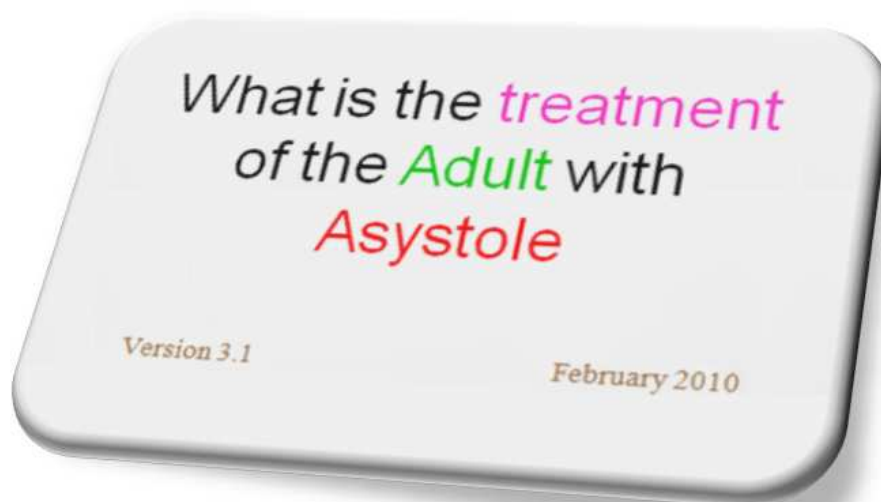


VICTORIAN
CLINICAL PRACTICE GUIDELINES
ALS
STUDY CARDS



READ BEFORE USE

The study cards provided in this booklet are designed as a learning tool to assist in highlighting the major points of each ALS guideline as found in the May 2009 Victorian Ambulance Service Clinical Practice Guidelines. These cards must not be used as a replacement to the Clinical Practice Guidelines, but rather as an adjunct to assist in their learning.

To assemble the study cards, this booklet should be printed double sided (printer setting - duplex) and in colour to highlight important components of each guideline. Following printing, laminate and cut out each card.

The author accepts no responsibility for any errors in these cards and cannot be held liable for any issues arising from their use. In using these cards, the user accepts all liabilities arising from their use.

What is the **treatment**
of the **unconscious Adult**
with
Asthma

Version 3.1

February 2010

What is the **treatment**
of the **conscious Adult**
with
COAD

Version 3.1

February 2010

What is the **treatment**
of the **Adult** with a
Seizure

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
Autonomic Dysreflexia

Version 3.1

February 2010

What is the **treatment**
of the **conscious Adult**
with
Asthma

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
**Organophosphate
Overdose**

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
**Menningococcal
Septicaemia**

Version 3.1

February 2010

What is the **treatment**
of the **conscious Adult**
with
Non Cardiogenic APO

Version 3.1

February 2010

What are the **causes**
of
Non Cardiogenic APO

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
Hypovolemia

Version 3.1

February 2010

If SOB at any level

- Ventolin 10 mg Neb x 1
- Ventolin 5 mg Neb ever 5 min as required
- Atrovent 500 mcg neb x 1 with Ventolin Neb

If pt becomes unconscious

- Ventilate 5 - 8 BPM with TV 10 ml/kg
- Moderately high inspiratory pressure
- Long Expiratory time
- Adrenaline 0.3 mg IM x 3 at 20 min intervals

If positive response

- Titrate O2 to target SPO2 >90%
- Consider low flow O2 (eg nasal prongs)

If SCI >T6, BP>160, Severe Headache

- Sitting position
- Legs dependent
- If distended bladder, unclink catheter
- Manage pain, burns, labour, etc
- GTN every 10 min until
 1. BP <160
 2. Side effects
 3. Symptoms resolve
- Transport required in all cases even if event is resolved

- Clinical Approach
- Access Degree of Contamination
- Wear PPE
- Remove and Wash Contaminated cloths with soap and water

- Clinical evidence

If Mild to Moderate SOB

- Ventolin 10 mg Neb x 1
- Ventolin 5 mg Neb every 5 min as required

If Severe SOB or nil response 10 Min Ventolin

- Ventolin Neb every 5 min as required
- Atrovent 500 mcg Neb with Ventolin Nebs

- Control life threatening bleeding
- Pain relief
- Immobilise & support fractures
- Exclude Tension Pneumothorax
- Manage hypoxia

Then

- P<100 & BP>100 ... Nil Fluid
- P>100 & BP>100 ... NaCl 20 ml/kg IV
- P>100 &/or BP<100 ... NaCl 20 ml/kg IV
- BP<100 Supine & NaCl 20 ml/kg IV

Max 40 mls/kg without consult

If effect BP>100 or P<100, consider Slowing Fluid

If Unconscious or becomes unconscious

- Ventilate 5 - 8 BPM with TV 10 ml/kg
- Moderately high inspiratory pressure
- Long Expiratory time
- General lateral chest pressure on expiration
- Adrenaline 0.3 mg IM x 3 at 20 min intervals

If Spontaneous Ventilation

- Ventolin 5 mg every 5 mins
- & Atrovent 500 mcg neb x 1

If Patient loses Cardiac Output

- Apnea for 1 min

Consider other causes (perform RBG)

If single seizure

- General Care & Transport

If Continuous/Recurrent seizure

- Midazolam 0.1 mg/kg IM
(if age >60 then 0.05 mg/kg IM)

If Continuous/Recurrent seizure >10 min

- Repeat first dose Midazolam IM x 1 at 10 min

Consult if further doses required

- If patients Mx asthma plan has been activated

If Mild to Moderate SOB

- If pMDI & Spacer 4 puffs every 4 mins continuous
- If pMDI & Spacer not available
 - Ventolin 10 mg Neb (2 ampoules) x 1
 - Ventolin 5 mg Neb every 5 min as required

If Severe SOB or nil response 10 Mins of Ventolin

- Ventolin Neb (1 ampoules) every 5 min as above
- Atrovent 500 mcg Neb (2 ampoules) x 1, given with the Ventolin Nebs

Confirm Clinical Evidence Of Meningococcal

- Purpuric rash
- Septicemia (Headache, fever, tachycardia, joint pain, altered conscious, or hypotension)

Administer Ceftriaxone IV

- Dilute 1 gm with 9.5 ml sterile water
- Administer Ceftriaxone 1 gm IV over 2 mins

If no IV access, administer Ceftriaxone IM

- Dilute 1 gm with 3.5 ml Lignocaine 1%
- Administer Ceftriaxone 1 gm IM x 1 into the upper lateral thigh

- Smoke inhalation
- Toxic gas inhalation
- Near drowning
- Aspiration
- Anaphylaxis

What is the **treatment**
of the **Adult**
Agitated patient

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
Stroke Patient

Version 3.1

February 2010

What is the **treatment**
of an **Adult** with
Acute Coronary Syndrome

Version 3.1

February 2010

What is the **treatment**
of the **Adult** with
Pain

Version 3.1

February 2010

What is the **treatment**
of the **Adult** with
Nausea & Vomiting

Version 3.1

February 2010

What is the **treatment**
of the **Adult** with
VF / Pulseless VT

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
Post Arrest with ROSC

Version 3.1

February 2010

What is the **treatment**
of the **Adult** with
Asystole

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
Cardiogenic
Acute Pulmonary Odema

Version 3.1

February 2010

What is the **treatment**
of the **Adult** with
PEA

Version 3.1

February 2010

- Assess using stroke assessment tool
 - Facial Droop
 - Hand Grip
 - Speech
 - Blood Glucose
- Consider & exclude stroke mimics
- Determine & record exact time of onset
- Notify receiving Hosp if:
 - no co-morbidities &
 - onset <6 hrs

If Pain score >2

If pain likely controlled by Non IV or no IV avail

- Penthrane 3 ml x 2 (20 min apart) AND/OR
 - >60 Fentanyl 200 mcg IN, then 50 mcg IN 5 minly x 4
 - <60 Fentanyl 100 mcg IN, then 50 mcg IN 5 minly x 2

If pain requires narcotic.... Or ongoing therapy

- Morphine up to 5 mg IV every 5 min (Max 20 mg) OR
- If no IV
 - >60 kg Morphine 10 mg IM, then 5 mg IM at 15 min x 1
 - <60 kg Morphine 0.1 mg IM, & consult for further doses

If Nausea

- Maxalon 10 mg IV x 2 (10 min apart) OR
- If no IV, then Maxalon 10 mg IM x 1 OR
- Stemetil 12.5 mg IM x 1

- CPR 30:2
- DEFIB - If witnessed 3 x 200 J
 - 1 x 200J 2 minly
- If unwitnessed .. 1 x 200 J
- IV Access
- NaCl TKVO
- Adrenaline 1 mg IV every 3 mins
- LMA ... then CPR 15:1 (no vent pause)
- May cease after 30 mins ALS if > 18 yrs

- CPR 30:2
- IV Access
- NaCl TKVO
- Adrenaline 1 mg IV every 3 mins
- LMA ... then CPR 15:1 (no vent pause)
- May cease after 30 mins ALS if > 18 yrs

- CPR 30:2
- Identify treatable causes (HEAATU)
- IV Access
- NaCl TKVO
- Adrenaline 1 mg IV every 3 mins
- LMA ... then CPR 15:1 (no vent pause)
- NaCl 20 mls/kg IV
- May cease after 30 mins ALS if > 18 yrs

- Reduce Stimulus
- De-escalation strategies
- Treat other causes

If above fail & PT IS NOT recommended

- Midaz 0.05-0.1 mg/kg IM x 4 every 10 min (1/2 dose if >60yrs or BP <100)
- Apply mechanical restraints if required

- GTN 0.3 or 0.6 mg every 5 min if BP >110
- GTN Patch 50 mg (0.4 mg/hr) x 1 if BP >90
- Aspirin 300 mg x 1
- Morphine up to 5 mg every 5 min (Max 20 mg)
- Consider Penthrane AND/OR Fentanyl IN if no IV
- Prehospital Thrombolytic Assessment

If Nausea

- Maxalon 10 mg IV x 2 (10 minly) OR
- If no IV then Maxalon 10 mg IM x 1 OR
- Stemetil 12.5 mg IM x 1 if allergy to Maxalon

Consider causes and if appropriate.....

- Maxalon 10 mg IV x 2 (10 min apart) OR

If prolonged Transp time and no IV..

- Maxalon 10 mg x 2 (10 min apart) OR

If allergic to Maxalon..

- Stemetil 12.5 mg IM x 1

Dehydrated, NaCl 20 m/kg (max 60 ml/kg)
(Max 40 ml/kg without consultation)

- ETCO2 30-35 mmhg
- Ventilate 10 ml/kg
- Avoid Hyperthermia

No SOB & Basal Crackles only

- General Care & Transport

SOB & Basal or Mid Zone Crackles

- GTN Patch if BP>90 WITH
- GTN Tablet if BP>110 (every 5 min)
- If no improvement, tx as for full field crackles

SOB & Full Field Crackles

- GTN as above (every 5 min)
- Provide assisted ventilation with PEEP
- Ventolin if previous Hx of bronchospasm, otherwise avoid

What is the **treatment**
of the **Adult**
with
Hyperthermia

Version 3.1

February 2010

What is the **treatment**
of the **conscious Adult** with
Moderate / Severe
Hypothermia

Version 3.1

February 2010

What are the **levels** of
Hypothermia

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
Hypothermia
In
Cardiac Arrest

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with a
Fracture

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with a
Severe Traumatic
Head Injury

Version 3.1

February 2010

What is the **treatment**
of the **conscious Adult**
with
Mild Hypothermia

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
Burns

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with a
TCA Overdose

Version 3.1

February 2010

What are
Examples
of
Sedative Overdoses

Version 3.1

February 2010

- Shelter from cold
- Remove damp or wet clothing. Gently dry
- Assess Temp with thermometer
- Gentle handling
- RBG & manage hypoglycaemia if required
- Oxygen
- Cocoon pt in warm blanket & cover head
 - Then cover with space blanket / plastic
 - Then cover with warm blanket
- Warm NaCl IV 10 ml/kg (37-42C) and repeat as required (max 40 mls/kg)

If <30C ...

- Only 1 x Defib
- Only 1 x Adrenaline
- Continue CPR & rewarming until >30

If 30C-32C ...

- Double dosage intervals
- Do NOT rewarm beyond 33C if ROSC

If >32C ...

- Standard cardiac arrest guidelines

- In line Stabilisation & C Collar when convenient
- If gag but poor airway, only then NPA
- If nil gag reflex LMA
- Ventilate 10 ml/kg
- SPO2 > 95
- NaCl 20 ml/kg x 2
 - Consult for final 3rd dose NaCl 20 ml/kg
 - Aim for Systolic BP 120
- Skull wounds - Saline soaked dressing
- Midazolam for seizures
- RBG and treat hypoglycaemia

- Look for airway injury
- Use Rule of Nine's
- What is the depth of the burn
- Cool with water until cooled
- Analgesia
- Cover with Cling Wrap, BurnAid or clean dressing
- Thermometer & manage Hypo/hyperthermia
- If >15% burn area (partial or full thickness) Administer NaCl IV using the following:

$$\% \text{ BSA} \times \text{Weight over 2 hrs}$$

(from time of burn)

- GHB
- Alcohol
- Benzodiazepines
- Volatile agents

- Assess Temp with thermometer
- Access RBG if ACS & Manage hypoglycaemia
- O2 (100% with IPPV if airway adjunct required)

Cooling Techniques (to keep temp <38°C)

- Shelter from heat
- Strip to underwear
- Tepid water spray or towels
- Manage hypovolemia with cooled fluids if avail
- Position flat or lateral (avoid head up)
- Gentle handling

Mild 35C - 32C

Moderate 32C - 28C

Severe <28C

- Clinical Approach
- Pain Relief (Penthane, Fentanyl IN or Morphine)
- Correct hypovolemia
- Control external haemorrhage
- Immobilise Joint above & below #
- Record Neurovascular obs distal to #
- Realign Long bone # (excluding joints)
- Irrigate open # with saline prior to splint
- Traction splint to femoral shaft # (unless dislocation) or upper 2/3 tib/fib
- Pelvic # anatomically splint legs & Sam PS

- Shelter from cold
- Remove damp or wet clothing. Gently dry
- Assess Temp with thermometer
- Gentle handling
- RBG & manage hypoglycaemia if required
- Oxygen
- Cocoon pt in warm blanket & cover head
 - Then cover with space blanket / plastic
 - Then cover with warm blanket

- Clinical Approach
- Airway & Ventilatory support
- RBG

If less than adequate perfusion or ECG changes (QT > 0.44 or QRS > 0.12)

- Hyperventilate 100% 20-24 BPM
aim ETCO2 at 20 - 25 mmHg

What is the **Adult** criteria
for
Adequate Perfusion

Version 3.1

February 2010

What is the **treatment** for
an **Adult** with a
Spinal Injury

Version 3.1

February 2010

What is the **Adult** criteria
for
Borderline Perfusion

Version 3.1

February 2010

What is the
Adult
Rule Of Nine's

Version 3.1

February 2010

What is the **Adult** criteria
for
Inadequate Perfusion

Version 3.1

February 2010

What are
Examples
of
Illicit Psychostimulants
Overdoses

Version 3.1

February 2010

What is the **Adult** criteria
for
Extremely Poor Perfusion

Version 3.1

February 2010

What is the **criteria** to
Spinal Immobilise

Version 3.1

February 2010

What is the **Adult** criteria
for
No Perfusion

Version 3.1

February 2010

What are
Stroke Mimics

Version 3.1

February 2010

- Spinal immobilisation
 - *Manual head stabilisation*
 - *C-Collar*
 - ***Padded Long Spine Board*** or *Vacuum Mattress*
 - *Full spine immobilisation*
- Pain relief
- Manage hypovolemia (up to **500 mls Hatmanns IV**)

A correctly padded Board RESOLVES the need to remove after 30 minutes

- 9% Head
- 9% Anterior Chest
- 9% Posterior Chest
- 9% Anterior Abdomen
- 9% Posterior Abdomen
- 9% Each Arm
- 9% Each Anterior Leg
- 9% Each Posterior Leg
- 1% Genitals

- **Skin** Warm, pink, dry
- **Pulse** 60 - 100 / min
- **BP** > 100 systolic
- **GCS** Alert & orientated

- Amphetamine
- Methamphetamines
- Cocaine
- Ecstasy (MDMA / MDEA / MDA / MMDA)
- Para methoxy amphetamine (PMA)
- Phencyclidine (PCP)

- **Skin** Cool, pale, clammy
- **Pulse** 50 - 100 / min
- **BP** 80 - 100 systolic
- **GCS** Alert & orientated

If pt meets Major trauma Criteria OR has positive MOI and any of the following:

- **Age** > 55 yrs
- History of **bone disease**
- **Unconsciousness** or episode of LOC
- **Altered** conscious state (GCS <15)
- **Drug** or **alcohol** affected
- Significant **distracting** injury
- **Neurological deficit**
- Spinal column **pain** tenderness

- **Skin** Cool, pale, clammy
- **Pulse** 50 - 110 / min
- **BP** < 60 systolic
- **GCS** ACS or unconscious

- Intoxication drugs/alcohol
- Hyperglycemias or hypoglycaemia
- Seizures
- Brain Tumour primary/secondary
- Syncope
- Middle ear disorder
- Migraine
- Subdural haematoma
- Sepsis
- Electrolyte disturbances

- **Skin** Cool, pale, clammy
- **Pulse** Absence of palpable pulse
- **BP** Unrecordable
- **GCS** Unconscious

What is the **Adult** criteria
for
Normal
Resp Status Assessment
in **Asthma**

Version 3.1

February 2010

What is the **Adult** criteria
for
Normal
Resp Status Assessment
in **LVF**

Version 3.1

February 2010

What is the **Adult** criteria
for
Mild Distress
Resp Status Assessment
in **Asthma**

Version 3.1

February 2010

What is the **Adult** criteria
for
Mild Distress
Resp Status Assessment
in **LVF**

Version 3.1

February 2010

What is the **Adult** criteria
for
Moderate
Resp Status Assessment
in **Asthma**

Version 3.1

February 2010

What is the **Adult** criteria
for
Moderate
Resp Status Assessment
in **LVF**

Version 3.1

February 2010

What is the **Adult** criteria
for
Severe (Life Threat)
Resp Status Assessment
in **Asthma**

Version 3.1

February 2010

What is the **Adult** criteria
for
Severe (Life Threat)
Resp Status Assessment
in **LVF**

Version 3.1

February 2010

What is a **Child's**
Normal Respiratory Rate

Version 3.1

February 2010

What is the **Child** criteria
for
Inadequate Perfusion

Version 3.1

February 2010

Appearance Calm, Quiet
Speech Clear & steady sentences
Chest Ausc Quiet no wheezes
Resp Rate 12—16
Resp Rhythm Regular even cycles
Resp Effort Normal chest movement
Pulse 60-100
Skin Normal
Cons State Alert

Appearance Calm, Quiet
Speech Clear & steady sentences
Chest Ausc Quiet no wheezes
Resp Rate 12—16
Resp Rhythm Regular even cycles
Resp Effort Normal chest movement
Pulse 60-100
Skin Normal
Cons State Alert

Appearance Calm or mildly anxious
Speech Full sentences
Chest Ausc ? Fine crackles at bases
Resp Rate 16—20
Resp Rhythm
Resp Effort Slight incr chest movement
Pulse 60-100
Skin Normal
Cons State Alert

Appearance Calm or mildly anxious
Speech Full sentences
Chest Ausc mild expiratory wheeze
Resp Rate 16—20
Resp Rhythm slight prolonged expir phase
Resp Effort Slight incr chest movement
Pulse 60-100
Skin Normal
Cons State Alert

Appearance Distressed or anxious
Speech Short phrases only
Chest Ausc Crackles bases to midzone
Resp Rate >20
Resp Rhythm
Resp Effort Marked chest movement
 +/- use accessory muscles
Pulse 100 —120
Skin Pale & sweaty
Cons State May be altered

Appearance Distressed or anxious
Speech Short phrases only
Chest Ausc expiratory +/- insp wheeze
Resp Rate >20
Resp Rhythm prolonged expiratory phase
Resp Effort Marked chest movement
 +/- use accessory muscles
Pulse 100 —120
Skin Pale & sweaty
Cons State May be altered

Appearance Distressed, anxious fighting to breath
Speech Words only or unable to speak
Chest Ausc Fine crackle—full field with possible wheezes
Resp Rate >20 Bradypnea (<6-8)
Resp Rhythm
Resp Effort Marked chest movement, access muscles +/- tracheal tugging
Pulse >120, Bradycardia late sign
Skin Pale & sweaty, +/- cyanosis
Cons State Altered or unconscious

Appearance Distressed, anxious fighting to breath
Speech Words only or unable to speak
Chest Ausc Expiratory +/- insp wheeze or nil sounds
Resp Rate >20 Bradypnea (<6-8)
Resp Rhythm Prolonged expiratory phase
Resp Effort Marked chest movement, access muscles +/- tracheal tugging
Pulse >120, Bradycardia late sign
Skin Pale & sweaty, +/- cyanosis
Cons State Altered or unconscious

	PULSE	BP
• Newborn	<100 - >170	N/A
• Infant	<90 - >170	<60
• Sm Child	<75 - >130	<70
• Lg Child	<65 - >100	<80

	Resp Rate
• Newborn	40 - 60
• Infant	20 - 50
• Sm Child	20 - 35
• Lg Child	15 - 25

What is the **treatment**
of the **Adult**
with a
Sedative Overdose

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with a
Psychostimulant Overdose
(Meth)

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
Anaphylaxis

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with a
Narcotic Overdose

Version 3.1

February 2010

What is the **treatment**
of the **Adult**
with
Hypoglycemia

Version 3.1

February 2010

What are the
Mechanisms Of Injury
for the trauma patient

Version 3.1

February 2010

What is the **treatment**
of the **Child**
with
Hyperthermia

Version 3.1

February 2010

What is the **treatment**
of the **Child**
Hypothermic
In
Cardiac Arrest

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
VF / Pulseless VT

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
PEA

Version 3.1

February 2010

- Airway & Ventilatory support
- **Manage** clinical causes if possible

If agitated or aggressive

- **Midazolam 0.05 - 0.1 mg IM** x 4 every **10 min**
If **>60 yrs** or **BP < 100** then only give **0.05 mg/kg** doses
- Apply **mechanical restraints** if required

- Ensure personal safety
- Be alert body fluids or concealed syringes

Evidence of Narcotic Overdose

- **Altered conscious state**
- **Respiratory depression**
- **Pinpoint pupils**
- **Track marks**
- Airway & Ventilatory support
- **Narcan 1.6 - 2 mg IM** x 1
- If inadequate response after **10 min** - consider
 - **Narcan 0.8 IM** x 1

- Ejection from a motor vehicle
- Motor/cyclist impact > 30 kmph
- Fall > 3 m
- Struck on head by falling object > 3 m
- Explosion
- High speed MCA > 60 kmph
- Vehicle rollover
- Fatality in the same vehicle
- Pedestrian impact
- Prolonged extrication > 30 min

AND

Age > 55 / Pregnancy / Significant medical condition

If <30C ...

- Only 1 x Defib
- Continue rewarming until >30

If 30C-32C ...

- Defib as per protocol

If >32C ...

- As per standard protocols
- CPR **30:2** (1 person)
15:2 (2 person)
- Identify treatable causes (HEAATU)
 - **Hypoxia**
 - **Exsanguination**
 - **Anaphylaxis**
 - **Asthma**
 - **Tension Pneumothorax**
 - **Upper airway obstruction**
- **No IV** access permitted in Paeds

- Airway & ventilatory support
- **Manage** clinical causes if possible
- If seizure **manage seizure as per A0703**
- If cardiac chest pain **manage as per ACS A0401**
- If hyperthermia **manage hyperthermia as per A0902**

If agitated or aggressive

- **Midazolam 0.05 - 0.1 mg IM** x 4 every **10 min**
If **>60 yrs** or **BP < 100** then only give **0.05 mg/kg** doses
- Apply **mechanical restraints** if required

Borderline / inadequate Perfusion, OR Resp Distress with Bronchospasm, OR ACS, WITH Angioedema OR Urticaria, OR GIT...

- Cardiac **Monitor**
- **Adrenaline 1:1000 0.3 mg IM** every **5 min**
- **Consider NaCl 20 ml/kg IV (max 60 ml/kg)**
- If Bronchospasm, give **Ventolin & Atrovent**

- Evidence of probable hypoglycemia

- **RBG** check

If RBG <4 and responds to command

- **Glucose Paste 15 G**

If RBG <4 and unresponsive to command Or inadequate response to Glucose Paste

- **IV** and flush with **10 mls NACL**
- **D10W 150 mls IV** **tritrating** to pt response
- A further **D10W 100 mls IV** can be given
- Cease when GCS 15

If no IV or not sure of patency, or delay

- **Glucagon 1 ml IM** x 1

- Assess **Temp** with thermometer
- Access **RBG** if ACS & Manage **hypoglycaemia**
- **O2** (100% with IPPV if airway adjunct required)

Cooling Techniques (to keep temp <38°C)

- **Shelter** from heat
- **Strip** to underwear
- **Tepid water spray** or towels
- Manage **hypovolemia** with **cooled fluids** if avail
- Position **flat or lateral** (avoid head up)
- **Gentle** handling

- CPR **30:2** (1 person)
15:2 (2 person)
- **DEFIB** - If Amb witnessed ... **2/4/4 J/kg**
- If unwitnessed ... **1 x 2 J/kg**
- Thereafter **1 x 4 J/kg 2 minly**
- **No IV** access permitted in Paeds

Use MRX Paed Pads up to 10 kg

What is the **treatment**
of the **unconscious Child**
with
Asthma

Version 3.1

February 2010

What is the **treatment**
of the **conscious Child**
with
Asthma

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Burns

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Hypoglycemia

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Narcotic Overdose

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
**Organophosphate
poisoning**

Version 3.1

February 2010

What is the **treatment**
of the **Child** with a
Seizure

Version 3.1

February 2010

What are the
Modifying Factors
to continue
CPR after 30 mins
In an **Adult**

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Anaphylaxis

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Asystole
or
Severe Bradycardia

Version 3.1

February 2010

- If patients Mx asthma plan has been activated

If Mild to Moderate SOB

- If pMDI & Spacer 4 puffs every 4 mins continuous
- If pMDI & Spacer not available
Ventolin 10 mg Neb (2 ampoules) x 1
Ventolin 5 mg Neb every 5 min as required

If Severe SOB or nil response 10 Mins of Ventolin

- Ventolin Neb (1 ampoules) every 5 min as above
- Atrovent 250 mcg Neb (1 ampoule) x 1, given with the Ventolin Nebs

- Evidence of probable hypoglycemia

If RBG <4 and responds to command

- Glucose Paste 15 G

If RBG <4 and unresponsive to command Or inadequate response to Glucose Paste

- Glucagon 0.5 ml IM x 1 if <25kg
- Glucagon 1 ml IM x 1 if >25kg

- Clinical Approach
- Access Degree of Contamination
- Wear PPE
- Remove and Wash Contaminated cloths with soap and water

- Remains in VT or VF
- Signs of life (gasps or pupil reaction)
- Drug overdose
- Hypothermia

- CPR 30:2 (1 person)
15:2 (2 person)
(if P<60 in Infants / P<40 Children)
- No IV access permitted in Paeds

If Unconscious or becomes unconscious

- Ventilate 1/2 BPM with Tidal Volume 10 ml/kg
- Moderately high inspiratory pressure
- Long Expiratory time
- Gentle lateral chest pressure during expiration
- Adrenaline 0.01 mg/kg IM x 3 each 20 minly

If Spontaneous Ventilation

- Ventolin 5 mg Nebs & Atrovent 250 mcg Nebs

If patient Carotid Pulse but no BP

- Apnea for 30 seconds

- Clinical Approach
- Look for airway injury
- Use Lund & Browsers Chart
- Determine Burn depth (Partial/fullthickness)
- Cool with water until cool
- Analgesia
- Cover with Cling Wrap, BurnAid or clean dressing
- Thermometer & manage Hypothermia
- Avoid shivering

- Ensure personal safety
- Be alert body fluids or concealed syringes

Evidence of Narcotic Overdose

- Altered conscious state
- Respiratory depression
- Pinpoint pupils
- Track marks
- Airway & Ventilatory support
- Narcan 0.01 mg/kg IM (max 2 mg)

If nil response after 10 mins

- Narcan 0.01 mg/kg IM (max 2 mg)

- Consider other causes (perform RBG)

If single seizure

- General Care & Transport

If Continuous/Recurrent seizure

- Midazolam 0.1 mg/kg IM (max 10 mg)

If Continuous/Recurrent seizure after 10 mins

- Repeat Midazolam first dose IM after 10 min
- Consult for further doses

Less than adequate Perfusion, OR Resp Distress with Bronchospasm, OR ACS, WITH Angioedema OR Urticaria, OR GIT...

Cardiac Monitor

- Adrenaline 1:1000 0.01 mg/kg IM every 5 min
- Consider NaCl 20 ml/kg IV (max 60 ml/kg)
- If Bronchospasm, give Ventolin & Atrovent

What are the
Child
Weight Calculations

Version 3.1

February 2010

What is the **treatment**
of the **conscious Child**
with
Hypothermia

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Complete
Upper Airway Obstruction

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Menningococcal
Septicemia

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Croup

Version 3.1

February 2010

What are the
Child
CPR Rates

Version 3.1

February 2010

What are the
Child
Suction Catheter Sizes

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Partial
Upper Airway Obstruction

Version 3.1

February 2010

What are
Examples
of
Narcotic substances

Version 3.1

February 2010

Version 3.1

February 2010

- Shelter from cold
- Remove damp or wet clothing. Gently dry
- Assess Temp with thermometer
- Gentle handling
- RBG & manage hypoglycaemia if required
- Oxygen
- Cocoon pt in warm blanket & cover head
 - Then cover with space blanket / plastic
 - Then cover with warm blanket

- Clinical approach

Confirm Clinical Evidence Of Meningococcal

- Purpuric Rash
- Septicaemic (Headache / fever / hypotension / and / or tachycardia)

Administer Ceftriaxone IM

- Dilute 1 gm with 3.5 ml Lignocaine 1%
- Administer 50 mg/kg IM (max 1 gm)

Unitubated

- 30 : 2 (100 compressions per min) Single Rescuer
- 15 : 2 (100 compressions per min) Two Rescuers
Pause for ventilations

Once intubated/LMA by MICA

- Maintain compression rate 100 per minute
- Do not exceed 14 ventilations per minute
NO Pause for ventilations

- Encourage Coughing
- Gravity

- Newborn 3.5 kg
- 5 Months 7 kg
- 1 year 10 kg
- 1-9 years age x 2 + 8 kg
- 10-14 years age x 3.3 kg

If Foreign Object

- Gravity
- Finger Sweeps
- Back Slaps
- Lateral Chest Thrusts
- Laryngoscope & Magils

If Croup with

- Increasing respiratory distress
- Increasing lethargy
- Decreasing stridor

Then

- Adrenaline 1:1000 5 mls Nebulised
- Reassess
- Repeat Adrenaline 1:1000 5 mls Nebulised if required

6 FG	3mm
8 FG	3.5 - 5.5 mm
10 FG	6 mm

- Heroin
- Morphine
- Codeine

What is the **treatment**
of the **trauma patient**
who is
Actual or Emergent
Time Critical
or potential with comobilities

Version 3.1

February 2010

What is the **treatment**
of the **patient**
who is
Potentially
Time Critical

Version 3.1

February 2010

What is the **treatment**
of the **patient**
who is **NOT**
Actual, Emergent or
Potential
Time Critical

Version 3.1

February 2010

Version 3.1

February 2010

What is the
Concept
of
Time Critical

Version 3.1

February 2010

What are the
Significant underlying
medical conditions for the
Potential Time Critical
Patient (MIO)

Version 3.1

February 2010

What is
Actual
Time Critical

Version 3.1

February 2010

What is
Emergent
Time Critical

Version 3.1

February 2010

What is
Potential
Time Critical

Version 3.1

February 2010

What is the **Giving Set**
formulae for
Drops per minute
&
Volume to give

Version 3.1

February 2010

Triage to the **highest** level of trauma services within **30 minutes**

Consider
MICA / Aeromedical support

Triage to the **highest** level of trauma services within **30 minutes**

Consider
MICA / Aeromedical support

Triage to the **nearest appropriate facility** if required

- Poorly controlled **hypertension**
- Morbid **obesity**
- **CCF**
- Symptomatic **COAD**
- **Ischemic Heart Disease**
- Chronic **Renal Failure**

Allow the recognition of the severity of a patients condition, or the likelihood of deterioration

The identification directs appropriate clinical management and the appropriate destination to improve outcome

At the time **VSS** is taken the patient is **NOT** in **physiological distress** but does have a **pattern of injury** or **significant medical condition** which is known to have a **high probability** of deteriorating to actual physiological distress

At the time **VSS** is taken the patient is in **actual physiological distress**

$$\text{Drops per minute} = \frac{\text{Drops per ml} \times \text{Vol (mls)}}{\text{Time (minutes)}}$$

AV Giving Set is **20 drops per min**

$$\text{Volume to give} = \frac{\text{Strength required} \times \text{Vol (mls)}}{\text{Stock strength}}$$

At the time **VSS** is taken the patient is **NOT** in **physiological distress** and there is **no significant pattern of actual injury/illness**, but does have a **mechanism of injury/illness** known to have the potential to deteriorate to **actual physiological distress**

What are the
Principles
of
CPR

Version 3.1

February 2010

What are the
Adult
compression to ventilation
rates of CPR
Nil LMA in-situ

Version 3.0

February 2009

What are the
Causes
Of
PEA

Version 3.1

February 2010

What are the
Adult
compression to ventilation
rates of CPR
with an LMA in-situ

Version 3.1

February 2010

What are the
Primary Indications
for an
LMA

Version 3.1

February 2010

What are the
Contraindications
for an
LMA

Version 3.1

February 2010

What Are The
Side Effects
of a
LMA

Version 3.1

February 2010

What Are The
Sizes & Inflation Volumes
of a
Portex LMA

Version 3.1

February 2010

What are the
Age Classifications
in
Children

Version 3.1

February 2010

What Are The
Sizes & Inflation Volumes
of a
Unique LMA

Version 3.1

February 2010

30:2

Rate

Approx 100 compressions per min
Pause for ventilations

- Assumption that CPR is commenced **immediately** and **continued throughout**
- Must **NOT** be interrupted for more than **10 seconds** during **rhythm/pulse checks**
- If **unsure** of **pulse recommence** CPR immediately
- **Change operators every 2 mins** to improve CPR performance and reduce fatigue
- **Depth 50%** chest volume
- **Rhythm pulse check every 2 mins**
- **CPR commenced IMMEDIATELY after Defib**, then pulse check **after 2 mins** of further CPR

15:1

Rate

Approx 100 compressions per min
NO PAUSE for ventilations
< 8 ventilation per min

- **Hypoxia**
- **Exsanguination**
- **Anaphylaxis**
- **Asthma**
- **Tension Pneumothorax**
- **Upper airway obstruction**

Contraindications

- Intact **gag** reflex
- **Resistance** to insertion
- Strong **jaw tone**
- **Trismus**
- Suspected **epiglottitis**
- Upper **airway obstruction**

Indications

- Unconscious patient without a **gag reflex**
- Airway management when **ETT fails**
- **Ineffective ventilation** with a BVM or OP/NP
- **>10 min** assisted **Ventilation** required
- **Unable to intubate** or difficult intubation

Size Weight Inflation

Size 3	30 - 50 kg	25 ml
Size 4	50 - 70 kg	35 ml
Size 5	70 - 140kg	55 ml

Correct place LMA **does not** prevent

- Gastric **distention**
- Passive **regurgitation**

Size Weight Inflation

Size 3	30 - 50 kg	20 ml
Size 4	50 - 70 kg	30 ml
Size 5	70 - 140kg	40 ml

Newborn	1st min to hr following birth
Infant	< 1 year
Young Child	1 - 8 years
Older Child	9 - 14 years

What s the
Paediatric Pain Assessment
in
Children

Version 3.1

February 2010

What are the
Newborn
CPR Rates

Version 3.1

February 2010

What are **Examples**
of the **Prescription**
Psychostimulant
drugs

Version 3.1

February 2010

What are possible
CoMorbidities
of a
Stroke

Version 3.1

February 2010

What is the **Adult Criteria**
for an
Stemetil

Version 3.1

February 2010

What is the **Adult Criteria**
for an
Maxalon

Version 3.1

February 2010

What are the
onset time conditions
for
Stroke Treatment

Version 3.1

February 2010

What are the
Principles
of
CPR

Version 3.1

February 2010

What is the
Treatment
of
Chest Injuries

Version 3.1

February 2010

What are the
Order of Priorities
Of Resuscitation
during **CPR** in
Children

Version 3.1

February 2010

3:1 (single rescuer)

3:1 (two rescuers)

at 120 compressions per min

Dementia

Pre-existing physical ability

•Nausea & or vomiting for

- Cardiac chest pain
- Iatrogenic secondary to opioid admin
- Previous diagnosed migraine
- 2ndary to cytotoxic drugs or radiotherapy
- Severe gastroenteritis

Prophylaxis for

- Awake patients (GCS 13-15) with suspected spinal injury immobilised on the stretcher
- Eye trauma (penetrating eye injury/

- Assumption that CPR is commenced immediately and continued throughout
- Must NOT be interrupted for more than 10 seconds during rhythm/pulse checks
- If unsure of pulse recommence CPR immediately
- Change operators every 2 mins to improve CPR performance and reduce fatigue
- Depth 50% chest volume
- Rhythm pulse check every 2 mins
- CPR commenced IMMEDIATELY after Defib, then pulse check after 2 mins of further CPR

- Adequate airway control
- Ventilation
- Chest Compressions
- Adrenaline

Question the child

Use pain rating scales

Evaluate behaviour & Physiological changes

Secure parent involvement

Take cause of pain into account

Take action and evaluate results

- Amitriptyline
- Clomipramine
- Desipramine
- Dothiopin
- Doxepin
- Imipramine
- Nortriptyline
- Trimipramine

Nausea & or vomiting but with known allergy or contraindication to Maxalon in

- Associated with cardiac chest pain
- Iatrogenic secondary to opioid admin
- With previous diagnosed migraine
- 2ndary to cytotoxic drugs or radiotherapy
- Associated with severe gastroenteritis

Prophylaxis for

- Potential motion sickness
- Planned aeromedical evacuation

It the patient wakes with a deficit of inability to communicate, the time is taken from when the patient was last seen deficit free

Accurate timeframe for onset of symptoms is critical for treatment
< 3 hrs for IV thrombolytic
<6 hrs for other therapies

- Oxygen
- Pain Relief
- Position upright **UNLESS**
 - < adequate perfusion
 - altered conscious state
 - associated barotrauma
 - potential SCI

Then

- If Flail / Rib # .. ? Ventilatory assistance
- If open chest wound .. 3 sided dressing
- If tension pneumothorax .. decompress

An **AMI** Is
Diagnosed
with what
3 Factors

Version 3.1

February 2010

What is the
Goal in Management
In
Acute Coronary Syndrome
and Why

Version 3.1

February 2010

What are the
12 Safety Steps
of
Defibrillation

Version 3.1

February 2010

What are the
Doses of Fentanyl IN
for
Pain Relief
In an Adult

Version 3.1

February 2010

What is the
ETCO₂ levels
relating to
Asthma

Version 3.1

February 2010

What are the
Dangers
relating to
Assisted Ventilation in the
Asthma

Version 3.1

February 2010

What are the
SITREP Components
of a
Major Incident

Version 3.1

February 2010

What are the possible
clinical causes
relating to the
Agitated Patient

Version 3.1

February 2010

What Are the
Signs
of
Hypoxia
in
Children

Version 3.1

February 2010

What Are the
Signs
of
Carbon Dioxide Retention
in
Children

Version 3.1

February 2010

To
resolve all pain
 completely if safe to do so

This reduces
cardiac workload

Prepare from a 900 mcg/3 ml vial

	<60/>60kg	>60/<60kg
Initial dose	200 mcg	100 mcg
Volume	0.75 mls	0.45 mls
Addit dose	50 mcg	50 mcg
Volume	0.25 mls	0.25 mls

All doses include 0.1 ml for atomiser
 Max 1 ml into each nostril

- History
- Serial ECGs
- Serial Blood Enzymes

1. Avoid flammable agents and oxygen rich atmosphere
2. Avoid water & metal when using the monitor
3. Call 'stand clear' & visually check before defibrillation
4. Don't touch pt during defibrillation
5. Avoid pads over GTN patches/paste, ICDs or electrodes
6. Avoid skin peganation & nipples to prevent burns
7. Avoid skin folds to prevent burns
8. Ensure Defib Pads are properly adhered to pt
9. Don't allow Defib Pads and electrodes to touch
10. Don't use Monitor if cables are damaged
11. Don't do chest compressions over Defib Pads
12. Don't use faulty Defib Pads

Beware of air trapping if attempting to
 reduce ETCO2 by increasing
 the ventilation rate

Levels up to 120 mmhg are
 considered safe

Assisted Ventilation can easily cause
 air trapping and barotrauma

- Hypoglycemia
- Hypoxia
- Postical
- Drug intoxication
- Drug withdrawal
- Intracerebral pathology
- Mild to moderate head injury (consult)
- Acute psychiatric conditions

Exact Location
Type of incident
Hazards at the scene
Access and Egress
Number of casualties
Emergency Services at Scene & Required

- Sweating
- Tachycardia
- Papillary dilatation
- Hypertension
- Bounding pulse
- Cardiac & CNS depression

Infants	Children
Lethargy	Restlessness
Pallor	Cyanosis
Bradycardia	Tachycardia
Tachypnea	Hypotension
Apnea	

What is the **treatment**
of the **Child** with
Pain

Version 3.1

February 2010

What is the
Preparation of Fentanyl IN
for
Pain Management
in an **Child**

Version 3.1

February 2010

What is the **treatment**
of the **Child** with
Partial
Upper Airway Obstruction

Version 3.1

February 2010

What is the **treatment**
of the
Child with **Croup**

Version 3.1

February 2010

What Are The
Precautions
of a
LMA

Version 3.1

February 2010

Version 3.1

February 2010

If child <25 kg
prepare dose from a
900 mcg/3 mls

If Child >25 kg
prepare dose from a
100 mcg/2 mls

If Croup with

- Increasing respiratory distress
- Increasing lethargy
- Decreasing stridor

Then

- Adrenaline 1:1000 5 mls Nebulised
- Reassess
- Repeat Adrenaline 1:1000 5 mls Nebulised

If pain likely controlled by Non IV or no IV avail

- Penthrane 3 ml x 2 (20 min apart) AND/OR
- Fentanyl 2 mcg/kg IN, then 1 mcg/kg IN 5 minly x 4

If pain not controlled by the above

- Morphine 0.1 mg/kg IM
- & consult for further doses

If Nausea

- Consultation is required

- Encourage Cough
- Gravity
- Maintain BLS

Precautions

- Inability to place in sniffing position
- Patients who require high airway pressure (advanced pregnancy, morbid obesity, stiff lungs such as cystic fibrosis, severe asthma)
- Pt <14 due to enlarged tonsils
- Significant volume of vomit