

CMG 14 – SHOCK AND HYPOPERFUSION

(Revised: April 2019)



Shock is a state of poor perfusion, which is most reliably indicated by tachypnoea, altered mental state and skin findings such as decreased capillary refill, pallor and diaphoresis.

Normal blood pressure does not exclude shock. Hypotension may be a sign of life-threatening shock.

Assess the patient carefully to determine a possible cause, and manage accordingly.

(a) HYPOVOLAEMIC SHOCK

(i) HYPOVOLAEMIC SHOCK (NON-HAEMORRHAGIC) (e.g. burns, dehydration, etc.)		
ICP	High concentration oxygen	AP
ICP	Early and rapid transport to definitive care	AP
ICP	Manage underlying cause wherever possible, according to appropriate CMG	AP
ICP	IV/IO fluids to maintain systolic BP at approximately 90mmHg	AP

continues over



(ii) HYPOVOLAEMIC SHOCK (HAEMORRHAGIC)				
ICP	Traumatic cardiac arrest (or peri-arrest): treat as per CMG 39		AP	
<p style="text-align: center;">All other haemorrhagic shock patients require early, rapid transport to definitive care. Absolute minimum scene time is warranted. All interventions should be considered with a view to minimising time to definitive control of bleeding – consider performing interventions en route.</p>				
ICP	High concentration oxygen		AP	
ICP	Control of external bleeding (including arterial tourniquet)		AP	
ICP	Spinal immobilisation (if required)		AP	
ICP	Pelvic splint (for suspected pelvic fracture or suspicious mechanism of injury)		AP	
IV/IO FLUIDS (as below):				
<p style="text-align: center;">WITH APPARENT HEAD INJURY (SUSPECTED RAISED ICP):</p>		<p style="text-align: center;">WITHOUT APPARENT HEAD INJURY:</p>		
ICP	<ul style="list-style-type: none"> • manage as per CMG 15 • IV fluids to maintain sBP >100mmHg 	<p style="text-align: center;">sBP >90mmHg</p> <ul style="list-style-type: none"> • monitor closely • reassess for head injury • IV fluids TKVO only 	<p style="text-align: center;">sBP <90mmHg</p> <ul style="list-style-type: none"> • 250ml normal saline (warm) • reassess patient after bolus • repeat as required to maintain sBP ≈90mmHg (to maximum 20ml/kg) 	AP
ICP	If unresponsive to fluid boluses (20ml/kg total) and profoundly unwell: consider adrenaline infusion			

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CMG 14 (cont) – SHOCK AND HYPOPERFUSION



(b) CARDIOGENIC SHOCK

Cardiogenic shock is caused by a decreased pumping ability of the heart. Some causes of cardiogenic shock include: AMI, dysrhythmias and drugs.

ICP	High concentration oxygen	AP
ICP	12 lead ECG	AP
ICP	Manage acute coronary syndrome as per CMG 16	AP
ICP	Treat significant arrhythmias as per appropriate CMG	
ICP	IV/IO fluids to maintain a systolic BP of 90mmHg	AP
ICP	If unresponsive to fluid boluses (20ml/kg total) and profoundly unwell: consider adrenaline infusion	
ICP	Rapid transport to definitive care	AP

(c) DISTRIBUTIVE SHOCK

Distributive shock results from excessive vasodilation and the impaired distribution of blood flow. Some common causes include: sepsis, anaphylaxis, burns, neurogenic shock due to spinal cord or brain injury, drugs / toxins, and Addisonian crisis.

ICP	High concentration oxygen	AP
ICP	Identify possible cause and treat as per appropriate CMG	AP
ICP	If cause unknown: IV/IO fluid to maintain a systolic BP of 90mmHg and rapid transport to definitive care	AP
ICP	Sepsis/anaphylaxis: If unresponsive to fluid boluses (20ml/kg total) and profoundly unwell: consider adrenaline infusion	
	Rapid transport to definitive care	

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(d) OBSTRUCTIVE SHOCK

Obstructive shock is caused by a physical obstruction of the great blood vessels of the heart or an obstruction within or around the heart itself. Pulmonary embolism, cardiac tamponade and tension pneumothorax are all causes of obstructive shock.

ICP	High concentration oxygen	AP
ICP	Decompress tension pneumothorax if suspected	
ICP	Gentle handling	AP
ICP	IV/IO fluid to maintain a systolic BP of 90mmHg	AP
ICP	Early, rapid transport to definitive care	AP