**Appendix 3.**

**Table 4.** Overview of actions per category of prehospital triage tools, including the applicability for lay people.

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| --- | --- | --- | --- | --- | --- |
| **CATEGORY** | **ACTION** | **TRIAGE TOOLS** | **APPLICABLE FOR LAY PEOPLE + INSTRUCTION HOW TO CHECK** | **POSSIBLE ADJUSTMENTS TO MAKE APPLICABLE TO LAY PEOPLE** | **POSSIBLE INTERVENTION FOR LAY PEOPLE** |
| **AIRWAY**  **(A)** | Potential A problem | MARCH  META  RETTS-HEV | Maybe | Keep it simple:  1. Respirations present after positioning airway  2. Visible respiratory difficulties (distress) | Head tilt chin lift or jaw thrust maneuver |
|  | Respirations present | ASAV  CESIRA  Homebush  JumpSTART  MARCH  MPTT  MSTART  PTT  Sieve Triage Algorithm  Smart  START  STM MASS SALT | Yes:  Respiratory movement visible? | NN | 1. Recovery position  2. If awake: help with comfortable posture |
|  | Respirations present after positioning airway | ASAV  CareFlight triage  Homebush  JumpSTART  MASS  MSTART  PTT  Sieve Triage Algorithm  Smart  START | Yes:  Open airway by head tilt chin lift or jaw thrust maneuver and look for respiratory movement (look, listen, feel) | Head tilt chin lift and/or jaw thrust maneuver instruction (indication and how to perform) | 1. Head tilt chin lift or jaw thrust maneuver  2. Recovery position  3. If airway obstruction is suspected: open the mouth and remove possible obstruction |
| **BREATHING**  **(B)** | Potential B problem | ASAV  META  Tactical Triage Algorithm | Maybe | Keep it simple:  1. Respiratory rate (per minute): <12 / 12-30 / >30  2. Visible respiratory difficulties (distress) | 1. Recovery position  2. Head tilt chin lift maneuver  3. Help with comfortable posture |
|  | Pulse oximetry (%): <80 without oxygen or <90 with oxygen / <90 without oxygen or <95 with oxygen / 90-95 without oxygen/ >95 without oxygen | RETTS-HEV | No | Visible respiratory difficulties (distress) |  |
|  | Respiratory failure | Medical Triage Algorithm | Maybe | Keep it simple:  1. Respiratory rate (per minute): <12 / 12-30 / >30  2. Visible respiratory difficulties (distress) | 1. Recovery position  2. Head tilt chin lift maneuver  3. Help with comfortable posture |
|  | Respiratory rate (per minute): 8-25 / 26-30 / >30 | RETTS-HEV | No | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | - |
|  | Respiratory rate (per minute): <10 / 10-29 / >29 | Sieve Triage Algorithm | Yes:  Count respirations in 10 seconds, multiply by 6. | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | 1. Recovery position  2. Head tilt chin lift maneuver  3. Help with comfortable posture |
|  | Respiratory rate (per minute): <12 / 12-22 / >22 | MPTT | No | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | - |
|  | Respiratory rate (per minute): <20 / 20-50 / >50 | PTT | Yes:  Count respirations in 10 seconds, multiply by 6. | Respiratory rate (per minute): <12 / 12-30 / >30 | 1. Recovery position  2. Head tilt chin lift maneuver  3. Help with comfortable posture |
|  | Respiratory rate (per minute): <9 / 9-14 / 15-20 / 21-29 / >29 | TEWS | No | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | - |
|  | Respiratory rate (per minute): <9 / 10-24 / 25-35 / >35 | STM | No | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | - |
|  | Respiratory rate (per minute): 0 / 1-5 / 6-9 / 10-29 / ≥30 | Sort | No | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | - |
|  | Respiratory rate (per minute): <15 / 15-45 / >45 | JumpSTART | Yes:  Count respirations in 10 seconds, multiply by 6. | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | 1. Recovery position  2. Head tilt chin lift maneuver  3. Help with comfortable posture |
|  | Respiratory rate (per minute): <30 or ≥30 | START  MSTART  Smart  Homebush | Yes:  Count respirations in 10 seconds, multiply by 6. | Keep it simple: Respiratory rate (per minute): <12 / 12-30 / >30 | 1. Recovery position  2. Head tilt chin lift maneuver  3. Help with comfortable posture |
|  | Thoracic pain | Medical Triage Algorithm | No | Visible respiratory difficulties (distress) | - |
| **CIRCULATION**  **(C)** | Bleeding | CESIRA | Maybe | Keep it simple:  Visible major external bleeding | 1. Stop the bleeding  2. Put pressure on wound (including instruction)  3. Apply tourniquet (including instruction / add to trauma kit)  4. Recovery position  5. Help with comfortable posture |
|  | Capillary refill (s) <2 or ≥2 | PTT  Sieve Triage Algorithm  Smart  START | No | Keep it simple:  Pale skin | - |
|  | External arterial bleeding | ASAV Medical Triage Algorithm | Maybe | Keep it simple:  Visible major external bleeding | 1. Stop the bleeding  2. Put pressure on wound (including instruction)  3. Apply tourniquet (including instruction / add to trauma kit)  4. Recovery position  5. Help with comfortable posture |
|  | Major Hemorrhage | MARCH SALT | Maybe | Keep it simple:  Visible major external bleeding | 1. Stop the bleeding  2. Put pressure on wound (including instruction)  3. Apply tourniquet (including instruction / add to trauma kit)  4. Recovery position  5. Help with comfortable posture |
|  | Potential C problem | META | No | Keep it simple:  1. Pale skin  2. Visible major external bleeding | - |
|  | Pulse rate (per minute): 50-100 / >100 or <50 / >120 or <40 / >140 | RETTS-HEV | No | Keep it simple:  Pale skin | - |
|  | Pulse rate (per minute): <100 / ≥ 100 | MPTT | No | Keep it simple:  Pale skin | - |
|  | Pulse rate (per minute): <120 or ≥120 | Sieve Triage Algorithm | No | Keep it simple:  Pale skin | - |
|  | Pulse rate (per minute): <40 / 41-60 /61-120 / >120 | STM | No | Keep it simple:  Pale skin | - |
|  | Pulse rate (per minute): <41 / 41-50 / 51-100 / 101-110 / 111-129 / >129 | TEWS | No | Keep it simple:  Pale skin | - |
|  | Pulse rate <90 / 180< | PTT | No | Keep it simple:  Pale skin | - |
|  | Radial pulse | ASAV  CareFlight triage  Homebush  JumpSTART  MARCH  MASS  MSTART  SALT  SAVE  Smart  START  STM  Tactical Triage Algorithm | No | Keep it simple:  Pale skin | - |
|  | Shock | CESIRA  Medical Triage Algorithm | No | Keep it simple:  Pale skin | - |
|  | Systolic blood pressure (mmHg): <80 / <90 / ≥90 | RETTS-HEV | No | Keep it simple:  Pale skin | - |
|  | Systolic blood pressure (mmHg): <71 / 71-80 / 81-100 / 101-199/ >199 | TEWS | No | Keep it simple:  Pale skin | - |
|  | Systolic blood pressure (mmHg): 0 / 1-49 / 50-75 / 76-89 / ≥90 | Sort | No | Keep it simple:  Pale skin | - |
| **DISABILITY**  **(D)** | Ability to Walk | ASAV  CareFlight triage  CESIRA  Homebush  JumpSTART  MARCH  MASS  Medical Triage Algorithm  MPTT  MSTART  SALT  Sieve Triage Algorithm  Smart  START  Tactical Triage Algorithm  TEWS | Yes:  Ask patient to move | NN | 1. Bring to safety / assembly / dispatch point  2. Motivate to help and rescue others if possible |
|  | AVPU | JumpSTART  MARCH RETTS-HEV  TEWS | Yes:  Is patient alert / confused or somnolent / if not responding give painful stimulus (squeeze shoulder muscle) | Maybe give instruction for painful stimulus | 1. Extract or collect information about situation, patient (AMPLE) and other possible patients  2. Recovery position |
|  | Can follow commands | ASAV  CareFlight triage  Homebush  MSTART  Smart  START  Tactical Triage Algorithm | Yes:  Ask patient to move limb | NN | 1. Extract or collect information about situation, patient (AMPLE) and other possible patients  2. Recovery position |
|  | Conscious | MASS  CESIRA  Medical Triage Algorithm  PTT | Yes:  Does the patient talk back? | NN | 1. Extract or collect information about situation, patient (AMPLE) and other possible patients  2. Recovery position |
|  | Cranial trauma | Medical Triage Algorithm  SAVE | Maybe | 1. Visible major external bleeding  2. Ability to walk  3. Conscious | 1. Put pressure on wound  2. Immobilize or let not move the patient |
|  | EMV <14 | MPTT | No | Keep it simple:  AVPU | - |
|  | EMV Motor Response | STM (Sacco Triage Method) | No | Keep it simple:  Ability to to move arm or leg | - |
|  | EMV score | SAVE  Sort RETTS-HEV | No | Keep it simple:  AVPU | - |
|  | Move arm or leg | MASS  PTT  SALT | Yes:  Ask patient to move limb | NN | Bring to safety / assembly / dispatch point if possible |
|  | Potential D problem | META | No | Keep it simple:  AVPU | - |
| **ENVIRONMENT**  **(E)** | Backbone injury | Medical Triage Algorithm | Maybe | If awake: painful (cervical) spine by movement | Put pressure on wound  Let not move patient  Talk to the patient. |
|  | Burn injury <50% survival | SAVE | No | Keep it simple:  Visible burn wounds | - |
|  | Burns | Medical Triage Algorithm | Yes | NN | Cool with lukewarm water at least 10 minutes if possible, but watch out for hypothermia |
|  | Fractures | CESIRA Medical Triage Algorithm | Maybe | 1. Visible fracture or unnatural bone position  2. Visible major external bleeding visible  3. Ability to walk | - |
|  | Heat stroke / hyperthermia | MARCH Medical Triage Algorithm | No | Patient has following signs:  - Red skin  - Sweaty  - Feeling hot | - |
|  | Hypothermia | MARCH Medical Triage Algorithm | Maybe | 1. Patient feels or indicates cold  2. Patient has following signs:  - Pale skin  - Blue fingers / lips  - Cold skin  - Somnolent | 1. Provide shelter  2. Cover up with blankets  3. Remove wet clothing if dry clothing or blankets are present |
|  | Minor injuries only | SALT | No | Keep it simple:  Ability to walk | - |
|  | Other injuries | CESIRA | No | - | - |
|  | Poisoning | Medical Triage Algorithm | No | Dangerous hazards suspected | - |
|  | Potential E problem | META | No | 1. Patient feels or indicates cold  2. Patient has following signs:  - Pale skin  - Blue fingers / lips  - Cold skin  - Somnolent | - |
|  | Temperature (°C): <32 / >40 or 32-34 / >38 or <35 / 35-38 | RETTS-HEV | No | 1. Patient feels or indicates cold  2. Patient has following signs:  - Pale skin  - Blue fingers / lips  - Cold skin  - Somnolent | - |
|  | Temperature <35, 35-38.4, >=38.5 | TEWS | No | 1. Patient feels or indicates cold  2. Patient has following signs:  - Pale skin  - Blue fingers / lips  - Cold skin  - Somnolent | - |
|  | Trauma | TEWS | No | - | - |
| **OTHER ACTIONS** | Age (years): 0-7 / 8-14 / 15-54 / 55-74 / ≥75 | STM (Sacco Triage Method) | Maybe | Keep it simple:  Child / adult / elderly | - |
|  | Danger | MARCH | Yes | - | 1. Ensure own safety first  2. Secure situation if possible  3. Prevent more casualties  4. Bring patients into safety |
|  | Deadly injured | ASAV | Maybe | Keep it simple: Respirations present after positioning airway | - |
|  | Likely to survive | SALT | No | Keep it simple: Respirations present after positioning airway | - |
|  | Obvious signs of death | Tactical Triage Algorithm | Maybe | Keep it simple: Respirations present after positioning airway | - |
|  | Organ rescue score (MESS) | SAVE | No | - | - |

**Abbreviations:** NN = not necessary; MCI = mass casualty incident; HTCL = head tilt chin lift; JT = jaw thrust.