

EMERGENCY MEDICAL TECHNICIAN

- incorporating BTEC

Pre-Hospital
Emergency Care
Council

PHECC Clinical Practice Guidelines

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CLINICAL PRACTICE GUIDELINES

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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". The signature is written in a cursive, flowing style.

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 practitioner decides if a CPG should be applied based on patient assessment and the clinical impression. The practitioner must work in the best interest of the patient within the scope of practice for his/her clinical level on the PHECC Register. Consultation with fellow practitioners and or medical practitioners in challenging clinical situations is strongly advised.

The CPGs herein may be implemented provided:

1. The practitioner is in good standing on the PHECC practitioner's Register – Credentialed.
2. The practitioner is acting on behalf of a Licensed CPG Provider (paid or voluntary) – Licensed.
3. The practitioner is privileged by the Licensed CPG Provider on whose behalf he/she is acting to implement the specific CPG – Privileged.
4. The practitioner 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 practitioner administration of medications. The principle of titrating the dose to the desired effect shall be applied. The onus rests on the practitioner to ensure that he/she is using the latest versions 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

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 practitioner, 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 practitioner in assessment, treatment and disposition of patients who present with an acute illness or injury.

CPGs presume no intervention has been applied, nor medication administered, prior to the arrival of the practitioner. In the event of another practitioner or responder initiating care during an acute episode, the practitioner 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.

When a practitioner of higher clinical level on scene deems it appropriate to take clinical lead, he/she should calmly state: "My name is xx, I am an AP/P/EMT, I am assuming clinical lead."

If the practitioner of higher clinical level on scene wishes to hand over clinical lead to another practitioner (who may be of equal or lower clinical level), he/she states to the practitioner: "My name is xx, I am an AP/P/EMT, you are now clinical lead."

The practitioner acknowledges immediately and accepts clinical lead. "I am now clinical lead"

A clinical lead exchange should be recorded on the PCR in the 'continuity of care' section. There should never be any doubt as to who the clinical lead is on scene.

In the absence of a more qualified practitioner, the practitioner providing care during transport shall be designated the clinical lead as soon as practical.

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

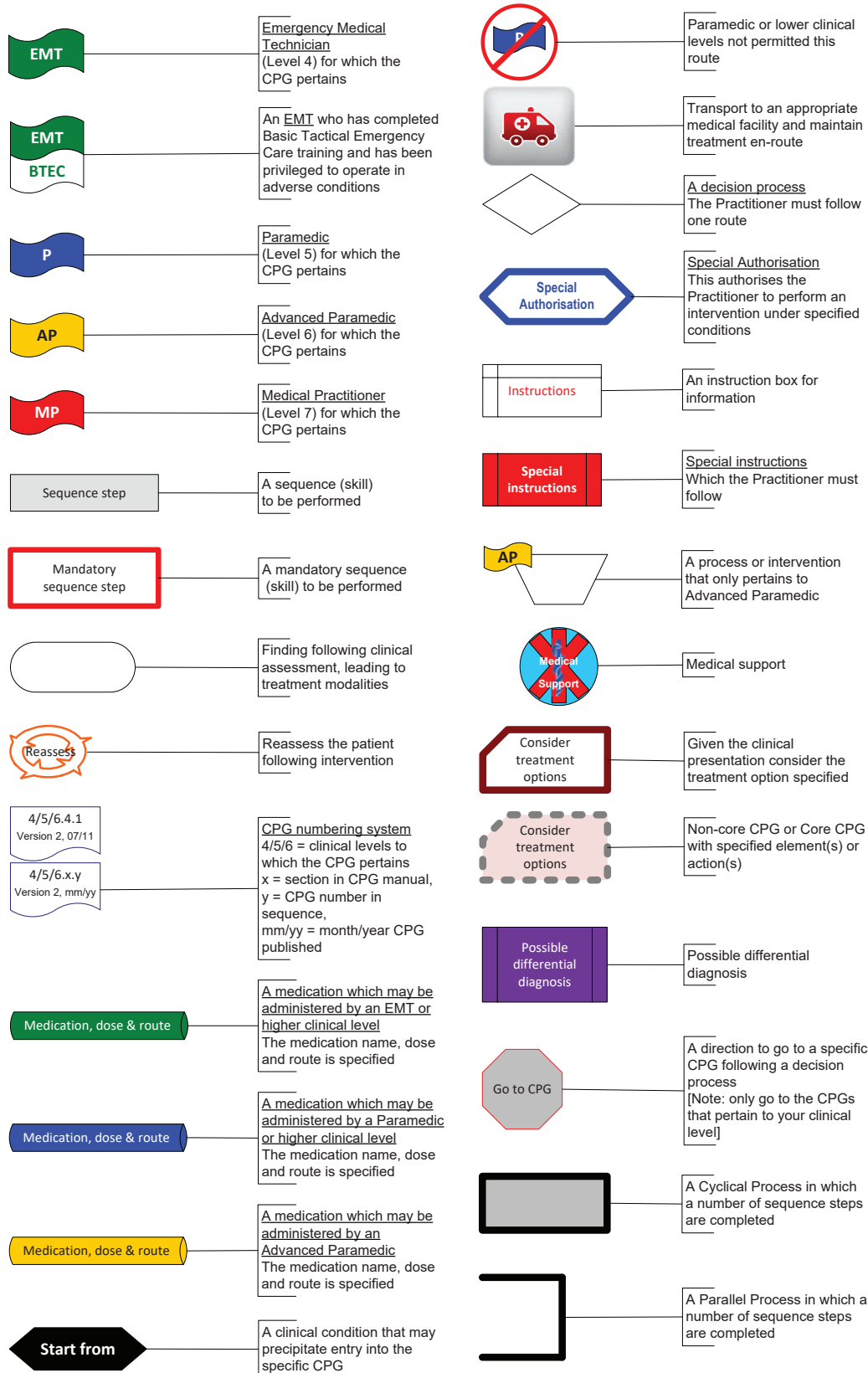
Basic life support CPGs contained within this publication are in accordance with International Liaison Committee on Resuscitation (ILCOR) guidelines 2020.

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CODES EXPLANATION

EMERGENCY MEDICAL TECHNICIAN



Principles of general care (Practitioners)

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 Patient Care Report (PCR) or the Ambulatory Care Report (ACR), are consistent principles throughout the guidelines and reflect the practice of practitioners. 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.
 - 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. A person has capacity in respect to clinical decisions affecting themselves unless the contrary is shown (Assisted Decision-Making (Capacity) Act 2015).
3. Seek consent prior to initiating interventions and/or administering medications.
4. Identify and manage life-threatening conditions.
5. Ensure adequate ventilation and oxygenation.
6. Optimise tissue perfusion.
7. Make a working diagnosis, after considering differential diagnoses.
8. Provide appropriate pain relief within the scope of practice. Pain management:
 - 8.1. should not delay the diagnosis of conditions or injuries,
 - 8.2. should be implemented for all relevant patients,
 - 8.3. should commence within ten minutes on scene,
 - 8.4. goal is to reduce pain to a tolerable level,
 - 8.5. to take cognisance of immediate and short-term pain management requirements by administering appropriate combinations of analgesia.
9. Identify and manage other conditions.
10. Place the patient in the appropriate posture according to the presenting condition.
11. Ensure maintenance of normal body temperature (unless a CPG indicates otherwise).
12. Provide reassurance at all times.
13. Monitor and record patient's vital observations.

14. Maintain responsibility for patient care until handover to an appropriate practitioner.
15. Arrange transport to an appropriate medical facility, if clinically required, and in an appropriate time frame.
16. Complete a patient care record following an interaction with a patient.
17. Identify the clinical lead on scene; this shall be the most qualified practitioner on scene. In the absence of a more qualified practitioner, the practitioner providing care during transport shall be designated clinical lead as soon as practical.
18. Ambulances, medical rooms and equipment should be decontaminated as appropriate following an interaction with a patient.