QUICK CHECK AND EMERGENCY TREATMENTS FOR ADOLESCENTS AND ADULTS

IMCI = Integrated Management of Childhood Illness; ETAT= Emergency Triage Assessment and Treatment; IMPAC = Integrated Management of Pregnancy and Childbirth; IMEESC = Integrated Management of Essential and Emergency Surgical Care

EMERGENCY SIGNS

All staff should be able to assess these signs. If any sign is present, patient is severely ill. Call for help. Clinical staff should immediately give emergency treatment(s).

FIRST LINE EMERGENCY TREATMENT

If any emergency sign is present, nurse and others on clinical team should give the treatments, call for help, and establish IV access. After the Quick Check, test blood for glucose, malaria RDT, haemoglobin. Make sure a full set of vital signs and pulse oximetry are obtained from all patients with emergency signs and these findings are acted on.

IF TRAUMA ALSO

The trauma guidelines are applicable for all ages.*
For further management of trauma, use the IMEESC package for surgical or trauma related conditions.
Also use the treatment guidelines in the IMPAC PCPNC and MCPC when managing Women of Childbearing Age who may be pregnant.

* Use the IMCI ETAT for Children Less than 5 Years of Age (rather than these guidelines).

CONTINUE WITH URGENT MANAGEMENT OF PATIENTS WITH EMERGENCY SIGNS

FIRST ASSESS:
AIRWAY AND BREATHING

- Appears obstructed
  or
- Central cyanosis
  or
- Severe respiratory distress

Check for obstruction (noisy breathing), wheezing, choking, not able to speak

Do not move neck if cervical spine injury possible – immobilize spine

If obstructed airway:
- **If foreign body aspiration, treat choking patient.**
- **If suspect anaphylaxis, give 1:1000 epinephrine (adrenaline) IM – 0.5 ml if 50 kg or above, 0.4 ml if 40 kg, 0.3 if 30 kg.**

For all patients:
- **Manage airway.**
- **Give oxygen 5 litres.**
- **If inadequate breathing, assist ventilation with bag valve mask.**
- **Help patient assume position of comfort.**
- **If wheezing, give salbutamol.**

If head or neck trauma, manage airway and immobilize spine

Look for:
- Respiratory distress
- Trachea deviated
- Decreased breath sounds
- Low SBP

→ Treat tension pneumothorax with emergency needle decompression.

- Give oxygen 5 litres.
- If wound to chest wall which sucks air in when patient breathes in —> treat sucking chest wound.
- Treat pain (Section 20).
- If chest trauma, call for help for possible surgical intervention.

Finish remainder of Quick Check then:

- **Count pulse, RR; measure SBP, SpO_2**
- **Titrate oxygen to SpO_2 90**
- **Give antibiotics if fever and RR >30 (see Section 3.2)**
- **Give antiviral if suspect influenza**
- **Insert IV and start fluids at 1 ml/kg/hour**

If...	Then...
Severely ill patient with difficult breathing: Consider silent chest with bronchospasm	See Section 3.2.
If moderate – severe wheeze continues	Give salbutamol (another dose) and ipratropium). See Section 3.2 for other causes wheezing.
Pinpoint pupils and suspect organophosphate intoxication	Give atropine. See Section 3.8.
Pinpoint pupils and suspect opioid intoxication and RR <10 or SpO_2 <90	Assist ventilation and give naloxone. See Section 3.6.
Suspect other poisoning or snakebite	See Sections 3.8 and 3.9.
Suspect inhalation burn	See Sections 3.2 and 3.10.

Use **standard precautions** for all patients. Use **droplet precautions** if acute respiratory infection of concern. Add **aerosol precautions** if airway management or intubation. See Section 6.

THEN ASSESS:
CIRCULATION (SHOCK OR HEAVY BLEEDING)

- Weak or fast pulse
  or
- Capillary refill longer than three seconds
  or
- Heavy bleeding from any site
  or
- Severe trauma

Check SBP, pulse
Is she pregnant?

Do not move neck if cervical spine injury possible – immobilize spine

If SBP <90 mmHg or pulse >110 per minute or heavy bleeding:
- **Give oxygen** 5 litres if respiratory distress or SpO_2 <90.
- **Insert IV, give 1 litre bolus** crystalloid (LR or NS) then reassess (see give fluids rapidly.
- **Keep warm** (cover).
- **If in second half pregnancy, place on her side (preferably on the left), not on back.**
- **If anaphylaxis, give 1:1000 epinephrine (adrenaline) IM** – 0.5 ml if 50 kg or above, 0.4 ml if 40 kg, 0.3 if 30 kg.

If trauma and patient in shock (SBP <90, pulse >110) or suspect significant internal or external bleeding

- Give oxygen 5 litres if SpO_2 <90 or respiratory distress.
- Give rapid IV fluids.
- Keep warm.
- Urgently send blood for type and cross match.

If external bleeding:
- Apply pressure immediately to stop bleeding.

If suspect internal bleeding:

Uncontrolled, noncompressible haemorrhage (abdomen, chest, pelvis or around long bone fractures) requires emergency surgical intervention.
- If possible femur fracture – splint (see Section 4).
- If possible pelvic fracture – apply pelvic binder.
- Call for help and plan emergency surgical intervention (see Section 4).
- If patient remains in shock after 2 litres of IV fluids – transfuse (see Section 4).

Decide on type of shock and treat accordingly

If...	Then...
Fever, consider septic shock and malaria	Give empirical antibiotics, antimalarial and glucose (if blood glucose is low or unknown). Send blood culture if feasible before starting antibiotics. See Section 3.1.
Suspect heart failure, cardiogenic shock or severe anaemia	Be cautious with giving fluids. See Section 3.2.
Diarrhoea	Classify dehy-dration. If severe, give rapid fluids for shock and follow Fluid Plan C. See Sections 3.1.2 and 10.7.
Vaginal bleeding	Assess pregnancy status and amount of bleeding and treat.
Large nosebleed	See Section ?????.
Vomiting blood	See Section ?????.

IF VAGINAL BLEEDING, SEE CHART ON MANAGEMENT OF VAGINAL BLEEDING.

ALTERED LEVEL CONSCIOUS / CONVULSING

- Altered level consciousness
  or
- Convulsing

Is she pregnant?

Do not move neck if cervical spine injury possible

For all:
- Protect from fall or injury.
- Manage airway and assist into recovery position.
- Give oxygen 5 litres.
- Call for help but do not leave patient alone.
- Give glucose (if blood glucose is low or unknown).
- Check (then monitor and record) level of consciousness on AVPU scale.

If convulsing:
- Give diazepam IV or rectally.
- If convulsing in second half of pregnancy or post-partum up to one week, give magnesium sulfate rather than diazepam.

Then check SBP, pulse, RR, temperature.

If convulsions continue after 10 minutes:
- Continue to monitor airway, breathing, circulation.
- Recheck glucose.
- Give second dose diazepam (unless pregnant/post-partum).
- Consult district clinician to start phenytoin (see Section 3.5).

Check for signs of serious head and spine trauma

- **Immobilize spine.**
- **Give oxygen 5 litres.**
- **Log-roll patient when moving.**
- **Expose patient fully.**
- **Look/feel for deformity of skull.**
- **Look for:**
  - pupils not equal or not reactive to light;
  - blood/fluid from ear or nose;
  - associated traumatic injuries (spine, chest,pelvis) (see Section 4).
- **Call for help from district clinician/surgeon.**

If...	Then...
Altered consciousness	See Section 3.4.
Convulsions	See Section 3.5.
Fever	Give empirical antibiotics. Give antimalarials if in a malaria endemic area (see Section 11.25).
Pinpoint pupils and suspect organophosphate intoxication	Give atropine. See Section 3.8.
Pinpoint pupils and suspect opioid intoxication and RR <10 or SpO_2 <90	Assist ventilation and give naloxone. SeeSection 3.6.
Alcohol intoxication or withdrawal	See Section 3.7.
Poisoning	See Section 3.8.
Snakebite	See Section 3.9.

PAIN FROM LIFE-THREATENING CAUSE

OFTEN: NOT ABLE TO WALK; SWEATING; GUARDING AGAINST PAIN/ABNORMAL POSITION; VERY SILENT OR MOANING.

IF THESE PRESENT THEN CHECK SBP, PULSE, RR, TEMPERATURE AND LOOK FOR:

Do not move neck if cervical spine injury

- **Severe abdominal pain**
  and
- **Abdomen hard on palpation**

Is she pregnant?

- Nothing by mouth (NPO).
- IV fluids.
- Give oxygen if respiratory distress or SpO_2 <90.
- Empirical antibiotics IV/IM.
- Treat pain.
- Suspect surgical abdomen – call for help (see Section 4); send blood for type and cross match.

If early pregnancy possible, consider ectopic and check rapid pregnancy test. If late pregnancy, consider abruption or ruptured uterus (see *IMPAC MCPC* guidelines).

If trauma with abdominal pain:
- Consider possible spleen or liver injury.
- If penetrating injuries to abdomen or distended or painful abdomen:
  - check Hb;
  - send type and cross match;
  - consider diagnostic peritoneal lavage or ultrasound to check for internal bleeding.

If...	Then...
Trauma	See Section 4.
Pregnant with abdominal pain or severe headache with elevated BP	Decide if severe pre-eclampsia. See *IMPAC MCPC* guidelines.
Severe headache	See Section 10.10b.
Suspect acute myocardial infarction	Follow national guidelines. See Section 3.3 for DDx.
Major burn	See Section 3.10.
Snakebite	See Section 3.9.

- **Severe headache**
  or
- **Stiff neck**
  or
- **Trauma to head/ neck**

Is she pregnant?

If current/recent pregnancy, elevated BP and headache, consider severe pre-eclampsia; dipstick urine for protein (see *IMPAC MCPC*). Give magnesium sulfate if diastolic >110 mmHg with proteinuria.

If severe headache with stiff neck and fever, consider meningitis:
- Give IV antibiotics (call clinician to do LP first if can do within 15 minutes).
- Give IV or IM antimalarials if in malaria endemic area.

If trauma with neck pain or possible cervical spine injury:

DO NOT MOVE NECK —> immobilize the neck.
- If severe headache, manage as possible head injury.

- **New onset chest pain**

If crushing, retrosternal pain (and cardiovascular risk factors)* and no history of trauma, suspect acute myocardial infarction:
- Give aspirin (300 mg, chewed).
- Give oxygen if SpO_2 <90 or respiratory distress.
- Insert IV – if no signs of shock, give fluids slowly at a keep-open rate.
- Give morphine for pain (see Section 20).
- Do ECG. Call district clinician for help.

If trauma with chest pain:
- Palpate chest for rib fractures.
  - if present, consider pneumothorax.

- **Major burn**

- Manage airway.
- Consider inhalational burn.
- Give oxygen if SpO_2 <90 or respiratory distress.
- Insert IV; give fluids rapidly.
- Treat pain.
- Apply clean sterile bandages – see Section 3.10.

- **Snake-bite**

- Give oxygen if SpO_2 <90 or respiratory distress.
- Insert IV; give fluids rapidly.
- Treat pain (see Section 20).
- See Section 3.9 for antivenom guidelines.

PRIORITY SIGNS AND SYMPTOMS

AFTER SCREENING FOR EMERGENCY SIGNS, SCREEN ALL PATIENTS FOR PRIORITY SIGNS

Priority signs for infection control: If cough or other signs of respiratory illness, apply source control (use of tissues, handkerchiefs or medical masks) on the patient in the waiting room when coughing or sneezing, and perform hand hygiene. If possible, accommodate patient at least 1 meter away from other patients or in a room, and evaluate as soon as possible – see Section 6.

IN ALL CASES OF TRAUMA, CONSIDER:

- Was **alcohol** a contributor? If yes, counsel on harmful alcohol use.
- Was **drug use** a contributor? If yes, counsel and arrange for treatment.
- Was this a **suicide attempt?** If possible, ask the patient, were you trying to harm yourself? (See Section 10.11.)
- Was **abuse** or **sexual violence** involved? (See Section 4.4.)
- Was **interpersonal violence** a contributor? Is there a risk of further violence in retaliation? If yes, get help to interrupt this and prevent further violence.

PRIORITY SIGNS FOR URGENT CARE – THESE PATIENTS SHOULD NOT WAIT IN QUEUE:

- Any respiratory distress/complaint of difficulty breathing.
- Violent behaviour toward self or others or very agitated.
- Very pale.
- Very weak/ill.
- Recent fainting.
- Bleeding:
  - Large haemoptysis;
  - GI bleeding (vomiting or in stools);
  - External bleeding.
- Fractures or dislocations.
- Burns.
- Bites from rabid animal.
- Frequent diarrhoea >5 times per day.
- Visual changes.
- New loss of function (possible stroke).
- Rape/abuse (maintain a high index of suspicion).
- New extensive rash with peeling and mucous membrane involvement (Stevens-Johnson).
- Acute pain, cough or dyspnea, priapism, or fever in patiet with sickle-cell disease.

Check SBP, pulse and temperature

- If any respiratory distress/complaint of difficulty breathing – measure SpO_2; give oxygen 5 litres if SpO_2 <90 (see Sections 3.2 and 10.6).
- If wheezing, give salbutamol (see Section 3.2.4).
- If violent behaviour or very agitated, protect, calm, and sedate the patient as appropriate. Check glucose and SpO_2 and consider causes (see Section 3.4).

Initiate interim management if clinician is not available:

- Measure haemoglobin if any bleeding, pale, weak, fainting, abdominal pain.
- If melena or vomiting blood, manage and admit.
- If large haemoptysis.
- If visible deformity, assess and treat possible fractures/dislocations (see Section 4).
- Manage burns (see Section 3.10).
- If suspect rape or abuse (see Section 4).
- If painful vasoocclusive crisis from sickle-cell disease – control pain, hydrate and give oxygen if SpO_2 <90 (see Section 10.18).

The patient needs clinical evaluation and should not wait in queue. **Repeat Quick Check if in line more than 20 minutes.**

IF NO EMERGENCY SIGNS AND NO PRIORITY SIGNS: NON URGENT

- Patient can wait in queue.
- Provide routine care and use the appropriate sections.
- Repeat Quick Check if condition changes.