



MEDICATIONS FIELD GUIDE 2017

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EMT

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AP

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Medications Field Guide

Published 2018

The Pre-Hospital Emergency Care Council (PHECC) is an independent statutory body with responsibility for standards, education and training in pre-hospital emergency care in Ireland. PHECC's primary role is to protect the public.

Mission Statement

The Pre-Hospital Emergency Care Council protects the public by independently specifying, reviewing, maintaining and monitoring standards of excellence for the delivery of quality pre-hospital emergency care for people in Ireland.

The Council was established as a body corporate by the Minister for Health and Children by Statutory Instrument Number 109 of 2000 (Establishment Order) which was amended by Statutory Instrument Number 575 of 2004 (Amendment Order). These Orders were made under the Health (Corporate Bodies) Act, 1961 as amended and the Health (Miscellaneous Provisions) Act 2007.

Medications Update

Please refer to www.phecc.ie for up-to-date medications information.

PHECC Medications Field Guide For Practitioners 2017

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Introduction

This Medications Field Guide is not a substitute for the published Clinical Practice Guidelines (CPGs). It is a quick reference to help Practitioners in the field particularly with medication calculations.

This Medications Field Guide does not authorise skills or medication administration. Practitioners should only practice within their scope of practice and in accordance with their level on the PHECC Register.

The route of administration should be appropriate to the patient's clinical presentation.

Medications herein may be administered provided

1. The Practitioner is in good standing on the PHECC Register.
2. The Practitioner complies with the CPGs published by PHECC.
3. The Practitioner is acting (paid or voluntary) on behalf of an organisation that is a PHECC licenced CPG provider.
4. The Practitioner is privileged, by the organisation on whose behalf he/she is acting, to administer the medication.
5. The Practitioner has received training on, and is competent in, the administration of the medication.
6. The medications are listed in the Medicinal Products 7th Schedule.

Paediatric values

This guide has adopted the Broselow tape colour scheme to assist with calculations.

3-5Kg	6-7Kg	10-11Kg	12-14Kg	15-18Kg	19-22Kg	24-28Kg	30-36Kg
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Notes

Important medication information

The following pages contain quick references for medications. Calculations for **paediatric doses are based on a specific concentration** of the medication, as outlined on the top of each page.

The formula for estimating weight is

neonate: 3.5 Kg

6 months: 6 Kg

1-5 years: (age in years x 2) + 8 Kg

> 5 years: (age in years x 3) + 7 Kg.

To convert lbs to Kg, divide lbs by 2.2.

Volumes are rounded up to the nearest 0.1 mL.

Where calculations exceed the adult dose the adult dose applies.

If other concentrations of the medication are used these specific calculations do not apply, and the Practitioner is required to make the calculations by other means.

Formula for medication calculation

$$\frac{\text{Dose Required (mg)}}{\text{Dose in Container (mg)}} \times \text{Vol of Solution (mL)} = \text{Vol to Administer (mL)}$$

Simple Version

$$\frac{\text{Want (mg)}}{\text{Have (mg)}} \times \text{Vol (mL)} = \text{Vol to Administer (mL)}$$

Adenosine

Indications:

Paroxysmal supraventricular tachycardia (>180) with signs of poor perfusion

Adult dose:

6 mg IV. Initial Adenosine unsuccessful: Repeat at 12 mg x 2 prn Max.

Paediatric dose:

Not indicated.

Contraindications:

Asthma / COPD / Decompensated heart failure / Long QT syndrome / Second or third degree AV block / Severe hypotension / Sick sinus syndrome (unless pacemaker fitted)/ KSAR.

Side effects:

Angina (discontinue)

Apprehension - arrhythmia (discontinue if asystole or severe bradycardia occur)

AV block / Dizziness / Dyspnoea / Flushing / Headache / Nausea / Sinus pause

Uncommon:

Blurred vision / Hyperventilation / Metallic taste / Palpitation / Sweating / Weakness.

Additional information:

Initially 6 mg, administered into large peripheral vein and given over 2 seconds, followed by rapid 10 mL NaCl 0.9% flush.

Repeat doses of 12 mg administered rapidly also.

Cardiac monitoring required.

Cautions:

Atrial fibrillation with accessory pathway / Atrial flutter with accessory pathway Autonomic dysfunction / Bundle branch block / First-degree AV block / Heart transplant / Recent MI / Severe heart failure / Stenotic valvular heart disease / Uncorrected hypovolaemia.

Amiodarone

Indications:

Ventricular fibrillation (VF) Pulseless, ventricular tachycardia (pVT) and Symptomatic Tachycardia (>150)

Adult dose:

VF/pVT: 5 mg/Kg IV/IO (loading dose for adult cardiac arrest: 300 mg and one supplemental dose of 150 mg).

Symptomatic tachycardia: 150 mg - IV infusion in 100 mL D₅W (over 10 minutes).

Paediatric dose:

VF/pVT: 5 mg/Kg IV/IO, if refractory VF/pVT post Epinephrine and 3rd shock.

Contraindications:

Known hypersensitivity to Iodine, KSAR.

Side effects:

Inflammation of peripheral veins / Bradycardia / AV conducting abnormalities.

Hypotension (usually moderate / transient) but can be severe after rapid injection

Additional information:

If diluted mix with Dextrose 5% (for infusion use 100 mL D₅W). May be flushed with NaCl. For cardiac arrest do not dilute, administer directly followed by a flush. For ease of use in paediatric calculations when using 150 mg in 3 mL, add 2 mL D₅W, making the concentration 150 mg in 5 mL.

Amiodarone calculations

Paediatric dose:

5 mg/Kg

Concentration:

150 mg/5 mL or 300 mg/10 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	17.5 mg	0.6 mL
6 months	6 Kg	30 mg	1.0 mL
1 year	10 Kg	50 mg	1.7 mL
2 years	12 Kg	60 mg	2.0 mL
3 years	14 Kg	70 mg	2.3 mL
4 years	16 Kg	80 mg	2.7 mL
5 years	18 Kg	90 mg	3.0 mL
6 years	25 Kg	125 mg	4.2 mL
7 years	28 Kg	140 mg	4.7 mL
8 years	31 Kg	155 mg	5.2 mL
9 years	34 Kg	170 mg	5.7 mL
10 years	37 Kg	185 mg	6.2 mL
11 years	40 Kg	200 mg	6.7 mL
12 years	43 Kg	215 mg	7.2 mL
13 years	46 Kg	230 mg	7.7 mL
14 years	49 Kg	245 mg	8.2 mL
15 years	52 Kg	260 mg	8.7 mL

Aspirin

Indications:

Cardiac chest pain or suspected myocardial infarction.
Management of unstable angina and non ST-segment elevation myocardial infarction (NSTEMI).

Adult dose:

300 mg tablet.

Paediatric dose:

Not indicated.

Contraindications:

Active symptomatic gastrointestinal (GI) ulcer / Bleeding disorder (e.g. haemophilia) / Patients < 16 years old (risk of Reye's syndrome) / KSAR.

Side effects:

Epigastric pain and discomfort / Bronchospasm / Gastrointestinal haemorrhage / Increased bleeding time / Skin reactions in hypersensitive patients.

Additional information:

Aspirin 300 mg is indicated for cardiac chest pain regardless if patient is on anti-coagulants or is already on Aspirin.

If the patient has swallowed an Aspirin (enteric coated) preparation without chewing it, the patient should be regarded as not having taken any Aspirin; administer 300 mg PO

Atropine

Indications:

Adult: Symptomatic bradycardia.

Cholinergic poison (from Organophosphorus insecticides) with bradycardia and salivation.

Adult dose:

Cholinergic poison with bradycardia and salivation:

1 mg IV. (Repeat at 3-5 min intervals to ensure minimal salivary secretions).

Symptomatic Bradycardia:

0.6 mg (600 mcg) IV. (Repeat at 3-5 min intervals to Max 3 mg).

Paediatric dose:

Not indicated.

Contraindications:

Post-cardiac transplantation/ KSAR

Side effects:

Tachycardia / Dry mouth / Dilated pupils.

Additional information:

Accidental exposure to the eye causes blurred vision.

Do not administer Atropine if temperature $< 34.1^{\circ}\text{C}$

Ceftriaxone

Indications:

Severe sepsis – Adult and Paediatric.

Adult dose:

2 g IV/IO/IM.

IV/IO over 2-4 minutes or deep IM injection.

Paediatric dose:

1 Month – 11 years: 50 mg/Kg IV/IO/IM

> 11 years or body weight > 50 Kg: 2 g IV/IO/IM

IV/IO over 2-4 minutes or deep IM injection.

Contraindications:

Age < 1 month

Hx of severe hypersensitivity (e.g. anaphylactic reaction) to any beta-lactam antibacterial (Penicillins, Cephalosporins, Aztreonam, Meropenem, Ertapenem). KSAR

Ceftriaxone solutions containing Lidocaine should never be administered IV

Side effects:

Diarrhoea / Rash / Headache / Dizziness / Nausea / Vomiting / Pruritus.

Additional information:

Ceftriaxone **must not** be mixed or administered simultaneously with any calcium-containing intravenous solutions.

Preferred route is by IV or IO infusion (in that order). Reconstitute 1 g in 2 mL and add 8 mL water for injection (1 g in 10 mL).

Intramuscular route may be used only in exceptional circumstances. Up to 1 g (3.5 mL) divide into more than one injection site. IM injection should be mixed as 1 g and 3.5 mL of 1% Lidocaine Hydrochloride injection to reduce pain at the IM injection site. The resulting solution must never be administered intravenously.

Ceftriaxone IV

Paediatric dose:

50 mg/Kg (1 month – 11 years) and 2 g (> 11 years or > 50 Kg)

Concentration:

1000 mg/10 mL (reconstitute 1 g vial in 2 mL and add 8 mL water for injection)

Age	Weight	mg	mL
Neonate	3.5 Kg	contraindicated	contraindicated
6 months	6 Kg	300 mg	3.0 mL
1 year	10 Kg	500 mg	5.0 mL
2 years	12 Kg	600 mg	6.0 mL
3 years	14 Kg	700 mg	7.0 mL
4 years	16 Kg	800 mg	8.0 mL
5 years	18 Kg	900 mg	9.0 mL
6 years	25 Kg	1250 mg	12.5 mL
7 years	28 Kg	1400 mg	14.0 mL
8 years	31 Kg	1550 mg	15.5 mL
9 years	34 Kg	1700 mg	17.0 mL
10 years	37 Kg	1850 mg	18.5 mL
11 years	40 Kg	2000 mg	20.0 mL
12 years	43 Kg	2000 mg	20.0 mL
13 years	46 Kg	2000 mg	20.0 mL
14 years	49 Kg	2000 mg	20.0 mL
15 years	52 Kg	2000 mg	20.0 mL

Ceftriaxone IM

Ceftriaxone solutions containing Lidocaine should never be administered IV

Paediatric dose:

50 mg/Kg (1 month – 11 years) and 2 g (> 11 years or > 50 Kg)

Concentration:

1000 mg/3.5 mL (1 g vial reconstituted with 3.5 mL of 1% Lidocaine Hydrochloride)

Age	Weight	mg	mL
Neonate	3.5 Kg	contraindicated	contraindicated
6 months	6 Kg	300 mg	1.1 mL
1 year	10 Kg	500 mg	1.8 mL
2 years	12 Kg	600 mg	2.1 mL
3 years	14 Kg	700 mg	2.5 mL
4 years	16 Kg	800 mg	2.8 mL
5 years	18 Kg	900 mg	3.2 mL
6 years	25 Kg	1250 mg	4.4 mL
7 years	28 Kg	1400 mg	4.9 mL
8 years	31 Kg	1550 mg	5.4 mL
9 years	34 Kg	1700 mg	6.0 mL
10 years	37 Kg	1850 mg	6.5 mL
11 years	40 Kg	2000 mg	7.0 mL
12 years	43 Kg	2000 mg	7.0 mL
13 years	46 Kg	2000 mg	7.0 mL
14 years	49 Kg	2000 mg	7.0 mL
15 years	52 Kg	2000 mg	7.0 mL

Chlorphenamine

Indications:

Anaphylaxis or allergic reaction

Adult dose:

Allergic reaction

Mild: - 4 mg PO (EMT / P / AP)

Moderate: - 4 mg PO or 10 mg IM (EMT / P) or 10 mg IV (AP)

Severe/Anaphylaxis: - 10 mg IM (EMT / P) or 10 mg IV (AP)

Paediatric dose:

Allergic reaction:

Mild: 6 to 11 years – 2 mg PO (EMT / P / AP)

≥ 12 years – 4 mg PO (EMT / P / AP)

Moderate: < 1 year – 0.25 mg/Kg IM (EMT / P) or 0.25 mg/Kg IV (AP)

1 to 5 years – 2.5 mg IM (EMT / P) or 2.5 mg IV (AP)

6 to 11 years – 2 mg PO or 5 mg IM (EMT / P) or 5 mg IV (AP)

≥ 12 years – 4 mg PO or 10 mg IM (EMT / P) or 10 mg IV (AP)

Severe/ Anaphylaxis:

< 1 year – 0.25 mg/Kg IM (EMT / P) or 0.25 mg/Kg IV (AP)

1 to 5 years – 2.5 mg IM (EMT / P) or 2.5 mg IV (AP)

6 to 11 years – 5 mg IM (EMT / P) or 5 mg IV (AP)

≥ 12 years – 10 mg IM (EMT / P) or 10 mg IV (AP)

Contraindications:

Pre-coma states / KSAR.

Side effects:

Causes drowsiness and patients receiving it should not drive or operate machinery.

Additional information:

Use with caution in epilepsy / Prostatic hypertrophy / Glaucoma / Hepatic disease / Bronchitis / Bronchiectasis / Thyrotoxicosis / Raised intra-ocular pressure / Severe hypertension / Cardiovascular disease / Bronchial asthma.

For IV route, administer over 1 minute.

If small dose required, dilute with NaCl 0.9%.

Chlorphenamine IV/ IM

Paediatric dose:

0.25 mg/Kg (< 1 year), 2.5 mg (1-5 years), 5 mg (6-11 years), 10 mg (≥ 12 years)

Concentration:

10 mg/ 1 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.88 mg	0.1 mL
6 months	6 Kg	1.5 mg	0.2 mL
1 year	10 Kg	2.5 mg	0.3 mL
2 years	12 Kg	2.5 mg	0.3 mL
3 years	14 Kg	2.5 mg	0.3 mL
4 years	16 Kg	2.5 mg	0.3 mL
5 years	18 Kg	2.5 mg	0.3 mL
6 years	25 Kg	5 mg	0.5 mL
7 years	28 Kg	5 mg	0.5 mL
8 years	31 Kg	5 mg	0.5 mL
9 years	34 Kg	5 mg	0.5 mL
10 years	37 Kg	5 mg	0.5 mL
11 years	40 Kg	5 mg	0.5 mL
12 years	43 Kg	10 mg	1 mL
13 years	46 Kg	10 mg	1 mL
14 years	49 Kg	10 mg	1 mL
15 years	52 Kg	10 mg	1 mL

Clopidogrel

Indications:

ST elevation myocardial infarction (STEMI) if the patient is not suitable for PPCI.

Adult dose:

300 mg PO.

≥ 75 years: 75 mg PO

Paediatric dose:

Not indicated.

Contraindications:

Active pathological bleeding / Severe liver impairment / KSAR.

Side effects:

Abdominal pain / Dyspepsia / Diarrhoea.

Additional information:

If a patient has been loaded with an anti-platelet medication (other than Aspirin), prior to the arrival of the practitioner, the patient should not have Clopidogrel administered.

Cyclizine

Indications:

Management, prevention and treatment of nausea and vomiting.

Adult dose:

50 mg slow IV/IO or IM.

Palliative Care:

50 mg SC/PO. (Repeat x 1 prn - AP).

Paediatric dose:

Not indicated.

Contraindications:

KSAR.

Side effects:

Tachycardia / Dry Mouth / Sedation.

Additional information:

IM route should only be utilised where IV or IO access is not available.

Dextrose 10% Solution

Indications:

Hypoglycaemic Emergency. Blood glucose level < 4 mmol/L.

Adult dose:

250 mL IV/IO infusion (repeat x 1 prn)

Paediatric dose:

5 mL/Kg IV/IO (repeat x 1 prn).

Contraindications:

KSAR.

Side effects:

Necrosis of tissue around IV access.

Additional information:

Also called Glucose.

Cannula patency will reduce the effect of tissue necrosis.

Advanced paramedics should use as large a vein as possible.

Paramedics are authorised to continue the established infusion in the absence of an advanced paramedic or doctor during transportation.

Dextrose 10% calculations

Paediatric dose:

500 mg/Kg (5 mL/Kg)

Concentration:

50 g/500 mL

Age	Weight	g	mL
Neonate	3.5 Kg	1.75 g	17.5 mL
6 months	6 Kg	3 g	30 mL
1 year	10 Kg	5 g	50 mL
2 years	12 Kg	6 g	60 mL
3 years	14 Kg	7 g	70 mL
4 years	16 Kg	8 g	80 mL
5 years	18 Kg	9 g	90 mL
6 years	25 Kg	12.5 g	125 mL
7 years	28 Kg	14 g	140 mL
8 years	31 Kg	15.5 g	155 mL
9 years	34 Kg	17 g	170 mL
10 years	37 Kg	18.5 g	185 mL
11 years	40 Kg	20 g	200 mL
12 years	43 Kg	21.5 g	215 mL
13 years	46 Kg	23 g	230 mL
14 years	49 Kg	24.5 g	245 mL
15 years	52 Kg	25 g	250 mL

Dextrose 5% solution**Indications:**

Use as a dilutant for Amiodarone infusion

Adult dose:

Dilute appropriate dose of Amiodarone in 100 mL or 500 mL.

Paediatric dose:

Not indicated.

Contraindications:

KSAR.

Side effects:

Necrosis of tissue around IV access.

Additional Information:

Paramedics are authorised to continue the established infusion in the absence of an Advanced Paramedic or doctor during transportation.

Diazepam Rectal Solution

Indications:

Seizure.

Adult dose:

10 mg (PR). Maximum 4 doses of Benzodiazepine for adult and paediatric patients regardless of route.

Paediatric dose:

< 3 years: 2.5 mg (PR).

3 to 7 years: 5 mg (PR).

≥ 8 years: 10 mg (PR).

Maximum 4 doses of Benzodiazepine for adult and paediatric patients regardless of route.

Contraindications:

Respiratory depression / Shock / Depressed vital signs or alcohol related altered level of consciousness / KSAR

Side effects:

Hypotension / Respiratory depression / Drowsiness and light-headedness (the next day).

Additional information:

Be aware of modesty of patient.

Should be administered in the presence of a 2nd person.

Egg and soya proteins are used in the manufacture of Diazepam Rectal Solution; allergies to these proteins may be encountered.

The maximum dose of Diazepam includes that administered by carer prior to arrival of practitioner.

If a patient recommences seizing regard it as a new event, administer one dose of Benzodiazepine then consult medical advice.

Diazepam IV

Indications:

Seizure.

Adult dose:

5 mg IV/IO. Maximum 4 doses of Benzodiazepine for adult and paediatric patients regardless of route

Paediatric dose:

0.1 mg/Kg IV/IO.

Maximum 4 doses of Benzodiazepine for adult and paediatric patients regardless of route

Contraindications:

Respiratory depression / Shock / Depressed vital signs or alcohol-related altered level of consciousness / KSAR

Side effects:

Hypotension / Respiratory depression / Drowsiness and light-headedness (the next day)

Additional information:

Diazepam IV should be titrated to effect.

Can cause injection site reactions/thrombophlebitis, ensure large vein is used. Administer slowly (5 mg/1 mL over 1 minute).

The maximum dose of Diazepam includes that administered by carer prior to arrival of practitioner.

If a patient recommences seizing regard it as a new event, administer one dose of Benzodiazepine then consult medical advice.

Diazepam IV calculations

Paediatric dose:

0.1 mg/Kg

Concentration:

10 mg/2 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.4 mg	0.1 mL
6 months	6 Kg	0.6 mg	0.1 mL
1 year	10 Kg	1.0 mg	0.2 mL
2 years	12 Kg	1.2 mg	0.2 mL
3 years	14 Kg	1.4 mg	0.3 mL
4 years	16 Kg	1.6 mg	0.3 mL
5 years	18 Kg	1.8 mg	0.4 mL
6 years	25 Kg	2.5 mg	0.5 mL
7 years	28 Kg	2.8 mg	0.6 mL
8 years	31 Kg	3.1 mg	0.6 mL
9 years	34 Kg	3.4 mg	0.7 mL
10 years	37 Kg	3.7 mg	0.7 mL
11 years	40 Kg	4.0 mg	0.8 mL
12 years	43 Kg	4.3 mg	0.9 mL
13 years	46 Kg	4.6 mg	0.9 mL
14 years	49 Kg	4.9 mg	1.0 mL
15 years	52 Kg	5.0 mg	1.0 mL

Enoxaparin Sodium Solution

Indications:

Acute ST-segment Elevation Myocardial Infarction (STEMI) immediately following the administration of a thrombolytic agent.

Adult dose:

30 mg IV bolus (>75 years: 0.75 mg/Kg SC).

Paediatric dose:

Not indicated.

Contraindications:

Active major bleeding disorders and conditions with a high risk of uncontrolled haemorrhage, including recent haemorrhagic stroke or subdural haematoma; in jaundice; active gastric or duodenal ulceration; hiatal ulceration; threatened abortion, or retinopathy, hypersensitivity to Enoxaparin or other Low Molecular Weight Heparins, KSAR.

Patients on oral anticoagulant as (Warfarin or new oral anticoagulant NOAC) thrombolytic contra-indicated.

Side effects:

Pain, haematoma and mild local irritation may follow the subcutaneous injection (do not rub injection site).

Additional Information:

Do not store above 25 degrees Celsius.

Do not refrigerate or freeze.

Medical Practitioners: Due to the significant increased risk of intra-cerebral bleed for patients aged >75 years DO NOT administer IV Enoxaparin. Enoxaparin 0.75 mg/Kg SC (Max 75 mg SC) is the recommended dose and route.

Epinephrine (1:1,000)

Indications:

Severe anaphylaxis, Stridor, Symptomatic Bradycardia and Cardiogenic shock.

Adult dose:

Anaphylaxis:

0.5 mg (500 mcg) IM (0.5 mL of 1:1,000).

Symptomatic Bradycardia/Cardiogenic shock (AP):

0.01 mg IV/IO repeat prn. (Dilute 1 mg Epinephrine in 100 mL NaCl and draw up in 1 mL syringe, administer the dose over 1 minute).

Paediatric dose:

Anaphylaxis:

< 6 months: - 0.05 mg (50 mcg) IM (0.05 mL of 1:1,000)

6 months to 5 years: - 0.125 mg (125 mcg) IM (0.13 mL of 1:1,000)

6 to 8 years: - 0.25 mg (250 mcg) IM (0.25 mL of 1:1,000)

> 8 years: - 0.5 mg (500 mcg) IM (0.5 mL of 1:1,000)

Stridor (AP):

< 1 Year: 2.5 mg NEB

≥ 1 year: 5 mg NEB (repeat after 30 minutes prn).

Contraindications:

None known.

Side effects:

Palpitations / Tachyarrhythmias / Hypertension / Angina-like symptoms.

Additional information:

N.B. Double check the concentration on pack before use.

Epinephrine (1:10,000)**Indications:**

Cardiac arrest.

Paediatric bradycardia unresponsive to other measures.

Adult dose:

Cardiac arrest: 1 mg IV/IO (repeat 3-5 min prn).

Paediatric dose:

Cardiac arrest: 0.01 mg/Kg (0.1 mL/Kg) IV/IO (repeat 3-5 min prn).

Bradycardia: 0.01 mg/Kg (0.1 mL/Kg) IV/IO (repeat every 3-5 mins prn).

Contraindications:

KSAR.

Side effects:

In non-cardiac arrest patients: palpitations, tachyarrhythmias, hypertension.

Additional information:

N.B. Double check concentrations on pack before use.

Epinephrine (1:10,000) calculations

Paediatric dose:

0.01 mg/Kg

Concentration:

1 mg/ 10 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.04 mg	0.4 mL
6 months	6 Kg	0.1 mg	0.6 mL
1 year	10 Kg	0.1 mg	1.0 mL
2 years	12 Kg	0.1 mg	1.2 mL
3 years	14 Kg	0.1 mg	1.4 mL
4 years	16 Kg	0.2 mg	1.6 mL
5 years	18 Kg	0.2 mg	1.8 mL
6 years	25 Kg	0.3 mg	2.5 mL
7 years	28 Kg	0.3 mg	2.8 mL
8 years	31 Kg	0.3 mg	3.1 mL
9 years	34 Kg	0.3 mg	3.4 mL
10 years	37 Kg	0.4 mg	3.7 mL
11 years	40 Kg	0.4 mg	4.0 mL
12 years	43 Kg	0.4 mg	4.3 mL
13 years	46 Kg	0.5 mg	4.6 mL
14 years	49 Kg	0.5 mg	4.9 mL
15 years	52 Kg	0.5 mg	5.2 mL

Fentanyl

Indications:

Acute severe pain.

Adult dose:

0.1 mg (100 mcg) IN (Repeat by one at not < 10 minutes if severe pain persists).

0.05 mg (50 mcg) IV

Paediatric dose:

0.0015 mg/Kg (1.5 mcg/Kg) IN. (Repeat by one at not < 10 minutes if severe pain persists).

Contraindications:

< 1-year-old / Known Fentanyl hypersensitivity / ALoC /
Bilateral occluded nasal passage / Nasal trauma / Epistaxis /
Hypovolaemia.

Side effects:

Sedation / Nausea/Vomiting / Respiratory depression.

Additional information:

Caution if patient has transdermal Fentanyl patch

Include an additional 0.1 mL, to allow for dead space in the mucosal atomisation device (MAD), in the calculated volume required.

Administer 50% volume in each nostril if more than 1 mL.

Following Fentanyl IN, the next dose may be either Fentanyl or Morphine IV, but not both.

(Adults) In the absence of acquiring IV access, a second dose of IN Fentanyl may be administered.

Controlled under Schedule 2 of the Misuse of Drugs Regulations 1988 (S.I. No. 328 of 1988).

Fentanyl IN calculations (inclusive of 0.1 mL for MAD)

Paediatric dose:

0.0015 mg/Kg

Concentration:

0.1 mg/ 2 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	Contraindicated	
1 year	10 Kg	0.02 mg	0.4 mL
2 years	12 Kg	0.02 mg	0.5 mL
3 years	14 Kg	0.02 mg	0.5 mL
4 years	16 Kg	0.02 mg	0.6 mL
5 years	18 Kg	0.03 mg	0.6 mL
6 years	25 Kg	0.04 mg	0.9 mL
7 years	28 Kg	0.04 mg	0.9 mL
8 years	31 Kg	0.05 mg	1.0 mL
9 years	34 Kg	0.05 mg	1.1 mL
10 years	37 Kg	0.06 mg	1.2 mL
11 years	40 Kg	0.06 mg	1.3 mL
12 years	43 Kg	0.06 mg	1.4 mL
13 years	46 Kg	0.07 mg	1.5 mL
14 years	49 Kg	0.07 mg	1.6 mL
15 years	52 Kg	0.08 mg	1.7 mL

Furosemide injection**Indications:**

Pulmonary oedema.

Adult dose:

40 mg slow IV.

Paediatric dose:

Not indicated.

Contraindications:

Pregnancy / Known Hypokalaemia / KSAR

Side effects:

Headache / Dizziness / Hypotension / Arrhythmias / Transient deafness / Diarrhoea / Nausea and Vomiting.

Additional information:

Furosemide should be protected from light. SPC recommends administration at 4 mg/min IV.

Glucagon

Indications:

Hypoglycaemia in patients unable to take oral glucose or unable to gain IV access, with a blood glucose level < 4 mmol/L.

Adult dose:

1 mg IM.

Paediatric dose:

1- 8 years - 0.5 mg (500 mcg) IM.

> 8 years - 1 mg IM

Contraindications:

< 1 year / Pheochromocytoma / KSAR.

Side effects:

Rare: may cause Hypotension / Dizziness / Headache / Nausea and Vomiting.

Additional information:

May be ineffective in patients with low stored glycogen e.g. prior use in previous 24 hours, alcohol dependent patients with liver disease.

Store in refrigerator.

Protect from light.

Hypoglycaemic paediatric patients who are not diagnosed as diabetic should not be administered Glucagon (this does not preclude the administration of Glucose gel or Dextrose to treat hypoglycaemia)

Glucose Gel

Indications:

Hypoglycaemia, blood glucose < 4 mmol/L.

Adult dose:

10-20 g buccal.

Repeat prn.

Paediatric dose:

≤ 8 years: 5-10 g buccal.

> 8 years: 10-20 g buccal.

Repeat prn.

Contraindications:

KSAR.

Side effects:

May cause vomiting in patients under 5 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.

Glyceryl Trinitrate (GTN)

Indications:

Angina / suspected myocardial infarction (MI).

EMT: Angina / suspected myocardial infarction (MI) with systolic BP \geq 110 mmHg.

Advanced Paramedic and Paramedic: Pulmonary oedema.

Adult dose:

Angina or MI:

0.4 mg (400 mcg) sublingual. (Repeat at 3-5 min intervals, Max: 1.2 mg).

Pulmonary oedema (P & AP):

0.8 mg (800 mcg) sublingual (repeat x 1 prn)

Paediatric dose:

Not indicated.

Contraindications:

SBP < 90 mmHg / Viagra or other phosphodiesterase type 5 inhibitors (Sildenafil, Tadalafil and Vardenafil) used within previous 24 hours / Severe mitral stenosis / KSAR

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.

Glycopyrronium Bromide

Indications:

Palliative care with excessive oropharyngeal secretions.

Adult dose:

0.4 mg (400 mcg) SC.

Paediatric dose:

Not applicable.

Contraindications:

KSAR

Side effects:

Transient bradycardia / Pupil dilation / Photophobia / Flushing.

Additional information:

For patients receiving palliative care administer their doctor's prescribed dose if known.

Haloperidol

Indications:

Palliative care with nausea and vomiting or agitation/delirium.

Adult dose:

1 – 2 mg SC/PO.

Paediatric dose:

Not applicable.

Contraindications:

KSAR

Side effects:

Insomnia / Agitation / Hyperkinesia / Headache.

Additional information:

For agitation/delirium, consider Midazolam in addition only if severe agitation.

For patients receiving palliative care administer their doctor's prescribed dose if known.

Hartmann's Solution

Indications:

When NaCl is unavailable it may be substituted with Hartmann's Solution IV/IO, except for crush injuries, burns, renal failure and hyperglycaemia.

Adult dose:

See NaCl.

Paediatric dose:

See NaCl.

Contraindications:

KSAR

Do not use with Ceftriaxone

Side effects:

If administered in large amounts may cause oedema.

Additional information:

Observe caution with patients with history of heart failure.

Also called: Sodium Lactate Intravenous Solution or Compound Ringer Lactate Solution for injection.

Warm fluids prior to administration if possible.

Hydrocortisone

Indications:

Severe or recurrent anaphylactic reactions.
Asthma refractory to Salbutamol and Ipratropium Bromide.
Exacerbation of COPD (AP). Adrenal insufficiency (P).

Adult dose:

Anaphylactic reaction:
200 mg IV (infusion in 100 mL NaCl) (AP) or IM injection (P/AP).
Exacerbation of COPD (AP): 200 mg IV (infusion in 100 mL NaCl) or IM.
Asthma (AP): 100 mg slow IV (infusion in 100 mL NaCl).
Adrenal insufficiency: 100 mg IV (infusion in 100 mL NaCl) (AP) or IM (P/AP).

Paediatric dose:

Anaphylactic reaction:
< 1 year: 25 mg IV (infusion in 100 mL NaCl) (AP) or IM (P/AP).
1 to 5 years: 50 mg IV (infusion in 100 mL NaCl) (AP) or IM (P/AP).
> 5 years: 100 mg IV (infusion in 100 mL NaCl) (AP) or IM (P/AP).
Asthma (AP):
< 1 year: 25 mg IV / 1 to 5 years: 50 mg IV / > 5 years: 100 mg IV - (infusion in 100 mL NaCl).
Adrenal insufficiency:
6 months to ≤ 5 years: 50 mg IV (infusion in 100 mL NaCl) (AP) or IM injection (P/AP).
> 5 years: 100 mg IV (infusion in 100 mL NaCl) (AP) or IM injection (P/AP).

Contraindications:

No major contraindications in acute management of anaphylaxis.

Side effects:

CCF / Hypertension / Abdominal distension / Vertigo / Headache / Nausea / Malaise and hiccups.

Additional information:

Intramuscular injection should avoid the deltoid area because of the possibility of tissue atrophy.

Dose should not be less than 25 mg.

IV is the preferred route for adrenal crisis

If the patient, in an adrenal crisis, is still unwell following Hydrocortisone administration prior to arrival of the practitioner the standard dose of Hydrocortisone should be administered.

Hyoscine Butylbromide

Indications:

Palliative care with excessive oropharyngeal secretions.

Adult dose:

10 – 20 mg SC.

Paediatric dose:

Not applicable.

Contraindications:

KSAR

Side effects:

Transient bradycardia / Pupil dilation / Photophobia / Flushing.

Additional information:

For patients receiving palliative care administer their doctor's prescribed dose if known.

Ibuprofen

Indications:

Mild to moderate pain.

Adult dose:

400 mg PO (Mild pain).

600 mg PO (Moderate pain).

Paediatric dose:

10 mg/Kg PO to a Max of 400 mg.

Contraindications:

Not suitable for children under 3 months, patient with history of asthma exacerbated by Aspirin, pregnancy, peptic ulcer disease / Known renal failure / Known severe liver failure / Known severe heart failure / Concurrent NSAID use (e.g. Diclofenac, Naproxen) / KSAR.

Side effects:

Skin rashes, gastrointestinal intolerance and bleeding.

Additional information:

If Ibuprofen administered in previous 6 hours, adjust the dose downward by the amount given by other sources resulting in a maximum of 10 mg/Kg or 400 mg for paediatrics.

Caution with significant burns or poor perfusion due to risk of kidney failure.

Caution if on oral anticoagulant (e.g. Warfarin, Rivaroxaban, Apixaban, Edoxaban) due to increased bleeding risk.

Ibuprofen may be combined with Paracetamol for synergic effect.

Ibuprofen (Brufen Syrup) calculations

Paediatric dose:

10 mg/Kg

Concentration:

100 mg/5 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	60 mg	3.0 mL
1 year	10 Kg	100 mg	5.0 mL
2 years	12 Kg	120 mg	6.0 mL
3 years	14 Kg	140 mg	7.0 mL
4 years	16 Kg	160 mg	8.0 mL
5 years	18 Kg	180 mg	9.0 mL
6 years	25 Kg	250 mg	12.5 mL
7 years	28 Kg	280 mg	14.0 mL
8 years	31 Kg	310 mg	15.5 mL
9 years	34 Kg	340 mg	17.0 mL
10 years	37 Kg	370 mg	18.5 mL
11 years	40 Kg	400 mg	20.0 mL
12 years	43 Kg	400 mg	20.0 mL
13 years	46 Kg	400 mg	20.0 mL
14 years	49 Kg	400 mg	20.0 mL
15 years	52 Kg	400 mg	20.0 mL

Ibuprofen (Brufen Syrup) calculations

Paediatric dose:

10 mg/Kg

Concentration:

200 mg/ 5 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	60 mg	1.5 mL
1 year	10 Kg	100 mg	2.5 mL
2 years	12 Kg	120 mg	3.0 mL
3 years	14 Kg	140 mg	3.5 mL
4 years	16 Kg	160 mg	4.0 mL
5 years	18 Kg	180 mg	4.5 mL
6 years	25 Kg	250 mg	6.3 mL
7 years	28 Kg	280 mg	7.0 mL
8 years	31 Kg	310 mg	7.8 mL
9 years	34 Kg	340 mg	8.5 mL
10 years	37 Kg	370 mg	9.3 mL
11 years	40 Kg	400 mg	10.0 mL
12 years	43 Kg	400 mg	10.0 mL
13 years	46 Kg	400 mg	10.0 mL
14 years	49 Kg	400 mg	10.0 mL
15 years	52 Kg	400 mg	10.0 mL

Ipratropium Bromide

Indications:

Acute moderate asthma or exacerbation of COPD not responding to initial Salbutamol dose.

Adult dose:

0.5 mg (500 mcg) NEB.

Paediatric dose:

< 12 years: 0.25 mg (250 mcg) NEB.

≥ 12 years: 0.5 mg (500 mcg) NEB.

Contraindications:

KSAR.

Side effects:

Transient dry mouth / Blurred vision / Tachycardia / Headache.

Ketamine

Indications:

Severe pain.

Adult dose:

0.1 mg/Kg IV (repeat once only at not < 10 minutes prn).

Paediatric dose:

0.1 mg/Kg IV (repeat once only at not < 10 minutes prn).

Contraindications:

Acute porphyrias / Pre-eclampsia / Eclampsia / Head trauma / Hypertension / Raised intracranial pressure / Severe cardiac disease / Stroke.

Side effects:

Diplopia / Hallucinations / Hypertension / Nausea and Vomiting / Tachycardia / Transient psychotic effects.

Additional information:

Incidents of hallucinations, nightmares, and other psychotic effects can be reduced by a Benzodiazepine such as Diazepam or Midazolam.

Reduces Morphine requirements.

Has low frequency of serious side effects in doses used for analgesia. Allows patients to maintain their pharyngeal reflexes and maintain their own airway.

Controlled under Schedule 3 to the Misuse of Drugs Regulations 1988 (S.I. No. 328 of 1988).

Ketamine IV calculations

Adult doses:

0.1 mg/Kg (200 mg in 20 mL (draw up 1 mL and dilute in 9 mL of NaCl))

Concentration:

10 mg/ 10 mL

Weight	mg	mL
40 Kg	4 mg	4.0 mL
45 Kg	4.5 mg	4.5 mL
50 Kg	5 mg	5.0 mL
55 Kg	5.5 mg	5.5 mL
60 Kg	6 mg	6.0 mL
65 Kg	6.5 mg	6.5 mL
70 Kg	7 mg	7.0 mL
75 Kg	7.5 mg	7.5 mL
80 Kg	8 mg	8.0 mL
85 Kg	8.5 mg	8.5 mL
90 Kg	9 mg	9.0 mL
95 Kg	9.5 mg	9.5 mL
100 Kg	10 mg	10.0 mL
105 Kg	10.5 mg	10.5 mL
110 Kg	11 mg	11.0 mL
115 Kg	11.5 mg	11.5 mL
120 Kg	12 mg	12.0 mL

Ketamine IV calculations

Paediatric dose:

0.1 mg/Kg (200 mg in 20 mL (draw up 1 mL and dilute in 9 mL of NaCl))

Concentration:

10 mg/ 10 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.35 mg	0.4 mL
6 months	6 Kg	0.6 mg	0.6 mL
1 year	10 Kg	1.0 mg	1.0 mL
2 years	12 Kg	1.2 mg	1.2 mL
3 years	14 Kg	1.4 mg	1.4 mL
4 years	16 Kg	1.6 mg	1.6 mL
5 years	18 Kg	1.8 mg	1.8 mL
6 years	25 Kg	2.5 mg	2.5 mL
7 years	28 Kg	2.8 mg	2.8 mL
8 years	31 Kg	3.1 mg	3.1 mL
9 years	34 Kg	3.4 mg	3.4 mL
10 years	37 Kg	3.7 mg	3.7 mL
11 years	40 Kg	4.0 mg	4.0 mL
12 years	43 Kg	4.3 mg	4.3 mL
13 years	46 Kg	4.6 mg	4.6 mL
14 years	49 Kg	4.9 mg	4.9 mL
15 years	52 Kg	5.2 mg	5.2 mL

Lidocaine

Indications:

When Amiodarone is unavailable it may be substituted with Lidocaine for VF/pVT arrests - (Special authorisation required).
Solvent for Ceftriaxone IM

Adult dose:

VF/VT 100 mg IV.
Solvent 3.5 mL

Paediatric dose:

Solvent 3.5 mL

Contraindications:

No contraindications for cardiac arrest.

Side effects:

Drowsiness / Dizziness / Twitching / Paraesthesia / Convulsions
/ Bradycardia / Respiratory depression.

Additional information:

Lidocaine may not be administered if Amiodarone has been administered.

Lorazepam

Indications:

Combative with hallucinations or paranoia and risk to self or others.

Adult dose:

2 mg PO (repeat x 1 prn).

Paediatric dose:

Not indicated.

Contraindications:

History of sensitivity to benzodiazepines, severe hepatic or pulmonary insufficiency, suspected significant alcohol and/or sedatives ingested, KSAR.

Side effects:

Drowsiness, confusion, headache, dizziness, blurred vision and nausea/vomiting.

On rare occasions – hypotension, hypertension.

Additional information:

Must seek medical advice prior to administration.

Magnesium Sulphate Injection

Indications:

Life-threatening Asthma / Torsades de pointes / Persistent bronchospasm / Seizure associated with eclampsia

Adult dose:

Life-threatening Asthma or Persistent bronchospasm:
2 g IV (infusion in 100 mL NaCl) given over 20 minutes.

Tachycardia – Irregular:

Torsades de pointes with a pulse: 2 g IV (infusion in 100 mL NaCl) given over 10 - 15 minutes.

Seizure associated with pre-eclampsia:

4 g IV (infusion in 100 mL NaCl) given over 15 minutes.

Paediatric dose:

Not indicated.

Contraindications:

None in cardiac arrest, KSAR.

Side effects:

Bradycardia can occur during administration; this can be minimised by slowing the rate of infusion.

Arrhythmias / Coma / Confusion / Drowsiness / Flushing of skin / Hypotension / Decreased deep tendon reflexes / Muscle weakness / Nausea / Respiratory depression / Thirst / Vomiting.

Additional information:

5 g in 10 mL is equivalent to 20 mmol/mg.

Methoxyflurane

Indications:

Moderate to severe pain.

Adult dose:

3 mL (INH) (repeat x 1 only prn).

Paediatric dose:

3 mL (INH) (repeat x 1 only prn).

Contraindications:

< 5 years old / Altered LOC due to head injury, drugs or alcohol / Cardiovascular instability / Respiratory depression / Renal failure or impairment/ KSAR

Side effects:

Amnesia / Anxiety / Depression / Dizziness / Dysarthria / Dysgeusia / Euphoria / Headache / Sensory neuropathy / Somnolence / Hypotension / Coughing / Dry mouth / Nausea / Feeling drunk / Sweating.

Additional information:

Patients with pain due to acute coronary syndrome (ACS) or migraine may not be suitable for Methoxyflurane.

Methoxyflurane crosses the placenta. Consider the risk of central nervous system (CNS) and respiratory depression in an already compromised foetus.

Contains butylated hydroxytoluene (E321) as a stabiliser.

Methoxyflurane has a mildly pungent odour.

If used in a confined space request the patient to inhale and exhale through the inhaler tube while ensuring that the activated Carbon Chamber is attached.

Midazolam Solution

Indications:

Seizures / Combative with hallucinations or paranoia and risk to self or others / Sedation (following medical advice).

Adult dose:

Seizure:

10 mg buccal, 5 mg IN or 5 mg IM (P/AP) 2.5 mg IV/IO (AP)

Palliative Care:

2.5 mg SC (AP) Alternatively 2.5 - 5 mg buccal (P/AP) repeat x 1 prn.

Maximum 4 doses of Benzodiazepine for adult seizing patients regardless of route. Repeat dose in no less than 5 minutes.

Behavioural Emergency - Seek medical advice regarding sedation:

5 mg IN/IM - (repeat x 2 prn) (AP).

Paediatric dose:

Seizure:

< 3 months: - 1.25 mg buccal

3 months to 1 year: - 2.5 mg buccal

1 year to < 5 years: - 5 mg buccal

5 years to < 10 years: - 7.5 mg buccal

≥ 10 years: - 10 mg buccal Or 0.2 mg/Kg intranasal (P & AP) or 0.1 mg/Kg IV/IO (AP)

Maximum 4 doses of Benzodiazepine for paediatric seizing patients regardless of route. Repeat dose in no less than 5 minutes.

Behavioural Emergency - Seek medical advice regarding sedation:

0.1 mg/Kg IN - (repeat x 2 prn) (AP).

Contraindications:

Shock, depressed vital signs or alcohol-related ALoC, respiratory depression, KSAR.

Side effects:

Respiratory depression, headache, hypotension, drowsiness.

Additional information:

Midazolam IV should be titrated to effect.

Ensure Oxygen and resuscitation equipment are available prior to administration.

Practitioners should take into account the dose administered by carers prior to arrival of practitioner.

Contraindications, other than KSAR, refer to non-seizing patients.

If patient recommences seizing regard it as a new event, administer additional dose then consider medical advice (AP).

Midazolam IN calculations (inclusive of 0.1 mL for MAD)

Paediatric dose:

0.2 mg/Kg Intranasal

Concentration:

10 mg/2 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.7 mg	0.2 mL
6 months	6 Kg	1.2 mg	0.3 mL
1 year	10 Kg	2.0 mg	0.5 mL
2 years	12 Kg	2.4 mg	0.6 mL
3 years	14 Kg	2.8 mg	0.7 mL
4 years	16 Kg	3.2 mg	0.7 mL
5 years	18 Kg	3.6 mg	0.8 mL
6 years	25 Kg	5.0 mg	1.1 mL
7 years	28 Kg	5.0 mg	1.1 mL
8 years	31 Kg	5.0 mg	1.1 mL
9 years	34 Kg	5.0 mg	1.1 mL
10 years	37 Kg	5.0 mg	1.1 mL
11 years	40 Kg	5.0 mg	1.1 mL
12 years	43 Kg	5.0 mg	1.1 mL
13 years	46 Kg	5.0 mg	1.1 mL
14 years	49 Kg	5.0 mg	1.1 mL
15 years	52 Kg	5.0 mg	1.1 mL

Midazolam IV calculations**Paediatric dose:**

0.1 mg/Kg IV/IO

Concentration:

10 mg/2 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.4 mg	0.1 mL
6 months	6 Kg	0.6 mg	0.1 mL
1 year	10 Kg	1.0 mg	0.2 mL
2 years	12 Kg	1.2 mg	0.2 mL
3 years	14 Kg	1.4 mg	0.3 mL
4 years	16 Kg	1.6 mg	0.3 mL
5 years	18 Kg	1.8 mg	0.4 mL
6 years	25 Kg	2.5 mg	0.5 mL
7 years	28 Kg	2.5 mg	0.5 mL
8 years	31 Kg	2.5 mg	0.5 mL
9 years	34 Kg	2.5 mg	0.5 mL
10 years	37 Kg	2.5 mg	0.5 mL
11 years	40 Kg	2.5 mg	0.5 mL
12 years	43 Kg	2.5 mg	0.5 mL
13 years	46 Kg	2.5 mg	0.5 mL
14 years	49 Kg	2.5 mg	0.5 mL
15 years	52 Kg	2.5 mg	0.5 mL

Morphine Sulphate

Indications: Severe pain

Adult dose:

4 mg IV - initial dose.

Repeat Morphine 2 mg at not < 2 min intervals prn (Max 16 mg).

For musculoskeletal pain Max 20 mg.

Up to 10 mg IM (if no cardiac chest pain and no IV access).

Palliative Care:

2.5 - 5 mg SC (repeat x 1 prn) Alternatively 5 - 10 mg PO (repeat x 1 prn).

Paediatric dose:

0.3 mg/Kg (300 mcg/Kg) PO (Max 10 mg).

0.05 mg/Kg (50 mcg/Kg) IV/IO. Repeat at not < 2 min prn to Max of 0.1 mg/Kg (100 mcg/Kg) IV/IO.

Contraindications:

PO < 1-year-old / Labour pains / Acute respiratory depression / Acute intoxication / Systolic BP < 90 mmHg / KSAR

Side effects:

Respiratory depression / Drowsiness / Nausea and vomiting / Constipation.

Additional information:

Use with extreme caution particularly with elderly/young.

Caution with acute respiratory distress.

Caution with reduced GCS.

Not recommended for headache.

N.B. Controlled under Schedule 2 of the Misuse of Drugs Regulations 1988 (SI. no 328).

Morphine calculations (dilute in 9 mL NaCl)**Paediatric dose:**

0.05 mg/Kg IV/IO

Concentration:

10 mg/10 mL

Age	Weight	mg	Dose
Neonate	3.5 Kg	0.18 mg	0.2 mL
6 months	6 Kg	0.3 mg	0.3 mL
1 year	10 Kg	0.5 mg	0.5 mL
2 years	12 Kg	0.6 mg	0.6 mL
3 years	14 Kg	0.7 mg	0.7 mL
4 years	16 Kg	0.8 mg	0.8 mL
5 years	18 Kg	0.9 mg	0.9 mL
6 years	25 Kg	1.25 mg	1.3 mL
7 years	28 Kg	1.4 mg	1.4 mL
8 years	31 Kg	1.55 mg	1.6 mL
9 years	34 Kg	1.7 mg	1.7 mL
10 years	37 Kg	1.85 mg	1.9 mL
11 years	40 Kg	2.0 mg	2.0 mL
12 years	43 Kg	2.0 mg	2.0 mL
13 years	46 Kg	2.0 mg	2.0 mL
14 years	49 Kg	2.0 mg	2.0 mL
15 years	52 Kg	2.0 mg	2.0 mL

Morphine calculations (Oromorph)

Paediatric dose:

0.3 mg/Kg PO

Concentration:

10 mg/5 mL

Age	Weight	mg	Dose
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	Contraindicated	
1 year	10 Kg	3.0 mg	1.5 mL
2 years	12 Kg	3.6 mg	1.8 mL
3 years	14 Kg	4.2 mg	2.1 mL
4 years	16 Kg	4.8 mg	2.4 mL
5 years	18 Kg	5.4 mg	2.7 mL
6 years	25 Kg	7.5 mg	3.8 mL
7 years	28 Kg	8.4 mg	4.2 mL
8 years	31 Kg	9.3 mg	4.7 mL
9 years	34 Kg	10.0 mg	5.0 mL
10 years	37 Kg	10.0 mg	5.0 mL
11 years	40 Kg	10.0 mg	5.0 mL
12 years	43 Kg	10.0 mg	5.0 mL
13 years	46 Kg	10.0 mg	5.0 mL
14 years	49 Kg	10.0 mg	5.0 mL
15 years	52 Kg	10.0 mg	5.0 mL

Naloxone

Indications:

Inadequate respiration and/or ALoC following known or suspected narcotic overdose

Adult dose:

0.4 mg (400 mcg) IV/IO (AP) or 0.4 mg (400 mcg) IM/SC (P)
(repeat after 3 min prn to a Max dose of 2 mg).

0.8 mg (800 mcg) IN (EMT) (repeat x 1 after 3 min prn).

Paediatric dose:

0.01 mg/Kg (10 mcg/Kg) IV/IO (AP) or 0.01 mg/Kg (10 mcg/Kg)
IM/SC (P).

0.02 mg/Kg (20 mcg/Kg) IN (EMT).

(Repeat dose prn to maintain opioid reversal to Max 0.1 mg/Kg
or 2 mg)

Contraindications:

KSAR.

Side effects:

Acute reversal of narcotic effect ranging from nausea and vomiting to agitation and seizures.

Additional information:

Use with caution in pregnancy.

Administer with caution to patients who have taken large dose of narcotics or are physically dependent.

Rapid reversal will precipitate acute withdrawal syndrome.

Prepare to deal with aggressive patients.

Naloxone IV/IO/IM/SC calculations

Paediatric dose:

0.01 mg/Kg

Concentration:

0.4 mg/1 mL

Age	Weight	mg	Dose
Neonate	3.5 Kg	0.04 mg	0.1 mL
6 months	6 Kg	0.06 mg	0.2 mL
1 year	10 Kg	0.10 mg	0.3 mL
2 years	12 Kg	0.12 mg	0.3 mL
3 years	14 Kg	0.14 mg	0.4 mL
4 years	16 Kg	0.16 mg	0.4 mL
5 years	18 Kg	0.18 mg	0.5 mL
6 years	25 Kg	0.25 mg	0.6 mL
7 years	28 Kg	0.28 mg	0.7 mL
8 years	31 Kg	0.31 mg	0.8 mL
9 years	34 Kg	0.34 mg	0.9 mL
10 years	37 Kg	0.37 mg	0.9 mL
11 years	40 Kg	0.40 mg	1.0 mL
12 years	43 Kg	0.40 mg	1.0 mL
13 years	46 Kg	0.40 mg	1.0 mL
14 years	49 Kg	0.40 mg	1.0 mL
15 years	52 Kg	0.40 mg	1.0 mL

Naloxone IN calculations (inclusive of 0.1 mL for MAD)

Paediatric dose:

0.02 mg/Kg

Concentration:

0.4 mg/1 mL

Age	Weight	mg	Dose
Neonate	3.5 Kg	0.07 mg	0.3 mL
6 months	6 Kg	0.12 mg	0.4 mL
1 year	10 Kg	0.20 mg	0.6 mL
2 years	12 Kg	0.24 mg	0.7 mL
3 years	14 Kg	0.28 mg	0.8 mL
4 years	16 Kg	0.32 mg	0.9 mL
5 years	18 Kg	0.36 mg	1.0 mL
6 years	25 Kg	0.50 mg	1.4 mL
7 years	28 Kg	0.56 mg	1.5 mL
8 years	31 Kg	0.62 mg	1.7 mL
9 years	34 Kg	0.68 mg	1.8 mL
10 years	37 Kg	0.74 mg	2.0 mL
11 years	40 Kg	0.80 mg	2.1 mL
12 years	43 Kg	0.80 mg	2.1 mL
13 years	46 Kg	0.80 mg	2.1 mL
14 years	49 Kg	0.80 mg	2.1 mL
15 years	52 Kg	0.80 mg	2.1 mL

Nifedipine

Indications:

Prolapsed cord.

Adult dose:

20 mg PO.

Paediatric dose:

Not indicated.

Contraindications:

Hypotension, KSAR.

Side effects:

Asthenia / Hypotension / Headache / Dizziness / Palpitation / Vasodilatation / Lethargy / Nausea and Vomiting

Additional information:

Close monitoring of maternal pulse and BP is required and continuous foetal monitoring should be carried out if possible.

Nitrous Oxide 50% and Oxygen 50% (Entonox®)**Indications:**

Moderate to severe pain.

Adult dose:

Self-administered until pain tolerable.

Paediatric dose:

Self-administered until pain tolerable.

Contraindications:

Altered level of consciousness / Chest Injury / Pneumothorax / Shock / Recent scuba dive / Decompression sickness / Intestinal obstruction / Inhalation Injury / Carbon monoxide (CO) poisoning / KSAR

Side effects:

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.

Advanced paramedics may use discretion with minor chest injuries.

Brand name: Entonox®.

Has an addictive property.

Caution when using Entonox® for greater than one hour for sickle cell crisis.

Ondansetron

Indications:

Management, prevention and treatment of significant nausea and vomiting.

Adult dose:

4 mg IM (P) or slow IV (AP)

Paediatric dose:

0.1 mg/Kg (100 mcg/Kg) slow IV or IM to a Max of 4 mg (AP).

Contraindications:

KSAR.

Side effects:

General:

Flushing / Headache / Sensation of warmth/ Injection site reactions (rash, urticaria, itching).

Additional information:

Caution in patients with a known history or family history of cardiac conduction intervals (QT prolongation) or if patient has history of arrhythmias or electrolyte imbalance

Ondansetron calculations

Paediatric dose:

0.1 mg/Kg IV/IM

Concentration:

4 mg/2 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	0.35 mg	0.2 mL
6 months	6 Kg	0.6 mg	0.3 mL
1 year	10 Kg	1.0 mg	0.5 mL
2 years	12 Kg	1.2 mg	0.6 mL
3 years	14 Kg	1.4 mg	0.7 mL
4 years	16 Kg	1.6 mg	0.8 mL
5 years	18 Kg	1.8 mg	0.9 mL
6 years	25 Kg	2.5 mg	1.3 mL
7 years	28 Kg	2.8 mg	1.4 mL
8 years	31 Kg	3.1 mg	1.6 mL
9 years	34 Kg	3.4 mg	1.7 mL
10 years	37 Kg	3.7 mg	1.9 mL
11 years	40 Kg	4.0 mg	2.0 mL
12 years	43 Kg	4.0 mg	2.0 mL
13 years	46 Kg	4.0 mg	2.0 mL
14 years	49 Kg	4.0 mg	2.0 mL
15 years	52 Kg	4.0 mg	2.0 mL

Oxygen

Indications:

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.

Adult dose:

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%

Paediatric dose:

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%.

All other acute medical and trauma titrate O₂ to achieve SpO₂ of 96% - 98%.

Contraindications:

Bleomycin lung injury

Side effects:

Prolonged use of O₂ with chronic COPD patients may lead to reduction in ventilation stimulus.

Additional information:

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.

Oxytocin

Indications:

Control of post-partum haemorrhage.

Adult dose:

5 international units IM.

Paediatric dose:

5 international units IM.

Contraindications:

Severe cardiac dysfunction / KSAR

Side effects:

Cardiac arrhythmias / Headache / Nausea and vomiting / Hypotension / Abdominal pain / Dizziness.

Additional information:

Ensure that a second foetus is not in the uterus prior to administration.

Avoid rapid intravenous injection (may transiently reduce blood pressure).

Store at 2 – 8°C, shelf life un-refrigerated; 3 months.

Paracetamol

Indications:

Adult:

Pyrexia - Temperature > 38.3°C / Mild to moderate pain.

Paediatric:

Pyrexia - Temperature > 38.5°C / Mild to moderate pain.

Adult dose:

1 g PO (EMT, P, AP).

1 g slow IV infusion (AP), if estimated weight < 50 Kg; 15 mg/Kg slow IV.

Palliative Care:

1 g PO (Repeat x 1 prn).

Paediatric dose:

PO (EMT, P, AP): 20 mg/Kg PO

PR (AP)

> 1 month < 1 year - 90 mg PR

1 - 3 years - 180 mg PR

4 - 8 years - 360 mg PR

IV Infusion (AP)

< 1 year - 7.5 mg/Kg slow IV

≥ 1 year - 15 mg/Kg slow IV

Contraindications:

< 1 month old / Chronic liver disease / KSAR.

Side effects:

Long term use at high dosage or over dosage can cause liver damage and less frequently renal damage.

Additional information:

Paracetamol is contained in Paracetamol suspension and other over the counter drugs.

Consult with parent / guardian in relation to medication administration prior to arrival on scene.

For PR use be aware of the modesty of the patient, should be administered in the presence of a 2nd person.

If Paracetamol administered in the previous 4 hours, adjust the dose downward by the amount given by other sources resulting in a maximum of 20 mg/Kg.

If Paracetamol IV is administered too fast it will result in hypotension, infusion over 15 minutes recommended.

Caution with IV Paracetamol in the absence of a buretrol.

Paracetamol (Suspension) calculations

Paediatric dose:

20 mg/Kg

Concentration:

120 mg/5 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	120 mg	5.0 mL
1 year	10 Kg	200 mg	8.3 mL
2 years	12 Kg	240 mg	10.0 mL
3 years	14 Kg	280 mg	11.7 mL
4 years	16 Kg	320 mg	13.3 mL
5 years	18 Kg	360 mg	15.0 mL
6 years	25 Kg	500 mg	20.8 mL
7 years	28 Kg	560 mg	23.3 mL
8 years	31 Kg	620 mg	25.8 mL
9 years	34 Kg	680 mg	28.3 mL
10 years	37 Kg	740 mg	30.8 mL
11 years	40 Kg	800 mg	33.3 mL
12 years	43 Kg	860 mg	35.8 mL
13 years	46 Kg	920 mg	38.3 mL
14 years	49 Kg	980 mg	40.8 mL
15 years	52 Kg	1000 mg	41.7 mL

Paracetamol 6+ (Suspension) calculations**Paediatric dose:**

20 mg/Kg

Concentration:

250 mg/5 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	120 mg	2.4 mL
1 year	10 Kg	200 mg	4.0 mL
2 years	12 Kg	240 mg	4.8 mL
3 years	14 Kg	280 mg	5.6 mL
4 years	16 Kg	320 mg	6.4 mL
5 years	18 Kg	360 mg	7.2 mL
6 years	25 Kg	500 mg	10.0 mL
7 years	28 Kg	560 mg	11.2 mL
8 years	31 Kg	620 mg	12.4 mL
9 years	34 Kg	680 mg	13.6 mL
10 years	37 Kg	740 mg	14.8 mL
11 years	40 Kg	800 mg	16.0 mL
12 years	43 Kg	860 mg	17.2 mL
13 years	46 Kg	920 mg	18.4 mL
14 years	49 Kg	980 mg	19.6 mL
15 years	52 Kg	1000 mg	20.0 mL

Paracetamol IV calculations

Paediatric dose:

7.5 mg/Kg IV (< 1 year) and 15 mg/Kg IV (\geq 1 year)

Concentration:

10 mg/ 1 mL

Age	Weight	mg	mL
Neonate	3.5 Kg	Contraindicated	
6 months	6 Kg	45 mg	4.5 mL
1 year	10 Kg	150 mg	15.0 mL
2 years	12 Kg	180 mg	18.0 mL
3 years	14 Kg	210 mg	21.0 mL
4 years	16 Kg	240 mg	24.0 mL
5 years	18 Kg	270 mg	27.0 mL
6 years	25 Kg	375 mg	37.5 mL
7 years	28 Kg	420 mg	42.0 mL
8 years	31 Kg	465 mg	46.5 mL
9 years	34 Kg	510 mg	51.0 mL
10 years	37 Kg	555 mg	55.5 mL
11 years	40 Kg	600 mg	60.0 mL
12 years	43 Kg	645 mg	64.5 mL
13 years	46 Kg	690 mg	69.0 mL
14 years	49 Kg	735 mg	73.5 mL
15 years	52 Kg	780 mg	78.0 mL

Salbutamol

Indications:

Bronchospasm / Exacerbation of COPD / Respiratory distress following submersion incident.

Adult dose:

5 mg NEB, or 0.1 mg metered aerosol spray (repeat aerosol x 11)
Repeat NEB at 5 minute intervals prn

Paediatric dose:

< 5 years - 2.5 mg NEB or 0.1 mg metered aerosol spray (repeat aerosol x 5).

≥ 5 years - 5 mg NEB or 0.1 mg metered aerosol spray (repeat aerosol x 11).

(Repeat NEB at 5 minute intervals prn).

Contraindications:

KSAR.

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

Sodium Bicarbonate

Indications:

Wide complex QRS arrhythmias and/or seizures following Tricyclic antidepressant (TCA) overdose, cardiac arrest following Tricyclic overdose, cardiac arrest following harness induced suspension trauma.

Adult dose:

1 mEq/Kg (1 mL/Kg 8.4% solution).
Max 50 mEq (50 mL 8.4%).

Paediatric dose:

Not indicated.

Contraindications:

KSAR.

Side effects:

Nil when used for emergencies.

Additional information:

Sodium Bicarbonate 8.4% is a 1 mmol/mL solution.

Sodium Chloride 0.9%

Indications:

IV/IO fluid for pre-hospital emergency care.

Contraindications:

KSAR.

Adult dose:

Keep vein open (KVO) or medication flush for cardiac arrest prn.

Asystole / PEA: Consider fluid challenge 1 L IV/IO (repeat prn).

Crush injury: 20 mL/Kg IV/IO infusion.

Suspension Trauma: 2 L IV (Maintain systolic BP > 90 mmHg).

Hypothermia: 250 mL IV/IO infusion (warmed to 40°C approx.) (Repeat to max 1 L).

Neck of femur / Sepsis / Symptomatic bradycardia / Tachycardia
-Torsades de pointes: 250 mL IV infusion.

Decompression illness / Sepsis with poor perfusion: 500 mL IV/IO infusion.

Shock from blood loss: 500 mL IV/IO infusion. Repeat in aliquots of 250 mL IV/IO to maintain SBP of 90-100 mmHg. For associated Head injury with GCS ≤ 8 maintain SBP of 120 mmHg.

Burns: > 25% TBSA and / or 1 hour from time of injury to ED, 1000 mL IV/IO infusion.

> 10% TBSA consider 500 mL IV/IO infusion.

Adrenal insufficiency / Glycaemic Emergency / Heat Related Emergency / Sickle Cell Crisis: 1,000 mL IV/IO infusion.

Anaphylaxis and Postpartum Haemorrhage: 1,000 mL IV/IO infusion (repeat x 1 prn).

Post-resuscitation care: 250 mL IV/IO infusion, if persistent hypotension to maintain SBP > 100 mmHg or MAP > 70 mmHg.

Sodium Chloride 0.9%contd

Paediatric dose:

Glycaemic Emergency / Neonatal Resuscitation / Sickle Cell Crisis: 10 mL/Kg IV/IO infusion.

Hypothermia: 10 mL/Kg IV/IO infusion (warmed to 40°C approx.) (repeat x 1 prn).

Haemorrhagic shock: 10 mL/Kg IV/IO repeat prn if signs of inadequate perfusion.

Anaphylaxis: 20 mL/Kg IV/IO infusion (repeat x 1 prn).

Adrenal insufficiency / Crush injury / Septic shock / Suspension Trauma / Symptomatic Bradycardia / Suspension Trauma: 20 mL/Kg IV/IO infusion.

Asystole / PEA: Consider fluid challenge 20 mL/Kg IV/IO.

Post-resuscitation care: 20 mL/Kg IV/IO infusion if persistent poor perfusion or < 5th percentile SBP.

Burns: > 10% TBSA and/or > 1 hour from time of injury to ED:

5 – 10 years: 250 mL IV/IO,

> 10 years: 500 mL IV/IO.

Side Effects:

Excessive volume replacement may lead to heart failure.

Additional information:

Sodium Chloride 0.9% (NaCl) is the IV/IO fluid of choice for pre-hospital emergency care.

For KVO use 500 mL pack only.

Medication flush used in adult and paediatric cardiac arrest

Sodium Chloride 0.9% calculations

Paediatric dose:

10 mL/Kg or 20 mL/Kg

Haemorrhagic shock & neonate:

10 mL/Kg

Age	Weight	10 mL/Kg	20 mL/Kg
Neonate	3.5 Kg	35 mL	Contraindicated
6 months	6 Kg	60 mL	120 mL
1 year	10 Kg	100 mL	200 mL
2 years	12 Kg	120 mL	240 mL
3 years	14 Kg	140 mL	280 mL
4 years	16 Kg	160 mL	320 mL
5 years	18 Kg	180 mL	360 mL
6 years	25 Kg	250 mL	500 mL
7 years	28 Kg	280 mL	560 mL
8 years	31 Kg	310 mL	620 mL
9 years	34 Kg	340 mL	680 mL
10 years	37 Kg	370 mL	740 mL
11 years	40 Kg	400 mL	800 mL
12 years	43 Kg	430 mL	860 mL
13 years	46 Kg	460 mL	920 mL
14 years	49 Kg	490 mL	980 mL
15 years	52 Kg	520 mL	1040 mL

Tenecteplase

Indications:

Patient conscious, coherent and understands therapy.

Patient consent obtained.

Confirmed STEMI.

Patient not suitable for PPCI from a time or clinical perspective.

Adult dose:

< 60 Kg: 30 mg (6 mL).

≥ 60 < 70 Kg: 35 mg (7 mL).

≥ 70 < 80 Kg: 40 mg (8 mL).

≥ 80 < 90 Kg: 45 mg (9 mL).

≥ 90 Kg: 50 mg (10 mL).

Paediatric dose:

Not indicated.

Tenecteplasecontd**Contraindications:**

Haemorrhagic stroke or stroke of unknown origin at any time.

Ischaemic stroke in previous 6 months.

Central nervous system damage or neoplasms.

Recent major trauma/surgery/head injury (within 3 weeks).

Gastro-intestinal bleeding within the last month.

Active peptic ulcer.

Known bleeding disorder.

Oral anticoagulant therapy.

Aortic dissection.

Transient ischaemic attack in preceding 6 months.

Pregnancy and within one week post-partum.

Non-compressible punctures.

Traumatic resuscitation.

Refractory hypertension (Sys BP > 180 mmHg).

Advanced liver disease.

Infective endocarditis.

Side effects:

Haemorrhage predominantly superficial at the injection site, ecchymoses are observed commonly but usually do not require any specific action, stroke (including intracranial bleeding) and other serious bleeding episodes.

Additional Information:

Enoxaparin should be used as antithrombotic adjunctive therapy

Ticagrelor

Indications:

Identification of ST Elevation Myocardial Infarction (STEMI) if transporting to PPCI centre.

Adult dose:

Loading dose of 180 mg PO.

Paediatric dose:

Not indicated.

Contraindications:

Hypersensitivity to the active substance (Ticagrelor) or to any of the excipients, active pathological bleeding, history of intracranial haemorrhage, moderate to severe hepatic impairment.

Side effects:

Dyspnoea, epistaxis, gastrointestinal haemorrhage, subcutaneous or dermal bleeding, bruising and procedural site haemorrhage.

Other undesirable effects include intracranial bleeding, elevations of serum creatinine and uric acid levels. Consult SmPC for a full list of undesirable effects.

Additional information:

Special authorisation: Advanced Paramedics and Paramedics are authorised to administer Ticagrelor 180 mg PO following identification of STEMI and medical practitioner instruction.

If a patient has been loaded with an anti-platelet medication (other than Aspirin), prior to the arrival of the practitioner, the patient should not have Ticagrelor administered.

Tranexamic Acid

Indications:

Suspected significant internal or external haemorrhage associated with trauma
Postpartum Haemorrhage.

Adult Dose:

1 g IV/IO (infusion in 100 mL NaCl).

Paediatric Dose:

Not indicated.

Contraindications:

Hypersensitivity to the active substance or to any of the excipients, acute venous or arterial thrombosis, history of convulsions, severe hepatic impairment.

Side Effects:

Common:

Diarrhoea / Nausea / Vomiting.

Other undesirable effects include:

Visual disturbance / Impaired coloured vision / Dizziness / Headache.

Additional Information:

Caution with head injury.

Commonly prescribed medications

Brand name	Generic name	Indication
Bata-adalat	Atenolol	Hypertension
Betnovate cream	Betamethasone	Inflammatory skin disorder
Bisacor	Bisoprolol	Angina / heart failure
Citalopram	Citalopram	Depression
Clarithromycin Ranbaxy	Clarithromycin	Infection (no penicillin)
Centyl K	Bendroflumethazide	Hypertension
Coversyl	Perindopril	Anti-hypertensive
Cozaar	Losartan Potassium	Heart failure
Crestor	Rosuvastatin	Hypercholesterolemia
Deltacortril	Prednisolone	Suppression of inflammatory disorders
Diamicron	Gliclazide	Diabetes
Diovan	Valsartan	Heart failure
Dona	Glucosamine	Joint pain
Fastum gel	Ketoprofen	Osteoarthritis
Flagyl	Metronidazole	Anaerobic bacteria
Glucophage	Metformin Hydrochloride	Diabetes Mellitus
Istin	Amlodipine	Hypertension

Commonly prescribed medications ...contd

Brand name	Generic name	Indication
Lamictal	Lamotrigine	Seizure control
Lexapro	Escitalopram	Depression
Lipitor	Atorvastatin	Hypercholesterolemia
Lipostat	Pravastatin Sodium	Hyperlipidaemias
Losamel	Omeprazole	Duodenal ulcer
Motilium	Demperidone	Anti-emetic
Nexium	Esomeprazole	Gastric over secretion of hydrochloric acid
Omnexel	Tamsulosin	Benign prostatic hypertrophy
Serc	Betahistine	Vertigo, tinnitus
Stilnoct	Zolpidem	Insomnia
Tritrace	Ramipril	Hypertension
Vibramycin	Doxycycline	Infection
Xanax	Alprazolam	Anxiety
Zimovane	Zopiclone	Insomnia
Zoton	Lansoprazole	Gastric over secretion of hydrochloric acid
Zydol	Tramadol	Pain

Commonly prescribed anti-epileptic medications

Brand name	Generic name	Indication
Ativan	Lorazepam	Add-on for all seizure types. Rescue use.
Buccolam	Midazolam	Prolonged seizure.
Diamox	Acetazolamide	Has a specific role in treating epilepsy associated with menstruation. It can also be use with other anti-epileptics for tonic-clonic and partial seizures.
Epanutin	Phenytoin	All forms of epilepsy except absence seizures. Serum level monitoring essential.
Epilim Epilim chrono Epilim chronoshere Episenta	Sodium Valporate	All forms of epilepsy.
Epistatus buccal	Midazolam	Prolonged or clusters of all seizure types. Rescue use. Status Epilepticus.

Commonly prescribed anti-epileptic medications ...contd

Brand name	Generic name	Indication
Felbatol	Felbamate	Add on for all seizure types which have failed all other anti-epileptic drug uses. Used under strict specialist supervision.
Frisium	Clobazam	Add on for all seizure types. Generalised tonic-clonic and partial seizures but tolerance frequently develops.
Gabitril	Tiagabine	Add on treatment for partial seizures with or without secondary generalisation not satisfactorily controlled with other anti-epileptic medication.
Inovelon	Rufinamide	Add on treatment of seizures in Lennox-Gastaut syndrome.

Commonly prescribed anti-epileptic medications ...contd

Brand name	Generic name	Indication
Keppra	Levetiracetam	Mono-therapy and add-on treatment of partial seizures with or without secondary generalisation and for add-on therapy of myoclonic seizures.
Lamictal	Lamotrigine	Mono-therapy and add-on treatment of partial seizures and primary and secondarily generalised tonic-clonic seizures; seizures associated with Lennox-Gastaut syndrome; mono-therapy of typical absence seizures in children.
Lyrica	Pregabalin	Add-on therapy for partial seizures with or without secondary generalisation.
Mysoline	Primidone	All forms of epilepsy except absence seizures.

Commonly prescribed anti-epileptic medications ...contd

Brand name	Generic name	Indication
Rivotril	Clonazepam	Add-on for all seizure types. Partial seizures, absences and myoclonic jerks.
Sabril	Vigabatrin	Initiated and supervised by appropriate specialist, add on treatment of partial seizures with or without secondary generalisation not satisfactorily controlled with other anti-epileptic drugs; mono-therapy for management of infantile spasms (West's syndrome).
Tegretol Tegretol Retard	Metformin Carbamazepine	Partial and secondary generalised tonic-clonic seizures, primary generalised tonic-clonic seizures.

Commonly prescribed anti-epileptic medications ...contd

Brand name	Generic name	Indication
Topamax	Topiramate	Mono-therapy and add-on treatment of generalised tonic-clonic seizures or partial seizures with or without secondary generalisation; add-on treatment of seizures in Lennox-Gastaut syndrome.
Trileptal	Oxcarbazepine	Mono-therapy and add-on treatment of partial seizures with or without secondary generalised tonic-clonic seizures.
Vimpat	Lacosamide	Add-on therapy in the treatment of partial-onset seizures with or without secondary generalisation.

Commonly prescribed anti-epileptic medications ...contd

Brand name	Generic name	Indication
Zarontin Emeside	Ethosuximide	Typical absence seizures; it may also be used in atypical absence seizures. Rarely used for myoclonic seizures.
Zebinix	Eslicarbazepine	Add-on treatment in adults with partial seizures, with or without secondary generalisation.
Zonergan	Zonisamide	Add-on treatment for drug-resistant partial seizures with or without secondary generalisation.

Commonly prescribed diabetes medications

Brand name	Generic name	Indication
Biguanides		
Glucophage	Metformin	It helps to stop the liver producing new glucose.
Thiazolidinediones (glitazones)		
Actos	Pioglitazone	Reduces the body's resistance to insulin allowing it to work more effectively at improving blood glucose control.
Sulfonylureas		
Amaryl	Glimepiride	Sulfonylureas work by stimulating the pancreas to release more insulin.
Daonil	Gilbenclamide	
Diamicron Diamicron MR	Gilclazide	
Glibenese Minodiab	Gilpizide	
Tolbutamide	Tolbutamide	

Commonly prescribed diabetes medications ...contd

Brand name	Generic name	Indication
Alpha glucosidase inhibitors		
Acarbose	Glucobay	They work by slowing down the digestion of carbohydrates found in starchy foods.
Miglitol	Glyset	
Prandial glucose regulator		
Prandin	Repaglinide	They stimulate the pancreatic beta cells to produce more insulin for the body – similar to Sulphonylureas.
Starlix	Nateglinide	
DPP-4 inhibitors		
Januvia	Sitagliptin	They help stimulate the production of insulin when it is needed and reduce the production of glucagon by the liver when it is not needed.
Galvus	Vildagliptin	
Onglyza	Saxagliptin	

Hospital contact numbers & PCR codes

Hospital	Main Line	ED	PCR Code
Armagh			
Craigavon Area Hospital	(048) 38334444	(048) 37561750	CAH
Cavan			
Cavan Monaghan Hospital	(049) 4376000	(049) 4376607	CGH
Clare			
Ennis Hospital	(065) 6824464	Local Injury Unit (065) 6863121	ERH
Cork			
Bantry General Hospital	(027) 50133	Local Injury Unit (027) 52929	BGH
Cork University Hospital	(021) 4546400	(021) 4920222	CUH
Cork University Maternity Hospital	(021) 4920500	(021) 4920598	CUMH
Mallow General Hospital	(022) 21251	(022) 52506	MLGH
Mercy University Hospital	(021) 4271971	(021) 4935241	MUH
South Infirmary Victoria Hospital Cork	(021) 4926100	n/a	SIVH

Hospital	Main Line	ED	PCR Code
Derry			
Athnagelvin Hospital	(048) 71345171	(048) 71611379	AHD
Donegal			
Letterkenny University Hospital	(074) 9125888	(074) 9123595	LGH
Down			
Daisy Hill Hospital, Newry	(048) 30835000	(048) 30832406 (048) 37562092	DHH
Dublin			
AMNCH (Tallaght) – Adult	(01) 4142000	(01) 4143536	AMNA
AMNCH (Tallaght) – Paediatric	(01) 4142000	(01) 4143510	AMNC
Beaumont Hospital	(01) 8093000	(01) 8092714	BHD
Connolly Hospital Blanchardstown	(01) 8213844	(01) 6466250 (01) 6466251	CHD
Coombe Women’s Hospital	(01) 4085200	(01) 4085531	CWH
Mater Misericordiae Hospital	(01) 8032000	(01) 8032651 (01) 8032223	MMH
National Children’s Hospital (Temple St)	(01) 8784200	(01) 8784829	TCH

Hospital	Main Line	ED	PCR Code
Dublin (cont.)			
National Maternity Hospital, Holles St	(01) 6373100	n/a	NMH
Our Lady's Hospital for Sick Children, Crumlin	(01) 4096100	(01) 4096346 (01) 4096326	OLHC
Rotunda Hospital	(01) 8171700	n/a	RMH
Royal Victoria Eye and Ear Hospital	(01) 6644600	(01) 6343648	RVH
St James's Hospital	(01) 4103000	(01) 4162774 (01) 4162775 (01) 4162776	SJH
St Michael's, Dun Laoghaire	(01) 2806901	(01) 6639815	SMH
St Vincent's University Hospital	(01) 2214000	(01) 2214358	SVH
Fermanagh			
Erne Hospital, Enniskillen	(048) 66382000	n/a	EHE
Galway			
Portiuncula Hospital, Ballinasloe	(0909) 648200	(0909) 648248	PHB
University Hospital Galway	(091) 524222	(091) 544556	UHG

Hospital	Main Line	ED	PCR Code
Kerry			
University Hospital Kerry	(066) 7184000		KgH
Kildare			
Naas General Hospital	(045) 849500	(045) 849909	NGH
Kilkenny			
St Luke's General Hospital	(056) 7785000	(056) 7717008	SLK
Laois			
Midland Regional Hospital, Portlaoise	(057) 8621364	(057) 8696028	PMR
Limerick			
University Maternity Hospital	(061) 327455	n/a	LRMH
University Hospital Limerick	(061) 301111 (061) 482219	(061) 482120	LRH
St John's Hospital Limerick	(061) 462222	Local Injury Unit (061) 462134	SJHL










Hospital	Main Line	ED	PCR Code
Louth			
Our Lady of Lourdes Hospital	(041) 9837601	(041) 9832321	OLOL
Mayo			
Mayo General Hospital	(094) 9021733	(094) 9042377	MOGH
Offaly			
Midland Regional Hospital Tullamore	(057) 9321501	(057) 9358021	TMR
Sligo			
Sligo University Hospital	(071) 9171111	(071) 9174506	SGH
Tipperary			
Nenagh Hospital	(067) 31491		NRH
South Tipperary General Hospital, Clonmel	(052) 6177000	(052) 6177042	STGH

Hospital	Main Line	ED	PCR Code
Waterford			
University Hospital Waterford	(051) 848000	(051) 842444 (051) 842445 (051) 842582	WRH
Westmeath			
Midland Regional Hospital - Mullingar	(044) 9340221	(044) 9394129	MMR
Wexford			
Wexford General Hospital	(053) 9153000	(053) 9153313	WGH



Ruler

Pupil Sizes

1mm									
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