DISCLAIMER :*This document was produced to support MSF staff taking into account MSF implementation conditions and practices and is intended for internal use only. This document is based on MSF's experience and current knowledge which makes it provisional, not necessarily applicable to all contexts nor useful for all users, and subject to regular revisions and changes, if not removal altogether. MSF Operational Centre Brussels does not accept any responsibility or liability with regard to the use of information contained in this document by any third party.*

Interim Guidance: Screening & Triage for COVID-19

Interim Guidance: Screening & Triage for COVID-19

Interim guidance – 1 April 2020

Background

This document is based on the WHO document, *Operational considerations for case management of COVID-19 in health facility and community*[1], 19 March 2020. *MSF Guidelines on IPC, health promotion messaging, facility management, should also be consulted as they are produced.*

Objective

The objective of this document is to provide technical guidance for the implementation of screening and triage activities in existing projects affected by COVID-19. *Projects planning to establish a COVID-19 specific facility should consult with their cells on how best to design a targeted intervention.* A scenario-based approach has been taken to assist projects in adapting interventions to their specific context. It is beyond the scope of this guideline to provide training on performing triage or clinical assessment.

Key concepts relevant to this guideline include:

- Surveillance: population level monitoring of COVID-19 for public health planning
- Sentinel surveillance: activities to identify when COVID-19 has appeared in a specific setting[2]
- Screening: activities targeted to individuals, such as identification of at-risk patients to isolate them for specific triage or infection prevention and control measures (IPC)

Objectives of screening

The objective of screening is:

- To prevent outbreaks, delay spread, slow, and stop transmission of COVID-19
- To identify suspected cases of COVID-19 for specific interventions
- To protect patients and staff from infection and conserve project resources (eg. PPE)

As with other health information, screening information may be used to inform surveillance activities

Objectives of triage: Right resources, Right location, Right time

The objective of triage is to rapidly sort patients by level of acuity in order to:

- Focus ***resources*** for optimal patient benefit, especially the seriously ill
- Direct patients to the ***location*** where they can best be managed
- Provide ***time*** critical interventions to the most unstable patients

Triage may inform facility processes, but it is an activity in its own right. Triage should not be confused with screening, diagnosis, or patient flow processes. A patient's triage category may inform admission or referral criteria, but it alone is not sufficient to make these decisions. *Triage (from the French "trier" – to sort), is increasingly being used in this pandemic to refer to sorting patients for multiple purposes: access to ventilation, ICU beds, pre-screening.* Triage in this document refers to the process of sorting patients by level of acuity who present to a health facility for consultation.

[1] https://apps.who.int/iris/bitstream/handle/10665/331492/WHO-2019-nCoV-HCF_operations-2020.1-eng.pdf

[2] Consult your OC specific surveillance documents

Admission:

The decision whether to hospitalize a patient should be made by the treating clinician after evaluating the patient, assessing their clinical condition.

Management of suspected cases

Isolation measures in an epidemic attempt to contain spread among a population. Whether patients with suspected or confirmed COVID-19 are isolated at home or in community settings such as stadiums or schools, will need to be coordinated with local public health officials. Population level measures, if not applied to an entire population, are unlikely to have a significant impact.

Scenarios of screening and triage

Several variables influence how a project manages the risk posed by COVID-19 while optimizing the care and the safety of patients, staff and the community:

- The presence and prevalence of COVID-19 disease in the community
- The resources available to manage suspected patients
- The regional approach to COVID-19, such as official policies from local government

This guidance is categorized into scenarios according to these variables and is transparent about its' assumptions, so that projects can tailor their response to their specific circumstances. These scenarios are intended to be complementary to those already defined by WHO. Your individual Operating Center (OC) or Coordination may have further defined guidance for other scenarios specific to your context. *In settings where you may need to negotiate your response with local officials, discuss with your line manager what adaptations you may need to make for operational reasons.*

The following conditions are expected to be those mostly likely encountered by projects:

	Special Considerations
Care optimization: Sporadic cases Resources sufficient	Isolation Measures
Resource conservation: Clusters of cases Resources constrained	Resource Constraints PPE, Supplies, Staffing
Risk reduction: Community transmission Resources insufficient	Resources severely limited Even context specific standards of care difficult to maintain

Assumptions:

Assumptions in the current version of this document are that:

- Sentinel surveillance has detected cases in the community or HQ/Coordination Health Responsible estimates sufficient risk to implement COVID-19 specific measures
- Testing is not widely available. Current estimates are that no reliable testing will be available in the field before June (WHO guidance exists for contexts with ready access to testing)
- PPE shortages will make PPE standard increasingly difficult to follow
- A strategy of containment is not being pursued in the project location (Guidance from WHO and China exists for scenarios where containment is the objective)
- Local ministry guidelines on management of suspected and confirmed cases where imposed will supersede these MSF guidelines

Health promotion

All patients should receive information on:

- Signs and symptoms of COVID-19
- Instructions on proper handwashing, respiratory hygiene, cleaning at home
- Information regarding what to do in case of symptoms or contact with someone with symptoms *(consult health promotion guidelines)*

Risk factors for severe illness and classification

By now, it is well known that the elderly and people with significant co-morbidities are at highest risk of severe COVID-19 disease.

Known risk factors for severe COVID-19 include: age over 60 years, hypertension, diabetes, cardiovascular disease, chronic respiratory disease including TB, and immunocompromising conditions such as HIV/AIDS, acute malnutrition, patients under immunosuppressive medication and with malignity

WHO Classification of Severity Grades in COVID-19	
Mild	Uncomplicated upper respiratory tract infection
Moderate	Pneumonia with no need for supplemental oxygen (0_2 sats >93% on air)
Severe	Fever or suspected respiratory infection, plus one of the following: respiratory rate > 30 bpm; severe respiratory distress; O2 sats ≤93% on air
Critical	Acute respiratory failure and/or shock

Healthy children have very low risk of severe COVID-19

Preserving core functioning under stress

- Focus on ensuring that routine processes are optimized. Staff should be as familiar with the established triage tool as possible.
- Communicating within and between departments is critical. Handover of patients should be informative and to the point (eg. SBAR).
- Where possible avoid creating specific COVID-19 practices when general concepts will do. Staff can only process a certain amount of changes and decisionmaking under stress. Example: Always consider isolation needs on every admission whether it is a patient with COVID-19, TB, meningitis, or cholera.
- The level of care your project currently provides is not expected to change, even though your patient mix may change. If you do not currently intubate patients, this would not change. If you do not have ICU capability, this would not change. Instead, focus on maximising the care you are already delivering.

Mass casualty lessons

Based on the experience from Europe, COVID-19 is likely to represent a mass casualty event that evolves over days to weeks rather than hours to days. While the scale of this event is unprecedented, many principles from mass casualty management remain pertinent.

- The simpler processes can be, the easier they are for staff to implement under pressure
- New activities should be minimized and build upon skills staff are accustomed to performing
- Grouping new processes together minimize training needs, and allow staff to continue with activities they are used to performing
  For example: clustering new guidelines into screening while allowing staff to continue using triage tools with which they are familiar.
- If your facility lacks a mass casualty plan, keep it simple. Now is not the time to introduce many processes with which staff are unfamiliar.
- Practice as much as possible. Even a tabletop simulation with staff can reveal challenges before they appear.

Scenarios

	Special Considerations
Care Optimization Sporadic Cases, Resources Sufficient 1. **Screening**: Suspect Case (SC) Meets WHO Case Definition for Suspected Case?[3] Positive: to suspect-case waiting area for triage w/mask, patient to maintain 1.5 – 2 m distance from others through rest of visit Negative: to regular waiting area for routine triage w/mask if coughing *Screener: 1.5 to 2m from patient, surgical mask, light disposable gown, gloves if touching patient* 2. **SC Triage**: Routine triage (eg. Interagency Integrated Triage Tool) *Green*: Follow facility norm. If further evaluation, ensure patient wears mask and maintains 1.5-2 m distance from other patients. *Yellow*: Transfer patient to consultation or ED (context dependent) for further evaluation *Red*: Transfer patient to resuscitation area for further evaluation *Triage Staff: hand hygiene, N95 respirator, gown, gloves, eye protection (see OCB IPC guidelines)* **Acute Care Area:** Prepare suspect-case specific area of for consultation and resuscitation, if possible. Maintain 1.5-2 m from other patients. Use PPE for consultation room. See OCB IPC document for more details (eg. aerosolizing procedures). Consider COVID-19 clinical assessment tools as guidance evolves.	**Isolation of Suspected Cases**: *Health promotion materials for all patients, including when to seek care* **Home or Community Isolation** per local practice Mild suspected case, regardless of risk factors Moderate suspected case with no high-risk criteria if capable of returning for worsening symptoms **Health Facility Isolation**: Patients deemed in need of admission, to be hospitalized respecting IPC guidance for isolation or cohorting. Moderate suspected case with high risk criteria or unable to return for worsening symptoms, consider admitting for observation depending on available resources and ability to ensure IPC.
Resource Conservation Clusters of Cases, Resources Constrained *1.* **Screening**: Suspect Case (SC) Meets WHO Case Definition for Suspected Case?* Positive: to suspect-case waiting area for triage w/ mask, patient to maintain 1.5-2 m distance from others through rest of visit Negative: to regular waiting area for triage w/ PPE according to normal practice () with mask	**Resource Constraints** **PPE Scarcity**: For screening, consider re-assessing the benefit to patients of being formally triaged. *Screening* questions and visual assessment may identify patients who can isolate outside the facility and be given guidance on what symptoms merit returning to hospital. For *triage* and *consultation*, consider strict airborne precautions. Evaluate the benefit of aerosolizing procedures for patients with a low likelihood of survival. For non-health facility structures or community-based isolation, consider the risk of transmission in close quarters if there is insufficient PPE to protect patients from infection.

[3] WHO Case definitions updated daily in situation reports. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

Screener: 1.5 to 2m from patient, surgical mask, light disposable gown, gloves if touching patient 3. **SC Triage**: Routine triage (eg. Interagency Integrated Triage Tool) *Green*: Follow facility norm. If further evaluation, give patient a mask to wear and must maintain 1.5-2 m distance from other patients. *Yellow*: Transfer patient to consultation or ED (context dependent) for further evaluation *Red*: Transfer patient to resuscitation area for further evaluation *Triage Staff: hand hygiene, N95 respirator, gown, gloves, eye protection (see OCB IPC guidelines)* **Acute Care Area**: Prepare suspect-case specific area for consultation and resuscitation. Maintain 1.5-2m from other patients. Use PPE for consultation room. See OCB IPC document for more details (eg. aerosolizing procedures). Attempt to avoid all aerosolizing procedures. Consider COVID-19 clinical assessment tools as guidance evolves.	**Shortages of medications and staff**: As medical resources become scarce, the benefit of admitting a patient for COVID-19 to the hospital decreases. Similarly, watching patients in grouped isolation offers diminishing benefit, especially if there are fewer staff to provide care. Even patients with moderate disease and with risk factors may be safer isolating in an ambulatory setting with strict guidance on when to seek care. Patient care for emergencies due to non-COVID-19 illnesses should continue if possible (context dependent).
Risk Reduction, Best for the most Community Transmission, Resources Insufficient *2.* **Screening**: Suspect Case (SC) *check for updated guidance as epidemic evolves* Anyone with ARI (cough, dyspnea) regardless of fever or contact history Screening questions to establish acuity by history and visual examination. Patients without ARI symptoms are encouraged to defer care if possible, but otherwise to regular waiting area. Positive: to suspect-case respiratory waiting area for triage with a mask, patient to maintain 1.5-2m distance from others through rest of visit Negative: Stable patients (mild symptoms, no respiratory distress) with ARI of any cause will be safer with health promotion message & home isolation (high likelihood of COVID-19, low likelihood to qualify for limited therapy) *Screener: 1.5 to 2m from patient, surgical mask, light disposable gown, gloves if touching patient* *3.* **SC Triage**: Routine triage (eg. Interagency Integrated Triage Tool) Green: Patient instructed to follow community isolation measures with education on when to seek care (if the patient presented for a non-COVID-19 problem, address the issue decide on next appropriate steps accordingly, context-dependent) Yellow: : If no risk factors for severe illness, community isolation with education on when to seek care (if the patient presented for a non-COVID-19 problem,	**Risk Reduction** **Screening:** Consider that bringing patients into the health facility will pose a significant risk with benefits varying depending on how severely a project is impacted. Emphasis should be on decongesting the facility, and isolation in the community or at home, educating patients on when to seek care. Re-assess screening questions. Once community transmission is present, likely sufficient to treat all patients with acute respiratory symptoms as potentially infected. *(check for updated guidance)* **Triage**: Determine when to implement mass casualty triage measures. **Prolonged stress**: Anticipate the impact of fatigue and stress on staff and patients, *see mental health guidance*. **Acuter Care Area or Emergency Department**: EMACC WG is evaluating assessment tools for both clinical severity and palliative care. We will try to facilitate lessons learned and guidance as we learn more about COVID-19. You may be forced into task shifting. Patient care for emergencies due to non-COVID-19 illnesses should continue if possible (context dependent).

address the issue decide on next appropriate steps accordingly, context-dependent) If patient has risk factors for severe illness, transfer patient to consultation or ED (context dependent) for further evaluation *Red*: Transfer patient to resuscitation area for further evaluation *Triage Staff: hand hygiene, N95 respirator, gown, gloves, eye protection (see OCB IPC guidelines)* **Acute Care Area:** Establish a different location for non-respiratory care. Cohort respiratory patients and staff. Use best available PPE. Consult current IPC document for more details (no aerosolizing procedures except in cohorted area: patients and staff). Consider COVID-19 clinical decision tools as guidance evolves. Consider COVID-19 clinical assessment tools as guidance evolves.	

Resource scarcity

Personal Protective Equipment (PPE):

We are already in the midst of a global shortage of PPE. Logistics guidance for shortages will be provided. Intersectional IPC guidelines are currently available. These provide guidance on substitutions and what measures can be taken as second and third line options. Recall that PPE is one of several strategies available to reduce the risk to staff and patients. Isolating suspected cases through screening, cohorting patients, using environmental measures such as cleaning high touch surfaces to reduce risk of infection all have an impact on the likelihood of infection

Teams should be aware of the indications for PPE use. Train staff on putting on and taking off PPE. Emphasize the importance of hand hygiene to protect staff, their patients and the environment. The appropriate use of PPE should be monitored, supplies projections and management calculated and reported on (including anticipated ruptures), and risks of re-using PPE.

Therapeutics:

There are currently no specific medications for COVID-19. Treatments are focusing on supportive care. • Emergency medicine principles of resuscitation remain relevant. Incorporate IPC for COVID-19. Much of the disease specific therapies are beyond the scope of our field capacities. Refer to MSF clinical guidelines and critical care documents as new protocols and interventions are developed.

Human Resources

As human resources become scarce, anticipate the need for task shifting in the hospital setting. Focus on preserving core activities. Anticipate impacts to administrative aspects of hospital functioning. Communication with administration and finance advisors will be important to mitigating the impact on hospital staff.

Rationing care

It is also likely that rationing of care (choosing which patients are most likely to benefit from limited therapy) will become a painful reality. It is unfortunate that both we and our patients are much more familiar with these terrible choices than much of the rest of the world. As we learn more about which patients are most likely to survive, we will provide guidance for making these difficult choices. In the meantime, remember that temporizing treatments must bridge patients to some hope of meaningful recovery if they are to do more than prolong suffering.

Upcoming Guidance

Mass Casualty Guidance
Palliative care
Checklists

Annexes:

Screening

Patient Flow: Screening & Triage

Interagency Integrated Triage Tool

SCREENING

Screening should be done quickly in order to separate patients who are suspected of having COVID-19 from those who are not. If processes are too slow, then patients may not wait or crowds may build up creating greater risk of spread.

1. Anticipate that the screener may need to have support from security to help manage crowd control
2. Control access to regular waiting area: consider a stamp to indicate to regular waiting area that patients have been screened
3. Have masks readily available to hand out to patients who meet criteria for COVID-19 suspect case waiting area.
4. Initially, this will mean asking a quick set of questions of patients to assess whether they should be directed to a specific waiting area.
5. Consider dividing screening into two parts depending on crowds
6. Patients who appear unstable should be directed immediately to a resuscitation area for further evaluation (follow IPC guidelines to protect staff and patients).

Changing Prevalence

As the number of patient with COVID-19 disease increase in a community, the questions to detect possible cases will change. WHO guidance is continually evolving. Consult your medical hierarchy on adapting screening as the pandemic evolves. The epidemiology advisors are in regular contact with the technical referents and HQ health advisors to provide ongoing guidance.

WHO Case Definition (28 March 2020)[4]:

Suspect Case

- A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, eg, cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset,

OR

- A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset,

OR

- A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, eg, cough, shortness of breath, AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

Probable Case

- A suspect case for whom testing for the COVID-19 virus is inconclusive.
    - Inconclusive being the result of the test reported by the laboratory

OR

- A suspect case for whom testing for the COVID-19 virus is inconclusive.

Confirmed Case

- A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

Screening questions:

Questions will vary depending on your context. Given the current WHO suspect case definition, if patients have no cough OR no shortness of breath OR no fever, they would not qualify for any of the

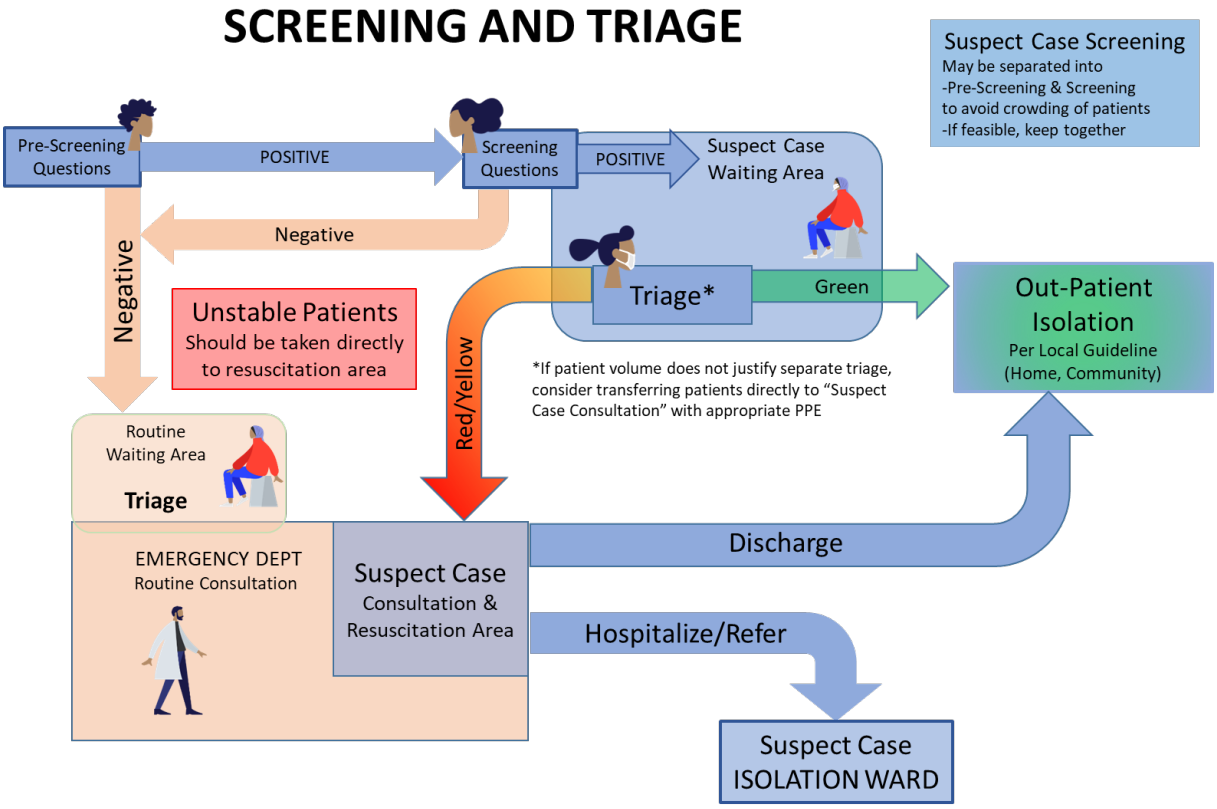
[4] WHO Case definitions updated daily in situation reports. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

WHO suspect criteria. These may be useful questions to ask in a pre-screening, separate from the questions related to potential contacts or travel to areas with community transmission.

Where to screen

You many find that asking all three questions in one location creates too much crowding or problems with patients not waiting to be screened. Consider alternatives such as asking pre-screening questions at the entrance to the hospital, or making an announcement as patients enter that if they have fever and cough or difficulty breathing, to go to the screening area, etc.

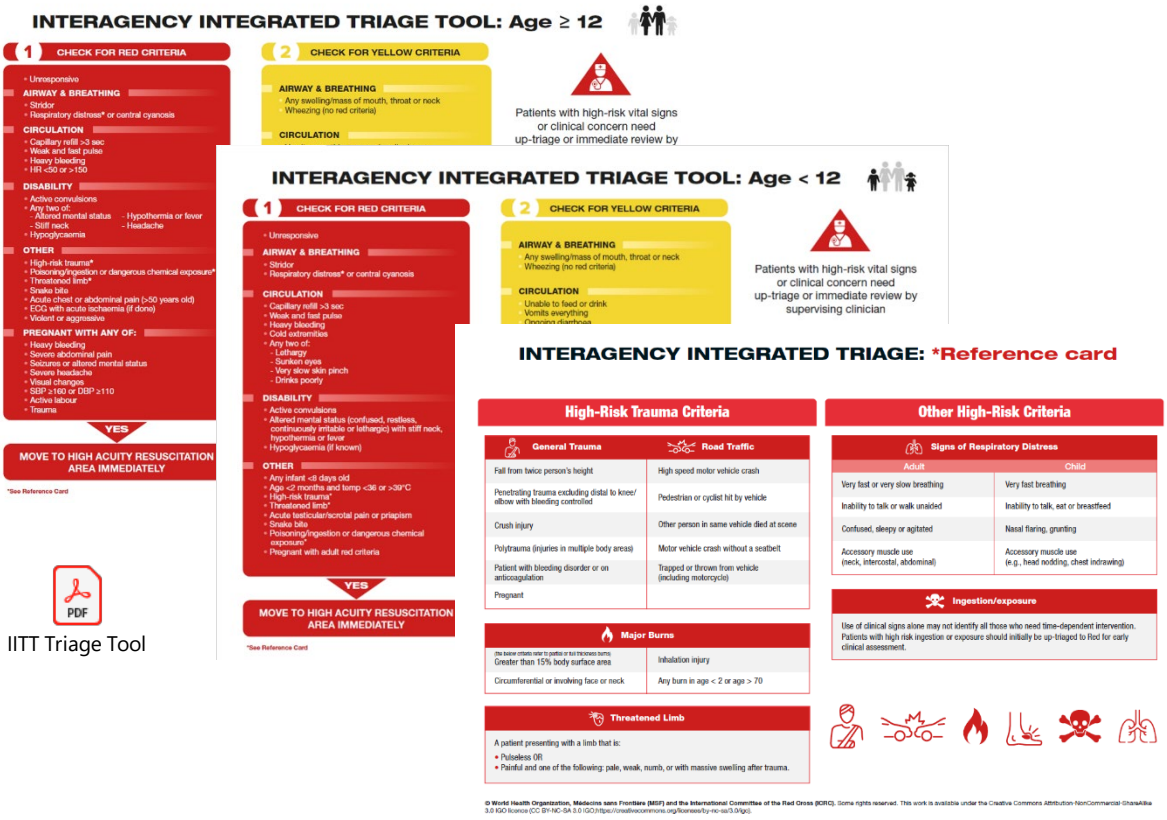
Screening & Triage Patient Flow



Processes in blue represent departures from usual practice.

Interagency Integrated Triage Tool

Projects with an established triage tool should continue to use their existing tool.
For projects without an existing tool, this annex presents a triage tool developed in collaboration with WHO and ICRC.



INTERAGENCY INTEGRATED TRIAGE TOOL: Age ≥ 12

1 CHECK FOR RED CRITERIA

- Unresponsive

AIRWAY & BREATHING
- Stridor
- Respiratory distress* or central cyanosis

CIRCULATION
- Capillary refill >3 sec
- Weak and fast pulse
- Heavy bleeding
- HR <50 or >150

DISABILITY
- Active convulsions
- Any two of:
  - Altered mental status
  - Hypothermia or fever
  - Stiff neck
  - Headache
- Hypoglycaemia

OTHER
- High-risk trauma*
- Poisoning/ingestion or dangerous chemical exposure*
- Threatened limb*
- Snake bite
- Acute chest or abdominal pain (>50 years old)
- ECG with acute ischaemia (if done)
- Violent or aggressive

PREGNANT WITH ANY OF:
- Heavy bleeding
- Severe abdominal pain
- Seizures or altered mental status
- Severe headache
- Visual changes
- SBP >160 or DBP ≥110
- Active labour
- Trauma

YES

MOVE TO HIGH ACUITY RESUSCITATION AREA IMMEDIATELY

*See Reference Card

2 CHECK FOR YELLOW CRITERIA

AIRWAY & BREATHING
- Any swelling/mass of mouth, throat or neck
- Wheezing (no red criteria)

CIRCULATION

Patients with high-risk vital signs or clinical concern need up-triage or immediate review by

INTERAGENCY INTEGRATED TRIAGE TOOL: Age < 12

1 CHECK FOR RED CRITERIA

- Unresponsive

AIRWAY & BREATHING
- Stridor
- Respiratory distress* or central cyanosis

CIRCULATION
- Capillary refill >3 sec
- Weak and fast pulse
- Heavy bleeding
- Cold extremities
- Any two of:
  - Lethargy
  - Sunken eyes
  - Very slow skin pinch
  - Drinks poorly

DISABILITY
- Active convulsions
- Altered mental status (confused, restless, continuously irritable or lethargic) with stiff neck, hypothermia or fever
- Hypoglycaemia (if known)

OTHER
- Any infant <8 days old
- Age <2 months and temp <36 or >39°C
- High-risk trauma*
- Threatened limb*
- Acute testicular/scrotal pain or priapism
- Snake bite
- Poisoning/ingestion or dangerous chemical exposure*
- Pregnant with adult red criteria

YES

MOVE TO HIGH ACUITY RESUSCITATION AREA IMMEDIATELY

*See Reference Card

2 CHECK FOR YELLOW CRITERIA

AIRWAY & BREATHING
- Any swelling/mass of mouth, throat or neck
- Wheezing (no red criteria)

CIRCULATION
- Unable to feed or drink
- Vomits everything

Patients with high-risk vital signs or clinical concern need up-triage or immediate review by supervising clinician

INTERAGENCY INTEGRATED TRIAGE: *Reference card

High-Risk Trauma Criteria

General Trauma	Road Traffic
Fall from twice person's height	High speed motor vehicle crash
Penetrating trauma excluding distal to knee/ elbow with bleeding controlled	Pedestrian or cyclist hit by vehicle
Crush injury	Other person in same vehicle died at scene
Polytrauma (injuries in multiple body areas)	Motor vehicle crash without a seatbelt
Patient with bleeding disorder or on anticoagulation	Trapped or thrown from vehicle (including motorcycle)
Pregnant	

Major Burns

(the below criteria refer to partial or full thickness burns)	
Greater than 15% body surface area	Inhalation injury
Circumferential or involving face or neck	Any burn in age < 2 or age > 70

Threatened Limb

A patient presenting with a limb that is:
- Pulseless OR
- Painful and one of the following: pale, weak, numb, or with massive swelling after trauma.

Other High-Risk Criteria

Signs of Respiratory Distress

Adult	Child
Very fast or very slow breathing	Very fast breathing
Inability to talk or walk unaided	Inability to talk, eat or breastfeed
Confused, sleepy or agitated	Nasal flaring, grunting
Accessory muscle use (neck, intercostal, abdominal)	Accessory muscle use (e.g., head nodding, chest indrawing)

Ingestion/exposure

Use of clinical signs alone may not identify all those who need time-dependent intervention. Patients with high risk ingestion or exposure should initially be up-triaged to Red for early clinical assessment.

PDF

IITT Triage Tool