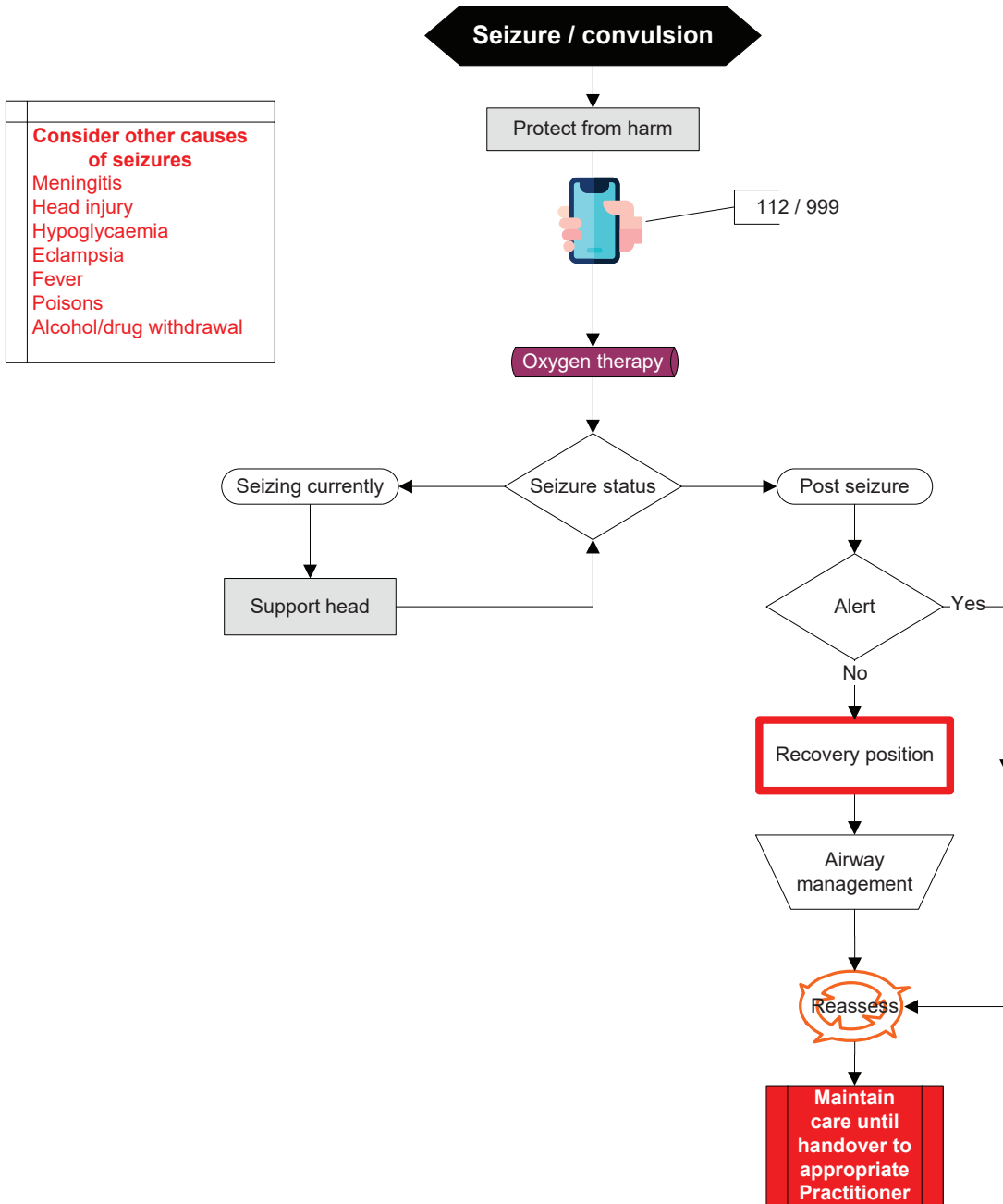
2/3.6.1
Version 2, 12/2020



<p>F – facial weakness Can the patient smile? Has their mouth or eye drooped?</p> <p>A – arm weakness Can the patient raise both arms?</p> <p>S – speech problems Can the patient speak clearly and understand what you say?</p> <p>T – time to call 112 (if positive FAST)</p>

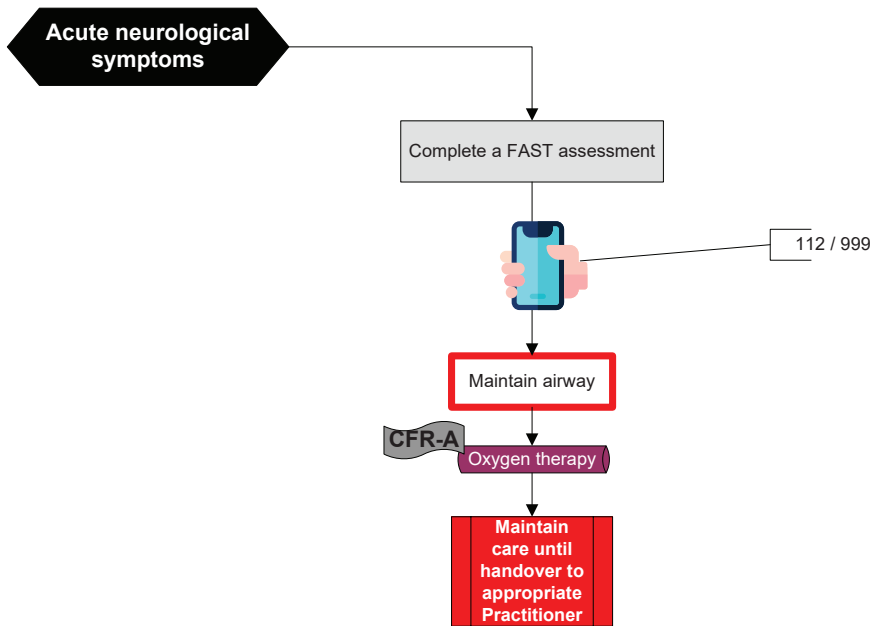
Seizure/Convulsion – Adult

2/3.6.3
Version 3, 02/2021



Stroke

1/2/3.6.4
Version 4, 04/2021

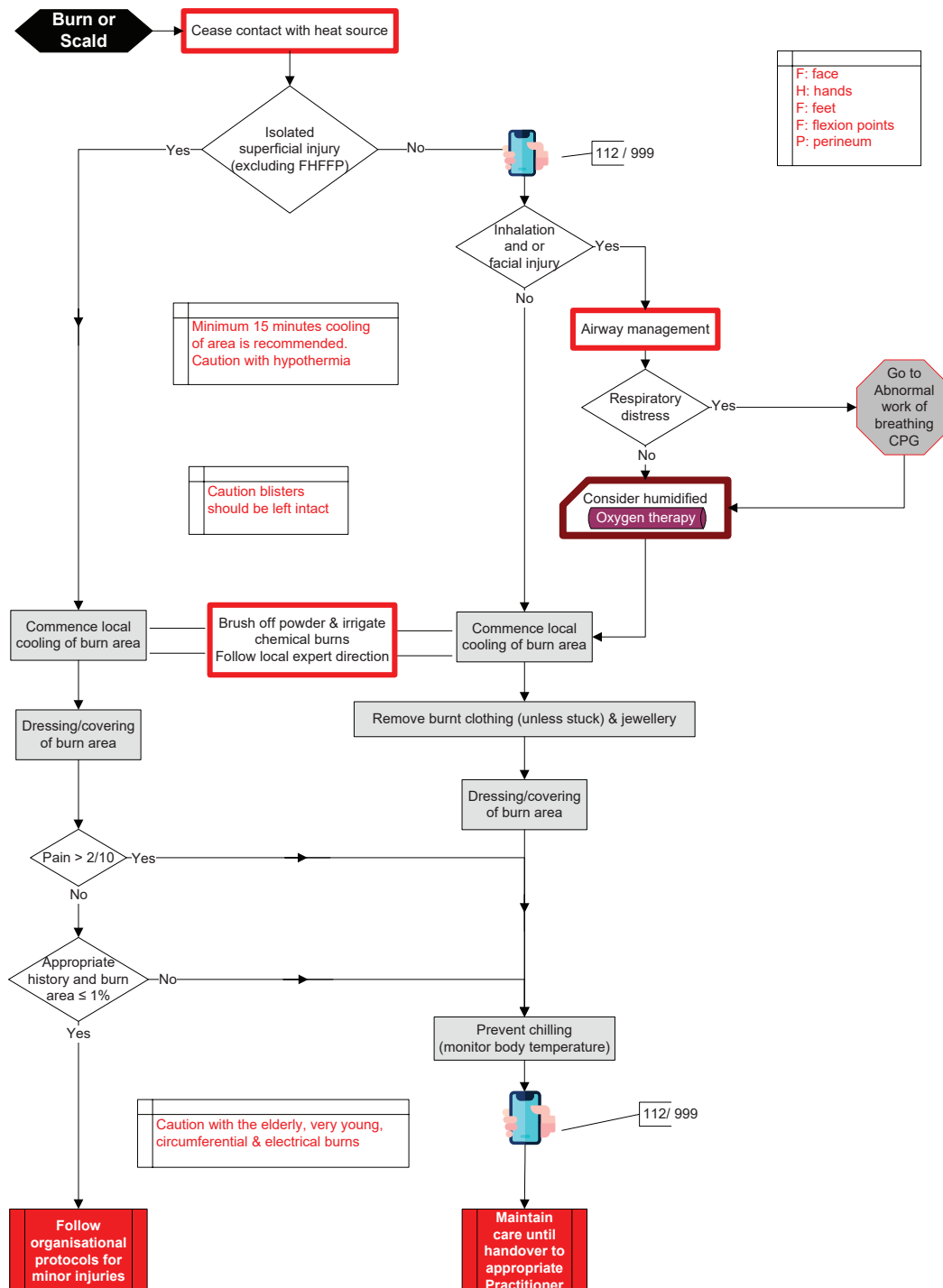


<p>F – facial weakness Can the patient smile? Has their mouth or eye drooped? Which side?</p> <p>A – arm weakness Can the patient raise both arms and maintain for 5 seconds?</p> <p>S – speech problems Can the patient speak clearly and understand what you say?</p> <p>T – time to call 112 if FAST positive</p>
--

Burns - Adult

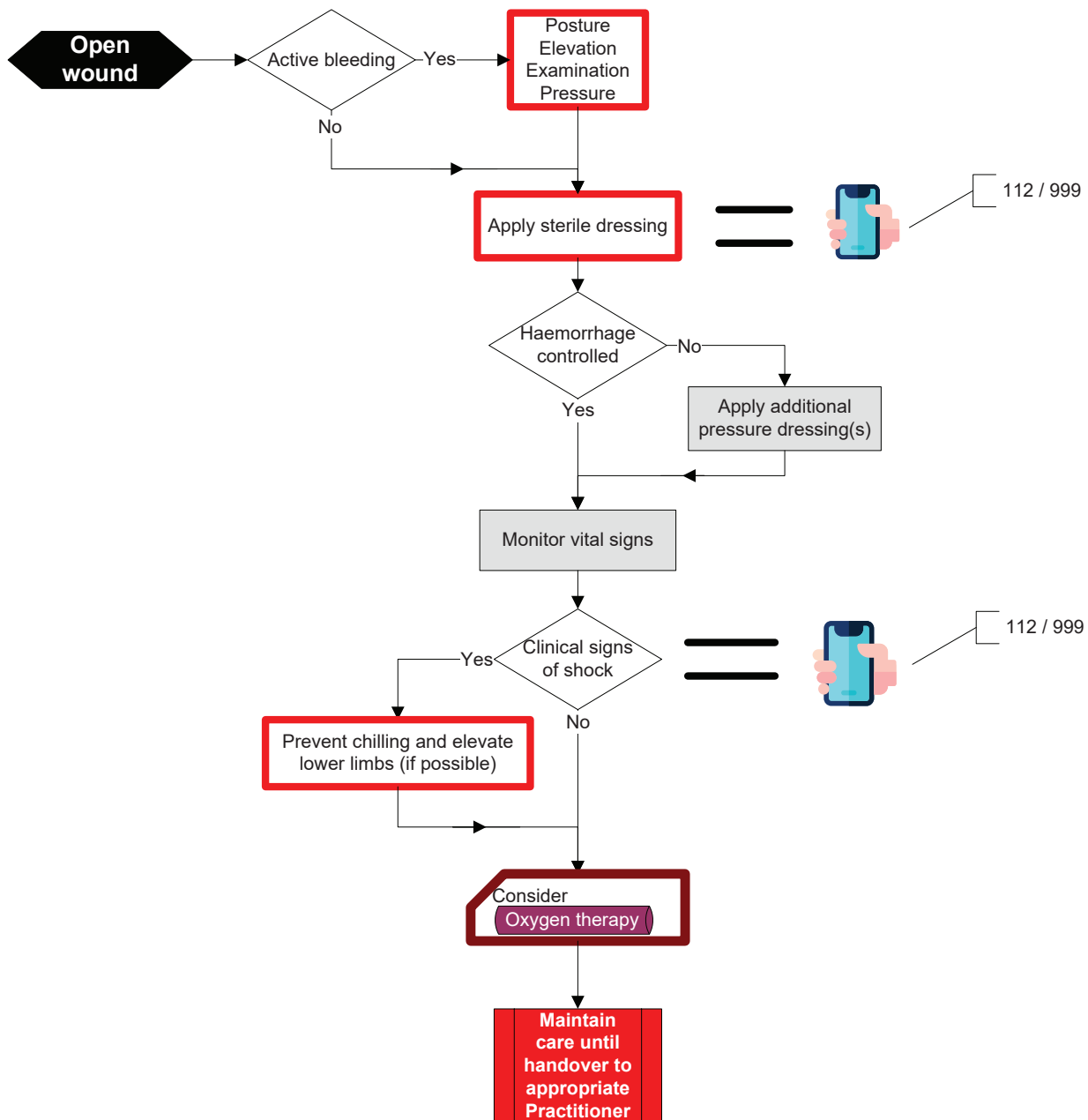
2/3.8.1
Version 4, 12/2020

FAR EFR



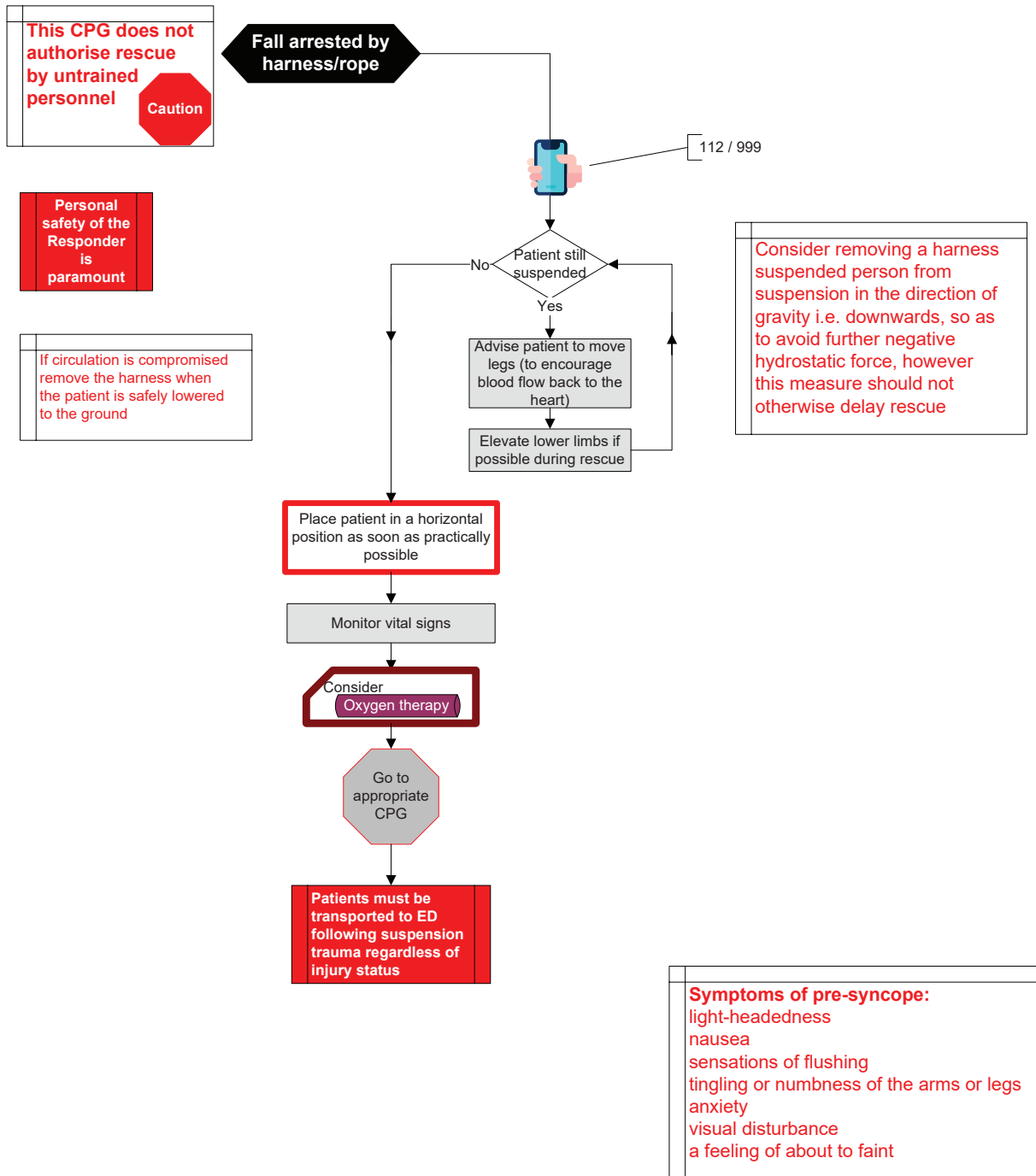
External Haemorrhage - Adult

2/3.8.3
Version 5, 02/2021



Harness Induced Suspension Trauma

2/3.8.4
Version 3, 12/2020

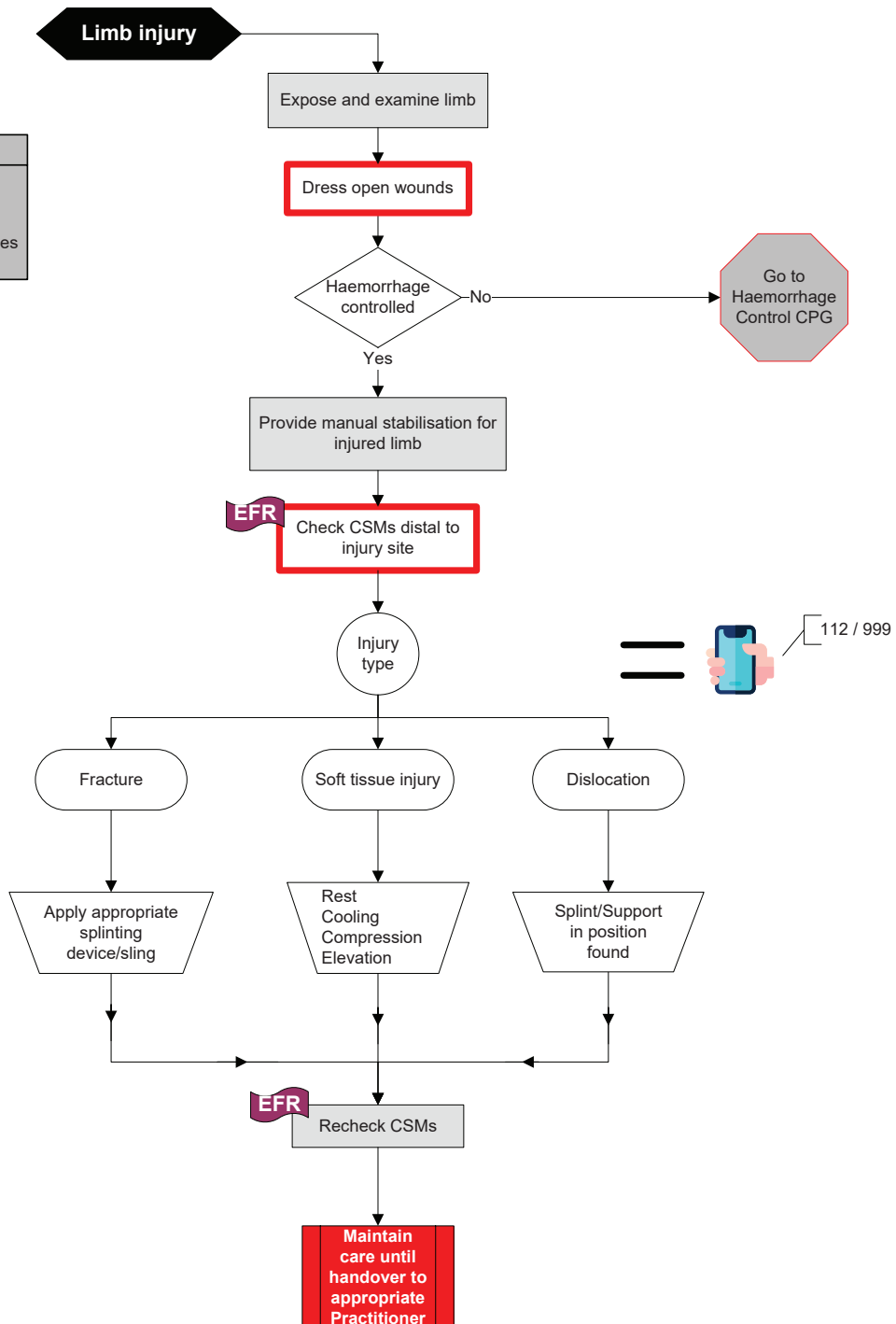


Limb Injury - Adult

2/3.8.6
Version 4, 03/2021

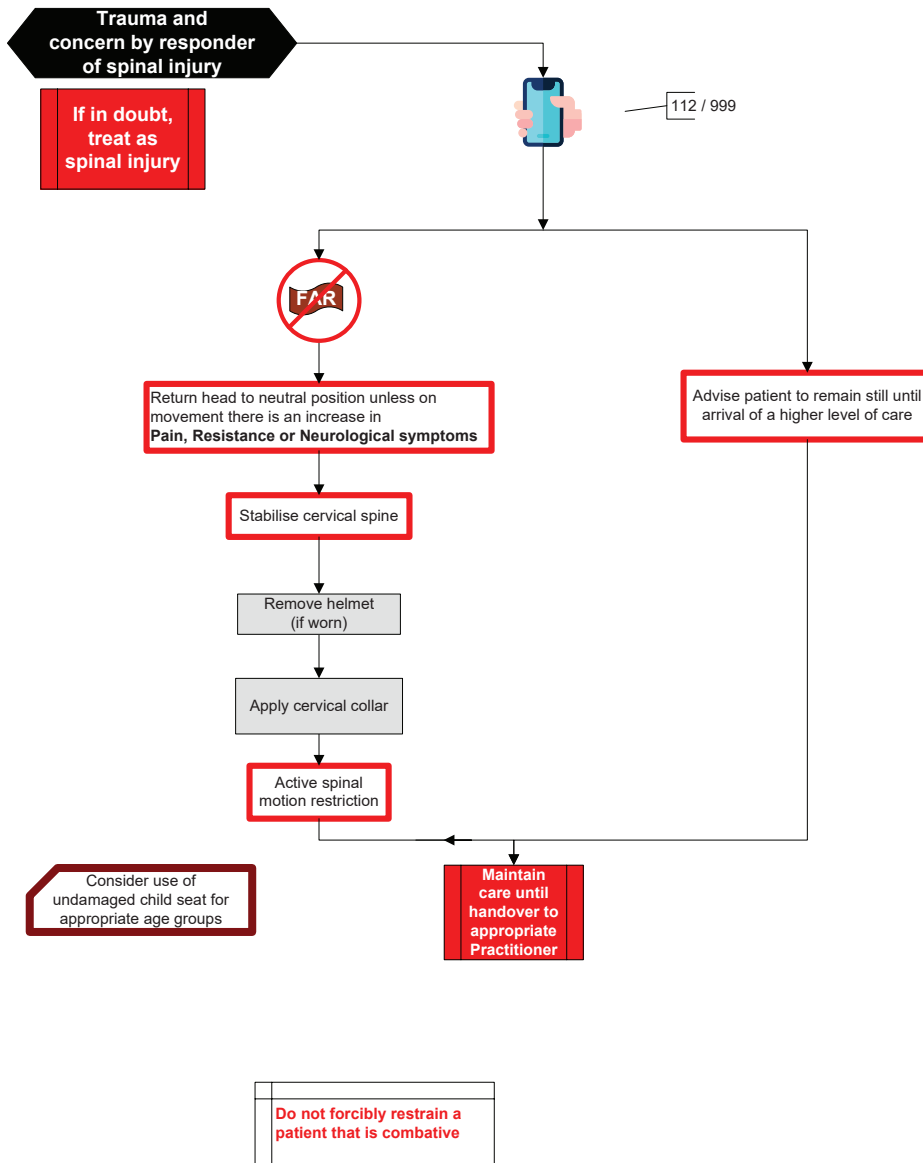
FAR EFR

Equipment list
Dressings
Triangular bandages
Splinting devices
Compression bandages
Cooling packs



Spinal Injury Management

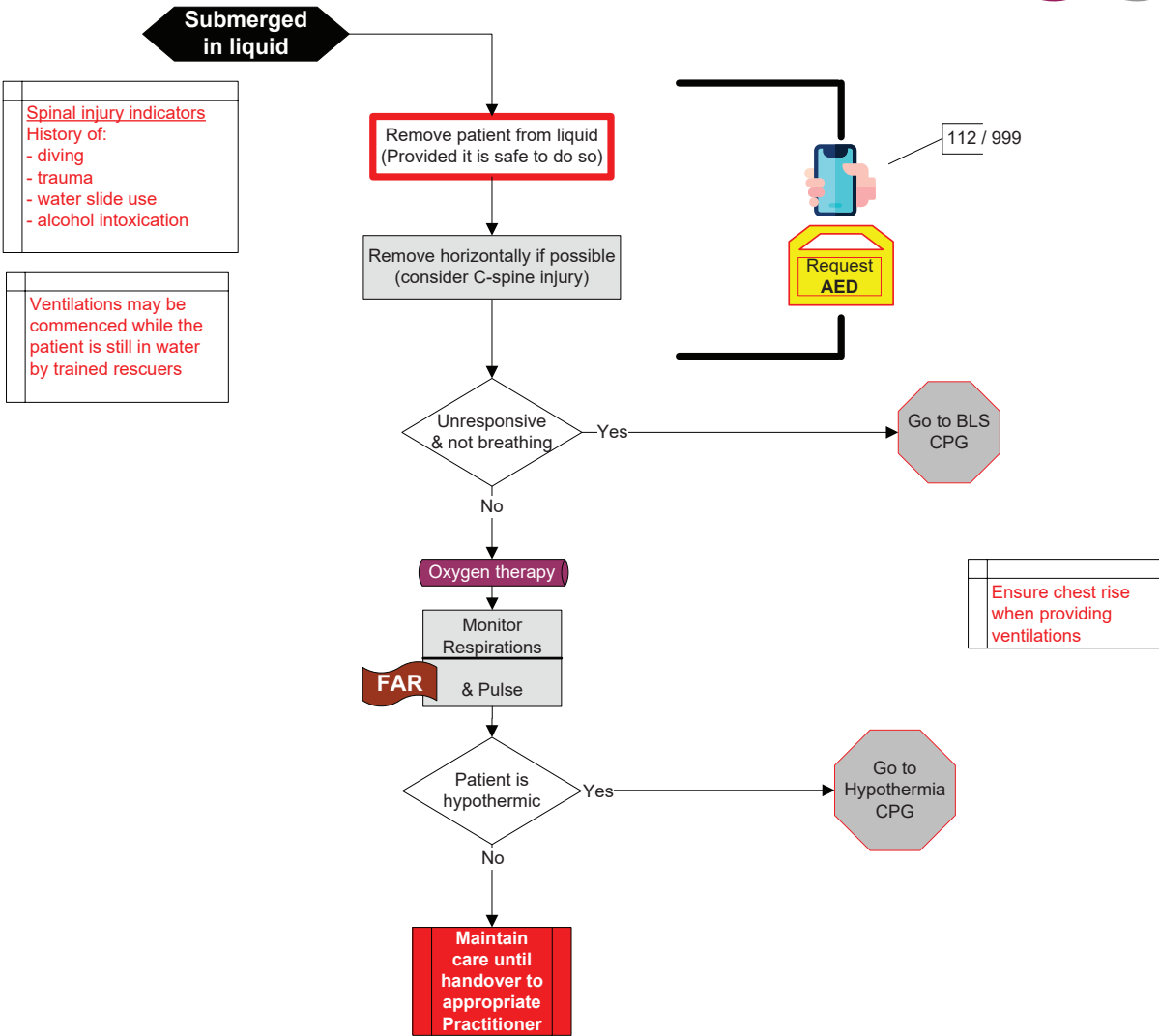
2/3.8.8
Version 4, 12/2020



EFR Special Authorisation:
 EFR's who are operating on behalf of a licensed CPG provider may extricate a patient using appropriate equipment in the absence of a Practitioner if;
 1 an unstable environment prohibits the attendance of a Practitioner, or
 2 while awaiting the arrival of a Practitioner the patient requires rapid extrication to initiate emergency care, and
 3 the care is recorded on an ACR/PCR which is presented to the transporting Practitioner

Submersion Incident

1/2/3.8.9
Version 3, 04/2021



Spinal injury indicators
History of:
- diving
- trauma
- water slide use
- alcohol intoxication

Ventilations may be commenced while the patient is still in water by trained rescuers

Ensure chest rise when providing ventilations

Transportation to Emergency Department is required for investigation of secondary drowning insult

Hypothermia

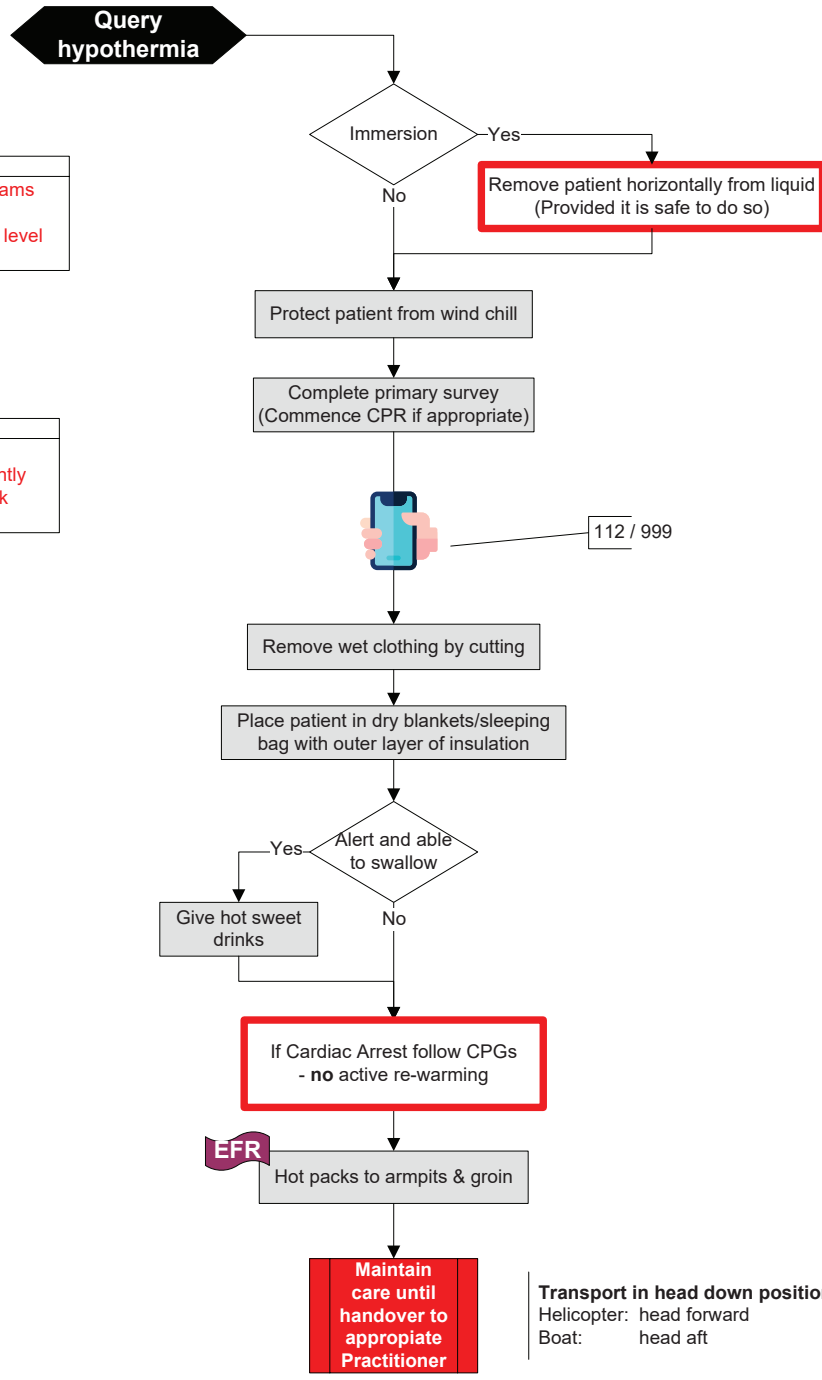
2/3.9.1
Version 4, 03/2021



Members of rescue teams should have a clinical leader of at least EFR level

Hypothermic patients should be handled gently & not permitted to walk

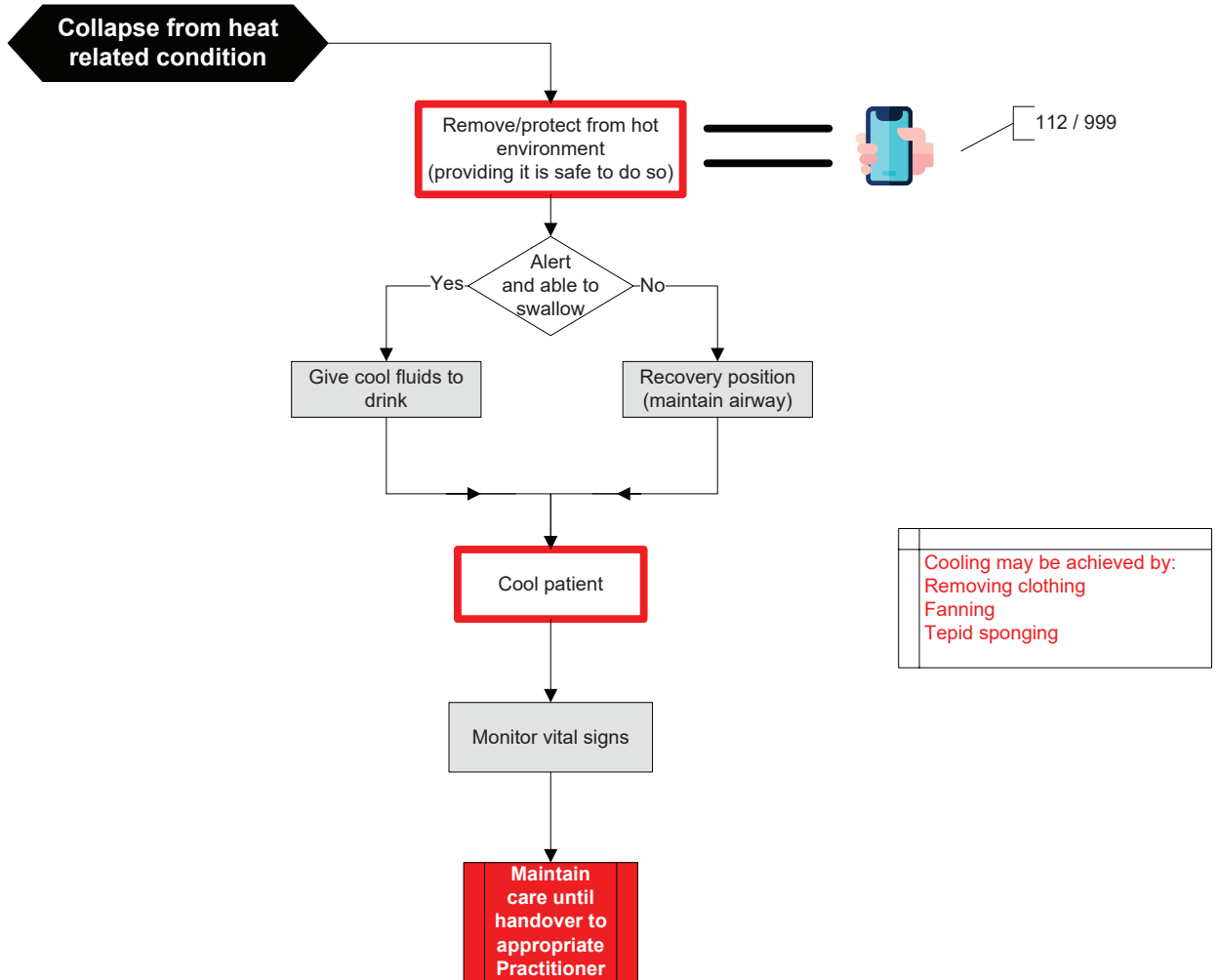
Pulse check for 30 to 45 seconds



Transport in head down position
Helicopter: head forward
Boat: head aft

Heat Related Emergency - Adult

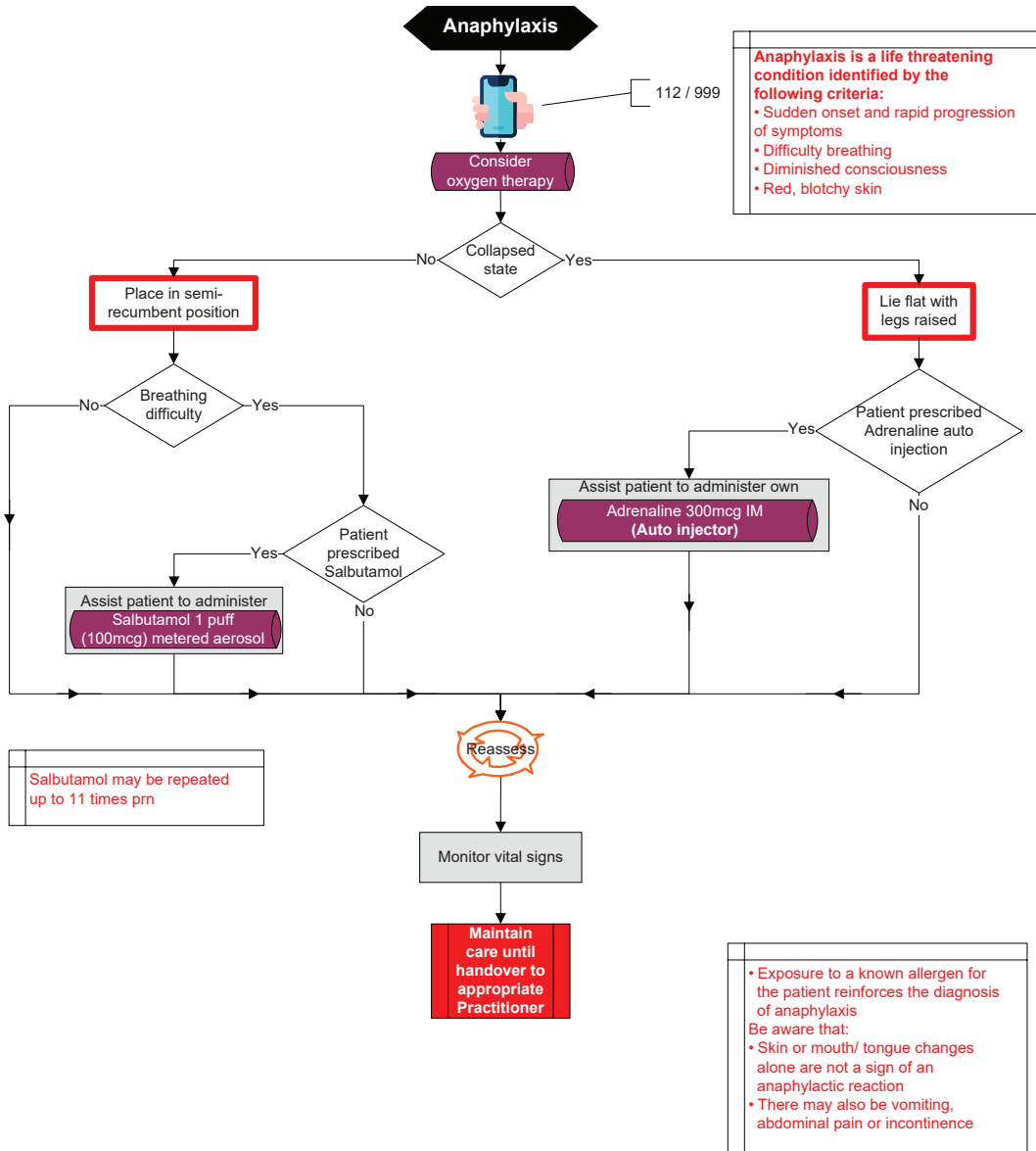
2/3.9.2
Version 4, 12/2020



Allergic Reaction/ Anaphylaxis – Adult

2/3.10.1
Version 3, 03/2021

FAR EFR



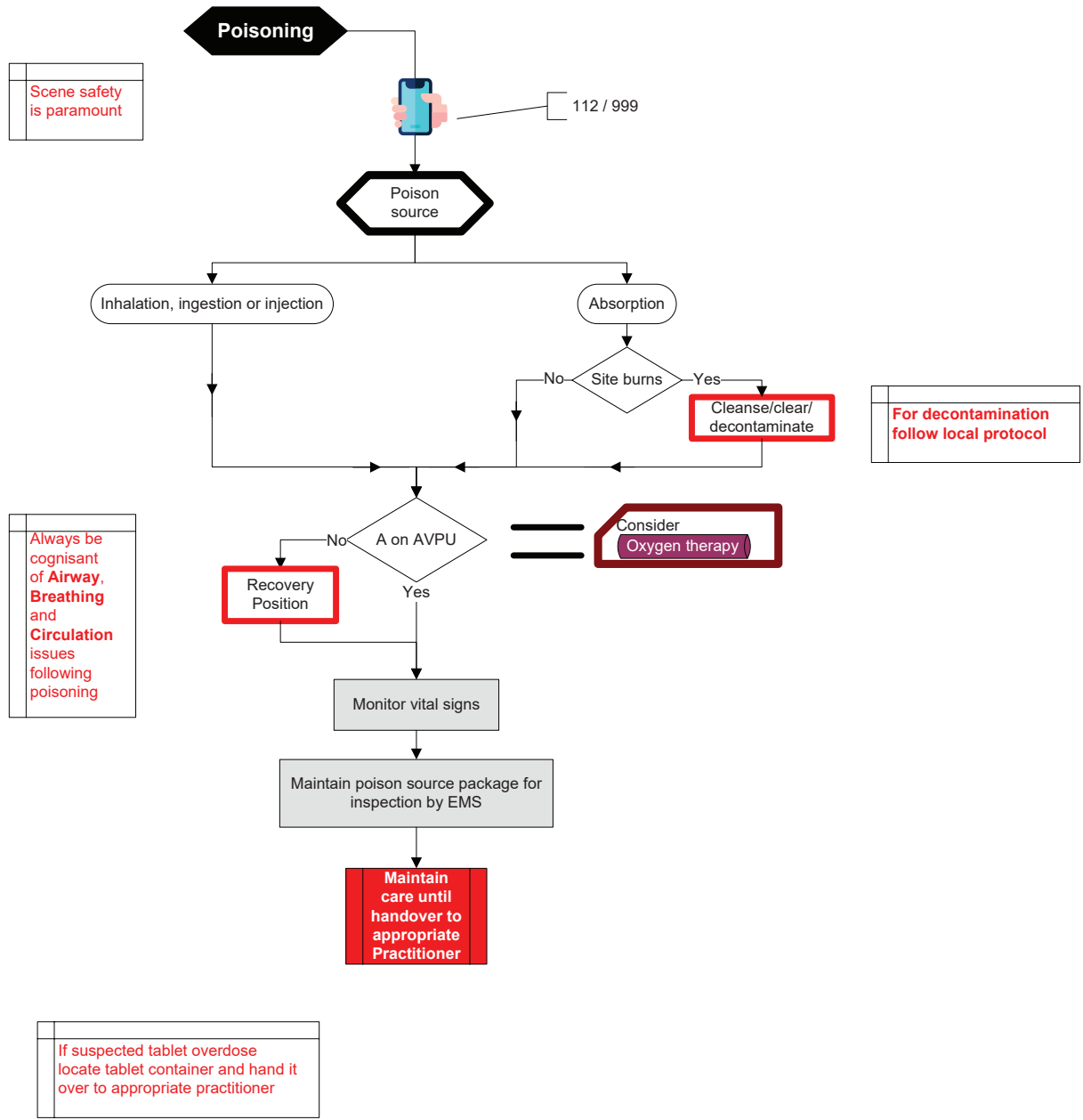
Special Authorisation: Responders who have received training and are authorised by a Medical Practitioner for a named patient may administer Salbutamol via an aerosol measured dose.

Special Authorisation: Responders who have received training and are authorised by a Medical Practitioner for a named patient may administer Adrenaline via an auto injector.

Poisons - Adult

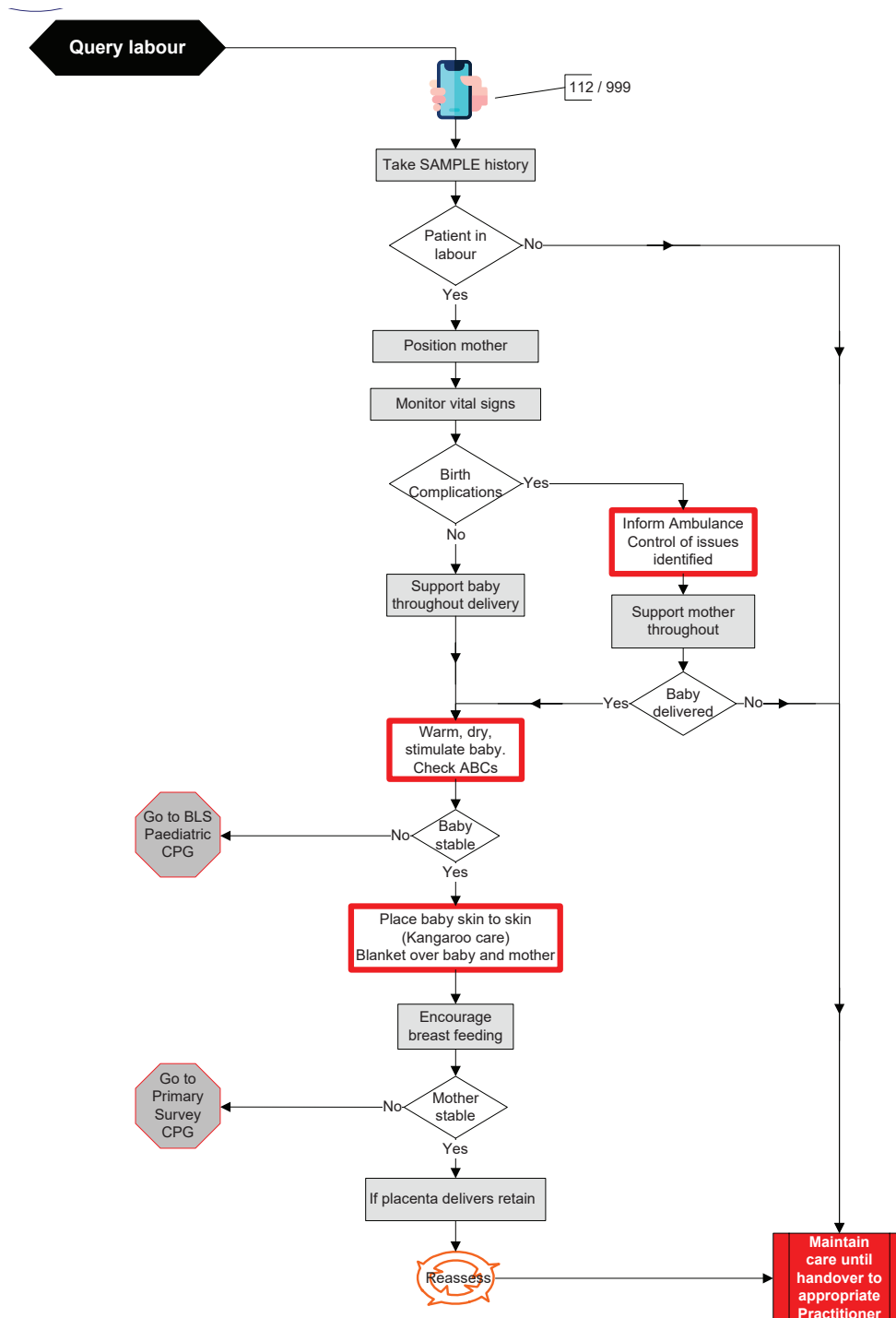
2/3.10.2
Version 3, 02/2021

FAR EFR



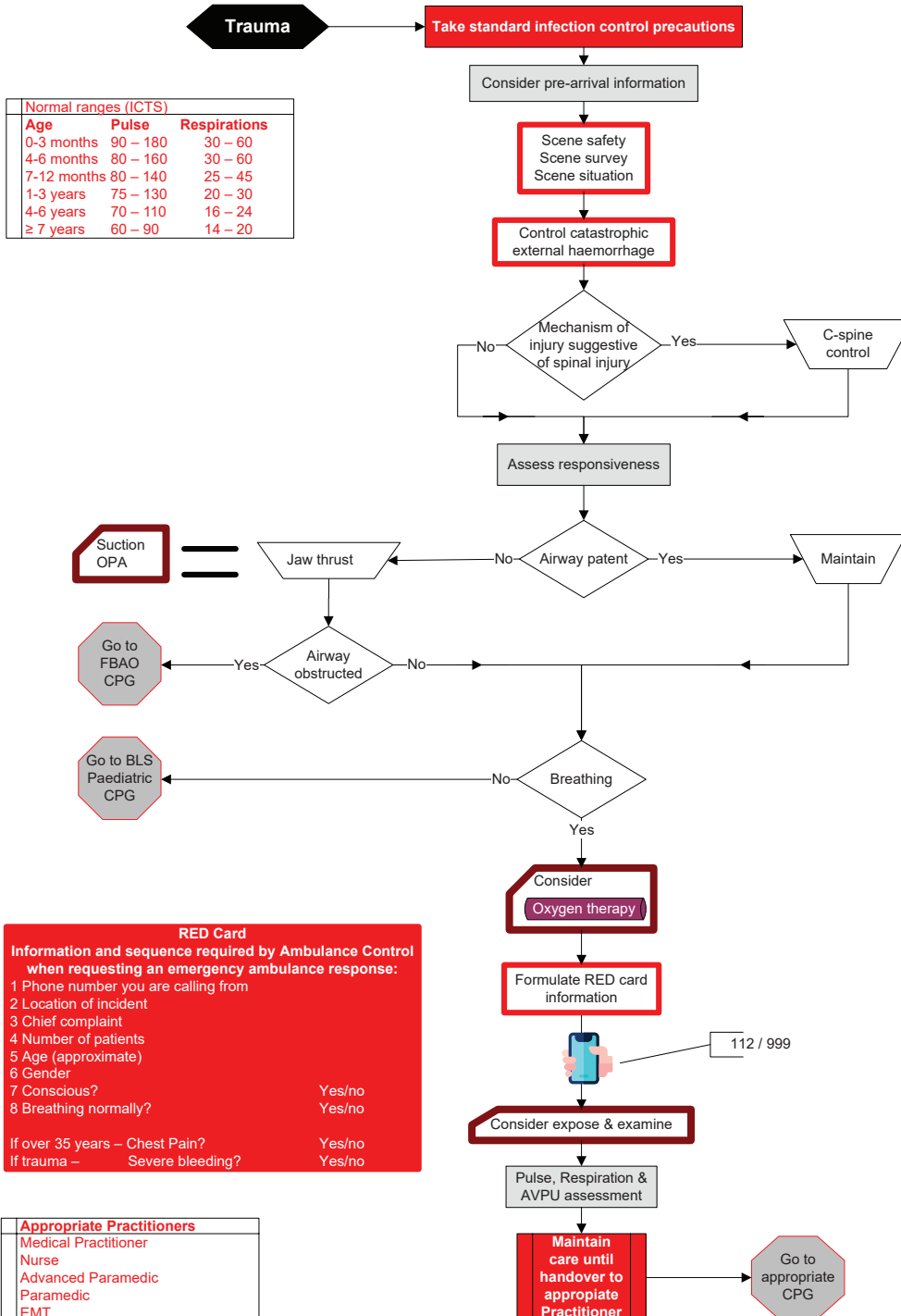
Pre-Hospital Emergency Childbirth

3.12.2
Version 2, 12/2020



Primary Survey Trauma – Paediatric

3.13.2
Version 6, 12/2020



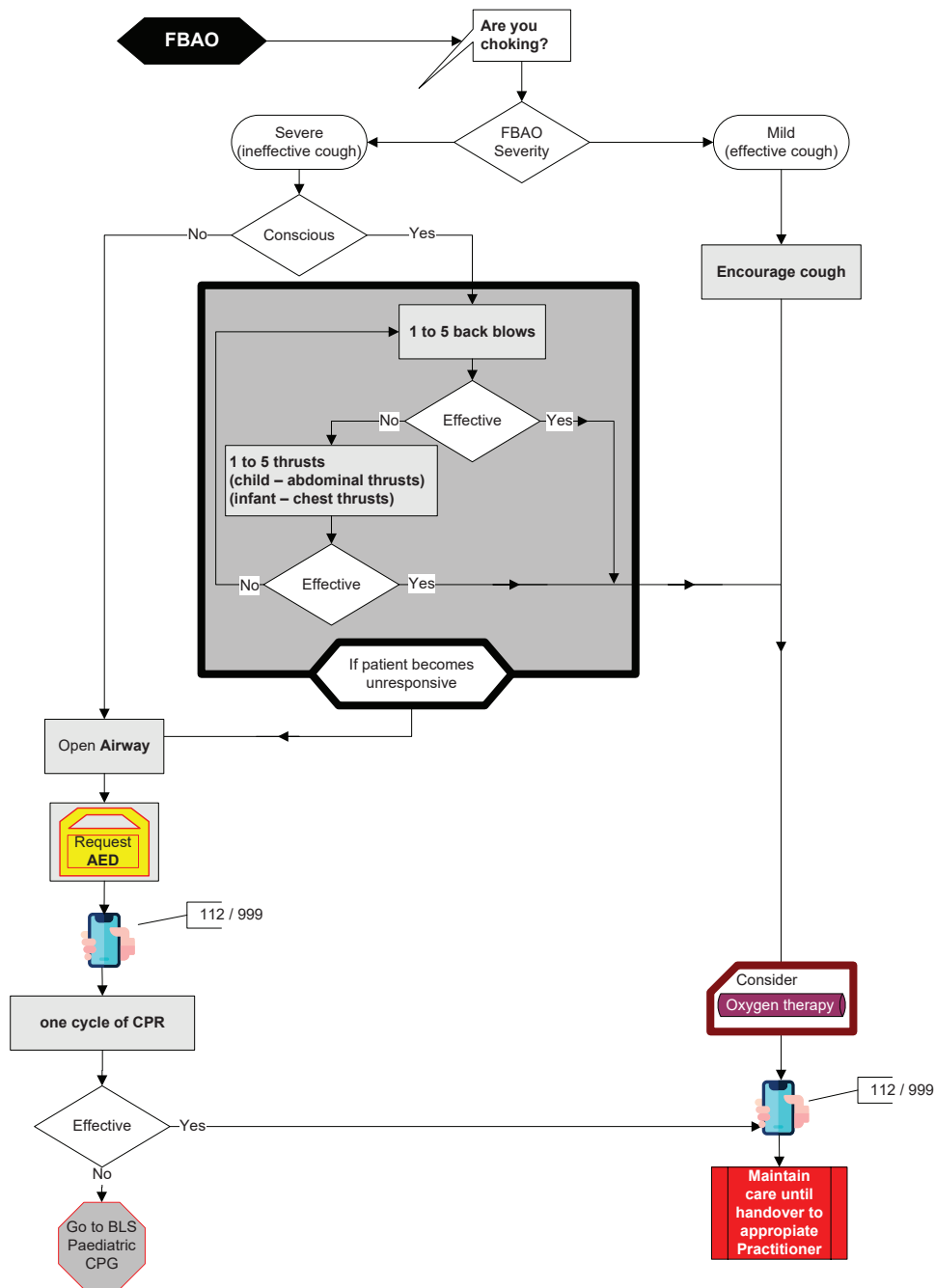
Foreign Body Airway Obstruction – Paediatric

1/2/3.13.5
Version 6, 03/2021

CFR

FAR

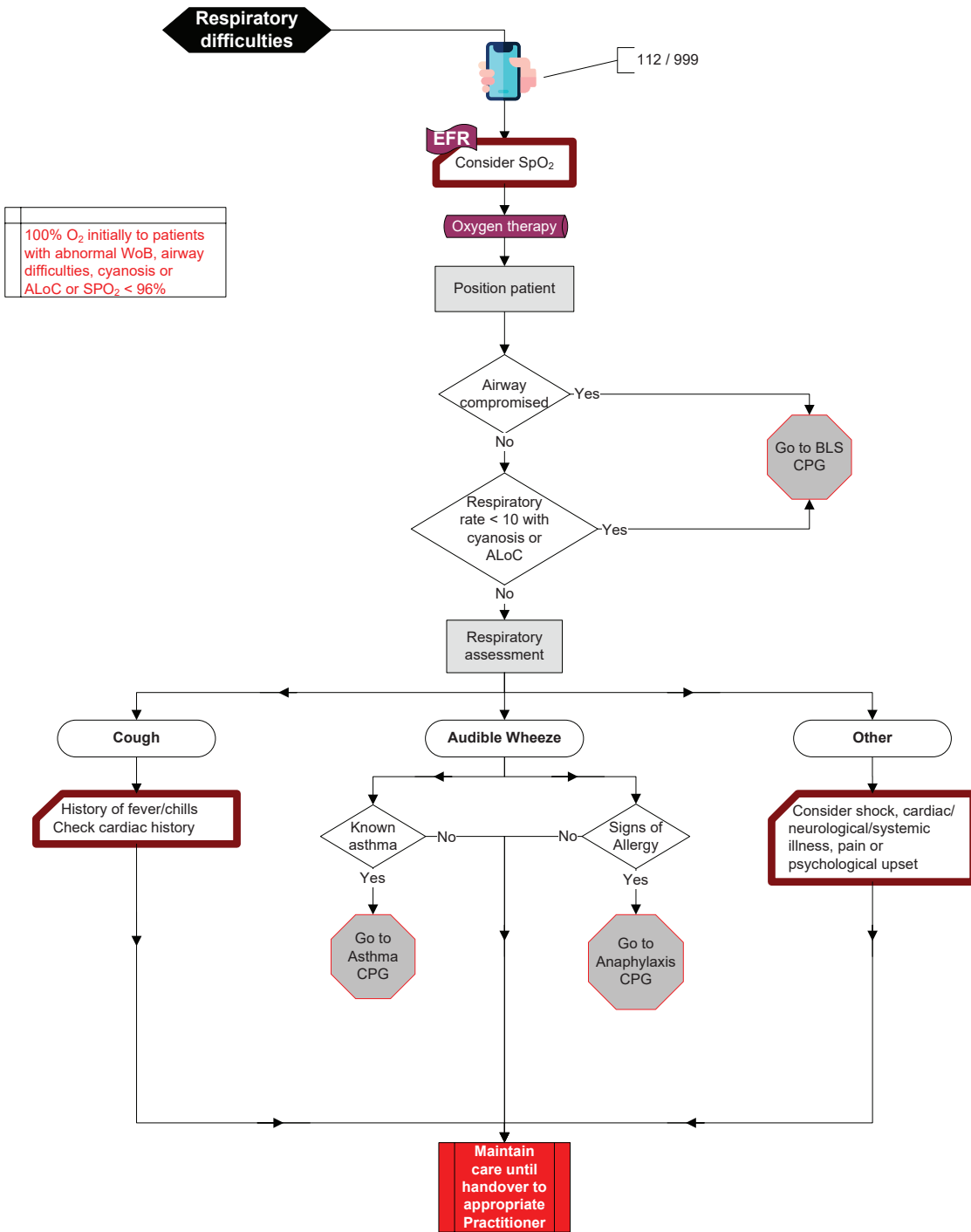
EFR



After each cycle of CPR open mouth and look for object.
If visible, make one attempt to remove.

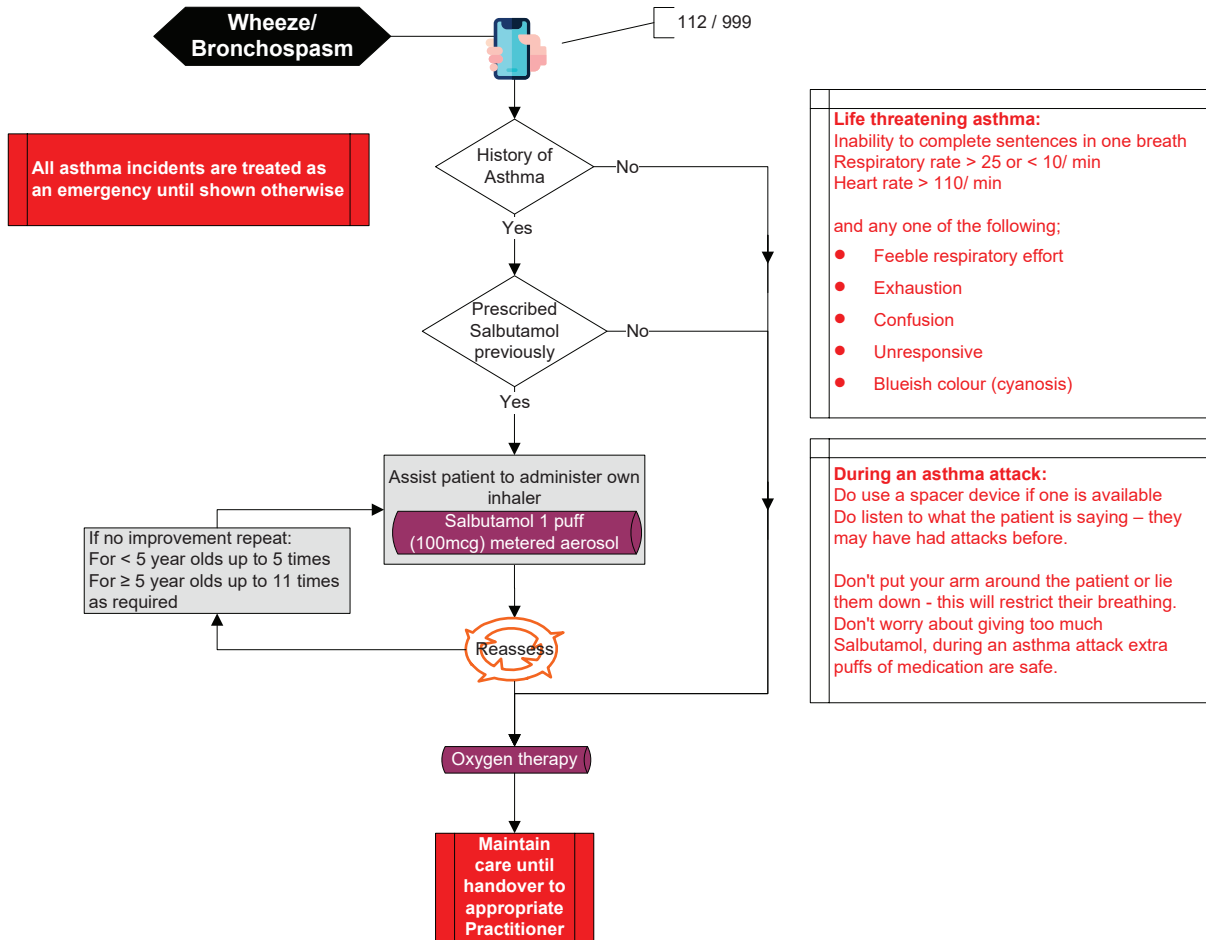
Abnormal Work of Breathing - Paediatric

2/3.13.7
Version 4, 03/2021



Asthma – Paediatric

2/3.13.8
Version 4, 12/2020

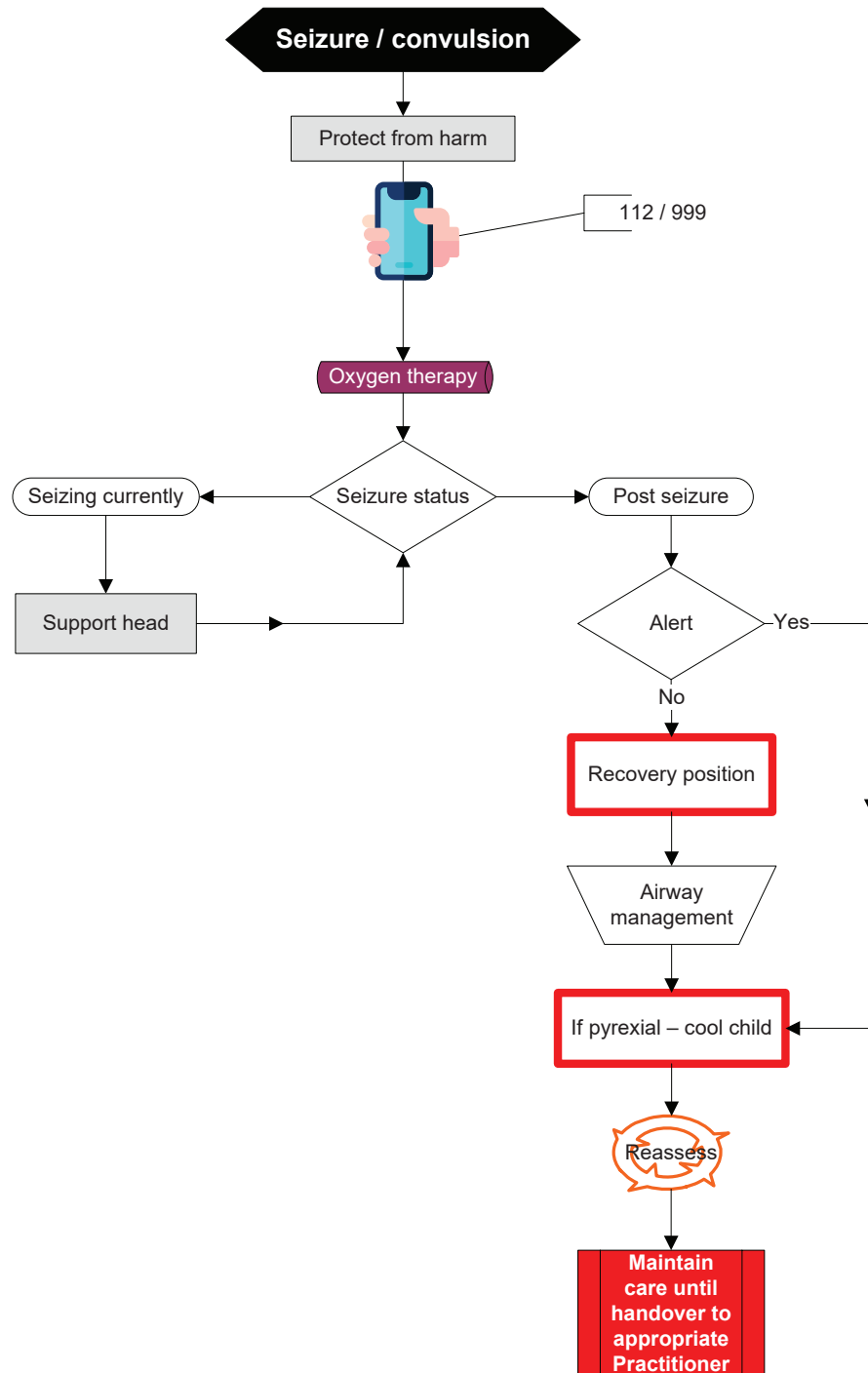


Seizure/Convulsion – Paediatric

2/3.13.14
Version 4, 12/2020

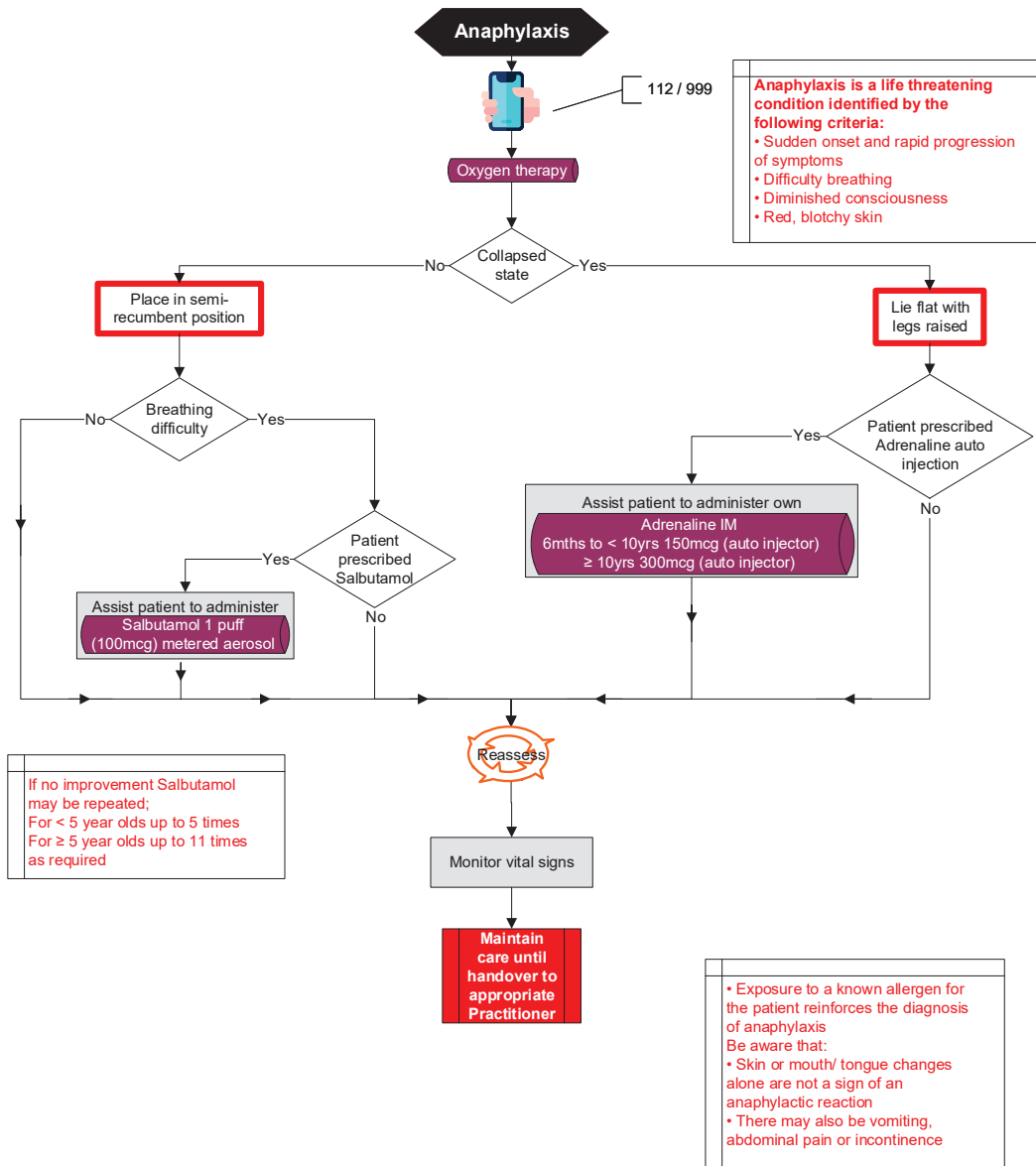


<p>Consider other causes of seizures</p> <ul style="list-style-type: none"> Meningitis Head injury Hypoglycaemia Fever Poisons Alcohol/drug withdrawal



Allergic Reaction/ Anaphylaxis – Paediatric

2/3.13.21
Version 4, 02/2021



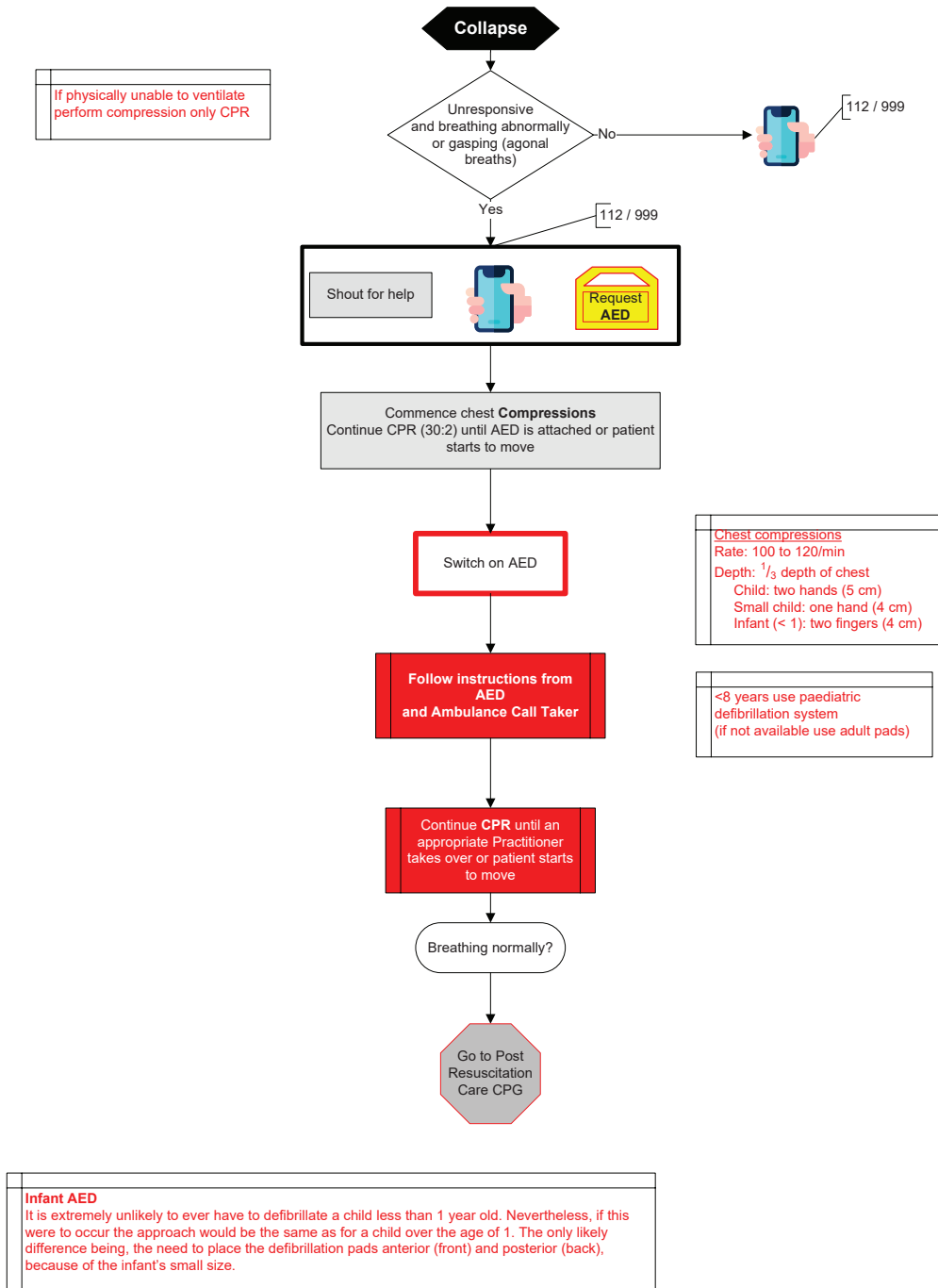
Special Authorisation:
Responders who have received training and are authorised by a Medical Practitioner for a named patient may administer Salbutamol via an aerosol measured dose.

Special Authorisation:
Responders who have received training and are authorised by a Medical Practitioner for a named patient may administer Epinephrine via an auto injector.

Basic Life Support – Paediatric

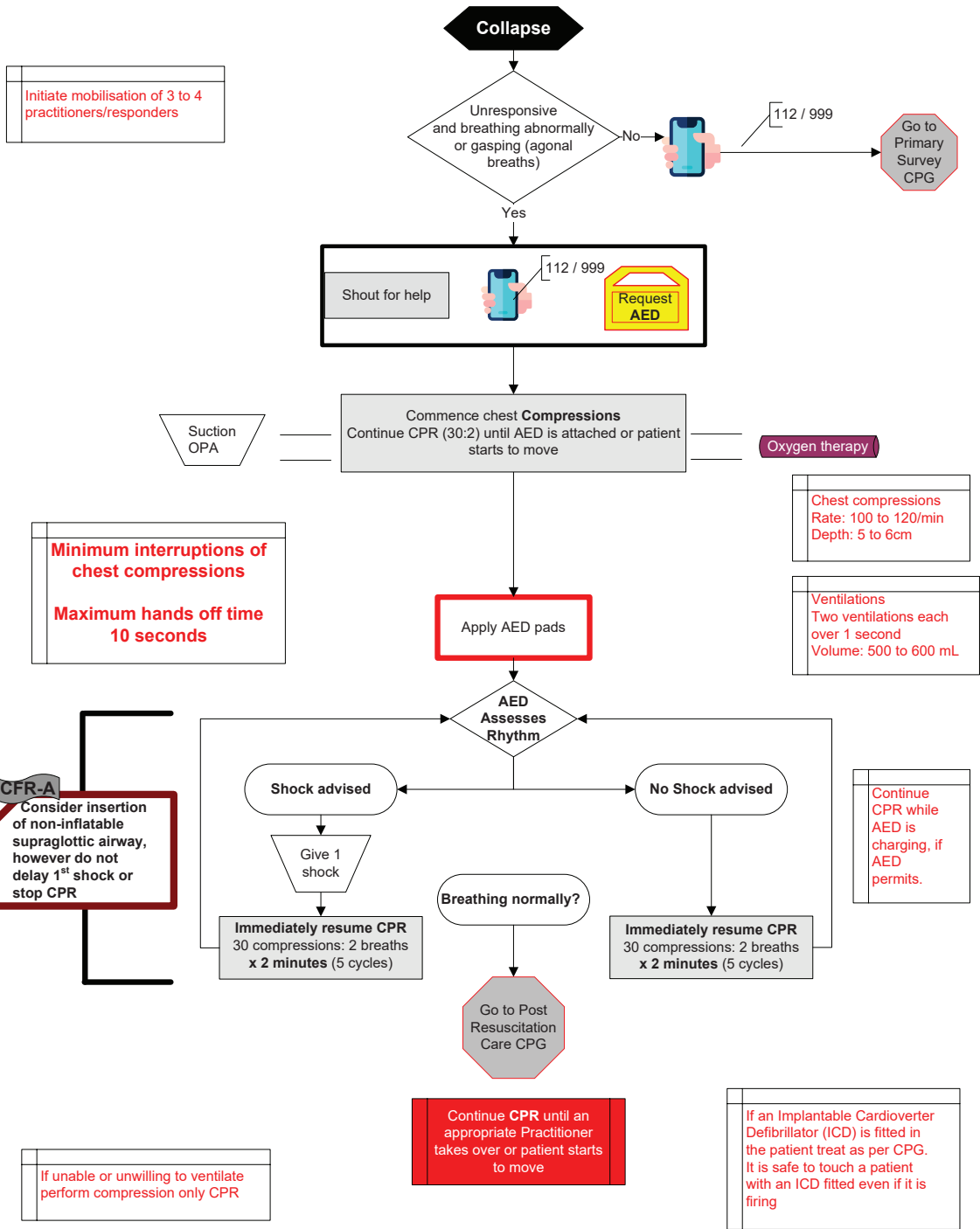
1/2/3.13.22
Version 8, 03/2021

CFR FAR EFR



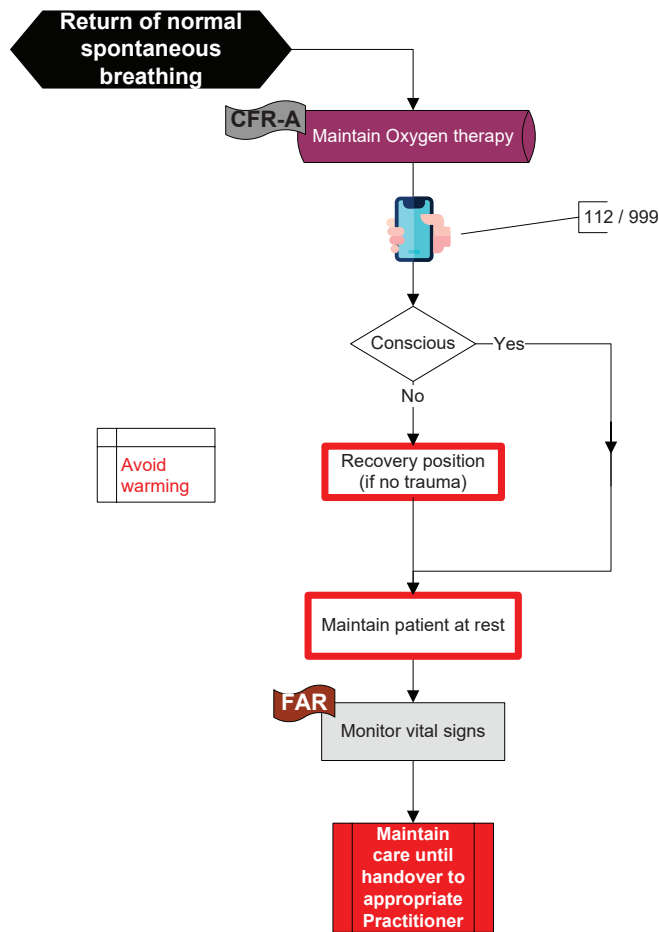
Basic Life Support – Adult

1/3.14.1
Version 6,03/2021



Post-Resuscitation Care

1/2/3.14.6
Version 5, 03/2021



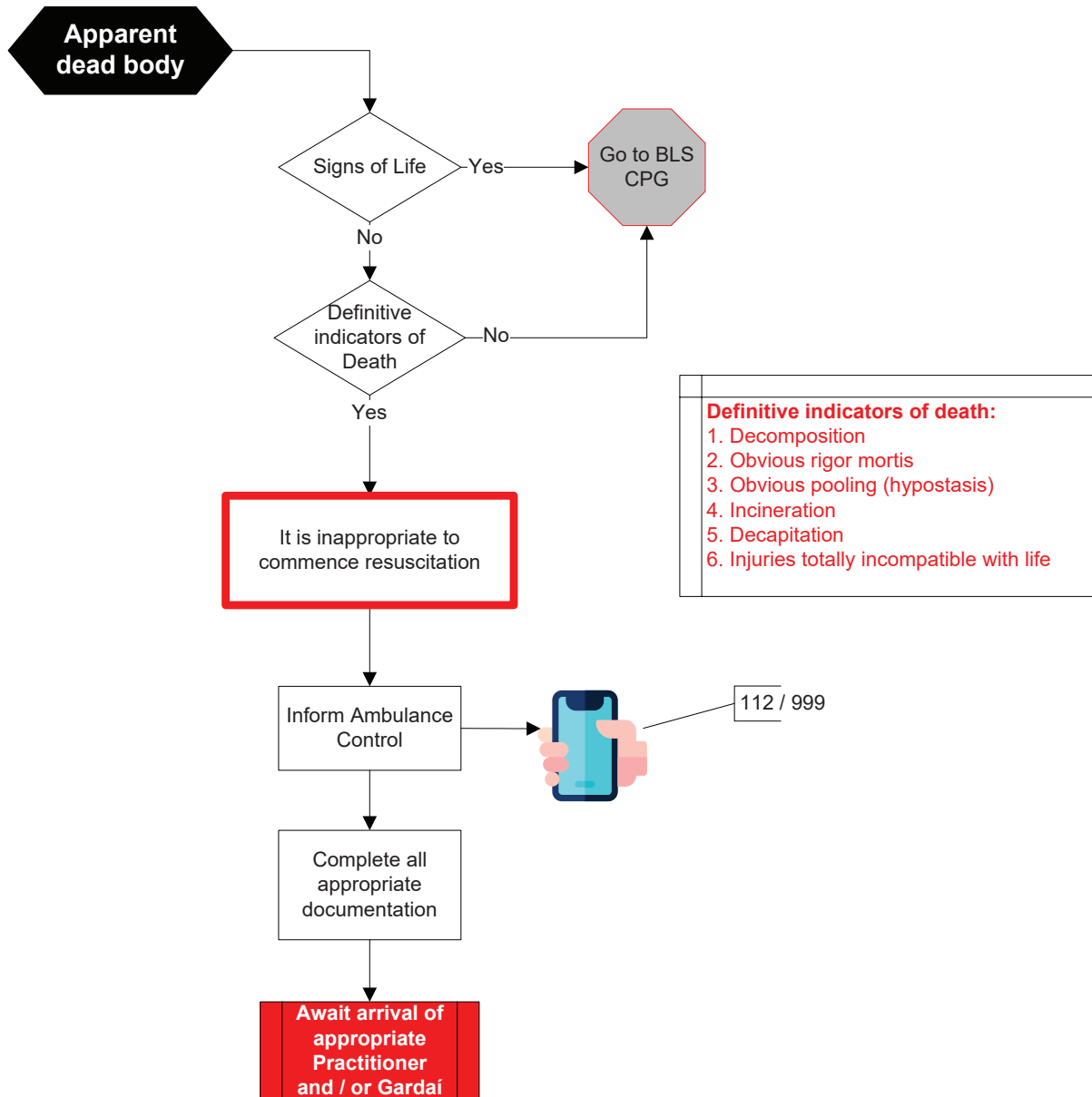
Recognition of Death – Resuscitation not Indicated

1/2/3.14.7
Version 3, 12/2020

CFR

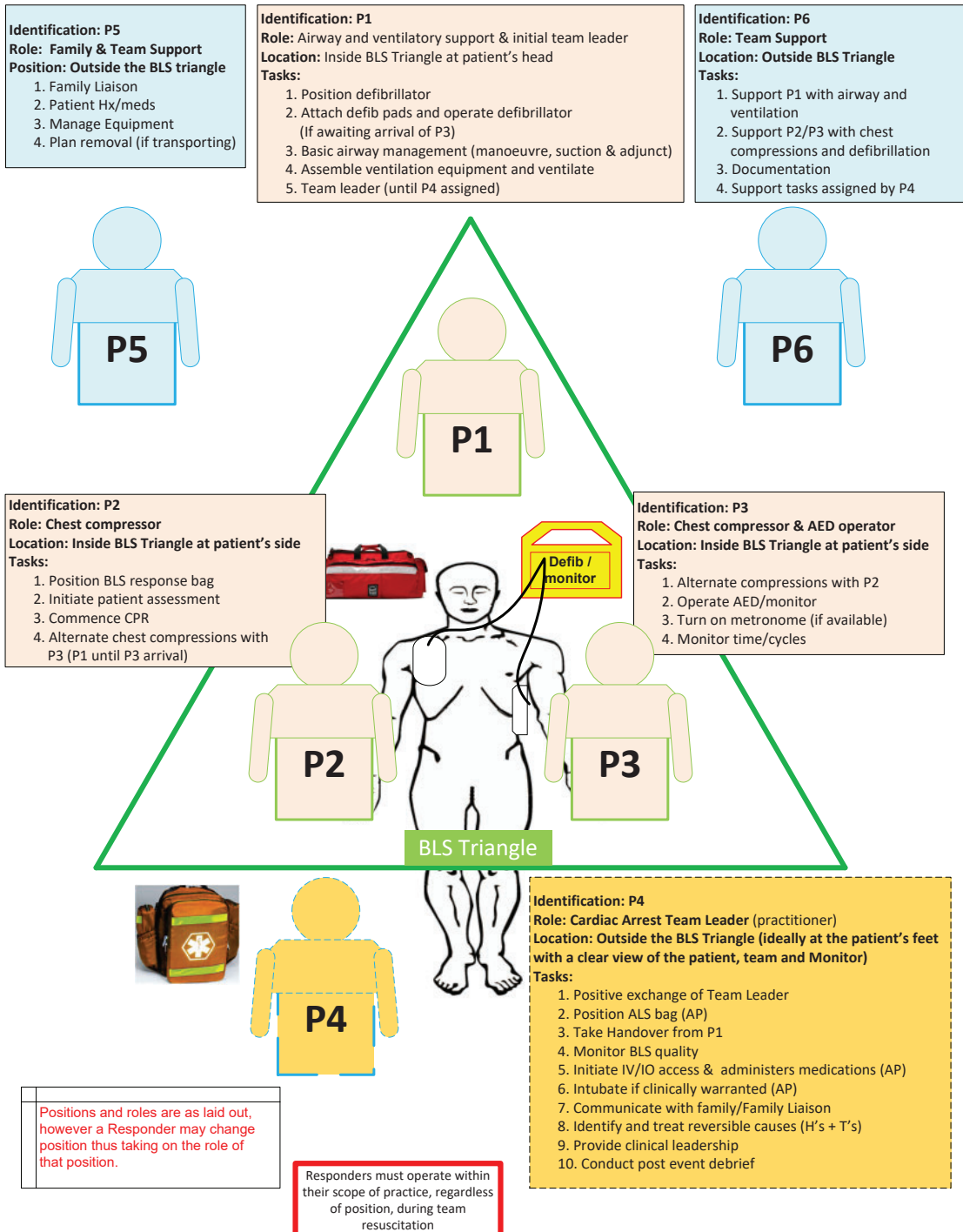
FAR

EFR



Team Resuscitation

1/2/3.14.8
Version 2, 12/2020



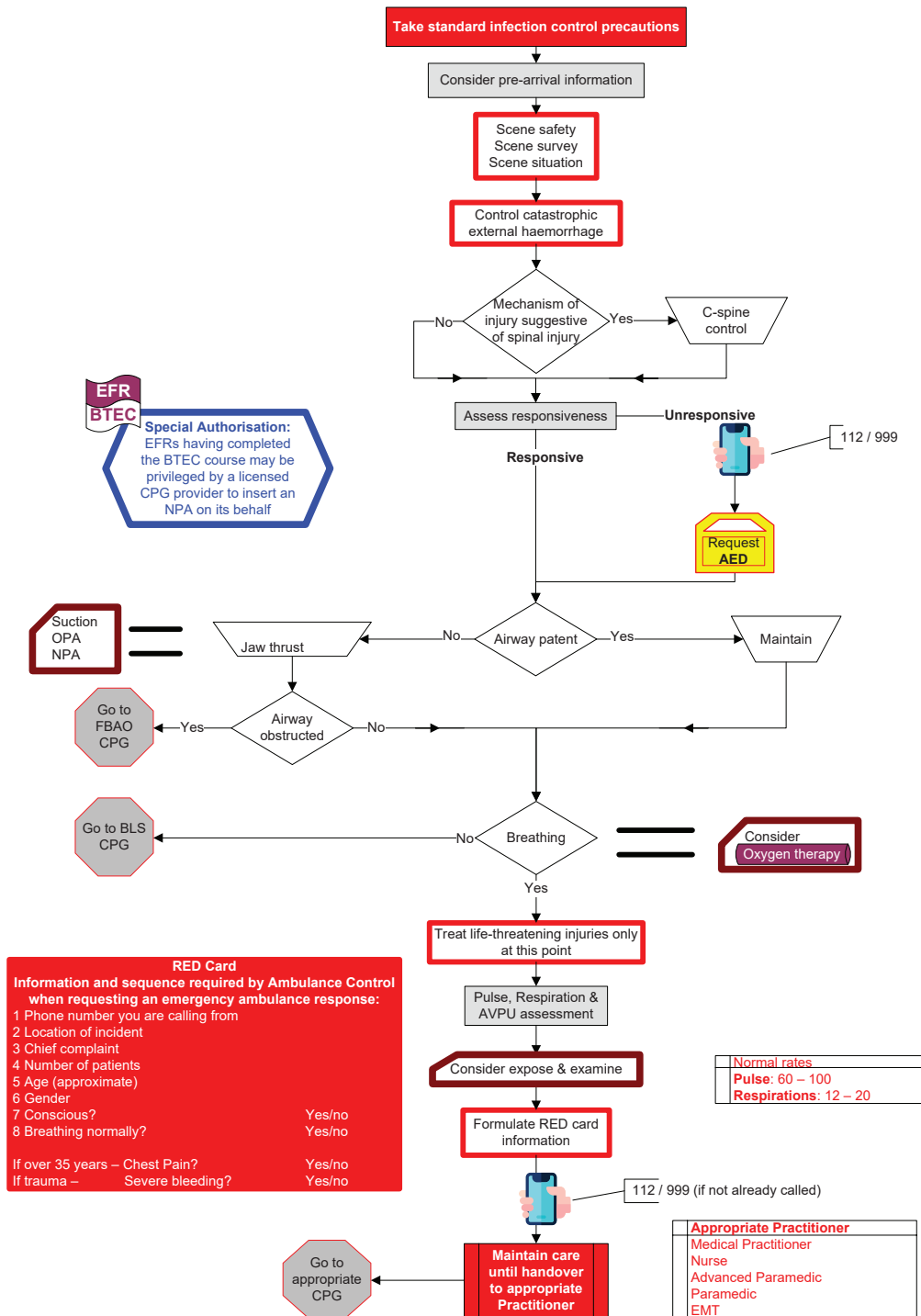
SECTION 1 - Principles of general care

Primary Survey - Adult

3.1.4T
Version 5, 12/2020



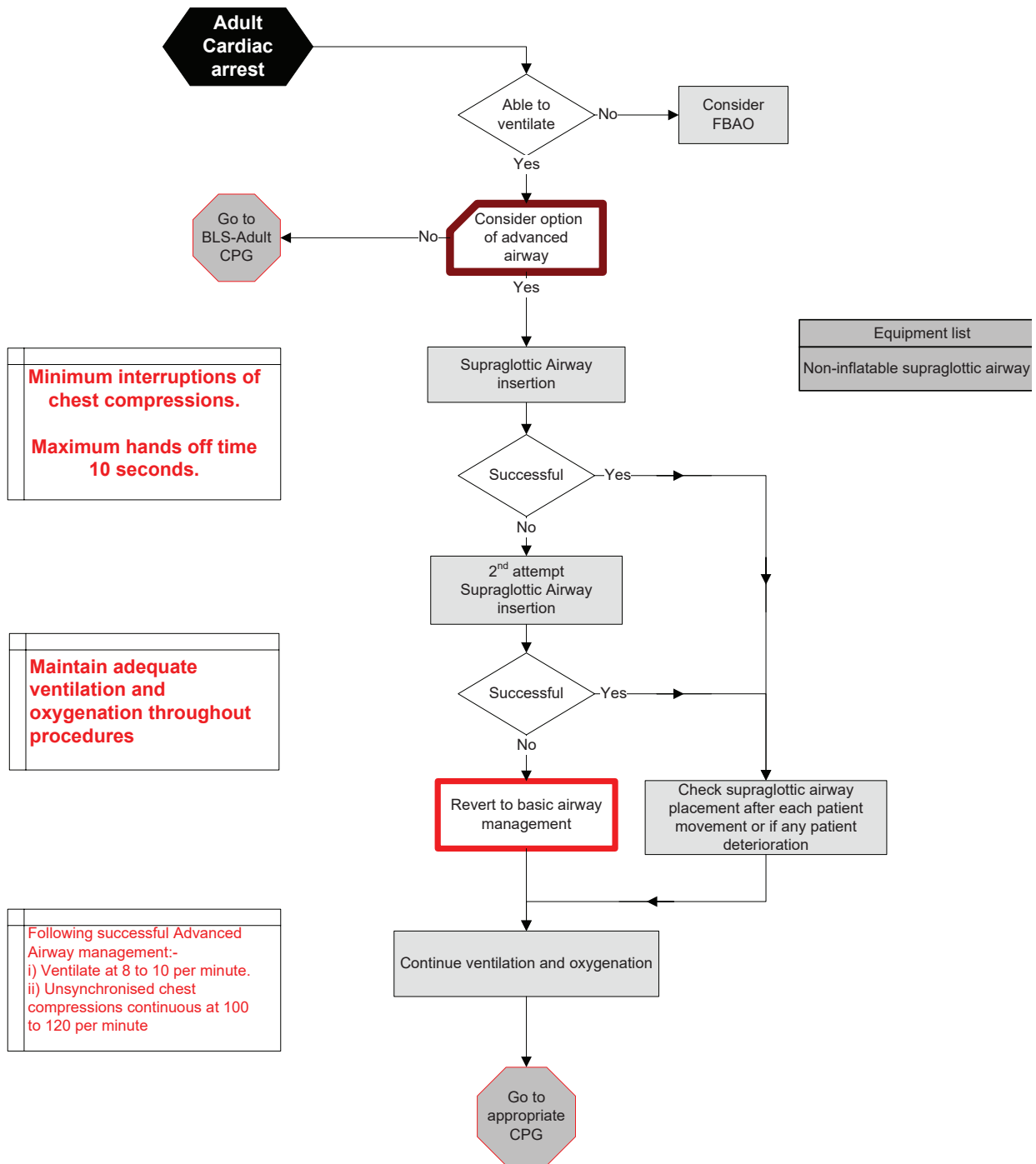
Special Authorisation:
EFRs having completed the BTEC course may be privileged by a licensed CPG provider to insert an NPA on its behalf



SECTION 2 - Airway and Breathing

Advanced Airway Management – Adult

1/3.2.2T
Version 4, 03/2021



Minimum interruptions of chest compressions.
Maximum hands off time 10 seconds.

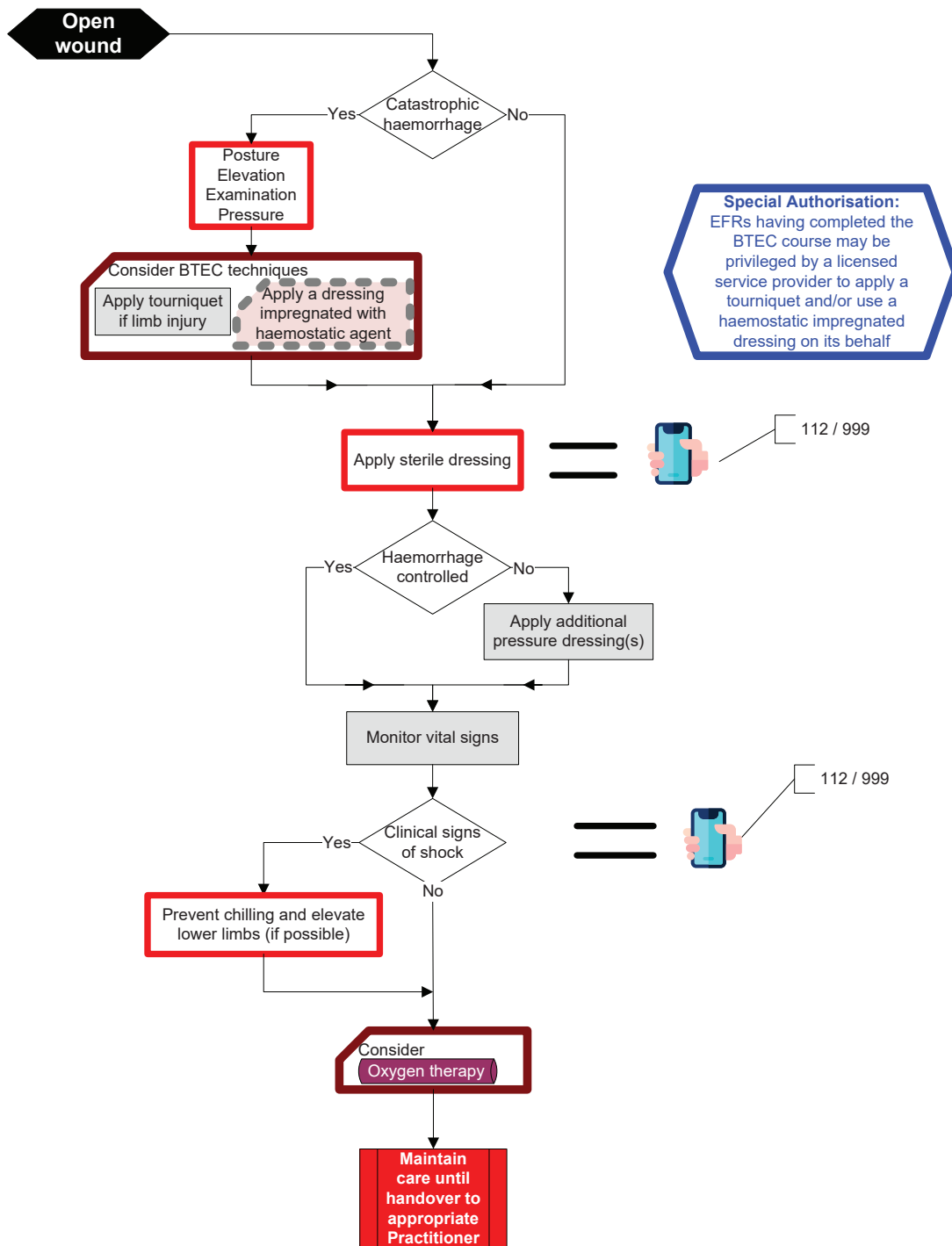
Maintain adequate ventilation and oxygenation throughout procedures

Following successful Advanced Airway management:-
i) Ventilate at 8 to 10 per minute.
ii) Unsynchronised chest compressions continuous at 100 to 120 per minute

Equipment list
Non-inflatable supraglottic airway

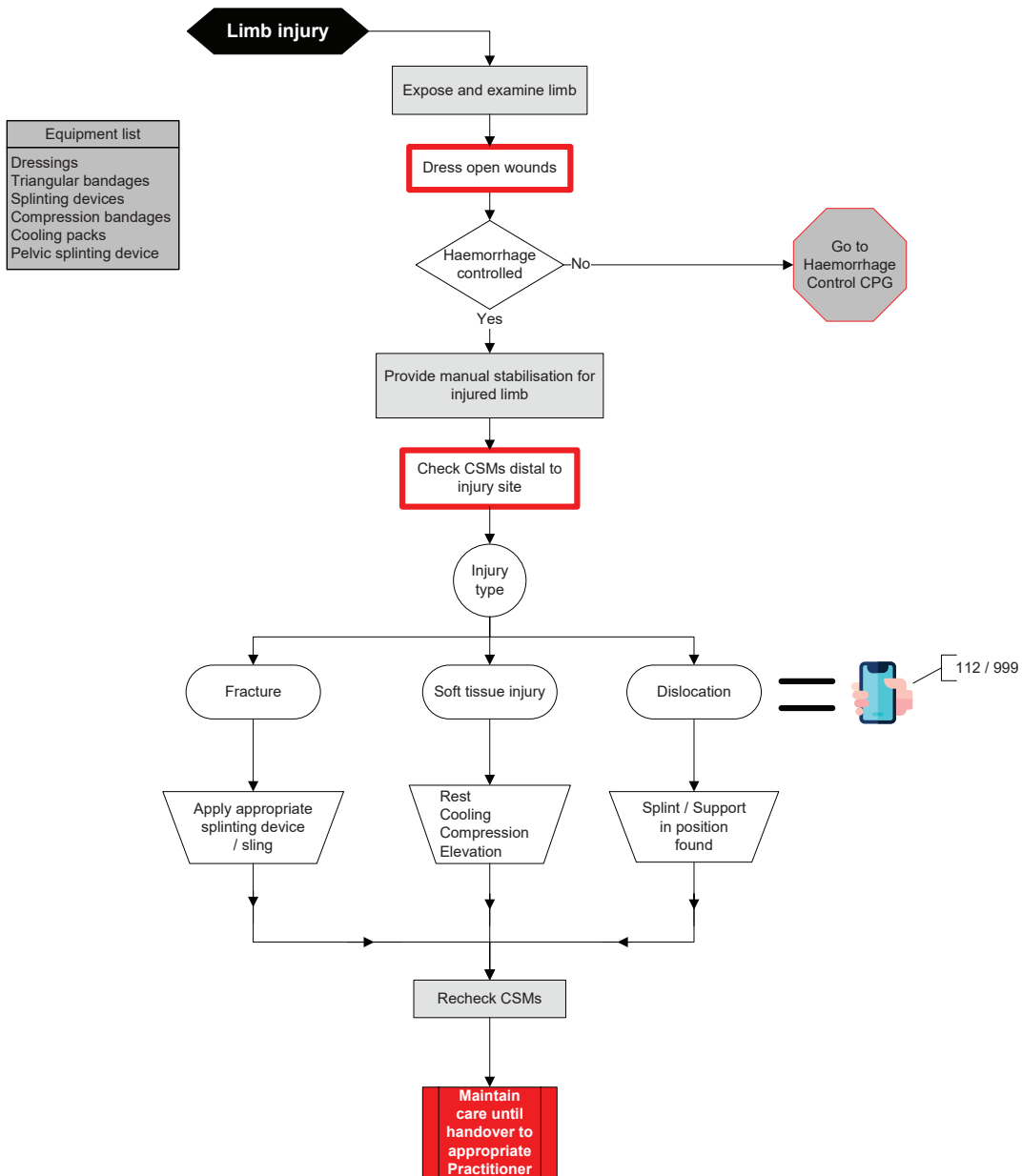
External Haemorrhage - Adult

3.8.3T
Version 5, 05/2021



Limb Injury - Adult

3.8.6T
Version 4, 03/2021



EFR
BTEC

Special Authorisation:
EFRs having completed the BTEC course may be privileged by a licensed service provider to apply a pelvic splinting device on its behalf

Medication Formulary for Emergency First Responders

The Medication Formulary is published by the Pre-Hospital Emergency Care Council (PHECC) to support Emergency First Responders to be competent in the use of medications permitted under Clinical Practice Guidelines (CPGs).

The Medication Formulary is recommended by the Medical Advisory Committee (MAC) prior to publication by Council.

The medications herein may be administered, or patients may be assisted to administer the medications herein provided:

1. The Emergency First Responder complies with the CPGs published by PHECC.
2. The Emergency First Responder is acting on behalf of an organisation (paid or voluntary) that is a PHECC licensed CPG provider.
3. The Emergency First Responder is privileged, by the organisation on whose behalf he/she is acting, to administer the medications.
4. The Emergency First Responder has received training on, and is competent in, the administration of the medication.

The context for administration of the medications listed here is outlined in the CPGs. Every effort has been made to ensure accuracy of the medication doses herein. The dose specified on the relevant CPG shall be the definitive dose in relation to Emergency First Responder administration of medications. The principle of titrating the dose to the desired effect shall be applied. The onus rests on the Emergency First Responder to ensure that he/she is using the latest versions of CPGs which are available on the PHECC website www.phecc.ie

All medication doses for patients ≤ 15 years shall be calculated on a weight basis unless an age-related dose is specified for that medication.

The route of administration should be as specified by the CPG.

The dose for paediatric patients may never exceed the adult dose.

Approved Paediatric weight estimations are:

Neonate =	3.5 Kg
Six months =	6 Kg
One to five years =	$(\text{age} \times 2) + 8$ Kg
Greater than 5 years =	$(\text{age} \times 3) + 7$ Kg

Pregnancy caution:

Medications should be administered in pregnancy only if the expected benefit to the mother is thought to be greater than the risk to the foetus, and all medications should be avoided, if possible, during the first trimester.

Responders therefore should avoid using medications in early pregnancy unless absolutely essential, and where possible, medical oversight should be sought prior to administration.

This edition contains 6 medication for Emergency First Responder.

Please visit www.phecc.ie for the latest edition/version

Changes to Monographs

1. Class and Description headings have merged to one Classification heading in line with BNF drug descriptors
2. Long term side effects have been removed unless essential
3. Pharmacology/Action has been removed unless essential information

EPINEPHRINE (1:1,000) CHANGES TO ADRENALINE (1:1000)

Heading	Add	Delete								
Medication	Adrenaline 1:1000.	Epinephrine 1:1000.								
Indications	Stridor, Symptomatic Bradycardia and Cardiogenic Shock.									
Contra-indications	Hypersensitivity to excipients.									
Usual Dosages	<table border="0"> <tr> <td>< 6 months</td> <td>10 mcg/kg IM</td> </tr> <tr> <td>6 months to < 6 years</td> <td>150 mcg (0.15 mL IM)</td> </tr> <tr> <td>≥ 6 years to < 12 years</td> <td>300 mcg (0.3 mL IM)</td> </tr> <tr> <td>≥ 12 years</td> <td>300 mcg (if child small or prepubital) or 500 mcg (0.3 mL or 0.5 mL IM)</td> </tr> </table>	< 6 months	10 mcg/kg IM	6 months to < 6 years	150 mcg (0.15 mL IM)	≥ 6 years to < 12 years	300 mcg (0.3 mL IM)	≥ 12 years	300 mcg (if child small or prepubital) or 500 mcg (0.3 mL or 0.5 mL IM)	<p>All dosing which was previously recommended under the following age categories</p> <p>< 6 months, 6 months to 5 years, 6 to 8 years, > 8 years.</p>
< 6 months	10 mcg/kg IM									
6 months to < 6 years	150 mcg (0.15 mL IM)									
≥ 6 years to < 12 years	300 mcg (0.3 mL IM)									
≥ 12 years	300 mcg (if child small or prepubital) or 500 mcg (0.3 mL or 0.5 mL IM)									

ASPIRIN		
Heading	Add	Delete
Classification	Merge Class and Description to Classification: Antithrombotic – Antiplatelet Drug which reduces clot formation.	Class. Description.
Description		Anti-inflammatory agent and an inhibitor of platelet function. Useful agent in the treatment of various thromboembolic diseases such as acute myocardial infarction.
Pharmacology/ Action		Antithrombotic: Inhibits the formation of thromboxane A2, which stimulates platelet aggregation and artery constriction. This reduces clot/ thrombus formation in an MI.
Long term side-effects		Generally mild and infrequent but incidence of gastro-intestinal irritation with slight asymptomatic blood loss, increased bleeding time, bronchospasm and skin reaction in hypersensitive patients.

GLUCOSE GEL		
Heading	Add	Delete
Classification	Class and Description merged.	Class. Description.
Administration	CPG 4/5/6.12.7: New-born Neonatal Care and Resuscitation.	

GLYCERYL TRINITRATE (GTN)		
Heading	Add	Delete
Classification	Merge Class and Description to Classification: Antithrombotic – Antiplatelet Drug which reduces clot formation.	Class. Description.
Presentation		(0.4 mg).
Usual Dosages	Angina or MI: 400 mcg sublingual. (Repeat at 3-5 min intervals, Max: 1200 mcg). EFR: assist administration - 400 mcg sublingual max. Pulmonary oedema: 800 mcg / 2 sprays (repeat x 1 PRN) (P & AP).	0.4 mg. 1.2 mg. 0.4 mg. 0.8 mg.
Pharmacology / Action		Remove complete section.

OXYGEN		
Heading	Add	Delete
Clinical Level		
Classification	Merged Class and Description.	Class. Description.
Pharmacology/Action		Pharmacology/Action Oxygenation of tissue/organs.
Additional Information	Caution with emollients containing paraffin e.g. lip balms & moisturisers – may lead to skin burns.	

SALBUTAMOL		
Heading	Add	Delete
Classification	Beta-2 Adrenoceptor agonist selective – short acting.	Class: Sympathetic agonist. Description: Sympathomimetic that is selective for Beta-2 Adrenergic receptors.
Presentation	100 mcg.	0.1 mg.
Usual Dosages	100 mcg metered aerosol spray.	0.1 mg metered aerosol spray.
Pharmacology / Action		Remove text/section Beta-2 agonist/ Bronchodilation/ relaxation of smooth muscle.

Clinical Level:



MEDICATION	ADRENALINE (1:1,000)								
Classification	Sympathetic agonist, Sympathomimetic – Vasoconstrictor. Acts on both alpha & beta receptors and increases both heart rate and contractility. It can cause peripheral vasodilation (beta) or vasoconstriction (alpha).								
Presentation	Pre-filled syringe, ampoule or Auto injector. 1 mg/1 mL (1:1,000).								
Administration	Intramuscular (IM), Intravenous (IV) and Nebulisation (Neb). (CPG: 2/3.10.1 2/3.13.21, 4/5/6.3.2, 4/5/6.10.1, 4/5/6.11.1, 4/5/6.13.9, 5/6.13.20, 4/5/6.13.21, 5/6.14.6)								
Indications	Severe allergic reaction/ anaphylaxis, Stridor, Symptomatic Bradycardia and Cardiogenic shock.								
Contra-Indications	Hypersensitivity to excipients.								
Usual Dosages	<p>Adult: Anaphylaxis 500 mcg IM (0.5 mL of 1: 1,000). EFR assist patient – 0.3 mg (Auto injector). (Repeat every 5 minutes PRN).</p> <p>Adult: Symptomatic Bradycardia / Cardiogenic shock (AP): 10 mcg IV/IO (Repeat PRN). (Dilute 1 mg Adrenaline in 100 mL NaCl and draw up in 1 mL syringe, administer the dose over 1 minute). (Off-license).</p> <p>Anaphylaxis Paediatric:</p> <table border="1"> <tbody> <tr> <td>< 6 months</td> <td>10 mcg/kg IM</td> </tr> <tr> <td>6 months to < 6 years</td> <td>150 mcg (0.15 mL IM)</td> </tr> <tr> <td>≥ 6 years to < 12 years</td> <td>300 mcg (0.3 mL IM)</td> </tr> <tr> <td>≥ 12 years</td> <td>300 mcg (0.3 mL) (if child small or prepubital) or 500 mcg (0.5 mL IM)</td> </tr> </tbody> </table> <p>EFR assist patient – 6 months < 10 years: 0.15 mg (Auto injector) (Repeat every 5 minutes PRN). ≥ 10 years: 0.3 mg (Auto injector) (Repeat every 5 minutes PRN).</p> <p>Stridor (P/AP): < 1 Year: 2.5 mg NEB. ≥ 1 year: 5 mg NEB (repeat after 30 minutes PRN).</p> <p>Sepsis (AP): Adrenaline 0.1 mcg/kg IV/IO.</p>	< 6 months	10 mcg/kg IM	6 months to < 6 years	150 mcg (0.15 mL IM)	≥ 6 years to < 12 years	300 mcg (0.3 mL IM)	≥ 12 years	300 mcg (0.3 mL) (if child small or prepubital) or 500 mcg (0.5 mL IM)
< 6 months	10 mcg/kg IM								
6 months to < 6 years	150 mcg (0.15 mL IM)								
≥ 6 years to < 12 years	300 mcg (0.3 mL IM)								
≥ 12 years	300 mcg (0.3 mL) (if child small or prepubital) or 500 mcg (0.5 mL IM)								
Side effects	Palpitations/ Tachyarrhythmias/ Hypertension/ Angina-like symptoms.								

Clinical Level:



MEDICATION	ASPIRIN
Classification	Antithrombotic – Antiplatelet Drug which reduces clot formation.
Presentation	300 mg dispersible tablet. 300 mg Enteric Coated (EC) tablet.
Administration	Orally (PO) - dispersed in water, or to be chewed if not dispersible form. (CPG: 5/6.3.1, 4.3.1, 1/2/3.3.1).
Indications	Cardiac chest pain or suspected myocardial infarction. Management of unstable angina and non ST-segment elevation myocardial infarction (NSTEMI). Management of ST-segment elevation myocardial infarction (STEMI).
Contra-Indications	Active symptomatic gastrointestinal (GI) ulcer/ Bleeding disorder (e.g. haemophilia)/ Known severe adverse reaction/ Patients < 16 years old (risk of Reye's Syndrome).
Usual Dosages	Adult: 300 mg Tablet. Paediatric: Contraindicated.
Side effects	Epigastric pain and discomfort/ Bronchospasm/ Gastrointestinal haemorrhage/ Increased bleeding times/ skin reactions in hypersensitive patients.
Additional information	Aspirin 300 mg is indicated for cardiac chest pain, regardless if patient is on an anti-coagulant or is already on Aspirin. If the patient has swallowed Aspirin EC (enteric coated) preparation without chewing, the patient should be regarded as not having taken any Aspirin; administer 300 mg PO.

Clinical Level:



MEDICATION	GLUCOSE GEL
Classification	Nutrients. Sugars: Antihypoglycaemic.
Presentation	Glucose gel in a tube or sachet.
Administration	Buccal administration: Administer gel to the inside of the patient's cheek and gently massage the outside of the cheek. (CPG: 4/5/6.5.3, 4/5/6.12.7 4/5/6.13.11).
Indications	Hypoglycaemia. Blood glucose < 4 mmol/L.
Contra-Indications	Known severe adverse reaction.
Usual Dosages	Adult: 10 – 20 g buccal (Recheck blood glucose and repeat after 15 min if required). Paediatric: New-born neonate 2 - 4 mL if blood glucose ≤ 2.6 mmol/L. ≤ 8 years 5 – 10 g buccal (recheck blood glucose and repeat after 15 mins if required). > 8 years 10 – 20 g buccal (recheck blood glucose and repeat after 15 mins if required).
Side effects	May cause vomiting in patients under the age of 5 years if administered too quickly.
Additional information	Glucose gel will maintain glucose levels once raised but should be used secondary to Dextrose to reverse hypoglycaemia. Proceed with caution: Patients with airway compromise. Altered level of consciousness.

Clinical Level:



MEDICATION	GLYCERYL TRINITRATE (GTN)
Classification	Nitrate. Potent coronary vasodilator/ reduces BP/ Dilation of systemic veins.
Presentation	<i>Aerosol spray</i> : Metered dose of 400 mcg.
Administration	<i>Sublingual</i> : Hold the pump spray vertically with the valve head uppermost. Place as close to the mouth as possible and spray under the tongue. The mouth should be closed immediately after each dose. (CPG: 4/5/6.2.6, 4/5/6.3.1, 1/2/3.3.1).
Indications	Angina/ suspected myocardial infarction (MI). <i>EFR</i> : may assist with administration. <i>EMT</i> : Angina/ suspected myocardial infarction (MI) with systolic BP \geq 110 mmHg. <i>Advanced Paramedics and Paramedics</i> - Pulmonary oedema
Contra-Indications	SBP < 90 mmHg/ Viagra or other phosphodiesterase type 5 inhibitors (Sildenafil, Tadalafil and Vardenafil) used within previous 24 hours/ Severe mitral stenosis/ Known severe adverse reaction.
Usual Dosages	<i>Adult</i> : <i>Angina or MI</i> : 400 mcg sublingual. (Repeat at 3-5 min intervals, Max: 1200 mcg). <i>EFR</i> : assist administration - 400 mcg sublingual max. <i>Pulmonary oedema</i> : 800 mcg/ 2 sprays (repeat x 1 PRN) (P & AP). <i>Paediatric</i> : Not indicated.
Side effects	Headache/ Transient Hypotension/ Flushing/ Dizziness.
Additional information	Caution with inferior wall MI with right ventricular involvement as this may lead to profound hypotension. If the pump is new or it has not been used for a week or more the first spray should be released into the air.

Clinical Level:



MEDICATION	OXYGEN
Classification	Gas.
Presentation	<p><i>Medical gas:</i> D, E or F cylinders, coloured black with white shoulders. (Please note: By 2025, all cylinders will be completely white with OXYGEN in black). <i>CD cylinder:</i> White cylinder.</p>
Administration	<p><i>Inhalation via:</i> High concentration reservoir (non-rebreather) mask/ Simple face mask/ Venturi mask/ Tracheostomy mask/ Nasal cannulae/ CPAP device/ Bag Valve Mask. (CPG: Oxygen is used extensively throughout the CPGs).</p>
Indications	<p>Absent / Inadequate ventilation following an acute medical or traumatic event. SpO₂ < 94% adults and < 96% paediatrics. SpO₂ < 92% for patients with acute exacerbation of COPD. SpO₂ < 90% for patients with acute onset of Pulmonary Oedema.</p>
Contra-Indications	Bleomycin lung injury.
Usual Dosages	<p>Adult: Cardiac and respiratory arrest or sickle cell crisis; 100%. Life threats identified during primary survey; 100% until a reliable SpO₂ measurement obtained then titrate O₂ to achieve SpO₂ of 94% - 98%. For patients with acute exacerbation of COPD, administer O₂ titrate to achieve SpO₂ 92% or as specified on COPD Oxygen Alert Card. All other acute medical and trauma titrate O₂ to achieve SpO₂ 94% - 98%.</p> <p>Paediatric: Cardiac and respiratory arrest or sickle cell crisis; 100%. Life threats identified during primary survey; 100% until a reliable SpO₂ measurement obtained then titrate O₂ to achieve SpO₂ of 96% - 98%. Neonatal resuscitation (< 4 weeks) consider supplemental O₂ (≤ 30%). All other acute medical and trauma titrate O₂ to achieve SpO₂ of 96% - 98%.</p>
Side effects	Prolonged use of O ₂ with chronic COPD patients may lead to reduction in ventilation stimulus.
Additional information	<p>Caution with emollients containing paraffin e.g. lip balms & moisturisers – may lead to skin burns. A written record must be made of what oxygen therapy is given to every patient. Documentation recording oximetry measurements should state whether the patient is breathing air or a specified dose of supplemental Oxygen. Consider humidifier if oxygen therapy for paediatric patients is > 30 minutes duration. Caution with paraquat poisoning, administer Oxygen if SpO₂ < 92%. Avoid naked flames, powerful oxidising agent.</p>

Clinical Level:



MEDICATION	SALBUTAMOL
Classification	Beta-2 Adrenoceptor agonist selective – short acting.
Presentation	Nebule 2.5 mg in 2.5 mL. Nebule 5 mg in 2.5 mL. Aerosol inhaler: Metered dose 100mcg per actuation (Puff).
Administration	Nebule Inhalation via aerosol inhaler. (CPG: 4/5/6.2.4, 2/3.2.5, 4/5/6.2.5, 4/5/6.8.9, 2/3.10.1, 4/5/6.10.1, 2/3.13.8, 4/5/6.13.8, 2/3.13.21, 4/5/6.13.21, 6.17.7).
Indications	Bronchospasm/ Exacerbation of COPD/ Respiratory distress following submersion incident.
Contra-Indications	Known severe adverse reaction.
Usual Dosages	Adult: 5 mg NEB or 100 mcg metered aerosol spray (Repeat aerosol x 11). Repeat NEB at 5 minute intervals PRN EFR assist patient with Asthma/ Anaphylaxis. - 100mcg metered aerosol spray (Repeat aerosol x 11 PRN). Paediatric: < 5 yrs - 2.5 mg NEB or 100 mcg metered aerosol spray (Repeat aerosol x 5). ≥ 5 yrs - 5 mg NEB or 100 mcg metered aerosol spray (Repeat aerosol x 11). (Repeat NEB at 5 minute intervals PRN). EFR: assist patient with Asthma/ Anaphylaxis – < 5 yrs - 100 mcg /1 actuation metered aerosol spray (Repeat aerosol x 5 PRN). ≥ 5 yrs - 100 mcg / 1 actuation metered aerosol spray (Repeat aerosol x 11 PRN).
Side effects	Tachycardia/ Tremors/ Tachyarrhythmias/ High doses may cause Hypokalaemia.
Additional information	It is more efficient to use a volumiser in conjunction with an aerosol inhaler when administering Salbutamol. If an oxygen driven nebuliser is used to administer Salbutamol for a patient with acute exacerbation of COPD it should be limited to 6 minutes maximum.

New Medications and Skills for 2021

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Activated Charcoal PO*					✓	✓	✓
Adrenaline nebulised						✓	✓
Dexamethasone PO						✓	✓
Lidocaine IO							✓
Ketamine IM*							✓
Uterine massage					✓	✓	✓
Tourniquet application					✓	✓	✓
Pressure points					✓	✓	✓
Ketone measurement*					✓	✓	✓
Tracheostomy management					✓	✓	✓
Malpresentations in labour						✓	✓
Shoulder Dystocia management						✓	✓
Posterior ECG in ACS						✓	✓
Intubation of Stoma							✓
Nasogastric Tube insertion*							✓
Procedural Sedation*							✓
Richmond Agitation-Sedation Scale (RASS)*							✓

New Medications and Skills for June 2023 update for CPG 2021

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Trauma Triage Tool					✓	✓	✓
Non-conveyance						✓	✓

Care management including the administration of medications as per level of training and division on the PHECC Register and Responder levels.

Pre-Hospital Responders and Practitioners shall only provide care management including medication administration for which they have received specific training. Practitioners must be privileged by a Licensed CPG Provider to administer specific medications and perform specific clinical interventions.

Paramedic authorisation for IV continuation

Practitioners should note that PHECC registered paramedics are authorised to continue an established IV infusion in the absence of an advanced paramedic or doctor during transportation.

√	Authorised under PHECC CPGs
URMPIO	Authorised under PHECC CPGs under registered medical practitioner's instructions only
APO	Authorised under PHECC CPGs to assist practitioners only (when applied to EMT to assist paramedic or higher clinical levels)
√ SA	Authorised subject to special authorisation as per CPG
BTEC	Authorised subject to Basic Tactical Emergency Care rules
*	Non-core specified element or action
√ *	Non-core specified element or action for identified clinical level

MEDICATIONS

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Aspirin PO	√	√	√	√	√	√	√
Oxygen INH		√		√	√	√	√
Glucose gel buccal				√	√	√	√
Glyceryl Trinitrate SL				√ SA	√	√	√
Adrenaline (1:1000) autoinjector				√ SA	√	√	√
Salbutamol MDI				√ SA	√	√	√
Activated Charcoal PO*					√	√	√
Adrenaline (1:1000) IM					√	√	√
Chlorphenamine PO/IM					√	√	√
Glucagon IM					√	√	√
Ibuprofen PO					√	√	√
Methoxyflurane INH					√	√	√
Naloxone IN					√	√	√
Nitrous Oxide and Oxygen INH					√	√	√
Paracetamol PO					√	√	√
Salbutamol nebulised					√	√	√
Adrenaline nebulised						√	√
Clopidogrel PO						√	√
Cyclizine IM						√	√
Dexamethasone PO						√	√
Glucose 5% IV						√ SA	√
Glucose 10% IV						√ SA	√
Hydrocortisone IM						√	√
Ipratropium Bromide nebulised						√	√
Midazolam buccal/IM/IN						√	√
Naloxone IM/SC						√	√
Ondansetron IM						√	√
Oxytocin IM						√	√
Paracetamol PR						√	√

APPENDIX 2 - Medication & Skills Matrix

EMERGENCY FIRST RESPONDER

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Ticagrelor PO						√	√
Sodium Chloride 0.9% IV/IO						√ SA	√
Adenosine IV							√
Adrenaline (1:10,000) IV/IO							√
Adrenaline (1:100,000) IV/IO							√
Amiodarone IV/IO							√
Atropine IV/IO							√
Ceftriaxone IV/IO/IM							√
Chlorphenamine IV							√
Cyclizine IV							√
Diazepam IV/PR							√
Fentanyl IN/IM/IV							√
Furosemide IV							√
Glycopyrronium Bromide SC*							√
Haloperidol PO/SC*							√
Hydrocortisone IV							√
Hyoscine Butylbromide SC*							√
Ketamine IV/IM*							√
Lidocaine IV/IO							√
Lorazepam PO							√
Magnesium Sulphate IV							√
Midazolam IV							√
Morphine IV/PO/IM							√
Naloxone IV/IO							√
Ondansetron IV							√
Paracetamol IV/PR							√
Sodium Bicarbonate IV/IO							√
Tranexamic Acid IV							√

AIRWAY & BREATHING MANAGEMENT

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
FBAO management	✓	✓	✓	✓	✓	✓	✓
Head tilt chin lift	✓	✓	✓	✓	✓	✓	✓
Pocket mask	✓	✓	✓	✓	✓	✓	✓
Recovery position	✓	✓	✓	✓	✓	✓	✓
Non-rebreather mask		✓		✓	✓	✓	✓
Oropharyngeal airway		✓		✓	✓	✓	✓
Oral suctioning		✓		✓	✓	✓	✓
Venturi mask		✓		✓	✓	✓	✓
Bag Valve Mask		✓		✓	✓	✓	✓
Jaw thrust		✓		✓	✓	✓	✓
Nasal cannula		✓		✓	✓	✓	✓
Supraglottic airway adult (uncuffed)		✓			✓	✓	✓
Oxygen humidification				✓	✓	✓	✓
Nasopharyngeal airway				BTEC	BTEC	✓	✓
Supraglottic airway adult (cuffed)					✓ SA	✓	✓
Tracheostomy management					✓	✓	✓
Continuous Positive Airway Pressure						✓	✓
Non-Invasive ventilation device						✓	✓
Supraglottic airway paediatric						✓	✓
Endotracheal intubation							✓
Intubation of stoma							✓
Laryngoscopy / Magill forceps							✓
Needle cricothyrotomy							✓
Needle thoracocentesis							✓

CARDIAC

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
AED adult & paediatric	√	√	√	√	√	√	√
CPR adult, child & infant	√	√	√	√	√	√	√
Recognise death and resuscitation not indicated	√	√	√	√	√	√	√
Neonate resuscitation					√	√	√
ECG monitoring					√	√	√
CPR mechanical assist device*					√	√	√
Cease resuscitation - adult					√ SA	√	√
12 lead ECG						√	√
Manual defibrillation						√ *	√
Right sided ECG in ACS						√	√
Posterior ECG in ACS						√	√

HAEMORRHAGE CONTROL

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Direct pressure			√	√	√	√	√
Nose bleed			√	√	√	√	√
Haemostatic agent				BTEC*	√ *	√	√
Tourniquet application				BTEC	√	√	√
Pressure points					√	√	√
Wound closure clips					BTEC	√ *	√ *
Nasal pack						√	√

MEDICATION ADMINISTRATION

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Oral	✓	✓	✓	✓	✓	✓	✓
Buccal				✓	✓	✓	✓
Metered dose inhaler				✓ SA	✓	✓	✓
Sublingual				✓ SA	✓	✓	✓
Intramuscular injection					✓	✓	✓
Intranasal					✓	✓	✓
Nebuliser					✓	✓	✓
Subcutaneous injection					✓	✓	✓
Infusion maintenance						✓	✓
Per rectum						✓	✓
Infusion calculations							✓
Intraosseous injection/infusion							✓
Intravenous injection/infusion							✓

APPENDIX 2 - Medication & Skills Matrix

EMERGENCY FIRST RESPONDER

TRAUMA

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Burns care			√	√	√	√	√
Application of a sling			√	√	√	√	√
Soft tissue injury			√	√	√	√	√
Hot packs for active rewarming (hypothermia)			√	√	√	√	√
Active Spinal Motion Restriction				√	√	√	√
Cervical collar application				√	√	√	√
Helmet stabilisation/removal				√	√	√	√
Splinting device application to upper limb				√	√	√	√
Splinting device application to lower limb				√	√	√	√
Log roll				APO	√	√	√
Move patient with a carrying sheet				APO	√	√	√
Extrication using a long board				√ SA	√	√	√
Rapid Extraction				√ SA	√	√	√
Secure and move a patient with an extrication device				√ SA	√	√	√
Move a patient with a split device (Orthopaedic stretcher)				√ SA	√	√	√
Passive Spinal Motion Restriction						√	√
Pelvic Splinting device				BTEC	√	√	√
Move and secure patient into a vacuum mattress				BTEC	√	√	√
Move and secure a patient to a paediatric board					√	√	√
Traction splint application					APO	√	√
Lateral dislocation of patella – reduction						√	√
Taser gun barb removal						√	√

APPENDIX 2 - Medication & Skills Matrix

EMERGENCY FIRST RESPONDER

PATIENT ASSESSMENT

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Assess responsiveness	√	√	√	√	√	√	√
Check breathing	√	√	√	√	√	√	√
FAST assessment	√	√	√	√	√	√	√
Capillary refill			√	√	√	√	√
AVPU			√	√	√	√	√
Pulse check			√	√	√	√	√
Breathing / pulse rate		√ SA	√	√	√	√	√
Primary survey			√	√	√	√	√
SAMPLE history			√	√	√	√	√
Secondary survey			√	√	√	√	√
CSM assessment				√	√	√	√
Rule of Nines				√	√	√	√
Assess pupils				√	√	√	√
Blood pressure				√ SA	√	√	√
Pulse oximetry				√	√	√	√
Capacity evaluation					√	√	√
Chest auscultation					√	√	√
Glucometry					√	√	√
Ketone measurement*					√	√	√
Paediatric Assessment Triangle					√	√	√
Pain assessment					√	√	√
Patient Clinical Status					√	√	√
Temperature					√	√	√
Triage sieve					√	√	√
Trauma Triage Tool					√	√	√
Capnography						√	√
Glasgow Coma Scale (GCS)						√	√
Peak expiratory flow						√	√
Pre-hospital Early Warning Score						√	√
Treat and referral						√	√
Triage sort						√	√
Richmond Agitation-Sedation Scale (RASS) *							√

APPENDIX 2 - Medication & Skills Matrix

EMERGENCY FIRST RESPONDER

OTHER

CLINICAL LEVEL	CFR-C	CFR-A	FAR	EFR	EMT	P	AP
Use of Red Card	√	√	√	√	√	√	√
Assist normal delivery of a baby				APO	√	√	√
De-escalation and breakaway skills					√	√	√
ASHICE radio report					√	√	√
IMIST-AMBO handover					√	√	√
Uterine massage					√	√	√
Broselow tape						√	√
Malpresentations in labour						√	√
Non-conveyance						√	√
Shoulder Dystocia management						√	√
Umbilical cord complications						√	√
Verification of Death						√	√
Intraosseous cannulation							√
Intravenous cannulation							√
Nasogastric tube insertion*							√
Procedural Sedation*							√
Urinary catheterisation*							√

CRITICAL INCIDENT STRESS MANAGEMENT (CISM)

Your Psychological Well-Being

It is extremely important for your psychological well-being that you do not expect to save every critically ill or injured patient that you treat. For a patient who is not in hospital, whether they survive a cardiac arrest or multiple traumas depends on a number of factors including any other medical condition the patient has. Your aim should be to perform your interventions well and to administer the appropriate medications within your scope of practice. However, sometimes you may encounter a situation which is highly stressful for you, giving rise to Critical Incident Stress (CIS). A critical incident is an incident or event which may overwhelm or threaten to overwhelm our normal coping responses. As a result of this we can experience CIS.

When can I be adversely affected by a critical incident? Listed below are some common ways in which people react to incidents like this:

- Feeling of distress or sadness
- Strong feeling of anger
- Feeling of disillusionment
- Feeling of guilt
- Feeling of apprehension/anxiety/fear of:
 - Losing control/breaking down or
 - Something similar happening again
 - Not having done all I think I could have done
- Avoidance of the scene of incident/trauma
- Bad dreams, nightmares or startling easily
- Distressing memories or 'flashbacks' of the incident
- Feeling 'on edge', irritable, angry, under threat/pressure
- Feeling emotionally fragile or emotionally numb
- Feeling cut off from your family or close friends – "I can't talk to them" or "I don't want to upset them"
- Feeling of needing to control everything

Some Do's and Don'ts

- **DO express your emotions:**
 - Talk about what happened
 - Talk about how you feel and how the event has impacted you
 - Be kind to yourself and to others.
- **DO** talk about what has happened as often as you need
- **DO** find opportunities to review the experience **DO** discuss what happened with colleagues **DO** ask friends and colleagues for support
- **DO** listen sympathetically if a colleague wants to talk
- **DO** advise colleagues about receiving appropriate help
- **DO** keep to daily routines
- **DO** drive more carefully
- **DO** be more careful around the home
- **DON'T** use alcohol, nicotine or drugs to hide your feelings **DON'T** simply stay away from work – seek help and support **DON'T** allow anger and irritability to mask your feelings **DON'T** bottle up feelings
- **DON'T** be afraid to ask for help
- **DON'T** think your feelings are a sign of weakness

When things get tough, pro-actively minding yourself is crucial. Control the things you can control. Get more sleep than you think you need. Eat fresh, healthy foods at regular times and avoid snacks. Get outdoor exercise at least three times a week. Have a meaningful conversation with someone you like at least once a day. Resolve what makes you sad or angry or otherwise let it go. Be kind.

Everyone may have these feelings. Experience has shown that they may vary in intensity according to circumstance. Nature heals through allowing these feelings to come out. This will not lead to loss of control but stopping these feelings may lead to other and possibly more complicated problems.

When to find help?

1. If you feel you cannot cope with your reactions or feelings.
2. If your stress reactions do not lessen in the two or three weeks following the event.
3. If you continue to have nightmares and poor sleep.
4. If you have no-one with whom to share your feelings when you want to do so.
5. If your relationships seem to be suffering badly, or sexual problems develop.
6. If you become clumsy or accident prone.
7. If, in order to cope after the event, you smoke, drink or take more medication, or other drugs.
8. If your work performance suffers.
9. If you are tired all the time.
10. If things get on top of you and you feel like giving up.
11. If you take it out on your family.
12. If your health deteriorates.

Experiencing signs of excessive stress?

If the range of physical, emotional and behavioural signs and symptoms already mentioned do not reduce over time (for example after two weeks), it is important that you seek support and help.

Where to find help?

Your own licensed CPGs provider will have a CISM support network or system.

We recommend that you contact them for help and advice (i.e. your peer support worker/coordinator/staff support officer).

- For a self-help guide, please go to www.cismnetworkireland.ie
- The NAS CISM and CISM Network published a booklet called 'Critical Incident Stress Management for Emergency Personnel'.
- It can be purchased by emailing: info@cismnetworkireland.ie
- Consult your own GP or see a health professional who specialises in traumatic stress.
- In partnership with NAS CISM Committee, PHECC developed an eLearning CISM Stress Awareness Training (SAT) module. It can be accessed by the following personnel:
 - PHECC registered practitioners at all levels
 - National Ambulance Service-linked community first responders
 - NAS non-PHECC registered personnel
- Under the direction of CISM Network, bespoke CISM SAT modules are developed by Network member organisations.

Responder Level Updates

Several broad changes have been applied in the 2021 edition:

- The Care Principles have been updated.
- The classification of CPGs has changed to up to seventeen categories, developed to group common themes and categories together.
- The Occupational First Aid (OFA) level has been removed from the CPGs.
- The term 'Registered' has been removed from references to registered healthcare professionals, for example Registered Medical Practitioner (RMP) will now appear as Medical Practitioner (MP).
- The 'ring ambulance control' symbol, along with other symbols, is modernised throughout the CPGs and the telephone number is standardised to '112/999'.
- References to published source literature no longer appear on CPGs but are available from PHECC on request.
- The description of dose of medications less than one milligram is now described in micrograms, for example GTN 0.4mg SL is now GTN 400 mcg SL.
- The term Adrenaline has replaced Epinephrine within the CPGs.
- The age descriptor has been removed from the title of paediatric CPGs.

No EFR CPGs were added or deleted in 2021 Edition or 2023 Update

To support upskilling of the 2021 CPGs, the CPGs that have content changes are outlined below.

Updated EFR CPGs from 2021 version

CPGs	The principal differences are
CPG 3.1.4T Primary Survey – Adult (BTEC)	Added Sequence step 'Jaw thrust' replaces 'Head tilt/chin lift, Jaw thrust'
CPG 1/2/3.2.1 Foreign Body Airway Obstruction – Adult	Added Sequence step 'Request AED' Instruction box 'If visible, make one attempt to remove' replaces 'If visible attempt once to remove it'

CPGs	The principal differences are
CPG 1/2/3.3.1 Cardiac Chest Pain – Acute Coronary Syndrome	Deleted Instruction box 'If registered healthcare professional, and pulse oximetry available, titrate oxygen to maintain SpO ₂ Adult: 94% to 98%'
CPG 3.5.2 Decompression Illness (DCI)	Added Instruction box 'Transport is completed at an altitude of < 1000 ft. above incident site or aircraft pressurised equivalent to sea level' replaces 'Transport is completed at an altitude of < 300 meters above incident site or aircraft pressurised equivalent to sea level'
CPG 1/2/3.6.4 Stroke	Deleted Instruction box 'If registered healthcare professional, and pulse oximetry available, titrate oxygen to maintain SpO ₂ Adult: 94% to 98%'
CPG 3.8.3T External Haemorrhage (BTEC)	Added Sequence step 'Apply a dressing impregnated with haemostatic agent' is a non-core element for EFR BTEC
CPG 2/3.8.6 & 3.8.6T (BTEC) Limb Injury	Added Equipment list 'Cooling packs' replaces 'Ice packs' Sequence step 'Rest - Cooling - Compression - Elevation' replaces 'Rest - Ice - Compression - Elevation'
CPG 2/3.8.8 Spinal Injury Management	Instruction box 'High risk factors' Instruction box 'Spinal injury rule in considerations' Instruction box 'Low risk factors' Instruction box 'PHECC Spinal Injury Management Standard'
CPG 1/2/3.8.9 Submersion Incident	Deleted Instruction box 'Higher pressure may be required for ventilation because of poor compliance resulting from pulmonary oedema' Added Instruction box 'Ensure chest rise when providing ventilations'
CPG 2/3.10.1 Allergic Reaction/ Anaphylaxis – Adult	The CPG is retitled Allergic Reaction/ Anaphylaxis – Adult (previously Anaphylaxis – Adult) Medication Updates 'Consider oxygen therapy' replaces 'oxygen therapy' Epinephrine is now known as adrenaline

CPGs	The principal differences are
CPG 3.12.2 Pre-Hospital Emergency Childbirth	<p>The CPG treatment pathway has undergone significant review</p> <p>Added</p> <p>Mandatory sequence step 'Inform Ambulance Control of issues identified'</p> <p>Sequence step 'Support mother throughout'</p> <p>Decision process 'Baby delivered'</p> <p>Mandatory sequence step 'Warm, dry, stimulate baby. Check ABCs' replaces 'Dry baby and check ABCs'</p> <p>Mandatory sequence step 'Place baby skin to skin (Kangaroo care) Blanket over baby and mother' replaces sequence step 'Wrap baby to maintain temperature'</p> <p>Sequence step 'Encourage breast feeding'</p> <p>Sequence step 'If placenta delivers retain' replaces 'If placenta delivers retain for inspection'</p>
CPG 3.13.3 Primary Survey –Paediatric	<p>Added</p> <p>Sequence step 'Jaw thrust' replaces 'Head tilt/chin lift, Jaw thrust'</p>
CPG 1/2/3.13.5 Foreign Body Airway Obstruction – Paediatric	<p>The CPG treatment pathway is re-organised</p> <p>Added</p> <p>Sequence step 'Request AED'</p> <p>Instruction box 'If visible, make one attempt to remove' replaces 'If visible attempt once to remove it'</p>
CPG 2/3.13.21 Allergic Reaction/ Anaphylaxis – Paediatric	<p>This CPG is retitled Allergic Reaction/ Anaphylaxis – Paediatric (previously Anaphylaxis – Paediatric)</p> <p>Medication Updates</p> <p>Epinephrine is now known as Adrenaline</p>
CPG 1/2/3.13.22 Basic Life Support – Paediatric	<p>Added</p> <p>Instruction box 'If physically unable to ventilate perform compression only CPR' replaces 'If unable or unwilling to ventilate perform compression only CPR'</p>
CPG 1/2/3.14.6 Post-Resuscitation Care	<p>Deleted</p> <p>Instruction box 'If registered healthcare professional, and pulse oximetry available, titrate oxygen to maintain SpO₂ Adult: 94% to 98% Paediatric: 96% to 98%'</p>



Published by Pre-Hospital Emergency Care Council

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