

Stage	Core Temp	Presentation	Treatment
HT I	35-32°C	Alert, shivering	Warm environment, warm/dry clothing, warmed sweetened drinks, active movement
HT II	32-28°C	Altered, not shivering	Active external and minimally-invasive internal rewarming
HT III	28-24°C	Unconscious, not shivering	HT II treatment + invasive internal rewarming, consider ECMO
HT IV	<24°C	No vital signs	HT II/III treatment + CPR, ECMO

DIFFERENTIAL DIAGNOSES		
Consider treatment before confirmation if suspicion is high		
	DIAGNOSIS	INTERVENTION
Myxoedema coma	TSH, free T4	Levothyroxine IV, 200-500 µg
Adrenal insufficiency	Serum cortisol	Solu-Cortef IV, 100 mg
Sepsis	Blood count, cultures	Antibiotics
Pancreatitis	Amylase	Fluids as per protocol
Hypoglycaemia	Glucose	30 mL boluses of 30% glucose until response
Diabetic ketoacidosis	Glucose	Fluids as per protocol
Poisoning	Medication list, toxidrome	Naloxone, other antidotes (TCA: bicarbonate; CCB: calcium, etc.)

MODIFIED ALS	
< 30°C	Do not give drugs. If three defibrillation attempts fail, defer further attempts until temperature > 30°C.
30-35°C	Double the interval between adrenaline / amiodarone doses.
> 35°C	ALS according to the standard algorithm.
Stop CPR if:	• Potassium > 10 (K > 12 in children) • Asystole despite core temperature > 32°C • Normothermic cardiac arrest before cooling

HYPOTHERMIA



- CHECKLIST
- ☐ Remove wet clothes / prevent further cooling

☐ Cardiac monitoring + gentle handling

☐ Core temperature measurement (oesophageal / urinary catheter)

☐ IV fluid resuscitation (aim for euvolaemia)

☐ 10-20 mL/kg bolus

☐ Additional 10-20 mL/kg per ~3°C rise in temperature

☐ Active rewarming (max. 0.5-2°C/h)

☐ Consider VA-ECMO (HOPE score)

EXPECTED INVESTIGATION FINDINGS	
Blood gas analysis	Metabolic acidosis, respiratory alkalosis, or both
Electrolytes	Unaffected
Glucose	Increased, decreased or unchanged
WBC & platelets	Decreased due to splenic sequestration
Haemoglobin, haematocrit	Increased due to haemoconcentration
Prothrombin & APTT	Prolonged due to inhibition of the coagulation cascade
ECG	Prolonged PR, QRS and QTc intervals ST-segment elevation T-wave inversion; Osborn J waves Atrial fibrillation, bradycardia
Chest X-ray	Aspiration pneumonia, oedema

PHYSIOLOGICAL CONSEQUENCES OF HYPOTHERMIA



Bradypnoea;
EtCO₂/PaCO₂ discrepancy



Vasoconstriction / bradycardia



Altered consciousness



Cold diuresis / rhabdomyolysis



Electrical excitability



Coagulopathy / DIC



Modified ALS



Caution: afterdrop / rescue collapse