Clinical Practice Guidelines - Edition 2, 2017

Medications for Listed Organisations

(SI 449 of 2015)

Pre-Hospital Emergency Care Council

PHECC Clinical Practice Guidelines

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MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

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ACKNOWLEDGEMENTS

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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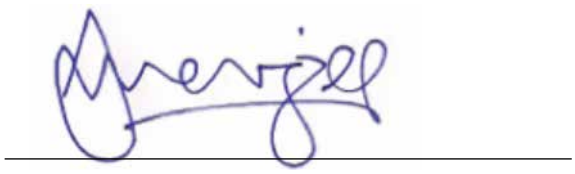
MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

INTRODUCTION

The purpose of these clinical practice guidelines (CPGs) are to provide safe guidelines to responders for administration of specified prescription-only medications, without a prescription, to a person for the purpose of saving life or reducing severe distress in emergency situations.

The responder will be an individual, appointed by a listed organisation, who has completed a PHECC-approved course of training regarding the administration of such medications and the management of any adverse reaction.

This is a significant advance in pre-hospital care in Ireland, as it now provides a pathway for responders (as opposed to practitioners) to administer prescription-only meditations in certain situations.



Dr David Menzies, Chair, Medical Advisory Committee

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IMPLEMENTATION

The CPGs herein may be implemented provided:

1. The non-medical person maintains current certification on the medication(s) as outlined in PHECC's Education & Training Standard.
2. The non-medical person is authorised, by the listed organisation on whose behalf he/she is acting, to implement the specific CPG.
3. The medications are listed on the tenth schedule.

Medication dose

The medication dose specified on the relevant CPGs shall be the definitive dose in relation to non-medical person's administration of the specified medication(s). The onus rests on the non-medical person 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
Paediatric patient	Any child, infant or neonate

Documentation

Completing the documentation is paramount in the interest of patient safety and the risk management process. The Ambulatory Care Report (ACR) must be completed to meet these requirements.

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CODES

Clinical Practice Guidelines for **Listed Organisations**
Codes explanation

1/2/3.4.1
Version 2, 07/11

1/2/3.x.y
Version 2, mm/yyyy

CPG numbering system
1/2/3 = clinical levels to which the CPG pertains
x = section in CPG manual, y = CPG number in sequence
mm/yyyy = month/year CPG published

Sequence step

A sequence (skill) to be performed

Ring ambulance control
112 /999

Request an AED from local area

Consider treatment options

Given the clinical presentation consider the treatment option specified

Reassess the patient following intervention

Medication, dose & route

A medication which may be administered by a CFR or higher clinical level
The medication name, dose and route is specified

Medication, dose & route

A medication which may be administered by an EFR or higher clinical level
The medication name, dose and route is specified

Go to xxx CPG

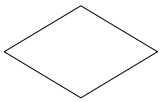
A direction to go to a specific CPG following a decision process
Note: only go to the CPGs that pertain to your clinical level

Start from

A clinical condition that may precipitate entry into the specific CPG

Mandatory sequence step

A mandatory sequence (skill) to be performed



A decision process
The responder must follow one route

Instructions

An instruction box for information

Special instructions

Special instructions
Which the Responder must follow

Special authorisation

Special authorisation
This authorises the responder to perform an intervention under specified conditions

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MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

1.4.15
Version 1, 02/2016

Listed Organisations and Epinephrine (auto injector adult)

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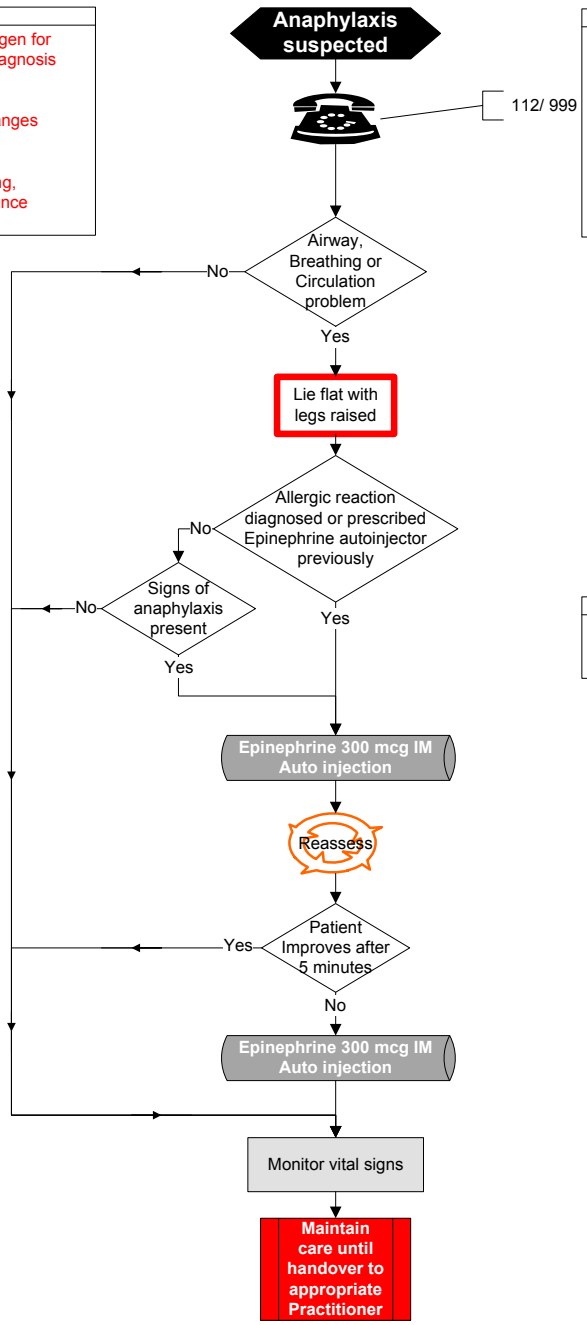
- Exposure to a known allergen for the patient reinforces the diagnosis of anaphylaxis
Be aware that:
- Skin or mouth/ tongue changes alone are not a sign of an anaphylactic reaction
- There may also be vomiting, abdominal pain or incontinence



Anaphylaxis is a life threatening condition identified by the following criteria:
- Sudden onset and rapid progression of symptoms
- Airway swelling
- Breathing difficulty
- Swollen eyes
- Red, blotchy skin

Signs of Anaphylaxis
Rapid onset
Exposed to trigger
ABC compromised

Special Authorisation:
You are authorised to administer Epinephrine (auto injector) IM following successful completion of the training module, provided you are acting on behalf of an organisation listed with the HPRA as specified in SI 449 of 2015

Reference: Immunisation Guidelines for Ireland 2008 RCPI,
ILCOR Guidelines 2015
SI 449 of 2015

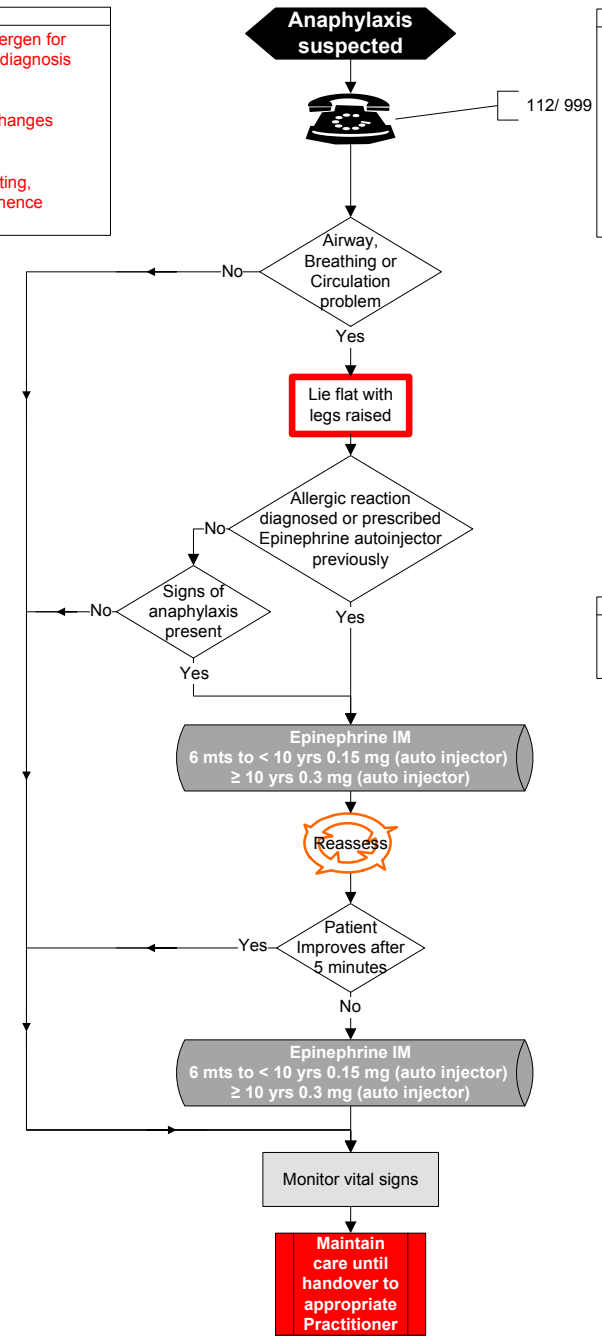
MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

1.7.31
Version 1, 02/2016

Listed Organisations and Epinephrine (auto injector paediatric)

Pre-Hospital Emergency Care Council

- Exposure to a known allergen for the patient reinforces the diagnosis of anaphylaxis
Be aware that:
- Skin or mouth/ tongue changes alone are not a sign of an anaphylactic reaction
- There may also be vomiting, abdominal pain or incontinence



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Signs of Anaphylaxis
Rapid onset
Exposed to trigger
ABC compromised

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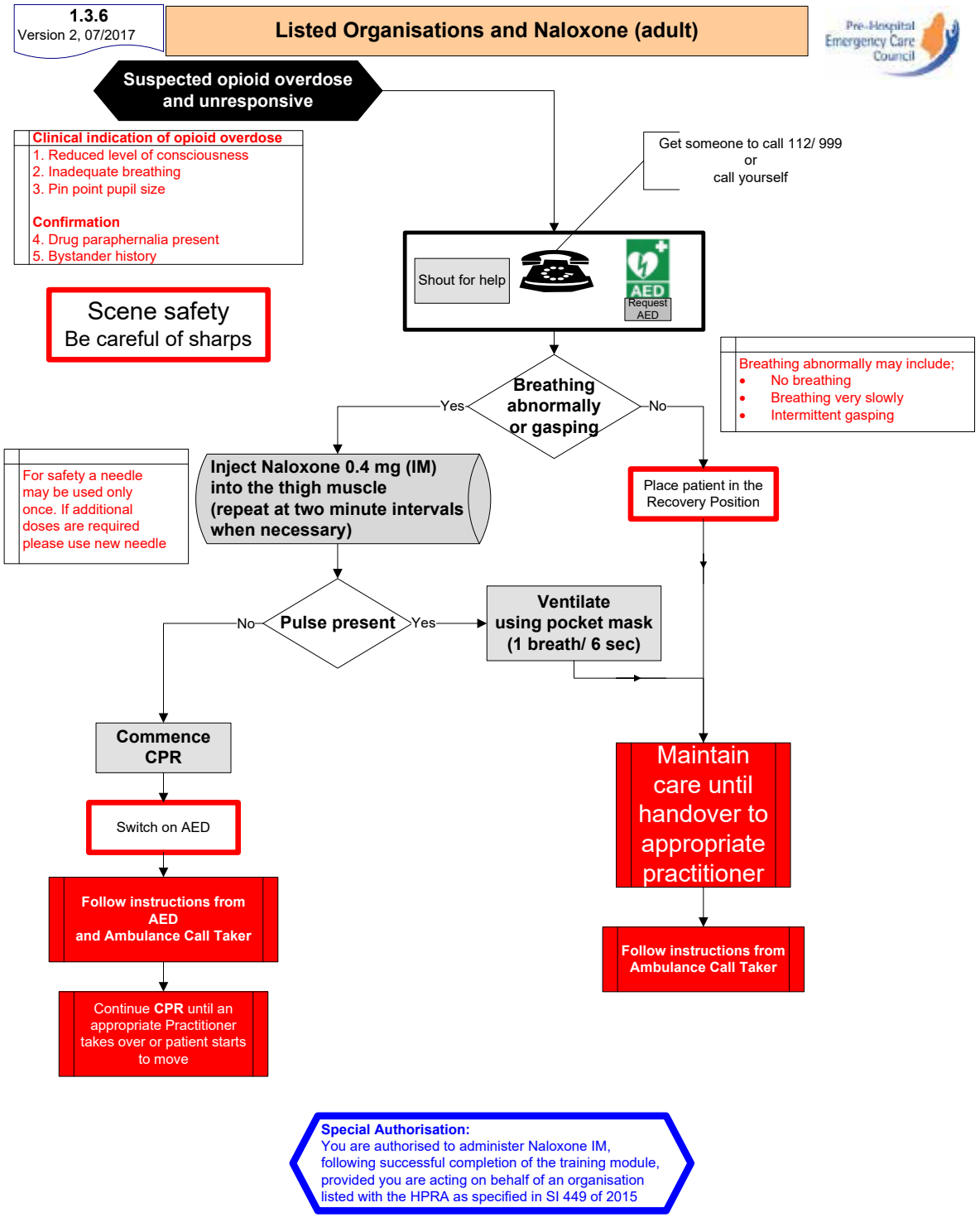
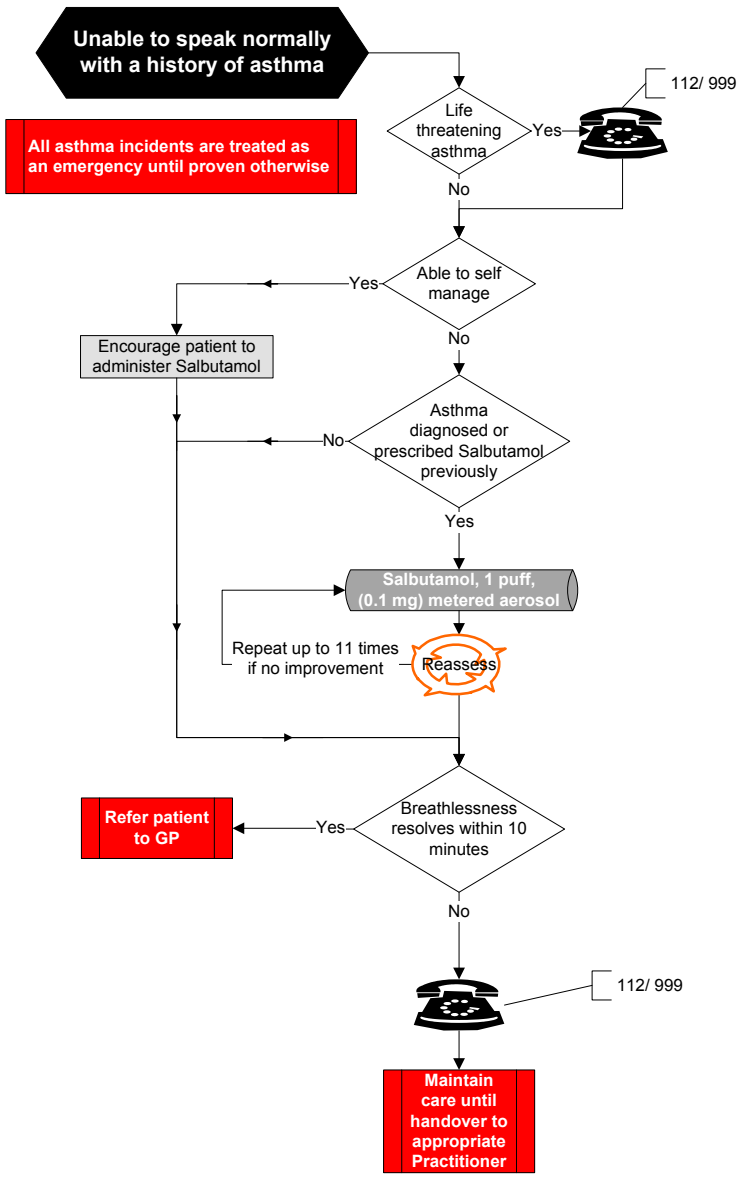


Reference: SI 449 of 2015, ILCOR Guidelines 2015

MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

1.3.4
Version 1, 02/2016

Listed Organisations and Salbutamol



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)

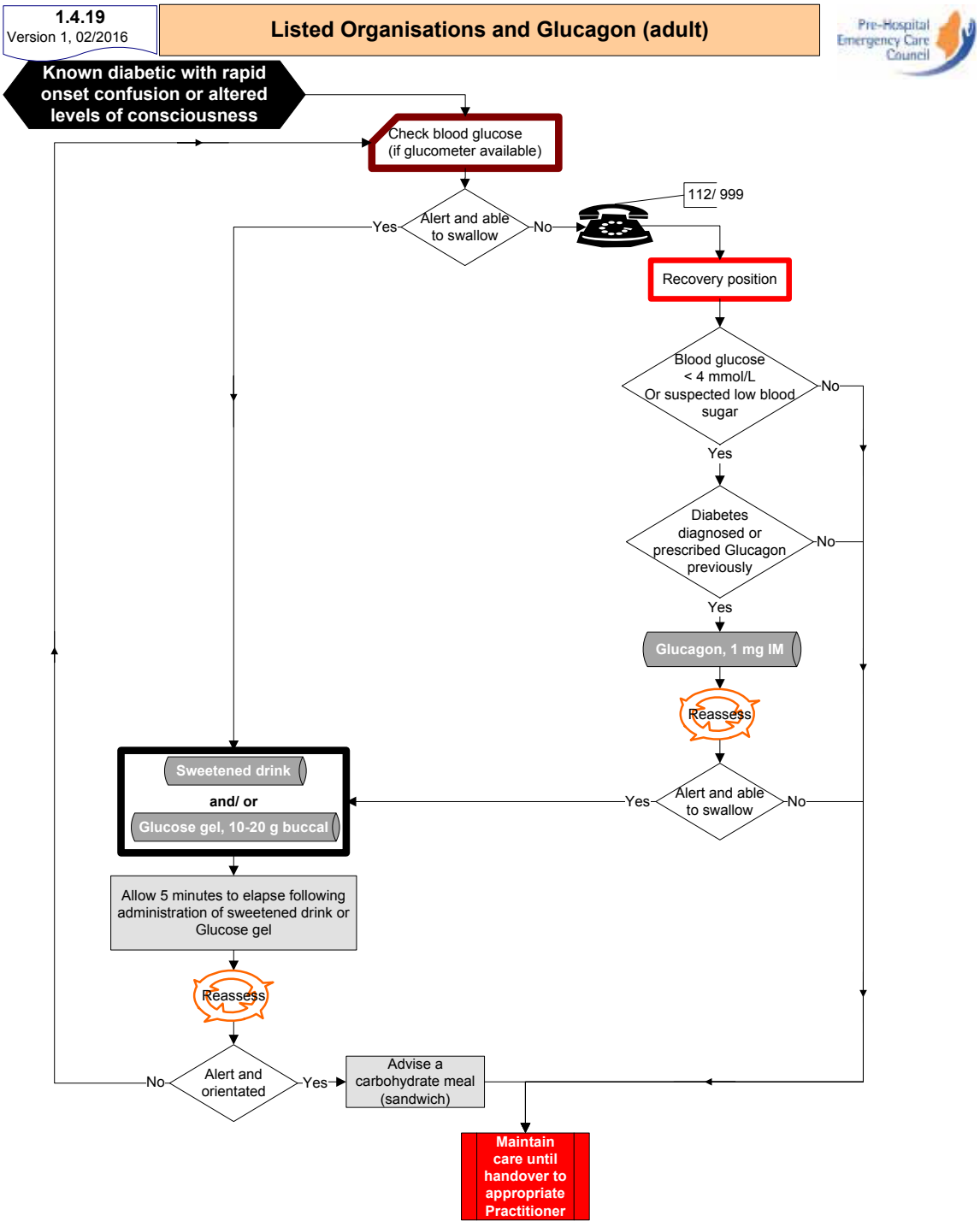
During an asthma attack;
Do use a spacer device if one is available
Do listen to what the patient is saying – they may have had attacks before.

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.

Special Authorisation:
You are authorised to administer Salbutamol inhaler, following successful completion of the training module, provided you are acting on behalf of an organisation listed with the HPRA as specified in SI 449 of 2015

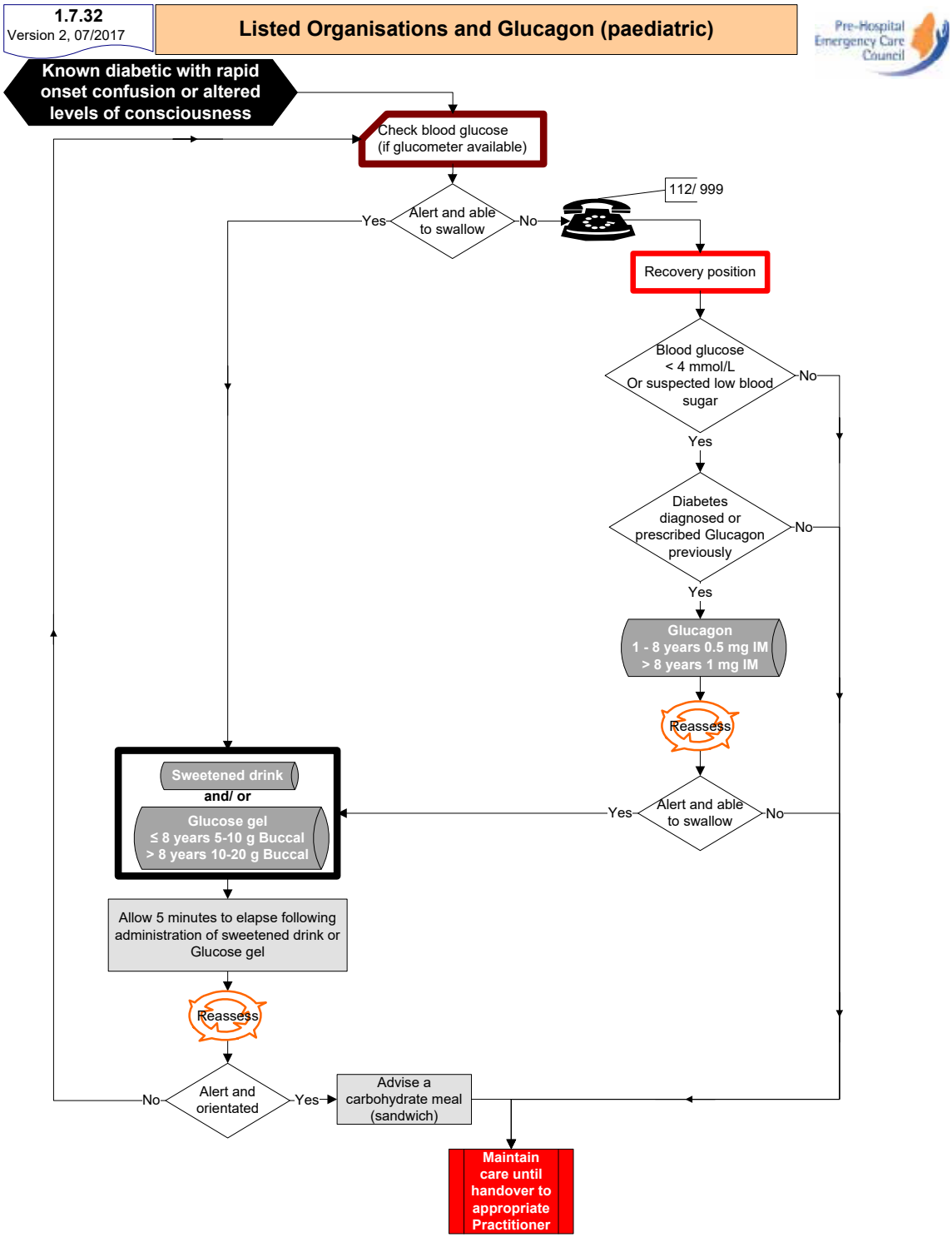
Reference: Management of an Acute Asthma Attack in Adults, Clinical Guideline No. 14, National Clinical Effectiveness Committee, 2015, Emergency Asthma Guidelines, British Thoracic Society, 2008, British Guidelines on the Management of Asthma, a national clinical guideline, ILCOR Guidelines 2015, Asthma Society of Ireland, SI 449 of 2015

MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)



Reference: Mohun J, 2003, First Aid Manual 8th Edition, Irish Red Cross & Order of Malta Ambulance Corps
SI 449 of 2015

MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

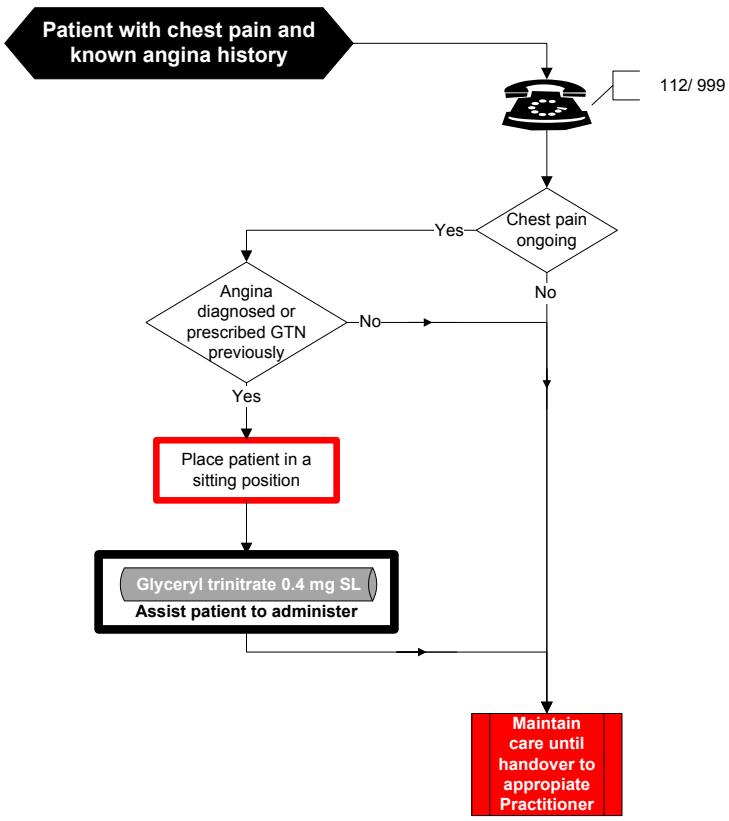


Reference: Mohun J, 2003, First Aid Manual 8th Edition, Irish Red Cross & Order of Malta Ambulance Corps
SI 449 of 2015

MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)

1.4.10
Version 1, 02/2016

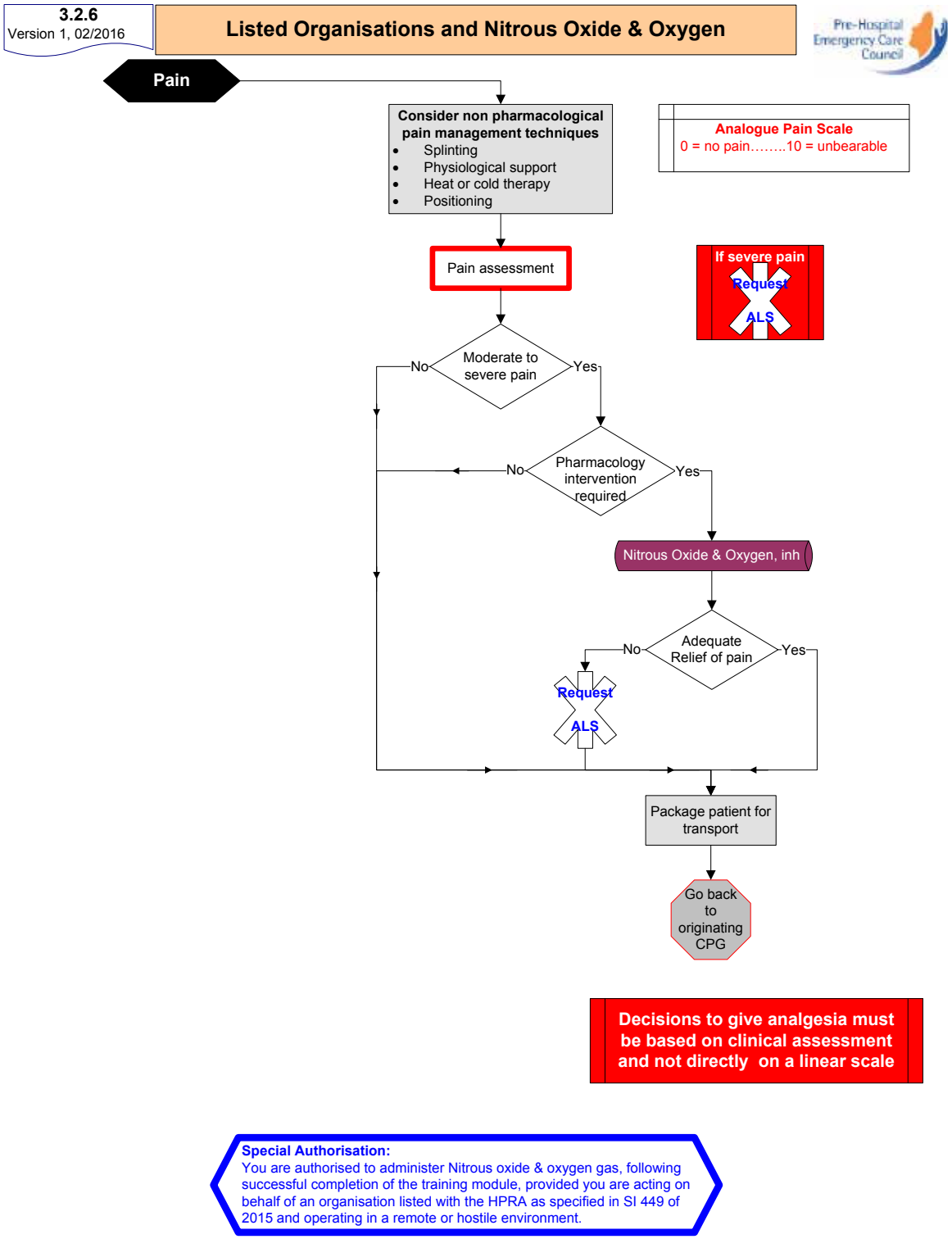
Listed Organisations and Glyceryl trinitrate (GTN)



Special Authorisation:
You are authorised to administer Glyceryl trinitrate SL, following successful completion of the training module, provided you are acting on behalf of an organisation listed with the HPRA as specified in SI 449 of 2015

Reference: ILCOR Guidelines 2015
SI 449 of 2015

MEDICATIONS FOR LISTED ORGANISATIONS (SI 449 of 2015)



Special Authorisation:
You are authorised to administer Nitrous oxide & oxygen gas, following successful completion of the training module, provided you are acting on behalf of an organisation listed with the HPRA as specified in SI 449 of 2015 and operating in a remote or hostile environment.

Reference: Park, C. L., et al. (2010). "Prehospital analgesia: systematic review of evidence." J R Army Med Corps **156**(4 Suppl 1): 295-300
SI 449 of 2015

APPENDIX 1 - MEDICATION FORMULARY FOR LISTED ORGANISATIONS VERSION 2, 2017

This Medication Formulary is published by the Pre-Hospital Emergency Care Council (PHECC). It supports material to non-medical persons operating on behalf of listed organisations while administering medications permitted under Medicinal Products Tenth Schedule (SI 449 of 2015).

This is a summary document only and non-medical persons are advised to consult with official publications to obtain more detailed information about the medications if required.

The Medication Formulary for listed organisations is a subset of the PHECC Medication Formulary for Practitioners published by Council.

The CPGs herein may be implemented provided:

1. The non-medical person maintains current certification on the specific medication(s) as outlined in PHECC's Education & Training Standard.
2. The non-medical person is authorised, by the listed organisation on whose behalf he/she is acting, to implement the specific CPG.
3. The medications are listed on the tenth schedule.

Medication dose

Every effort has been made to ensure accuracy of the medication doses herein. The medication dose specified on the relevant CPGs shall be the definitive dose in relation to non-medical person's administration of the specified medication(s). The onus rests on the non-medical person 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.
Paediatric patient: a patient less than 16 years.

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

APPENDIX 1 - MEDICATION FORMULARY FOR LISTED ORGANISATIONS VERSION 2, 2017

Index of Medication Formulary (Adult ≥ 16 and Paediatric ≤ 15 unless otherwise stated) . . . . . Page No.

Clinical level: CFR **Medications for Listed Organisations**

Medication	Aspirin
Class	Platelet aggregation inhibitor.
Descriptions	Anti-inflammatory agent and an inhibitor of blood clotting function. Useful agent in the treatment of various cardiovascular diseases such as heart attack.
Presentation	300 mg tablet.
Administration	Orally - disolved in water, or to be chewed - if not disolvable form. (**CPG**: 1/2/3.4.10).
Indications (reason for administration)	Cardiac chest pain or suspected heart attack.
Contra-Indications (reasons for not administrating)	Active ulcer. Bleeding disorder (e.g. haemophilia). Known severe adverse reaction. Patients < 16 years old.
Usual Dosages	**Adult:** 300 mg tablet. **Paediatric:** Contraindicated.
Pharmacology/Action	Prevents the clotting action of the platelets in the blood. This reduces clot formation during a heart attack.
Side effects (anticipated but unwanted effects that may occur)	Abdominal pain and discomfort. Wheezing. Stomach and haemorrhage in the intestine.
Long term effects	Generally mild and infrequent but incidence of stomach or intestinal irritation with slight blood loss, increased clotting time, chest wheeze and skin reaction in hypersensitive patients.
Additional information	Aspirin 300 mg is indicated for cardiac chest pain even if patient is on blood thining medication or is already on aspirin. If the patient has swallowed an aspirin (enteric coated) tablet without chewing it, or dissolving in water, administer 300 mg PO as the patient should be regarded as not having taken any aspirin.

Clinical level: CFR **Medications for Listed Organisations**

Medication	Epinephrine (Adrenaline) Auto injector
Class	Sympathetic agonist.
Descriptions	Naturally occurring hormone. It is a potent stimulant.
Presentation	Pre-filled Auto injector.
Administration	Intramuscular (IM). (**CPG:** 1.4.15, 1.7.31).
Indications (reason for administration)	Severe anaphylaxis.
Contra-Indications (reasons for not administrating)	None known.
Usual Dosages	**Adult:** 0.3 mg (Auto injector). Repeat once after 5 minutes if no improvement. **Paediatric:** 6 months < 10 years; 0.15 mg (Auto injector). ≥ 10 years; 0.3 mg (Auto injector). Repeat once after 5 minutes if no improvement.
Pharmacology/Action	Reversal of swelling in the throat & chest wheeze in anaphylaxis. Blocks the effects of histamine.
Side effects (anticipated but unwanted effects that may occur)	Palpitations. Increased blood pressure. Chest pain.
Additional information	

Clinical level: CFR Medications for Listed Organisations

Medication	Glucagon
Class	Hormone and Antihypoglycaemic.
Descriptions	Glucagon is a protein produced in the pancreas. It is used to increase the blood glucose level in cases of low blood sugar.
Presentation	1 mg vial powder and solution for disolving the powder.
Administration	Intramuscular (IM). (**CPG:** 1.4.19, 1.7.32)
Indications (reason for administration)	Low blood sugar in patients unable to take oral glucose with a blood glucose level < 4 mmol/L.
Contra-Indications (reasons for not administrating)	Less than 1 year old. Known severe adverse reaction.
Usual Dosages	**Adult:** 1 mg IM. **Paediatric:** 1 – 8 years 0.5 mg IM. > 8 years 1 mg IM.
Pharmacology/Action	Increases glucose in the blood by mobilising sugar stored in the liver.
Side effects (anticipated but unwanted effects that may occur)	Rare, may cause low blood pressure, dizziness, headache, nausea & vomiting.
Additional information	May be ineffective in patients with low stored sugar e.g. prior use in previous 24 hours or poorly nourished people. Store in refrigerator. Protect from light.

Clinical level: CFR **Medications for Listed Organisations**

Non - Medication	Glucose gel
Class	Antihypoglycaemic.
Descriptions	Synthetic glucose paste.
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:** 1.4.19, 1.7.32)
Indications (reason for administration)	Low blood sugar. Blood sugar < 4 mmol/L. Known diabetic with confusion or altered levels of consciousness.
Contra-Indications (reasons for not administrating)	Known severe adverse reaction.
Usual Dosages	**Adult:** 10 – 20 g buccal. Repeat as required. **Paediatric:** ≤ 8 years; 5 – 10 g buccal. > 8 years: 10 – 20 g buccal. Repeat as required.
Pharmacology/Action	Increases blood glucose levels.
Side effects (anticipated but unwanted effects that may occur)	May cause vomiting in patients under the age of five if administered too quickly.
Additional information	Proceed with caution for patients with: - airway difficulties. - reduced level of consciousness.

Clinical level: CFR Medications for Listed Organisations

Medication	Glyceryl trinitrate (GTN)
Class	Nitrate.
Descriptions	Special preparation of Glyceryl trinitrate in an aerosol form that delivers precisely 0.4 mg of Glyceryl trinitrate per spray.
Presentation	Aerosol spray: metered dose 0.4 mg.
Administration	Sublingual (SL) – under the tongue: 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 after each dose. (**CPG**: 1.4.10)
Indications (reason for administration)	Angina. Suspected heart attack or angina. Assist patient with administration.
Contra-Indications (reasons for not administrating)	Viagra or similar medication used within previous 24 hours. Known severe adverse reaction.
Usual Dosages	**Adult:** 0.4 mg Sublingual (under the tongue). **Paediatric:** Not indicated.
Pharmacology/Action	Releases nitric oxide which acts to dilate blood vessels. Dilates coronary arteries particularly if in spasm increasing blood flow to the heart muscle. Reduces blood pressure.
Side effects (anticipated but unwanted effects that may occur)	Headache. Temporary low blood pressure. Flushing. Dizziness.
Additional information	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: CFR Medications for Listed Organisations

Medication	Naloxone
Class	Narcotic antagonist.
Descriptions	Effective in management and reversal of overdoses caused by narcotics or synthetic narcotic agents.
Presentation	Pre-loaded syringe.
Administration	Intramuscular (IM). (**CPG**: 1.3.6).
Indications (reason for administration)	Inadequate breathing and/or altered level of consciousness following known or suspected narcotic overdose.
Contra-Indications (reasons for not administrating)	Known severe adverse reaction.
Usual Dosages	**Adult:** 0.4 mg IM. (Repeat at two minute intervals when necessary) **Paediatric:** Not indicated.
Pharmacology/Action	**Narcotic antagonist** Reverse the respiratory depression and analgesic effect of narcotics.
Side effects (anticipated but unwanted effects that may occur)	Acute reversal of narcotic effect ranging from nausea & vomiting to agitation and seizures.
Additional information	Rapid reversal will precipitate acute withdrawal syndrome. Prepare to deal with aggressive patients. For safety a needle may be used only once. If additional doses are required use a new needle every time.

Clinical Level: EFR Medications for Listed Organisations

Medication	Nitrous Oxide 50% and Oxygen 50% (Entonox®)
Class	Analgesic.
Descriptions	Potent analgesic gas contains a mixture of both nitrous oxide and oxygen.
Presentation	Cylinder, coloured blue with white and blue triangles on cylinder shoulders. Medical gas: 50% Nitrous Oxide & 50% Oxygen.
Administration	Self administered. Inhalation by demand valve with face-mask or mouthpiece. (**CPG:** 3.2.6)
Indications (reason for administration)	Pain relief.
Contra-Indications (reasons for not administrating)	Altered level of consciousness. Chest Injury/Pneumothorax. Shock. Recent scuba dive. Decompression sickness. Intestinal obstruction. Inhalation Injury. Carbon monoxide (CO) poisoning. Known severe adverse reaction.
Usual Dosages	**Adult:** Self-administered until pain relieved. **Paediatric:** Self-administered until pain relieved.
Pharmacology/Action	**Analgesic agent gas:** - CNS depressant. - Pain relief.
Side effects (anticipated but unwanted effects that may occur)	Disinhibition. Decreased level of consciousness. Light headedness.
Additional information	Do not use if patient unable to understand instructions. In cold temperatures, warm cylinder and invert to ensure mix of gases. Brand name: Entonox®. Has an addictive property. Caution when using Entonox for greater than one hour as risk of Sickle Cell Crisis.

Clinical level: CFR **Medications for Listed Organisations**

Medication	Salbutamol
Class	Sympathetic agonist.
Descriptions	Stimulant that mimics the effects of beta-2 adrenergic receptors.
Presentation	Aerosol inhaler: metered dose 0.1 mg.
Administration	Inhalation via aerosol inhaler. (**CPG**: 1.3.4).
Indications (reason for administration)	Acute asthmatic attack.
Contra-Indications (reasons for not administrating)	Known severe adverse reaction.
Usual Dosages	**Adult:** 0.1 mg metered aerosol spray. Repeat up to 11 sprays. **Paediatric:** 0.1 mg metered aerosol spray. Repeat up to 11 sprays.
Pharmacology/Action	Dilates muscle in airways.
Side effects (anticipated but unwanted effects that may occur)	Increased heart rate. Tremors.
Additional information	It is more efficient to use a volumizer (spacer) in conjunction with an aerosol inhaler when administering Salbutamol.

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