Criteria Based Dispatch

Emergency Medical Dispatch Guidelines Sixth Edition - July, 2010

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Introduction to Criteria Based Dispatch

Criteria Based Dispatch (CBD) is an Emergency Medical Dispatch (EMD) triage program that is based on patient signs and symptoms collected by 911 dispatchers. Comparing the patients' initial signs/symptoms at the time of the call, to the field report findings allows for the review of dispatch accuracy. Over the years these findings have provided an excellent avenue to adjust dispatch criteria, creating better patient care and more efficient resource utilization. The Criteria Based Dispatch Guidelines is the tool the dispatcher uses to perform the challenging duties of emergency medical dispatching.

How do guidelines differ from protocols?

Protocols generally define very specific questions or an algorithm to be used during patient interview and triage. Guidelines, however, provide direction and assist in decision-making, without structuring the course of action to the point that it becomes restrictive or limits the dispatchers' ability to quickly gather critical information and take action. In CBD, guidelines are used to define appropriate levels of care in order to assist dispatchers in determining whether to send ALS or BLS units. Both the basic emergency medical dispatch and continuing medical education courses reinforce the use of these guidelines with a focus on the critical systems and the need to quickly identify patients that are unstable or "sick".

YELLOW Tab Section

The basics for understanding the CBD Guidelines are included in the Yellow Tab section. This overview provides a background on Dispatch Criteria/Response Levels, Vital Points Questions, Pre-Arrival Instructions, Short Reports, All Caller Interview, Response Modes and Initial Dispatch Codes (IDCs). The IDC is extremely important as this data provides the feedback needed to check the system performance. The yellow section also includes:

Glossary and Medical Abbreviations – A glossary with medical term definitions and a list of commonly used medical abbreviations.

All Callers Interview: The purpose of the All Callers Interview is to obtain identifying information from the caller and determine the chief complaint. Interviewing callers and obtaining the best information in the least amount of time is the backbone of successful dispatching. Dispatchers are responsible for helping to guide the callers through the triage process. The All Callers Interview must be used in every call.

GREEN and BLUE Tab Section

Dispatch Criteria/Response Levels: The Dispatch Criteria describe FOUR separate response level modes based on the <u>urgency</u> in which care must be provided to the patient and the <u>level of care required</u>.

RESPONSE MODES:

- MEDIC Medic unit (ALS response) together with Basic Life Support unit (BLS response) sent Code Red.
- BLS Code Red BLS unit responds with lights and siren.
- BLS Code Yellow BLS unit responds obeying speed limits and traffic laws. BLS criteria may not always be emergent. Use of BLS Red or BLS Yellow is determined by local agency policy.
- TRP (Telephone Referral Program) Calls are transferred from dispatch to a consulting nurse line. No BLS unit is sent. If police request a response for a patient that meets TRP criteria, a BLS unit should be sent. (See Police ("P") coding.)

Dispatchers must first determine if any MEDIC criteria are present in order for a MEDIC unit to be dispatched. Specific MEDIC criteria (only one required) must be confirmed in order for a MEDIC unit to be dispatched. If no MEDIC criteria are present, dispatchers should move to the BLS RED category and again confirm a criteria present for a BLS RED response. No BLS RED criteria prompts the dispatcher to move to the BLS YELLOW category and lastly, if no BLS criteria are present, the TRP line is accessed.

Vital Points Questions: These questions serve two purposes – to assist the dispatcher in identifying the Dispatch Criteria and to gather additional information to be relayed to responding units. The Vital Points questions coincide with the dispatch criteria, however, there is NO REQUIREMENT to ask these questions. The Vital Points questions are there to assist the call-receiver/dispatcher in determining the appropriate response level.

Pre-arrival Instructions (PAI): Pre-arrival instructions should be offered in all cases, except when workload does not allow.

Short Report: The short report consists of the age and gender of the patient, chief complaint(s), pertinent related symptoms, relevant medical/surgical history, DANGER TO RESPONDING UNITS and other agencies responding. Other information, such as specific access instructions, is helpful. The dispatcher provides the Short Report to the responding units as soon as possible after toning the units out for response.

Background Information: The page above each chief complaint offers the dispatcher a quick review to help understand the chief complaint category and is intended to be used for ongoing learning and review.

Initial Dispatch Codes (IDC):

Immediately to the left of each criteria is an Initial Dispatch Code (IDC). This code must be assigned at the time of dispatch and reflects the CRITERIA used by the dispatcher to select the LEVEL OF RESPONSE.

- The IDC code may be upgraded or downgraded by the dispatcher during the interview.
- The final IDC code selected should be based on the dispatcher's decision and in most cases should reflect the actual level of response the dispatcher sent on the call. An exception to this is when EMTs request an ALS unit from the scene, see next bullet.
- (Request from Scene) The Initial Dispatch Code should be changed after units are dispatched when the BLS Unit requests a Medic Unit to be dispatched. When this occurs, the alpha/letter in the IDC code should be changed to a "Q" to indicate Request from Scene. At no time should an IDC code be changed based on an EMT/Paramedic diagnosis or information about the patient received from the aid personnel or paramedics after arrival at the scene.
- When requesting a MEDIC unit to be dispatched into your area, all attempts should be made to relay the IDC to the primary dispatch center dispatching that MEDIC unit.

Special IDC Codes - 99M9, 99R9 or 99Y9 Codes

There are four instances when it may not be possible to assign an Initial Dispatch Code to an incident. These include the following types of cases:

- 1. Still Alarms (walk-ins or calls coming directly into a fire station).
- 2. On-view accidents.
- **3.** Interhospital patient transports.
- 4. When receiving a request for a unit to be dispatched from a communications center that was not able to interview the reporting party, and no IDC Code has been assigned. Always obtain an IDC code from the initial communications center, if possible.

The Initial Dispatch Codes for these instances should be as follows:

99M9 - Medic unit was involved.

99R9 - BLS unit only (Code Red) was involved.

99Y9 - BLS unit only (Code Yellow) was involved.

"Q" Codes – When a BLS Unit requests a Medic Unit to be dispatched after the BLS unit arrives at the scene, the alpha/letter in the IDC code should be changed to a "Q" to indicate Request from Scene (Example: Change 5R4 to 5Q4).

"P" Codes - If a patient meets the TRP criteria, but police have requested a response, a BLS unit should be sent. These calls should be coded with a 'P' as the letter in the code. For example, a patient meets 21T1 criteria, the call should be coded as 21P1 and a BLS unit dispatched. The 'T' is simply replaced with a 'P' to indicate a "police request" which should be honored.

RED Tab Section

Critical Life-Threatening Cases: Pre-arrival instructions (PAIs) for life-threatening medical emergencies are outlined in this section to provide the dispatcher with instructions to aid the caller in assisting a critically ill patient.

BASIC MEDICAL ABBREVIATIONS AND TERMINOLOGY

Abd	Abdominal	Нх	History
Abras	Abrasion	ICU	Intensive Care Unit
Acc	Accident	Inj	
AOB	Alcohol on Breath	•	Injury Laceration
BCA	Bicycle Accident	Lac	
BP	Blood Pressure	LBP	Low Blood Pressure (Hypotension) or Lower Back Pain
CA	Cancer or Cardiac Arrest	LOC	Level of Consciousness
CCU	Coronary Care Unit	MCI	Multiple Casualty Incident
CHF	Congestive Heart Failure	MCA	Motorcycle Accident
C/O	Complains of	MI	Myocardial Infarction (Heart Attack)
CONSC	Conscious	MICU	Mobile Intensive Care Unit (Medic Unit)
(COPD)	Chronic Obstructive Pulmonary Disease (Asthma,	MSDS	Material Safety Data Sheet
(33.2)	Emphysema, etc.)	MVA	Motor Vehicle Accident
CP(C/P)	Chest Pain	NTG	Nitroglycerin
CPR	Cardiopulmonary Resuscitation (AKA: Mouth to Mouth)	O ₂	Oxygen
CVA	Cerebro-Vascular Accident (Stroke)	OD	Overdose
DEFIB	Defibrillation	Р	Pulse
DKA	Diabetic Ketoacidosis	POV	Privately-operated Vehicle
DOA	Dead on Arrival	Pt	Patient
ED	Emergency Department	Px	Pain
EMD	Emergency Medical Dispatch	RHR	Rapid Heart Rate
EMT	Emergency Medical Technician	R/O	Rule out (determined not to be, as in R/O MI or R/O Fx leg)
EPI	Epinephrine	Rx	Treatment
ER	Emergency Room	SIDS	Sudden Infant Death Syndrome
ETOH	Alcohol Intoxication	SOB	Short of Breath (Dyspnea)
	Fracture	STHB	Said to have been
Fx		TIA	Transient Ischemic Attack (Cerebrovascular related)
Gl	Gastro-Intestinal (Example: GI Bleed, possible perforated ulcer)	UNCONSC	Unconscious
GOA	,	VF	Ventricular Fibrillation
GSW	Gone on Arrival (Victim or patient has left scene of incident) Gunshot Wound	VS	Vital Signs
		WOB	Work of Breathing
HBP	High Blood Pressure (Hyp <u>er</u> tension)		•

Note: When entering information into CAD, use only acronyms consistent with your agency policies.

GLOSSARY OF TERMS

ABRASION An injury caused by the scraping or rubbing of skin against a rough surface.

ALIMENTARY CANAL Organs of digestion.

ANAPHYLACTIC SHOCK A sudden, severe, often life-threatening allergic reaction that is characterized by low blood pressure, shock

(inadequate tissue perfusion) and difficulty breathing.

ANEURYSM Ballooning of an artery due to the pressure of blood flowing through a weakened area resulting from disease,

injury or defect of the blood vessel wall.

ANGINA PECTORIS Spasmodic chest pain characterized by a sense of severe constriction in the chest.

ANOXIA Absence or lack of oxygen.

AORTA The main artery from the heart.

APNEA Absence of respiration.

ARRHYTHMIA An abnormality of the rhythm or rate of the heartbeat.

ASPHYXIA Suffocation.

ASPIRATE To breathe liquid or foreign material into the lungs.

ASTHMA A respiratory condition caused by bronchiolar spasm.

AVULSION Forcible separation or tearing away of a body part or tissue.

BRADYCARDIA Slow heart rate.

CARDIAC Pertaining to the heart.

CEREBRAL Pertaining to the brain.

CERVICAL SPINE The first seven bones of the spine, found in the neck.

CHF (Congestive Heart Failure) - Cardiac failure, characterized by increased blood pressure and pulmonary

edema.

CHOLECYSTITIS Inflammation of the gallbladder.

CLAVICLE The collarbone or the bone that links the sternum and the scapula.

COLOSTOMY An operation in which part of the large intestine is brought through an incision in the abdominal wall to allow

the discharge of feces.

COMA A state of unconsciousness from which the patient does not respond to external stimuli.

COMBATIVE Eager to fight or struggle.

CONTUSION An injury in which the skin is not broken; a bruise.

COPD (Chronic Obstructive Pulmonary Disease) - A group of diseases in which there is persistent disruption of

airflow into or out of the lungs, including chronic bronchitis and emphysema.

CORONARY ARTERIES The blood vessels that supply blood directly to the heart muscle.

CPR (Cardiopulmonary resuscitation) - The artificial maintenance of circulation of the blood and movement of air

into and out of the lungs in an unconscious, non-breathing patient.

CVA (Cerebral vascular accident) - A stroke; a condition characterized by impaired blood supply to some part of

the brain.

CYANOSIS (Cyanotic) - A bluish or purplish discoloration of the skin due to a lack of oxygen in the blood.

D5W An intravenous (IV) solution of glucose (sugar) in water.

DECAPITATION Amputation of the head.

GLOSSARY OF TERMS (Continued)

DEFIBRILLATION Electrical shock to the heart muscle to produce a normal spontaneous rhythm. The act to arrest the fibrillation

of heart muscle by applying electrical shock across the chest thus depolarizing the heart cells and allowing a

normal rhythm to return.

DIABETES A metabolic disorder in which the ability to metabolize carbohydrates (sugars) is impaired, usually because of

a lack of insulin.

DIAPHORETIC Profuse perspiration, cold, clammy skin.

DIAPHRAGM A muscular wall separating the thoracic and abdominal cavities. The major muscle of breathing.

DIARRHEA Abnormal frequency and fluidity of fecal evacuations.

DIASTOLE The resting period of the heart muscle. Diastolic pressure is the pressure exerted on the internal walls of the

arteries during this resting period. This is the second (or bottom) number when referring to blood pressure

measurements.

DT's (Delirium tremens) - A disorder involving visual and auditory hallucinations from habitual and excessive

use of alcohol.

DUODENUM (Duodenal) - The first part of the small intestines.

DYSPNEA Air hunger resulting in labored or difficult breathing.

EDEMA An excessive amount of fluid in the tissues.

EMBOLISM Obstruction of a blood vessel by a foreign substance most commonly due to a blood clot.

EMESIS Vomiting & vomit.

EMETIC An agent which produces vomiting.

EMPHYSEMA A chronic pulmonary disease where the lungs progressively lose their elasticity which can result in respiratory

distress.

EPIGLOTTIS A lid-like cartilaginous structure at the entrance to the larynx to prevent food from entering the larynx and

trachea while swallowing.

EPILEPSY Recurring transient attacks of disturbed brain function, frequently altered state of consciousness or seizures.

EPISTAXIS Nose bleed.

ESOPHAGITIS Inflammation of the esophagus.

ESOPHAGUS (Esophageal) - A muscular canal extending from the throat to the stomach.

FEBRILE Pertaining to fever.

FEBRILE SEIZURE Febrile convulsions due to high fever in small children.

FEMUR The thigh bone.

FIBRILLATION Quivering or spontaneous contraction of individual muscle fibers (applicable in EKG readings).

FIBULA The outer and smaller of the two bones extending from the knee to the ankle.

FIRST PARTY REPORT A report taken by talking directly to the patient.

FLAIL CHEST A condition of the chest caused by severe injury resulting in several ribs fractured in more than one place

leaving a segment of the chest wall to move at opposition to the normal breathing motion.

FRACTURE A broken bone.

GI (Gastrointestinal) - Pertaining to the stomach and intestine.

GRAND MAL A seizure or convulsion typically characterized by unconsciousness and generalized severe twitching of all of

the body's muscles.

HEMATOMA A swelling or mass of blood confined to an organ, tissue or space, resulting from a break in a blood vessel.

HEMORRHAGE Abnormal internal or external discharge of blood.

HIVES Intensely itching welts usually caused by an allergic reaction to a substance or food.

HUMERUS Upper bone of the arm from the elbow to the shoulder.

GLOSSARY OF TERMS (Continued)

HYPERGLYCEMIC Abnormally high glucose level in the blood.

HYPERTENSION High blood pressure.

HYPERTHERMIA Having a body temperature above normal, >98.6.

HYPOGLYCEMIC Deficiency of sugar in the blood.

HYPOTENSION Low blood pressure.

HYPOTHERMIA Having a body temperature below normal, <98.6.

HYPOXIA Inadequate supply of oxygen to the body tissues.

HYPOXIC SEIZURE Seizure resulting from an oxygen deficit.

INSULIN A hormone secreted by the pancreas which aids the body in the metabolism of sugar.

IPECAC (Syrup of Ipecac) A dried root of a shrub found in South America, used to induce vomiting.

ISCHEMIA Local and temporary anemia due to obstruction of the circulation to a part.

JEJUNUM That portion of the small intestine that extends from the duodenum to the ileum.

KETOACIDOSIS An accumulation of certain acids in the blood occurring when insulin is not available in the body.

LACERATION A wound or irregular tear of the flesh.

LARYNGECTOMY Total removal of the larynx.

LARYNX The organ of the throat responsible for voice production and for preventing food from entering the trachea.

Commonly called the voice box.

MANDIBLE The lower jawbone.

MAXILLA Forms the upper jaw.

MEDIC ALERT TAG A bracelet or necklace containing information on a patient's medical history, allergies, etc.

MENINGES The 3 membranes that cover and protect the brain and spinal cord (dura mater, arachnoid mater and pia

mater).

MENINGITIS Inflammation of the meninges.

MI (Myocardial infarction) - The death of an area of the heart muscle from a deprivation in the blood supply to

that location.

MOBILE INTENSIVE

CAREUNIT

(Medic Unit) A self contained ambulance staffed by paramedics designed to provide specialized emergency

medical (MICU) care for serious conditions.

NITROGLYCERIN Medication used in the treatment of angina pectoris (chest pain).

OCCLUSION The closure of a passage.

PALPATION Examination by touch; generally used to describe obtaining a pulse.

PALPITATION Rapid, violent or throbbing pulsation, as an abnormally rapid throbbing or fluttering of the heart.

PANCREAS A large elongated gland situated behind the stomach; the source of many digestive enzymes and the

hormone insulin.

PANCREATITIS Inflammation of the pancreas.

PARALYSIS Temporary suspension or permanent loss of function, especially loss of sensation or voluntary motion.

PERICARDIAL SAC The fibrous membrane covering the heart.

PERISTALSIS The progressive contraction of muscles that propels food down the gastrointestinal tract.

PERITONITIS Inflammation of the lining of the abdomen.

PETIT MAL Mild form of epileptic attack, may involve loss of consciousness, but does not involve convulsions.

GLOSSARY OF TERMS (Continued)

PNEUMOTHORAX A collection of air in the chest cavity caused by punctures of the chest wall or lungs.

POLST Physicians orders for life sustaining treatment. May include order for DO NOT RESUSCITATE.

RADIUS The bone on the outer (or thumb side) of the forearm.

RINGERS Normal saline solution that includes other elements present in blood, such as potassium and calcium.

SCAPULA Shoulder blade.

SECOND PARTY A report taken from a person who is with the patient, or has direct contact with someone who is with the

patient.

SEIZURE REPORT A sudden episode of uncontrolled electrical activity in the brain (convulsion).

SIDS (Sudden Infant Death Syndrome) The sudden, unexpected death of an infant, which often cannot be

explained even after an autopsy. It usually occurs between 1 month - 1 year.

SPOTTING Vaginal bleeding less than a normal period.

STOMA A permanent surgical opening in the neck of a patient who has had a tracheostomy.

STOOL Feces.

SYNCOPE Fainting (also syncopal episode).

SYSTOLE The period of muscular contraction of the heart muscle. Systolic pressure is the pressure exerted on the internal

walls of the arteries during this period of muscular contraction. This is the first (or top) number when referring to

blood pressure measurement.

TACHYCARDIA Fast Heart rate.

TELEMETRY Transmission of medical information (i.e., EKG) via electronic equipment.

TENSION Develops when air is continually pumped into the chest cavity outside the lung and is unable to escape; it is

PNEUMOTHORAX associated with compression of the lung and heart.

THIRD PARTY REPORT A report taken from a person who is neither with the patient nor at the scene of the incident.

THORAX The chest.

TIA (Transient ischemic attack) - Temporary interference with the blood supply to the brain, like a stroke but

without permanent damage.

TIBIA The inner and larger of the two bones which extend from the knee to the ankle.

TRACHEA The windpipe.

TRACHEOSTOMY A surgical operation that creates an opening to the trachea for direct use as an airway.

TRAUMA An injury to the body.

TRIAGE The sorting or selection of patients to determine priority of care to be rendered to each.

ULCER A lesion on the surface of the skin or membrane, usually accompanied by inflammation.

UNILATERAL One-sided (as in stroke).

ULNA The inner and larger bone of the forearm, on the opposite side from the thumb.

VERTEBRA Any of the bones of the spinal column.

VERTIGO An illusion that one's surroundings are spinning. Dizziness.

XIPHOID PROCESS The cartilage at the lower end of the sternum.

SYMBOLS: Less than: <

Less than or equal to: ≤

Greater than: >

Greater than or equal to: ≥

All Callers - Interview

*Questons #1 - 5 as directed by your agency or your Center's established greeting.

- 1. 9-1-1, What are you reporting?
- 2. What is the address of the patient?
- 3. What is patient's age/sex?
- 4. What is the telephone number you are calling from?
- 5. What is your name?
- 6. Is the person conscious (awake, responding to you)?

If no: Go directly to Question #7.

If yes: Go directly to Other Conditions.

7. Is the person breathing Normally? If uncertain: Bring the telephone to the patient and check to see if the chest is rising and falling.

If no: Go directly to Unconscious and NOT breathing normally below.

If yes: Go directly to Unconscious and breathing normally below.

If R/P is still uncertain or describes the breathing as anything other than normal, go directly to Unconscious and NOT breathing normally below.

8. I have advised the dispatcher to send help.* - Stay on the line. My questions are not delaying the response.

Unconscious and NOT breathing normally: Dispatch MEDIC response.

Is there a defibrillator nearby? If premise information is available, tell the caller where the machine is located.

If there is more than one person present, consider having 1 perform CPR while the other retrieves the AED.

If YES: Go directly to AED Instructions.

If NO: "The patient needs CPR, listen carefully, I'll tell you what to do". - Go to age-appropriate CPR instructions.

Unconscious and breathing normally: Dispatch MEDIC response.

Go directly to **Unconscious/Breathing Normally Emergency Instructions** and Unconscious/Syncope Chief Complaint for Pre-arrival Instructions.

Other Conditions:

Determine appropriate response level and dispatch Medic or BLS

I have advised the dispatcher to send help* - **Stay on the line**. My questions are not delaying the response.

* Local agency protocols for acceptable terminology should be followed.

Abdominal/Back/Groin Pain

Background Information

Abdominal Pain

Abdominal pain may be caused by many conditions, some of which may be life-threatening. It is important to remember that abdominal pain associated with critical signs/symptoms of shock always indicates an unstable patient requiring a paramedic evaluation.

Critical causes of abdominal pain:

- Cardiovascular Disease (Myocardial Infarction, Angina) Which may present as upper abdominal pain or indigestion because of the shared nerves in the region of the thorax and upper abdomen.
- Abdominal Aortic Aneurysm Most often presents with severe abdominal pain, often radiating to the back, flank, groin/testicles and/or legs. In addition, most commonly these complaints will be accompanied with signs and symptoms of shock.
- Ruptured Ectopic Pregnancy Typically presents with lower quadrant localized abdominal pain in a woman of child-bearing age who may or may not be aware they are pregnant. The presence of signs and/or symptoms of shock indicate the severity of the volume (blood) loss which may or may not be externally evident.

• Gastrointestinal Bleeding - May be critical due to blood loss. Vomiting red blood or expelling dark, tarry stools could be critical and if so would most likely present with signs and symptoms of shock. Vomiting coffee ground-like material may also indicate an ulcer disease, but suggests a much less rapid blood loss, and is not necessarily critical unless there are other symptoms of blood loss such as syncope or near syncope when sitting/standing.

Non-critical causes of abdominal pain may include:

- Gastroenteritis
- Appendicitis
- · Bowel obstruction
- Pelvic inflammatory disease (PID)
- Gallbladder disease
- Kidney stone
- · Gas secondary to constipation
- GERD Gastric esophageal reflux disease

Dispatch Criteria

1M6

1M7

	Medic Response
1M1	Unconscious or not breathing
1M2	Sign of shock: Syncope or near syncope when sitting/standing
1M3	Vomiting red blood, with sign of shock (syncope or near syncope when sitting/standing)
1M4	Black tarry stool, with sign of shock (syncope or near syncope when sitting/standing)
1M5	

	BLS Red Response
1R1	Pain with vomiting
1R2	Abdominal/back pain, no sign of shock
1R3	Flank pain/back pain (kidney stone)
1R4	
1R5	No verifiable info available from RP
1R6	Upper abdominal pain, age > 50
1R7	• • •

DI O V. II.

BLS Yellow Response				
1Y1	Groin injury			
1Y2	Back/side/groin pain - non-ambulatory			
TRP				
1T1	Pain unspecified			
1T2				
1T3	Chronic back pain - ambulatory			
1T4	Side pain - ambulatory			
1T5	Groin pain - ambulatory			
1T6	Back pain - previous injury			
1T7	Urinary catheter problem			

Vital Points

 Ask to speak directly to the patient, if possible!

Medic:

- How does the patient look?
- How does the patient feel when they sit/ stand up?
- Has the patient vomited?If yes, what does the vomit look like?
- Are the patient's bowel movements different than normal?
 If yes, how would you describe them?
- Is the pain above or below the belly button?
- Is there a possibility of pregnancy?
 - Has she felt dizzy?

Abdominal/Back/Groin Pain

Pre-arrival Instructions

- If patient unconscious and vomiting, position patient on their side and continue to sweep vomit out.
- Nothing by mouth.
- Allow position of comfort.
- Gather patient meds.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Short Report:

- Does the patient have any other medical or surgical history?
- Is the patient wearing a Medic Alert tag?

Anaphylaxis/Allergic Reaction

Background Information

Anaphylaxis/Allergic Reaction

Anaphylaxis and allergic reaction is caused by the over response of the body's natural immune system. Specifically, when the body has detected a foreign invader, most likely a protein called an antigen, it responds by releasing several chemicals that are charged with attacking and isolating the invading organism. In most cases, this process takes place with little or no noticeable effects. Most effects related to an allergic reaction, while uncomfortable, are not critical in nature. In anaphylaxis however, the life-threatening signs and symptoms include respiratory distress, signs and symptoms of shock and possibly difficulty swallowing due to swelling of the throat.

Allergic reactions may be caused by almost anything, with introduction into the body by one of four mechanisms:

- Ingestion
- Injection
- Inhalation
- Absorption

Most allergic reactions are benign and do not pose a serious threat. Presentations are commonly limited to rashes, itching and localized swelling. Reactions that pose a serious threat and are considered to be life-threatening are those which involve breathing difficulty and/or signs and symptoms of shock.

Anaphylaxis is a sudden, severe and potentially life-threatening allergic reaction that is commonly characterized by low blood pressure, signs and symptoms of shock and breathing difficulty. These symptoms can present individually or in some cases of severe reaction, present together as a systemic over-response.

Critical symptoms of a severe allergic reaction/anaphylactic shock:

- Respiratory distress occurs because of swelling of the throat or larynx - bronchospasm
- Difficulty swallowing occurs because of swelling of the throat
- **Sign of shock** (syncope/near syncope when sitting/standing) occurs because of decreasing blood pressure.

History of severe reaction involving respiratory distress, difficulty swallowing or signs of shock usually produces a more severe reaction to the same agent with each subsequent exposure.

Some very severe reactions may take up to an hour to manifest in some patients, however most patients will have a much quicker response. Many patients with a history of severe allergic reactions have an Epi Pen prescribed by their physician. The call-receiver should encourage the patient to use the Epi Pen as directed by their physician.

The speed in which the symptoms appear following exposure to the causing agent (sting, medication, food ingestion) generally dictates the severity of the reaction. However, reactions have been known to appear up to several hours post exposure. The complaints of the patient at the time of the call should dictate the response.

Non-critical symptoms of allergic reactions include:

- Hives
- Itching
- · Swelling at site of bite
- Long duration of time since exposure

Dispatch Criteria

Medic Response

Anaphylaxis

2M1 Unconscious or not breathing

2M2 Respiratory Distress (one required):

- Unable to speak normally (work of breathing)
- Sitting, standing or leaning forward to breathe (tripod)
- 2M3 Audible wheezing or stridor
- **2M4** Swelling in throat, tongue or difficulty swallowing and unable to speak normally (work of breathing)
- **2M5** Sign of shock: Syncope or near syncope when sitting/standing

2M6

BLS Red Response

Allergic Reaction

- 2R1 Epi pen used by patient/RP
- 2R2 Swelling in throat, tongue or difficulty swallowing
- **2R3** History of anaphylactic reaction occurring within 30 minutes of exposure

2R4

2R5 No verifiable info available from RP

2R6 Breathing difficulty

BLS Yellow Response

TRP

- 2T1 Concern about reaction, but no history
- **2T2** Reaction present for > 30 minutes, no breathing difficulty
- **2T3** Itching or hives, without breathing difficulty
- 2T4 History of allergic reaction, but none now
- 2T5 Side effect or minor reaction to medication

Vital Points

Anaphylaxis/Allergic Reaction

 Ask to speak directly to the patient, if possible!

Medic:

- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Is the patient having difficulty swallowing?
- How does the patient look?
- How does the patient feel when he/she sits up?

BLS Red:

• Does the patient have a history of <u>severe</u> reaction to (substance)?

If yes, describe the reaction the patient has had before.

- How long ago was the patient exposed?
- Are there any changes in the symptoms?
- Is the patient taking any medication?

Pre-arrival Instructions

- Allow position of comfort.
- Keep calm.
- If bee sting: brush stinger off if possible. Ice to sting.
- Gather patient meds.
- Do you have an Epi pen?
 If yes, have you used it?
 Use as your physician
 has directed.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Short Report:

• Is the patient wearing a Medic Alert tag?

Infectious Disease

Background Information

At the midpoint in the 20th century infectious diseases appeared to have been under control through the use of immunizations, antibiotics and better sanitation techniques. By the early 1990's, public health experts recognized that modern demographic and environmental conditions, the ability for bacteria to evolve and adapt, and the ease and frequency of international travel all contribute to the ability of infection to spread further and faster.

In 1992, the Institute of Medicine urged several federal agencies to work with state and local health departments to reestablish local surveillance of infectious diseases and to promote efforts to detect and control emerging infectious diseases.

Most recently concerns about pandemic influenza have been raised and experts are using elaborate surveillance methods in order to track not only avian influenza, but humans contracting new strains of influenza as well. Most subject matter experts are convinced that a flu strain will produce a pandemic eventually - they do not know which strain, when it will occur or how bad it will be.

Role of the Communication Centers, Dispatchers/call-receivers Communication centers (dispatchers) serve an important function in every phase of EMS incident management, including those involving infectious disease pathogens.

Dispatch center personnel provide a critical link in identifying the presence of an infectious environment, determining resources required, initiating responses, advising responding units of prevailing conditions and providing pre-arrival instructions to citizens. In addition they may identify specific clusters of illness based on symptoms and geographic locations, which will serve as an important "Epidemiology-link" to Public Health and responder agencies.

Operations

Communications personnel must be trained and required to seek information from callers and transmit that information to responders, which indicates the presence of an infectious disease or a potentially infectious condition. In addition to the usual EMS questions, when an

infectious disease is either suspected or reported, the dispatcher/call-receiver should ask:

Does the patient have:

- Fever
- Cough
- Shortness of breath
- Respiratory distress
- Unusual skin rash
- Gastro-intestinal symptoms (nausea, vomiting, diarrhea)
- Recent exposure to anyone that is/has been sick
- Recent travel to regions known to be affected with disease outbreaks

Be alert for multiple patients with the same complaints, signs, symptoms.

Short reports to responding units must include information on signs/ symptoms of infectious disease and the term "PPE (personal protective equipment) advised". Pre-arrival instructions must include directions to provide scene security, limit number of individuals exposed and reduce the infection risk:

- Caller to remain on location
- Avoid contact/exposure to other people
- Move outside, if possible
- Increase ventilation: open doors and windows

In addition, communication centers should:

- Monitor the daily hospital status in the region, including hospitals on divert or closed and the designation of any infectious disease receiving facilities, including established alternate care sites.
- Prepare to provide daily reports to Public Health Epidemiology regarding known or suspected infectious disease patients and responses as part of a regional I.D. surveillance and tracking program.

Dispatch Criteria Medic Response 3M1 Unconscious or not breathing Decreased LOC (non-responsive to verbal or 3M2 Sign of shock: Syncope or near syncope when 3M3 sitting/standing Respiratory Distress (one required): 3M4 • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) **BLS Red Response** 3R1 No verifiable information* **BLS Yellow Response** 3Y1 **TRP** 3T1 Fever, cough 3T2 Exposed but no symptoms

Caring for H1N1 Influenza A patient

Medical advice regarding self-care

Vital Points

• Ask to speak directly to the patient, if possible!

Medic:

How does the patient look?
Is the patient responding to you?
Is the patient able to speak normally?
How does the patient feel when they sit up or stand?

Does the patient have a cough?
Is the patient complaining of body aches or other symptoms?

Does the patient have a fever?

Infectious Disease

Pre-arrival Instructions

Respiratory Infection Screening for Responder protection and advisement -

SEE VITAL POINTS

- Position of comfort
- Refrain from contact with others if possible.

Special Notes: Stable patients (stable LOC - nervous system, stable respiratory - work of breathing has not been hindered except for stuffy nose etc., stable circulatory - does not pass out or feel like passing out when sitting up or standing up) should be directed to the TRP (Nurse-line) for triage. Use of the Nurse-line is recommended for these patients because it decreases the possibility of exposures to others. The Nurse-line has specific protocols in place for the H1N1 Influenza A virus, and can provide medical information, home care suggestions, and transportation options to callers.

Patients with Chief complaint other than flu-like symptoms should be screened as usual with the appropriate Chief complaint card.

If an EMS response is required, and the patient has a fever and cough (flu symptoms), advise the responders of the need for PPE. Reporting parties without symptoms (questions regarding containment, prevention, *worried well*, etc.) should be directed to the King County Public Health hotline (**PICC 877-903-5464**) or the appropriate King County or CDC website.

* This 3R1 code should be used for the rare event when a response is needed for a possible H1N1 Influenza A case, but further information about the condition or symptoms of the patient is unavailable. A BLS response is used to rule out a "sick" patient.

Short Report

- Danger to field units, if present
- Gender Age
- Chief complaint
- Advise Respiratory

Protection/PPE, if necessary

- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

REVISED 07/10

3T3

3T4

Bleeding (Non-traumatic)

Background Information

Bleeding (non-traumatic)

Non-traumatic bleeding may be associated with many medical problems. It is not important to diagnose the problem, but it is imperative that the signs and symptoms of a critical patient are identified as early as possible.

Patients may be critical or unstable due to a serious compromise in any of the following systems:

- Circulatory
- Respiratory
- Nervous

Circulatory

Uncontrollable bleeding is bleeding that cannot be controlled by direct pressure with a clean cloth or sanitary napkin. Once the patient is unable to compromise for blood loss they become a critical or unstable patient.

Critical signs/symptoms associated with bleeding: Syncope or near syncope associated with bleeding is usually secondary to a large loss of blood and requires paramedic evaluation, and most likely treatment. Remember, this blood loss could be completely internal. The patient could be critically ill without any obvious signs of blood loss.

Vomiting red or dark red blood usually signifies a rapid loss of blood secondary to either gastro-intestinal bleeding or a problem with the esophagus (esophageal verices).

Vomiting coffee ground-like material usually indicates a much slower blood loss and is usually less critical.

Black tarry stool is usually associated with a lower gastrointestinal bleed. Note: Several different medications can also produce tarry stools.

Vaginal bleeding in the pregnant woman who is greater than twenty (20) weeks pregnant can be very serious and require a paramedic evaluation.

Hemoptysis (coughing up blood) may cause airway problems and can be significant if the amount is greater than just a few streaks. Many smokers with bronchitis may cough up small amounts of blood without any serious results.

Remember, look for signs and/or symptoms of shock to differentiate between the stable and the unstable patient.

Patients taking blood thinning medications such as Coumadin, Plavix or Aspirin may have a greater risk of increased blood loss due to the anti-clotting mechanisms of these medications.

Non-critical Bleeding:

Controlled nose bleed (epistaxis), localized controlled bleeding and any spontaneous, non-traumatic bleeding without signs or symptoms of shock.

Dispatch Criteria Medic Response Unconscious or not breathing 4M1 Sign of shock: Syncope or near syncope when 4M2 sitting/standing 4M3 4M4 4M5 Vomiting red blood, with sign of shock (syncope or near syncope when sitting/standing) 4M6 Black tarry stool, with sign of shock (syncope or near syncope when sitting/standing) 4M7 Coughing up blood, with either: 4M8 • Respiratory Distress (unable to speak normally or sitting/standing/leaning forward to breathe) or • Sign of shock (syncope or near syncope when sitting/standing) Vaginal bleeding, with sign of shock (syncope or 4M9 near syncope when sitting/standing) **BLS Red Response** 4R1 Bleeding, without Medic criteria 4R2 4R3 Weakness 4R4 4R5 4R6 Uncontrollable nosebleed 4R7 No verifiable info available from RP **BLS Yellow Response TRP** Vaginal spotting 4T1 4T2 Controlled nosebleed 4T3 Blood in urine or urinary catheter problem

Vital Points

 Ask to speak directly to the patient, if possible!

Medic:

- How does the patient look?
- How does the patient feel when they sit/stand up?
- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Is the patient vomiting?
- Are the patient's bowel movements different than normal?

If yes, how would you describe them?

- Is the patient coughing up blood?
- Has there been vaginal bleeding, any more than normal?

BLS Red:

- What part of the body is the bleeding from?
- Is the patient feeling weak?
- Is there a possibility of pregnancy?

Respiratory Infection Screening for Responder protection and advisement -

SEE PRE-ARRIVAL INSTRUCTION

Short Report:

- Has the patient been taking any medication?If yes, what kind?
- Does the patient have any other medical or surgical history?

Bleeding (Non-traumatic) Pre-arrival Instructions

- ____
- Position of comfort
- Nothing by mouth.
- If external bleeding, use clean cloth and apply pressure directly over it.
 DO NOT REMOVE, apply additional clean cloths on top if needed.
- If nosebleed, pinch end of nose and do not release.
- If vaginal/rectal bleeding, do not flush the toilet.
- Gather patient meds.
- *Respiratory Infection Screening:
- *Does the patient have a fever?
 If unknown, are they hot to the touch?
- *Does the patient have a cough?

 If yes, how long has the cough lasted?
- *Recent international travel?
- *Does the patient have a rash?
- Note: If fever is present with cough or rash, respiratory protection/PPE advised

Short Report

- Gender
- Age
- Chief complaint
- *Advise Respiratory
 Protection/PPE, if necessary
- Pertinent signs and symptoms
- Medical/surgical history, if relevant

Breathing Difficulty

Background Information

Breathing Difficulty

Breathing difficulty, "shortness of breath", can occur anytime there is a problem with the mechanics of breathing (getting air in and out) or on a cellular level, when there is a problem with the exchange of gases (oxygen and carbon-dioxide). Most commonly, the patient who is critically "short of breath" will have difficulty speaking normally and position themselves upright in the tri-pod position.

Work of Breathing

Work of breathing is the effort it takes to exchange a sufficient amount of air. The best way to discern the patient's work of breathing is to speak to the patient.

Abnormal position, retractions and audible breath sounds are signs of increased work of breathing and possible respiratory distress.

- *Tripod position*: Leaning forward to breathe. This positions the airway in the path of least resistance.
- Retractions: Visible "sinking in" of the soft tissues in the chest wall or neck indicating a significant increased work of breathing. These are most often seen in infants and children.
- Wheezes: "Musical" high-pitched noises heard on exhalation.
 Often described as whistling and caused by bronchospasm or swelling of the large airways.
- *Stridor*. Harsh, high-pitched sound heard on inhalation. Caused by swelling and spasms of the upper airways.

Common causes of potentially life-threatening shortness of breath include:

 Chest pain with difficulty breathing may be due to a myocardial infarction, pulmonary edema, pulmonary embolus or critical pneumonia.

- Patients who are short of breath and exhibit an increased work of breathing need a paramedic evaluation. The best way to measure work of breathing is to speak directly to the patient. If it sounds as if the patient just ran up a flight of stairs, but they didn't and cannot speak normally, they need a paramedic evaluation.
- Pulmonary embolus (PE) often occurs with blood clotting disorders and following surgery, broken legs with casting, recent immobilization and even on, or after, a very long flight. This is a critical presentation and the patient needs an immediate ALS evaluation. Attempt to speak to the patient if possible but keep in mind the patient with a PE will often be in respiratory distress.
- Drooling or difficulty swallowing associated with breathing difficulty may be epiglottitis or a severe allergic reaction and should be dispatched as an ALS response.

Non-critical causes of breathing difficulty:

- Controlled asthma
- Hyperventilation
- Common cold
- Bronchitis
- Pneumonia

Past history of breathing difficulty/distress may be helpful in determining the need for ALS or BLS intervention. Patients with chronic breathing problems like COPD or asthma may wait to call 911. They have usually tried all their medications with no relief. These patients are unstable and require ALS intervention.

Dispatch Criteria Medic Response 5M1 Unconscious or not breathing 5M2 Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) Breathing difficulty with chest discomfort, unable to 5M3 speak normally: • Male/Female, age > 25 5M4 5M5 Audible wheezing or stridor 5M6 5M7 5M8 **BLS Red Response** Breathing difficulty 5R1 5R2 Tingling or numbness in extremities or around the mouth 5R3 No verifiable info available from RP 5R4 Breathing difficulty with barking cough, age ≤ 6 5R5 Hurts to breathe or pain with respiration 5R6 **BLS Yellow Response** 5Y1 O_a bottle empty 5Y2 Pepper spray 5Y3 Patient assist Hyperventilation/Panic Attack w/history of same 5Y4 **TRP** 5T1 Stuffy nose, cold symptoms

Vital Points

 Ask to speak directly to the patient, if possible!

Medic:

- Is the patient speaking normally?
- Does the patient have to sit up to breathe?
- Does the patient have to lean forward to breathe?
- Is the patient having any trouble breathing?
- What was the patient doing just prior to becoming short of breath?
- What substance did the patient inhale?
- Could the patient be having an allergic reaction?
- Is the patient drooling or having a difficult time swallowing?

If yes, is this causing breathing difficulty?

- Is the patient on breathing treatment, and have they used it?
- Has the patient ever had this problem before?
- Does the patient have any other medical/surgical history?

BLS Red:

 Is the patient experiencing any other problems right now?

BLS Yellow:

Is the patient prescribed oxygen?

Respiratory Infection Screening for Responder protection and advisement
SEE PRE-ARRIVAL INSTRUCTION

Breathing Difficulty

Pre-arrival Instructions

- Position of comfort.
- Patient may be more comfortable sitting up.
- Do not allow patient to exert him/herself.
- Gather patient meds, if possible.

*Respiratory Infection Screening -

- *Does the patient have a fever?

 If unknown, are they hot to the touch?
- *Does the patient have a cough?
- If yes, how long has the cough lasted?
- *Recent international travel?
- *Does the patient have a rash?

Note: If fever is present with cough or rash, respiratory protection/PPE advised

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- *Advise Respiratory
 Protection/PPE, if necessary
- Other agencies responding

Cardiac Arrest

Background Information

Cardiac Arrest

Cardiac arrest is a state in which the heart fails to generate an effective blood flow to the vital organs of the body. A patient in cardiac arrest will be unconscious, unresponsive and without adequate or effective respirations.

Pump, pipes, fluid:

In order for oxygenated blood to be distributed to the body we must have a working pump (heart), pipes (blood vessels) and fluid (blood). If any one of these three components fails, the patient will lose the ability to transport and use much needed oxygen.

Causes of Cardiac Arrest

There are many causes of cardiac arrest:

- Cardiovascular disease
- · Cardiac arrhythmias
- · Respiratory arrest or failure
- Trauma
- Drowning
- Electrocution

It is not important to determine the cause of the arrest but it is very important to quickly identify the patient in cardiac arrest and provide appropriate emergency instructions as soon as possible. We use the "All-Caller" questions in order to determine if the patient is in cardiac arrest:

Is the patient conscious? Is the patient breathing normally?

If the patient is not conscious and is not breathing normally, then we can assume they have experienced cardiac arrest and give the appropriate CPR instructions immediately.

Critical symptoms of cardiac arrest:

- A sudden unconsciousness with absence of normal signs of life
- Agonal respirations The abnormal, inadequate and often misidentified respiratory effort commonly present at the onset of cardiac arrest. These muscular contractions are the result of messages being sent by the brain stem, which remains functional for a short period of time after "death". Agonals are typically not rhythmic and short-lived. They are described as snoring, gasping, gurgling, moaning, breathing once-in-a-while, or trying to breathe. It is very important to distinguish agonal respirations from normal respirations as they are inadequate and by no means provide the patient with sufficient air exchange. If in doubt, start CPR!
- Hypoxic seizure may also occur due to the lack of oxygen to the brain. Make sure to asses breathing after the seizure.

Dispatch Criteria Medic Response 6M1 Unconscious or not breathing 6M2 Obvious DOA - child **BLS Red Response** 6R1 Obvious DOA - no CPR in progress **6R2** Verbal confirmation of "Do Not Resuscitate Order" on premise **BLS Yellow Response TRP**

Vital Points

Medic:

If unsure about consciousness, use questions below to probe further:

- Does the patient respond to you?
 - Respond to your voice (can they answer your questions).
 - Respond when you try to wake them up.

If unsure about breathing normally, inquire further:

- Does the patient's chest rise and fall?
- Describe the patient's breathing. Listen for sounds and frequency of breaths (agonal respirations described as):
 - gasping
 - snoring
 - snorting
 - gurgling
 - moaning
 - · barely breathing
 - · breathing every once in awhile
 - · takes breath now and then
 - · occasional breathing
- ** If RP cannot tell if the patient is breathing normally, assume the patient is not breathing normally, go directly to age-appropriate CPR PAI.
- Is AED Available?

Cardiac Arrest

Pre-arrival Instructions

- If AED available, go directly to **AED PAI**
- If unconscious and not breathing normally, go directly to age-appropriate CPR PAI
- If unconscious and breathing normally, go directly to Unconscious/Breathing PAI

Short Report

- Gender
- Age
- Chief complaint (Cause-if known)
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Background Information

Chest Pain

Chest pain may be caused by many conditions, some of which are potentially life-threatening. Because of its nature, differentiating potentially life-threatening causes of chest pain from non-critical causes can be quite difficult. For this reason, we rely primarily on the patients age when determining the need for ALS evaluation.

Critical causes of chest pain:

Myocardial infarction (MI) occurs when a portion of the heart muscle is damaged due to lack of oxygenated blood flow to the heart muscle. Typically the discomfort or pain associated with an MI is described as pressure, tightness, crushing or squeezing in the chest. The patient may describe the symptom as "discomfort" and not pain. Remember, different people have different levels of tolerance for pain.

Female patients often report very different symptoms. They may report upper back and/or neck discomfort. Here are some of the more common symptoms associated with MI:

- Shortness of breath
- Diaphoresis cold, clammy skin
- Nausea and/or vomiting
- Discomfort that radiates from chest to arms, jaw, neck, shoulder or back
- Anxiety or feeling of impending doom

Note: Occasionally there is no "pain" associated with an MI and the patient may present with just tightness or pressure

on the chest area or shoulder/arm. Age is the determinant in the need for ALS intervention. If the patient meets the age identified in the criteria they need an ALS response even if they do not present with any signs or symptoms of shock.

If the patient does not meet the age determinants but shows signs and symptoms of shock, shortness of breath, or has a family history or medical history that is indicative of a possible MI, they may need a paramedic evaluation.

Angina

Angina Pectoris is chest pain which occurs because of a lack of blood flow to heart muscle. It is distinguished from MI by its transitory nature and is usually relieved by rest and/or Nitroglycerin (NTG). If the patient has used their "normal" means of attempting to control the pain and this has not worked, they need an ALS evaluation. Increased activity can produce angina however it becomes more concerning when angina is produced when the patient is at rest.

Supraventricular Tachycardia (SVT)

SVT is a cause of rapid heart rate (RHR). The criteria for a paramedic response is designed to capture both patients with a history of such and those with no history.

• Rapid heart rate/palpitations, age ≥ 40.

Non-critical causes of chest pain include pleurisy, pulled muscles, and typically, pneumonia.

Dispatch Criteria

Medic Response

- 7M1 Unconscious or not breathing
- **7M2** Male, age \geq 40 chief complaint ongoing chest pain
- **7M3** Female, age ≥ 45 chief complaint ongoing chest pain
- 7M4 Male/Female, age ≥ 25, with breathing difficulty unable to speak normally
- **7M5** Rapid heart rate/palpitations, age ≥ 40
- **7M6** Sign of shock: Syncope or near syncope when sitting/standing
- 7M7 Diabetic
- **7M8** Defib implant shock

BLS Red Response

- **7R1** Male, age < 40
- **7R2** Female, age < 45
- **7R3** Rapid heart rate/palpitations, age < 40
- 7R4 No verifiable info available from RP
- **7R5** Indigestion:
 - Male, age \geq 40 Female, age \geq 45

BLS Yellow Response

7Y1 Muscle/chest wall/rib pain

TRP

- **7T1** Male, age < 40 or
 - Female, age < 45 with chest wall trauma
- **7T2** Indigestion:
 - Male, age < 40
 - Female, age < 45

Vital Points

Chest Pain/Discomfort/Heart Problems

 Ask to speak directly to the patient, if possible!

Medic:

- Where is the pain located?
- Does the patient feel pain anywhere else in the body?
- How long has the pain been present?
- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- How does the patient look?
- How does the patient feel when they sit up?
- Is the patient experiencing rapid heart rate?
- Does the patient have a history of rapid heart rate?
- Is the patient diabetic?

Symbols:

Less than: <

Less than or equal to: ≤

Greater than: >

Greater than or equal to: ≥

TRP

• Is the patient nauseated or vomiting?

Short Report:

- Is the patient taking nitroglycerin (NTG)? (See Pre-Arrival Instructions)
- Has the patient ever had heart surgery or an MI?

Pre-arrival Instructions

- Have patient sit or lie down.
- Keep patient calm.
- Has the patient been prescribed nitroglycerin (NTG)?

 If the patient has a prescription for NTG, and they DO NOT FEEL FAINT OR LIGHTHEADED! Advise the patient to take the medication only as their doctor has prescribed.
- Gather patient meds.
- If caller/patient asks about aspirin-advise: "We can not recommend medication".

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- NTG with/without relief

Choking

Background Information

Choking

Choking is one of the most common causes of airway obstruction. Consider choking anytime a patient who has been eating is reported down or especially in a child under the age of six.

Critical symptoms of Choking:

If the patient is unable to talk (or cry, if an infant), consider a total airway obstruction and begin your emergency instructions. If the patient is conscious, use the choking instructions designed for the conscious patient. Once the patient becomes unconscious, switch to the ageappropriate CPR instructions. Never ever ask anyone to discontinue emergency instructions unless the item is dislodged and the patient is able to talk or cry (infant).

Inability to talk - This suggests the patient is unable to move any air due to complete obstruction of the airway.

Cyanosis - Cyanosis is a very late sign. If the patient is turning blue, their oxygen saturation levels have dropped severely and the situation can become grave unless there is immediate intervention.

If there is any suggestion of airway obstruction by the RP/patient, the pre-arrival emergency instructions for Choking should be given immediately. If the patient is,

or becomes, unconscious go directly to ageappropriate CPR instructions. Remember to have the RP look in the patients mouth prior to giving the ventilations. If they see an obstruction, remove it and proceed.

*Remember to switch to CPR instructions if the patient becomes unconscious during the rescue attempt.

Review and practice the emergency pre-arrival instructions for choking (especially for infants) as often as possible. These instructions are not given frequently but when they are needed the call-receiver should be as familiar with them as possible.

Infants and children have very small airways which can swell even after the item is expelled. These patients require a BLS evaluation.

Dispatch Criteria Vital Points Medic Response • Ask to speak directly to the patient, if 8M1 Unconscious or not breathing possible! 8M2 Unable to talk or cry (infants) Medic: 8M3 Turning blue Does the chest rise and fall? • Is the patient able to talk or cry (infants)? • Is the patient turning blue? • Was the person eating or did they have something in their mouth? • If child is 6 years or below, Is the child hot to the touch? Remember, sometimes febrile seizures are originally reported as obstructed **BLS Red Response** airways. 8R1 Able to talk or cry (infants) • If airway obstruction ruled out - go to 8R2 Breathing without difficulty PEDS card No verifiable info available from RP 8R3 **BLS Yellow Response** Airway cleared, patient assist 8Y1 **TRP**

Choking

Pre-arrival Instructions

- If patient is unable to talk or cry (infant), go directly to age-appropriate Choking PAI
- If patient is able to breathe, talk or cry (Infant):
 - Allow position of comfort
 - Encourage coughing

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant

Diabetic

Background Information

Diabetes mellitus is a medical condition caused by decreased insulin production by the pancreas. Diabetes can sometimes be controlled by diet, but it often requires either oral medication or insulin injections to keep the blood sugar within a normal range.

The diabetic that requires medication (either oral or insulin) is at great risk for developing a sugar level in the body that is either too high or too low. The brain responds to either with a decrease in the level of consciousness (LOC). Both of these problems may be life-threatening.

Critical diabetic reactions:

Insulin shock is the most frequent reason for accessing the 911 system for the diabetic. It occurs most often in the patient on Insulin (vs. oral medication) and results from an imbalance of too much insulin and not enough blood sugar. This often happens if the person does not eat enough, over exercises, takes too much insulin, has a fever or is ill with nausea and vomiting. Insulin shock is usually of rapid onset. Never tell a patient or an RP to take or administer insulin!

Ketoacidosis (Diabetic coma) is an accumulation of acids in the blood secondary to a lack of insulin in the body. The lack of insulin forces the body to switch from it's primary source of fuel, carbohydrates (sugar), to burning fats which

produces waste products in the form of acids. This accumulation of acids, and other electrolyte changes in the body, causes profound dehydration, signs and symptoms of shock and altered level of consciousness.

Hyperglycemia is a greater than normal amount of glucose present in the blood, usually associated with diabetes.

Hypoglycemia is a deficiency of glucose present in the blood.

Dispatch Criteria Medic Response Unconscious or not breathing 9M1 **9M2** Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) Decreased/Altered LOC or Uncooperative (not 9M3 following commands) Sign of shock: Syncope or near syncope when 9M4 sitting/standing 9M5 Chest pain/discomfort 9M6 9M7 9M8 Seizure **BLS Red Response** Disoriented, unusual behavior or acting strange 9R1 (able to follow commands) Not feeling well, weak or non-specific 9R2 9R3 9R4 No verifiable info available from RP **9R5 BLS Yellow Response TRP** 9T1 Awake/alert 9T2 9T3 Blood sugar > 150, no symptoms

Vital Points

• Ask to speak directly to the patient, if possible!

Medic:

- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Is the patient acting normally?If not, what is different?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Does the patient know who they are, where they are?
- How does the patient look?
- Has the patient had a seizure?
- Does the patient take meds for their diabetes?

If yes, when did they take it?

- When did the patient last eat?
- What is the patient's blood sugar level?
- How does the patient feel when they sit up?
- Is the patient complaining of any discomfort?

BLS Red:

• Is the patient feeling weak?

Diabetic

Pre-arrival Instructions

- Under no circumstances should patient take any meds prior to EMS arrival.
- Give liquid with sugar (2-3 tbsp.) if patient able to take on their own.
- Nothing by mouth, if patient unable to take it by themself.
- Clear area around patient
- Gather patient meds (If not done already). Test the patient's blood sugar, if you have the equipment and training to do this. Give the results to the aid crew when they arrive.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant

Environmental/Toxic Exposure

Background Information

Environmental Emergencies

Environmental exposures may include exposure to excessive heat or cold or exposure to a hazardous material.

Critical environmental emergencies:

Hypothermia results from prolonged cold exposure or inappropriate thermoregulatory body metabolism such as what occurs in patients taking certain psychiatric medications. Cold exposure usually occurs in the transient population that has no ability to shelter themselves from the weather. It can also occur with the elderly who may have no heat in their homes. In water exposure, particularly in the winter months, hypothermia can result from excessive exposure to cold waters. Initially, the hypothermic patient may be confused, disoriented or syncopal. In extreme cold exposure, this may result in cardiac arrest.

Exposure to cold can result in a general cooling of the body that can go through the following stages:

- Shivering as the body attempts to generate heat
- Feeling of numbness
- Drowsiness, unwilling or unable to complete simple tasks
- Decreased muscle function
- Decreased LOC
- Decreased vital signs, slow pulse, respirations and heart rate
- Freezing body parts (in extreme cold)

Hyperthermia results from prolonged heat exposure. Depending on what part of the country you live in, this can be relatively rare. However, weather is not the only contributor to hyperthermia. Prolonged exercise in warm weather, such as marathons or other athletic events, could cause a participant to become hyperthermic. Hyperthermia may also occur in firefighters in the line of duty.

Hazardous material exposures may be quite dangerous. All responses are dependent upon the type of exposure and the danger involved to both the patient and the responders. There are multiple haz-mat reference guides available as resources. It is important to determine the type of chemical etc. and the wind direction if possible. Look for indications of haz-mat events whenever you have multiple patients with very similar symptoms.

Remember to notify responders of any possible exposures.

Dispatch Criteria

Medic Response

- 10M1 Unconscious or not breathing
- 10M2 Respiratory Distress (one required):
 - Unable to speak normally (work of breathing)
 - Sitting, standing or leaning forward to breathe (tripod)
- **10M3** Decreased LOC, non-responsive to verbal or touch
- **10M4** Sign of shock: Syncope or near syncope when sitting/standing
- **10M5** Burns with blisters and/or skin sloughing on face, neck, chest or back

BLS Red Response

- **10R1** Chemicals (ingested, inhaled or splashed on), w/o medic criteria
- 10R2 Patient with uncontrollable shivering
- 10R3 Patient excessively hot
- 10R4 Other injuries
- 10R5 No verifiable info available from RP
- 10R6 Breathing difficulty

BLS Yellow Response

10Y1 Pepper spray

TRP

10T1 No symptoms, but has been exposed

Vital Points

Environmental/Toxic Exposure

Ask to speak directly to the patient, if possible!

Medic:

- What happened?
- Does the patient have any complaints?
- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- How does the patient look?
- How does the patient feel when they sit up?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Is the patient acting normally?If not, what is different?
- How long has the patient been exposed?BLS Red:
- What was the source?

Pre-arrival Instructions

Heat Exposure:

- Move patient into the shade
- Loosen or remove clothing to assist in cooling.
- Nothing by mouth, if decreased LOC

Cold Exposure

- If patient is cold and dry, cover patient.
- If patient is cold and wet, remove wet clothes and cover patient.
- Nothing by mouth.

Chemical/Toxic Exposure

- Have patient move to fresh air.
- Do not touch patient.
- Have patient remove contaminated clothing, if possible.
- Continuously flush chemicals from eyes, remove contacts.
- If chemical is powder, brush off then flush with water.
- Get info on chemical (MSDS sheet if available).
- Nothing by mouth.

Short Report

- Danger to field units, if present
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant

Short Report:

• Length of exposure?

Medical Knowledge (Medical Facility Only)

Background Information

Medical Knowledge

The Medical Knowledge criteria was developed and implemented to assist the call-receiver with requests from medical facilities where the provider/caller is unable to identify a specific chief complaint. This criteria should be used only in those instances where the medical facility is only able to provide diagnostic information such as blood sugar or oxygen saturation levels.

The Medical Knowledge category is intended for use when information regarding a patient's symptoms is not available, however a specific medical diagnosis or measurement is given. Typically these calls would be from doctors' offices, medical clinics, or any other facility with trained personnel.

If a chief complaint is identified, use the appropriate criteria and base your response and pre-arrival decisions on the signs and symptoms of the patient.

Even if the Health Care Provider is only able to provide specifics about pulse rate, blood sugar level, oxygen saturation levels, etc., it is still important to ask the caller if the patient is conscious and if they are breathing normally. It is difficult to imagine, but even someone experienced in patient care can forget to provide that information at the onset of the call.

If a medical practitioner (e.g. Doctor, Nurse) is not on site, do not use this category but instead go to the appropriate chief complaint card.

Dispatch Criteria

Medic Response

- 11M1 Abnormal EKG, Arrhythmia
 - Rule out MI
- 11M2 Patient needs/has IV
- **11M3** Provider is currently administering medication for this chief complaint
- **11M4** BP < 90, Systolic (first number)
- **11M5** O₂ sat. < 90
- **11M6** Pulse Rate > 130 or < 60
- 11M7 Glucose < 60 w/DLOC
- **11M8** School Nurse advising patient/student needs prescription medication(s)
- **11M9** Provider states patient requires or received Epi, requesting ALS response

BLS Red Response

- 11R1 Non-Cardiac
- 11R2 Stable patient
- 11R3 No medications/No IV
- **11R4** BP > 90, Systolic (first number)
- **11R5** O_2 sat. > 90
- **11R6** Pulse Rate between 60-130

BLS Yellow Response

- 11Y1 Standby/transport assist
 - Private ambulance not available

Vital Points

Medical Knowledge (Medical Facility Only)

• Ask to speak directly to someone with knowledge of the patient, if possible!

Medic:

- Is the doctor or nurse on site?
 - If no, revert to Chief complaint card
- Ask to speak to a person knowledgeable about the patient
- Is the patient stable?
 - What are the patient's vital signs?
- Have you treated the patient with medications today?

BLS Red:

- Does the patient only require transportation?
- What is the patient seeing the doctor for?

Pre-arrival Instructions

 Have someone available to meet the unit at the access door.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Background Information

Head/Neck

Critical headaches are usually because of rapidly increasing pressure within the fixed volume that the skull provides to protect the brain. As the pressure increases within this fixed volume, the brain is compressed and neurologic deterioration begins.

Critical causes of headache:

Subarachnoid hemorrhage occurs when a blood vessel supplying the outer area of the brain ruptures. This spontaneous rupture can occur at any time, but frequently it is associated with events that cause blood pressure to be elevated.

The patient usually complains of a very sudden onset of the worst headache they have ever experienced. They may display neurologic deterioration such as:

- Mental confusion
- Decreased LOC
- Vertigo
- Loss of balance or coordination
- Weakness of one side of the body
- Difficulty speaking or slurred speech
- Blurred/double vision
- Weakness/paralysis
- Diaphoresis
- Vomiting

Intracerebral hemorrhage often has the same symptoms as a subarachnoid hemorrhage but often occurs in an older population (> 50 yrs of age). Bleeding deep within the brain is frequently a grave condition with a poor prognosis.

Non-critical causes of headaches include:

- Post-concussive headaches, which may occur after a minor head injury
- Migraine headaches, which may have associated symptoms of numbness and weakness but generally have a history of similar symptoms
- Tension headaches

Medic Response

12M1 Unconscious or not breathing

12M2 Decreased LOC, non-responsive to verbal or touch

12M3

12M4

12M5

12M6

12M7 Sudden onset of severe headache, with one of the following:

- Slurred speech Blurred/double vision
- Weakness/paralysis Vomiting

BLS Red Response

12R1 Disoriented, but able to walk and talk

12R2 No verifiable info available from RP

12R3

12R4 Visual difficulty

12R5 Vertigo/Dizziness

12R6

BLS Yellow Response

12Y1

12Y2

TRP

12T1 Headache

12T2 Migraine(s)

12T3 Minor head/neck/facial pain

12T4 Eye, ear, nose, throat pain

12T5

Vital Points

 Ask to speak directly to the patient, if possible!

Medic:

- Did the headache come on suddenly or gradually?
- Does the patient have any vision problems?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Does the patient know where they are and who they are?
- Is the headache different than headaches the patient has had in the past?
- What was the patient doing when the headache started?
- How is the patient acting?
 If unusual, what is different about them?
- How does the patient look?

TRP:

- Has the patient had a recent illness or injury?
- Does the patient have a history of headaches?

Short Report:

• Is the patient wearing a Medic Alert tag?

Head/Neck

Pre-arrival Instructions

- Nothing by mouth.
- Allow patient to find position of comfort.
- Gather patient meds.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant

Background Information

Mental/Emotional/Psychological

Very few mental or emotional problems are a critical medical problem unless the patient is threatening to harm themselves or others. However, sometimes it is very difficult to distinguish a mental/emotional problem from a medical problem such as a diabetic or drug reaction.

Critical responses in the mental/emotional patient:

Penetrating wounds that are self-inflicted.

Diabetic patients with hypoglycemia or insulin shock may present as a mental/emotional problem.

Non-critical responses may include:

- · lacerated wrists with controlled bleeding
- unusual behavior with a psychiatric history

Medic Response

13M1 Unconscious or not breathing

13M2 Suicide attempt with GSW, stabbing, crushing or penetrating injury

13M3 Excited Delirium, if requested by police

BLS Red Response

13R1 Self-inflicted injuries

13R2 Unusual behavior

13R3 Panic attack, unknown history

13R4

13R5 No verifiable info available from RP

BLS Yellow Response

- **13Y1** Police request for stand-by, threats against self or others
- 13Y2 Pepper Spray or Taser
- 13Y3 Patient assist
- **13Y4** Panic attack with known history (hyperventilation)

TRP

13T1 Patient out of psych medications

Vital Points

Mental/Emotional/Psychological

Ask to speak directly to the patient, if possible!

Medic:

- What happened?
- Is the scene secure?
- Is the suspect in the area? If yes, get description.
- Does the patient have a weapon/or access to a weapon?
- Has the patient harmed themself?
 If yes, with what?
 What are the injuries?
 What part of the body is injured?

BLS Red:

 Do you think the patient might harm themself?

If ves, with what?

- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?

If appropriate,

- Has the patient taken any drugs or alcohol?
- Is the patient acting normally?If not, what is different or unusual?

Pre-arrival Instructions

- Keep patient in area, if safe.
- Keep patient calm.
- If you feel you're in danger leave the scene, if it's safe to do so.
- Does patient have access to any weapons?
- Gather patient meds.

Short Report

- DANGER TO FIELD UNITS, IF PRESENT - INCLUDE SUSPECT/VEHICLE DESCRIPTION
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Background Information

Overdose/Poisoning

The term overdose is used to describe both the intentional and unintentional ingestion of a medication that exceeds the recommended dosing schedule. Often, in intentional overdose the patient ingests more than one type of medication and often the amount and type of substance is unknown. This is why it is important to pay particularly close attention to the patients presenting signs and symptoms. Use these signs and symptoms to help identify critical, unstable patients.

Critical patients will present with one or all of the following:

- Decreased LOC Decreased or altered level of consciousness indicates a central nervous system depression and should receive ALS evaluation.
- Signs and symptoms of shock Some medications impact cardiovascular function and can result in shock or inadequate perfusion. Patients exhibiting signs and symptoms of shock should receive ALS evaluation.
- Respiratory difficulty Patients in respiratory distress or depression should receive ALS evaluation. Speak to the patient, whenever possible, to assess work of breathing.

Many types of medications are central nervous system depressants. It is not important to memorize these medica-

tions or drugs, but it is important to assess the patient's level of consciousness to determine if an ALS evaluation is warranted. It is just as important to assess the patient's work of breathing. There is always a concern that the drugged or intoxicated patient will not be able to maintain their airway. There is also a concern that the patient could vomit and aspirate fluid into the lungs. All of these situations would be critical and would require ALS evaluation.

Non-critical incidents may include ingestion/overdose of the following:

- Aspirin
- Tylenol
- Most over-the-counter medications
- Hallucinogens (such as LSD, PCP, psychedelic mushrooms, etc.)
- SSRI's (prozac etc.)

Remember to assess the LOC, possible signs or symptoms of shock, and respiratory effort or work of breathing to help make a determination of a critical or non-critical patient.

Medic Response

- 14M1 Unconscious or not breathing
- **14M2** Respiratory Distress (one required):
 - Unable to speak normally (work of breathing)
 - Sitting, standing or leaning forward to breathe (tripod)
- **14M3** Decreased LOC, non-responsive to verbal or touch
- 14M4 Intentional overdose, with Rx meds
- 14M5 Ingestion of caustic substance, w/difficulty swallowing
- 14M6 Excited Delirium, if requested by police
- **14M7** Acute alcohol and/or drug intoxication (non-responsive to verbal or touch)

14M8

14M9

14M10 Seizure, secondary to alcohol and/or drug overdose, use or withdrawals

BLS Red Response

- 14R1 Intentional/accidental, with over-the-counter (OTC) medicines
- 14R2 No verifiable info available from RP
- **14R3** Reported O.D., patient denies taking meds, or unknown if meds/substances were taken
- 14R4 Chemicals (ingested, inhaled or splashed on), w/o medic
- 14R5 Accidental overdose, with Rx meds
- **14R6** Breathing difficulty
- **14R7** Acute alcohol and/or drug intoxication (responsive)
- **14R8** Withdrawal symptoms (responsive)

BLS Yellow Response

14Y1

14Y2 Street drugs

14Y3 Pepper spray or Taser

TRP

4T1 No symptoms, but has been exposed

Vital Points

• Ask to speak directly to the patient, if possible!

Medic:

- Can the patient speak normally?
- Is the patient having any trouble breathing?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Is the patient having difficulty swallowing?
- What type of substance did the patient take?

Was alcohol involved?

If yes, what age is the patient?

Recreational drugs?

If yes, what kind?

Prescription Meds?

If yes, what kind and how many?

- Has the patient had a seizure?
- Has the patient vomited?

BLS Red:

• If the patient took medications, were they prescription medications?

If yes, how many?

 How long ago did they ingest the substance?

Short Report:

- Is the patient violent?
- Does the patient have access to a weapon?
- Is the patient acting normally?If not what is different?

O.D./Poisoning

Pre-arrival Instructions

- If unconscious and breathing normally, go directly to Unconscious/Breathing PAI
- If patient responsive and laying down put them on their side.
- Keep patient in area/house if safe.
- Retrieve container of substance taken.
- Don't place patient in bath or shower.
- Nothing by mouth.
- Gather patient meds.

Short Report

- Danger to field units, if present
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Pregnancy/Childbirth/Gyn.

Background Information

Pregnancy and childbirth is a very natural process that takes place in many parts of the world without the assistance of medical professionals. A normal delivery can occur without any assistance from pre-hospital personnel.

However, there may be concern whenever the mother has not received any pre-natal care because she may not be aware of issues occurring with this particular pregnancy.

Imminent delivery

ALS should respond for all imminent deliveries, not only to render assistance to the mother but to assist in the care of the newborn infant. Breaking of waters does not always indicate imminent delivery. It does, however, indicate that labor will begin if it has not already. ALS response is also indicated for unusual or problematic delivery or issues that develop in the last trimester of the pregnancy.

Possible Critical Issues:

Eclampsia, or toxemia, is a toxic state that develops in the last trimester. It is characterized by increased blood pressure, fluid retention and seizures (in the most severe cases).

Vaginal bleeding in a pregnancy > 20 weeks can be dangerous due to possible rapid blood loss through the placenta. Often this is associated with placenta previa, a condition where the placenta partially or completely blocks the cervix. Another possible critical issue with the placenta is abruptio placenta. Abruptio placenta occurs when the placenta separates prematurely from the uterine wall and results in bleeding from the site. This can occur spontaneously but it is usually a result of some kind of trauma. Without quick intervention shock can occur, and that can be serious for both mom and baby.

Abdominal injury with contractions in a pregnancy > 20 weeks gestation should have an ALS evaluation. Any pregnancy over 20 weeks carries a chance of fetal survival if delivery occurs.

Contractions < 2 minutes apart in a first pregnancy or < 5 minutes apart in a second or subsequent pregnancy - Most of the time first-time pregnancy/delivery will take longer than those of the third or fourth child. Second and subsequent pregnancies often have a shorter duration of labor since the cervix and the pelvic area have been previously stretched during prior deliveries.

Premature birth > 4 weeks suggests the delivery may be more precipitious and the baby may require more ALS intervention.

Breech delivery - When the presenting part of the baby is anything but the head.

Prolapsed cord - If the RP sees the cord presenting, there is concern that the pressure of the baby's head within the mother's birth canal could cut off circulation of blood through the cord and to the baby. This can be very serious and requires not only ALS intervention but immediate delivery of emergency medical dispatch instructions to take the pressure off of the cord.

Non-critical issues:

- · Abdominal injury without contractions
- Abdominal injury in a pregnancy < 20 weeks
- Abdominal pain
- Vaginal bleeding/cramping in a pregnancy < 20 weeks

Remember, miscarriage in a pregnancy < 20 weeks without other issues is a BLS response. However, the event can be devastating to a family.

Medic Response

- 15M1 Unconscious or not breathing
- **15M2** Pregnant, vaginal bleeding with sign of shock (syncope or near syncope when sitting/standing)
- **15M3** Sign of shock: Syncope or near syncope when sitting/ standing
- 15M4 Labor pains/contractions:
 - 1st preg., < 2 min. between contractions
 - 2nd preg., < 5 min. between contractions
 - Prior delivery with labor lasting < 1 hr.

15M5

- **15M6** Complications: Breech, abnormal presentation
- **15M7** Delivery
- **15M8** Abdominal injury, with contraction, > 20 weeks
- 15M9 Seizure, > 20 weeks pregnant

BLS Red Response

- 15R1 Vaginal bleeding
- **15R2** 1st pregnancy with > 2 mins. between contractions
- **15R3** 2nd pregnancy with > 5 mins. between contractions
- **15R4** Abdominal injury, w/o contractions, > 20 weeks pregnant

15R5

15R6 No verifiable info available from RP

BLS Yellow Response

TRP

- 15T1 Pregnant < 20 weeks or menstrual, with any of the following:• Cramps Pelvic Pain Spotting
- **15T2** Water broke, no contractions

Vital Points

Ask to speak directly to the patient, if possible!

Medic:

- Is she bleeding?
- How does the patient look?
- How does she feel when she sits up?
- How long has she been having contractions?
- How many minutes between the beginning of one contraction to the beginning of the next?
- Is this her first pregnancy?
- How many weeks along is she?
- Has she received pre-natal care?
- Was there an injury?
- Has she had a seizure?
- Does she feel the urge to have a bowel movement?
- If post delivery, is the baby breathing?

BLS Red:

Has she had any problems during pregnancy?

Pregnancy/Childbirth/GYN

Pre-arrival Instructions

- If childbirth is imminent, go directly to appropriate
 Childbirth PAI
- Do not let patient go to toilet.
- Have patient lie down on left side.
- Keep patient warm.
- Gather patient meds.
- Gather clean clothes or towels.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Pre-natal care?

Background Information

Seizures

Seizures are the result of uncontrolled electrical activity in the brain causing convulsions and temporary loss of consciousness. **Febrile seizures** occur commonly in children between the ages of 6 months and 3 years and are short in duration. Seizures in children < 3 yrs of age are assumed febrile seizures unless they meet any of the critical criteria listed below.

Critical issues:

Seizures lasting longer than 5 minutes or multiple seizures (greater than 3 per hour) are dangerous due to hypoxia associated with prolonged or repeated convulsions.

Severe Headache: A patient having a seizure after complaining of a severe headache could be experiencing an intracerebral hemorrhage. Bleeding into the cranial space places increased pressure on the brain tissue often leading to convulsions.

Diabetic patients with seizures usually experience convulsions because of hypoglycemia and should have immediate paramedic evaluation and correction of their blood sugar level.

Pregnant women with seizures should be evaluated for

toxemia of pregnancy, poor fetal circulation and oxygenation.

Drug and/or alcohol overdoses with seizures are critical because of the recurrent nature of seizures present with toxicity of the overdose.

Recent (within the last 24 hours)head trauma presenting with seizures may indicate bleeding or increased intracranial pressure, a serious and potentially life-threatening condition.

Most seizure calls will be concerning patients with a history of seizures that the RP may or may not know about. If additional history becomes available during the call, the call-receiver may upgrade or downgrade the call as necessary.

Remember to assess and re-assess breathing after the seizure. Hypoxic seizure can occur with cardiac arrest. If the patient is not breathing start CPR!

Medic Response

- **16M1** Not breathing after seizure stops
- **16M2** Seizing now, > 5 minutes
- **16M3** Multiple seizures, > 3 per hour
- 16M4 Severe headache prior to seizure
- 16M5 Diabetic
- **16M6** Pregnant > 20 weeks
- **16M7** Secondary to alcohol and/or drug over dose, use or withdrawals
- **16M8** Secondary to head injury within the last 24 hours

16M9

BLS Red Response

- 16R1 First-time seizure
- **16R2** Seizure(s) with history of seizure disorder
- **16R3** Seizure(s), unknown history
- **16R4** No verifiable information available from RP

16R5

16R6

BLS Yellow Response

TRP

16T1 Seizure aura

Vital Points

Ask to speak directly to the patient, if possible!

Medic:

- How long has the patient been seizing?
- Is the patient still seizing?
- Has the patient had a seizure before?
- Is the patient a diabetic?
- If female, is the woman pregnant?If yes, how many weeks pregnant?
- Has the patient taken any medication, recreational drugs or alcohol?
- Has the patient had a recent head injury?If yes, when?
- Remember to assess and re-assess breathing after the seizure!

Seizures

Pre-arrival Instructions

- If unconscious and not breathing, go directly to age-appropriate CPR PAI.
- If unconscious and breathing normally, go directly to Unconscious/Breathing PAI.
- Clear area around patient.
- Do not restrain patient.
- Do not place anything in patient's mouth.
- After seizure has stopped, assess breathing.
- Have patient lie on side.
- If peds seizure, remove clothing to cool patient.
- Gather patient meds.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Short Report:

• Is the patient wearing a Medic Alert tag?

Sick (Unknown)/Other

Background Information

Sick (Unknown)/Other

Use this card for situations when a chief complaint cannot be identified.

This card should only be used when the patient's complaint does not fit into any other card in this chart.

Critical patients will present with one or all of the following:

- Decreased LOC Decreased or altered level of consciousness indicates a central nervous system depression and should receive ALS evaluation. Critical patients will not respond to verbal or physical attempts to wake them.
- Signs and symptoms of shock Some medications impact cardiovascular function and can result in shock or inadequate perfusion. Patients exhibiting signs and symptoms of shock should receive ALS evaluation.
- Respiratory difficulty Patients in respiratory distress or depression should receive ALS evaluation. Speak to the patient, whenever possible, to assess work of breathing. The critical patient will not be able to speak normally.

Medic Response				
17M1	Unconscious or not breathing			
17M2	Decreased LOC, non-responsive to verbal or touch			
17M3				
17M4				
17M5	Sign of shock: Syncope or near syncope when sitting/ standing			

BLS Red Response

17R1	Vertigo/Dizziness
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17R2 Generalized weakness/unspecified pain

17R3 No verifiable info available from RP

17R4 Medical alarm company, confirmed medical emergency

17R5

17R6

17R7

BLS Yellow Response

17Y1

17Y2 17Y3

1713 1714 Dec

17Y4 Patient Assist17Y5 Hang up Call-Consider PD Response

17Y6 Med alarm, confirmed non-critical or no information

TRP

17T1 Flu symptoms (any one): • Nausea • Vomiting
• Chills • Sore throat • Cough • Headache

17T2 High blood pressure w/o specific symptoms

17T3 Temperature/Fever

17T4 Other

Vital Points

• Ask to speak directly to the patient, if possible!

Medic:

- How does the patient feel when they sit up?
- How does the patient look?
- What is the patient doing?
- What is the patient complaining of?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Is the patient acting normally? If not, what is different?
- Is the patient experiencing any discomfort? Where?

Respiratory Infection Screening for Responder protection and advisement -

SEE PRE-ARRIVAL INSTRUCTION

Short Report:

If patient is not a family member:
 Have you checked for a Medic Alert tag?
 Have you checked in the refrigerator for Insulin?

Sick (Unknown)/Other

Pre-arrival Instructions

- Keep patient warm.
- Position of comfort.
- Gather patient meds.

*Respiratory Infection Screening:

- *Does the patient have a fever?
- If unknown, are they hot to the touch?
- *Does the patient have a cough?
- If yes, how long has the cough lasted?
- *Recent international travel?
- *Does the patient have a rash?

Note: If fever is present with cough or rash, respiratory protection/PPE advised.

Short Report

- Gender Age
- Chief complaint
- *Advise Respiratory Protection/PPE, if

necessary

- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Stroke (CVA)

Background Information

A stroke occurs when a blood vessel in the brain is either blocked or bursts open. In this event, brain tissue becomes oxygen-deprived and cells begin to die off. It is imperative that we identify signs and symptoms of stroke as soon as possible and send a pre-hospital response.

The brain is a very complex organ that performs functions we take for granted everyday. Whichever part of the brain has diminished will affect the ability for that patient to perform normal tasks. That is why it is so important to get the patient to an <u>appropriate</u> hospital as soon as possible. <u>Lost time is lost brain!</u>

Early identification and treatment are the keys to stroke recovery!

Many stroke victims present with difficulty speaking or slurred speech. This speech difficulty is common and by itself does not necessarily indicate a decreased level of consciousness or difficulty breathing.

The FAST test is often used to help determine signs/symptoms of stroke.

F.A.S.T.

Face: Smile - does one part of the face droop?

Arm: Raise both arms - does one arm drift downward?

 $\underline{\underline{\textbf{S}}} peech: ...$ Speak a simple sentence - did you slur or repeat

it incorrectly?

Time: If the answer to ANY of these is yes, call 911

immediately. Time is important!

Critical instances:

Rupture of an artery or an aneurysm may occur in the brain tissue and present as a stroke with additional symptoms of decrease in level of consciousness, respiratory difficulty, seizures or a severe headache.

A stroke may be so extensive as to create **severe brain dysfunction** with a decrease in LOC or respiratory difficulty.

Diabetics presenting with stroke symptoms may be experiencing a simple hypoglycemic or hyperglycemic reaction. Altered blood glucose levels can present with the same, or similar, symptoms as an acute stroke and should be considered as a possible cause.

****Stroke Warning Signs****

- Sudden numbness or weakness of the face, arm or leg especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden, severe headache with no known cause

Quick intervention provides an opportunity for better possible outcomes!

Medic Response

18M1 Unconscious or not breathing

18M2 Sudden onset of severe headache, with one of the following:

- Slurred speech
- Blurred/double vision
- Weakness/paralysis Vomiting

18M3 Decreased LOC, non-responsive to verbal or touch

18M4

18M5

18M6

BLS Red Response

18R1 Unilateral (one-sided) weakness, paralysis

18R2 Weakness, numbness or unable to stand or walk

18R3 Diabetic

18R4 Breathing difficulty

18R5 No verifiable info available from RP

18R6 Disoriented, incoherent or trouble speaking

BLS Yellow Response

TRP

Vital Points

Ask to speak directly to the patient, if possible!

Medic:

- When did symptoms start?
- When was patient last seen acting normally?

IF LESS THAN 6 hrs SINCE ONSET OF SYMPTOMS, PROMPT RESPONDERS FOR STROKE PROTOCOL

- Does the patient respond to you?
- Respond to your voice? (Can they answer your questions or follow simple commands)?
- Respond when you try to wake them?
- If acting unusual, what is different?
- Has the patient had a headache?
- Is the patient's speech slurred?
- Is the patient having any trouble breathing?
- Is the patient a diabetic?

BLS Red:

• How does the patient look?

Short Report:

 Does the patient have any other medical or surgical history?

Stroke (CVA)

Pre-arrival Instructions

- Keep patient calm.
- Position of comfort.
- Nothing by mouth.
- Gather patient meds (If not done already)
- Test the patient's blood sugar, if you have the equipment and training to do this. Give results to the aid crew when they arrive.

Short Report

- Gender Age
- Chief complaint
- Patient meets stroke protocol for rapid transport
- Pertinent signs and symptoms (when appropriate - less than 6 hrs since onset of symptoms.)
- Medical/surgical history, if relevant
- Other agencies responding

Background Information

Unconscious/Unresponsive/Syncope

Unconscious/Unresponsive/Syncope

Anytime a patient is unconscious or unresponsive we have a critical situation. A patient with a decreased level of consciousness that can not be awakened verbally or by touch requires an ALS evaluation. It is not imperative that we discover the physiology behind the sign, however, it is important to remember some of the reasons that a patient may be unconscious.

Circulatory/Cardiovascular

The patient may be unconscious due to a compromise in the cardiovascular system. Perhaps the pump (heart) is not operating due to cardiac arrest, or maybe the pipes (blood vessels) cannot sustain sufficient pressure to carry the blood to the brain or heart due to a problem within the brain. Or it is possible that the fluid (blood) is leaking out of a vessel and even though there is no exterior blood loss the patient has experienced considerable internal bleeding.

Respiratory

The patient may be unconscious due to lack of oxygen to the brain or heart. This could be due to respiratory arrest or cardiac arrest. If the pumping mechanism is not working, the oxygenated blood cannot be delivered to the heart or to the brain.

Syncope

Syncope is a sudden temporary loss of consciousness. It can be caused by something as simple as dehydration. If

there is not enough blood volume or pressure for oxygen rich blood to reach the brain, a patient could become light-headed and experience a sudden temporary loss of consciousness.

Dispatch Criteria Medic Response 19M1 **CONFIRMED** Unconscious 19M2 Decreased LOC, non-responsive to verbal or touch 19M3 Acute alcohol and/or drug intoxication (non-responsive to 19M4 verbal or touch) 19M5 Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) **19M6** Sign of shock: Syncope or near syncope when sitting/ standing 19M7 19M8 Syncope associated with Chest pain/discomfort/palpitations, age > 40 19M9 **BLS Red Response**

19R1	UNCONFIRMED unconscious			
19R2	Multiple syncopal episodes (same day)			
19R3	No verifiable info available from RP			
19R4	Single syncope			
19R5	Acute alcohol and/or drug intoxication (responsive)			
19R6	Syncope associated with headache			
19R7	Vertigo/Dizziness			
19R8				
	BLS Yellow Response			
19Y1	Slumped over wheel - Consider PD response			
19Y2				
	TRP			
	IRP			
19T1				

Vital Points

Unconscious/Unresponsive/Syncope

Ask to speak directly to the patient, if possible!

Medic:

- Does the patient respond to you?
 - Respond to your voice (can they answer your questions)?
 - Respond when you try to wake them?
- Is this the first time today the patient has been unconscious?
- What was the patient doing before they became unconscious?
- Did the patient have any complaints just before they became unconscious?
- Has the patient taken any medications, recreational drugs or alcohol?
- Is the patient having any trouble breathing?
- Is the patient speaking normally?
- How does the patient feel when they sit up?
- Is the patient experiencing a rapid heart rate/palpitations?
- Is the patient experiencing any discomfort? Where?

Short Report:

- Does the patient have any medical or surgical history?
- Is the patient wearing a Medic Alert tag?

Pre-arrival Instructions

- If unconscious and not breathing, go directly to age-appropriate CPR PAI.
- If unconscious and breathing normally, go directly to Unconscious/Breathing PAI.
- If conscious now, have patient lie down.
- If vomiting, have patient lie on side.
- Do not leave patient, be prepared to do CPR.
- Gather patient meds, if possible.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

REVISED 07/10

19T2

Background Information

Obtaining information in the case of a pediatric patient can be challenging. In most cases the patient is too young to be able to complain of pain or describe symptoms they may be experiencing. Additionally, small children do not present with common progression of illnesses or shock as adults do, often making the early recognition of critical signs difficult to detect. For these reasons, the EMS community has adopted what is commonly referred to as the "pediatric triangle" for making a rapid determination of the pediatric patient's status. The three components of this triangle are: OVERALL APPEARANCE, WORK OF BREATHING and CIRCULATION SKIN SIGNS. Don't rely on the traditional measurement of vital signs, such as pulse rate and blood pressure, to identify an unstable patient. Because this evaluation is primarily visual, it could be easily assessed with the vital point questions and a cooperative RP.

OVERALL APPEARANCE:

Appearance tells a lot about oxygenation, brain perfusion and central nervous system function. There are several components that constitute appearance:

- Alertness: Is the child responsive? Restless, agitated or listless?
- Distractibility: Are you able to attract the child's interest or attention?
- Consolability: Can parent or caregiver comfort the child?
- Eye contact: Does the child maintain eye contact?
- Speech/Cry: Is speech/cry strong? Weak or muffled? Hoarse?
- Spontaneous motor activity: Is the child moving? Is there good muscle tone?
- Color: Is the child pink? Or pale, dusky or mottled?

WORK OF BREATHING:

Abnormal position, retractions and audible breath sounds are signs of increased work of breathing and respiratory distress.

- *Tripod position*: Leaning forward to breathe? This may improve breathing of the distressed child by aligning the structures of the airway.
- Retractions: Visible sinking-in of the soft tissues in the chest wall or neck indicating a significant increased work of breathing.
- Wheezes: "Musical," high-pitched noises heard on exhalation.
 Often described as whistling and caused by bronchospasm or swelling of the large airways.
- *Stridor*. Harsh, high pitched sounds heard on inhalation. Caused by swelling and spasms of the upper airways.

CIRCULATION/SKIN SIGNS:

Skin signs are a direct reflection of the overall status of the circulatory systems.

- Skin Color: Is it normal? Pink? Mottled, pale, grayish?
 Cyanosis is a late finding and should not be relied upon as the only determination of an ill child.
- Temperature: Is it normal? Hot? Cool?
- Capillary Refill Time: A very accurate way to determine the circulatory status in any patient. Depress the fingertip and the pink color should return in less than 2 seconds. Any slower may indicate a problem with perfusion.

Febrile Seizures:

Febrile seizures occur commonly in children between the age of 6 months and 3 years and are short in duration. Seizures in children < 3 yrs of age are assumed febrile seizures, unless they meet critical criteria.

Dispatch Criteria Medic Response Unconscious/unresponsive: Listless, limp, difficult or unable to awaken **20M2** Able to awaken. Poor appearance: Blue lips, mottled, gray-white **20M3** Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) 20M4 Seizures: • multiple > 3 per hour extended, seizing now, > 5 minutes **20M5** Medication overdose, confirmed ingestion < 30 minutes **20M6** Confirmed ingestion of caustic substance w/difficulty swallowing 20M7 Life threatening congenital defects/anomalies **20M8** Illness/infection w/rapid onset (< 10 hours) with: • dramatic decrease in LOC • Listless, limp or quiet drooling w/difficulty swallowing **BLS Red Response** 20R1 Breathing difficulty **20R2** Seizure(s), no longer in seizure (any one): • First time seizure • w/history • w/fever 20R3 Medication overdose: • Unconfirmed • > 30 min since ingestion 20R4 Ingestion of caustic substances: • Unconfirmed • No difficulty swallowing 20R5 Congenital health conditions/anomalies with: • Not feeling well • Non-specific symptoms • RP request for evaluation **BLS Yellow Response** 20Y1 Confirmed choking - expelled item, airway clear. No other symptoms 20Y2 **TRP** Minor skin rashes 20T1 20T2 Ear ache/Teething **20T3** Temperature, Fever, Minor cold symptoms

Vital Points

• Ask to speak directly to someone with the patient, if possible!

Medic:

- Does the child respond to you?
- How does the child look?
- What is the child's skin color?
- Is the child having any trouble breathing?
- Was the child eating or did they have something in their mouth?
- Has the child had a seizure?
- Has the child been sick?
 If yes, was it a rapid onset?
 If yes, how long has the child been sick?
- Does the child have a fever or feel hot to the touch?
- Is the child drooling or having a difficult time swallowing?

BLS Red:

• Does the child have any medical or congenital problems?

Note: Consider suspicious RP/abuse, check previous events history! Consider police response, especially if described mechanism does not fit severity of injury/condition.

Pediatric Emergencies

Pre-arrival Instructions

- If unconscious and not breathing normally, go directly to ageappropriate CPR PAI.
- Keep child calm
- Nothing by mouth
- If febrile seizure, remove clothing to cool patient.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Assault/Trauma

Background Information

Statistically this is very seldom a paramedic response; however, it is important to get good information about weapons and injuries to identify those cases of penetrating injury (GSW or stabbing). MEDIC responses may also be needed for the patient with significant head injury and a decreased level of consciousness.

Uncontrollable bleeding is bleeding that cannot be controlled by direct pressure with a clean cloth or sanitary napkin. Paramedics should not be dispatched until the RP has attempted to control bleeding without success.

Head Injuries

The best indicator of severity of injury in the head injured patient is their level of consciousness. A patient with a decreased level of consciousness indicates there is ongoing injury to the brain. This is often from a collection of blood that may be developing around the brain (subdural or epidural hematoma) or within the brain tissue (intracerebral hematoma).

Swelling of brain tissue due to bruising of the brain (contusion) may also cause a deteriorating level of consciousness. Obviously the unconscious, unresponsive patient has severe brain dysfunction and requires immediate paramedic intervention.

Mechanism of injury is important in all trauma assessment. Head injuries are very commonly associated with cervical spine injuries and patients with head injuries should not be moved until EMS personnel are on the scene, unless a lifethreatening situation exists.

Critical symptoms associated with head injuries include:

- · decreasing level of consciousness
- combative patient often due to a frontal hematoma in the brain
- breathing difficulty may be due to airway difficulty or associated injuries
- seizures following a head injury

Non-critical symptoms of head injuries include:

- a brief loss of consciousness (< 5 minutes) followed by an awake, alert state (this is very common and does not indicate a critical risk factor in evaluating head injuries)
- amnesia for the event causing the injury

Dispatch Criteria Medic Response 21M1 Confirmed unconscious or not breathing **21M2** Secondary to head injury (one required): • Decreased LOC, non-responsive to verbal or touch Disoriented or combative Seizure 21M3 GSW or stabbing, crushing or penetrating injury 21M4 Uncontrollable bleeding **21M5** Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) **BLS Red Response** 21R1 21R2 21R3 Minor injuries 21R4 Extremity fracture 21R5 Single syncope, secondary to trauma 21R6 No verifiable info available from RP 21R7 Major lacerations, with controllable bleeding 21R8 Breathing difficulty 21R9 Minor head/neck/shoulder injuries **BLS Yellow Response** 21Y1 21Y2 21Y3 21Y4 Police request stand-by/check for injuries 21Y5 Sexual assault 21Y6 Pepper Spray or Taser 21Y7 **TRP** 21T1 Minor previous injuries 21T2 Concerned without apparent injuries

Pain associated with recent medical

21T5 Minor lacerations w/controlled bleeding

Isolated fracture/dislocation: • Finger/Toe

surgical procedure

Vital Points

• Ask to speak directly to the patient, if possible!

Medic:

- Is the suspect still in the area?
 If yes, get description
- Is the scene secure?
- Describe what happened.
- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Is the patient combative (wanting to fight you)?
- Is the patient seizing?
- What was the patient assaulted with?
- Where on their body were they injured?
- Is the patient bleeding?

If yes:

- How much? How long?
- Can it be controlled with pressure?
- Has the patient had a recent head injury?

If yes:

How long ago?

Short Report: (call-receiver/dispatcher)

- Have the police been notified?
- If suspect in area consider giving suspect/ vehicle descriptions to Fire/EMS responders.

Assault/Trauma

Pre-arrival Instructions

- Do not remove/touch impaled object.
- If external bleeding, use clean cloth and apply pressure directly over it. DO NOT REMOVE, apply additional cloths on top, if needed.
- Have patient lie down and remain calm.
- Keep patient warm.
- Do not touch weapons or disturb scene.
- Preserve evidence.
- Patient should not change clothing, bathe or shower.
- Request witness remain at the scene if safe to do so.

Short Report

- Danger to field units, if present
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

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21T3

21T4

Burns - Thermal/Electrical/Chemical

Background Information

Burns may be thermal, electrical, chemical, nuclear or solar. Burns are classified by degree:

- First degree is superficial.
- Second degree is blistering with deep reddening.
- **Third degree** is damage to all skin layers and is either charred/black or white/dry.

Burns to the airway are very dangerous because of swelling and secondary airway obstruction.

Critical burn injuries:

2nd or 3rd degree burns are dangerous because of rapid loss of fluids through the burn surface, loss of body temperature regulation on the burn surface and the loss of skin integrity for prevention of infection.

Respiratory tract burns (airway, nose, mouth, larynx, or lungs) w/difficulty swallowing, hoarseness, or difficulty breathing.

Electrical burns are dangerous because of the body tissue damage that is not seen along the path of the current through the body. Normal household current carries little danger. However, 220 volts or greater can cause significant tissue damage and cardiac electrical dysfunction.

Smoke inhalation, often associated with significant carbon monoxide inhalation, should be suspected in the unconscious or decreased LOC patient.

	Medic Response
22M1	Unconscious or not breathing
22M2	
22M3	Respiratory Distress (one required):
	 Unable to speak normally (work of breathing)
	• Sitting, standing or leaning forward to breathe (tripod)
22M4	Burns to airway, nose, mouth, neck: (one required)
	Hoarseness • Difficulty talking • Difficulty swallowing
22M5	
22M6	Burns with blisters or skin sloughing on face, neck, chest or back
22M7	Electrical burns from power lines or panel boxes, 220V or greater
22M8	

BLS Red Response

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22R2	Battery explosion
22R3	
22R4	Minor burns on body surface
22R5	Chemical burns to eyes
22R6	No verifiable info available from RP
22R7	Breathing difficulty

Burns to hands, feet or genitals

BLS Yellow Response

22Y1	Pepper Spray or Taser
22V2	Household electrical shock

22R1 Spilled hot liquids

22Y2 Household electrical shock, no symptoms

TRP

22T1	Small	burn	from	match,	cigarette
	_				

22T2 Freezer burns

22T3 Severe sunburn

Vital Points

Burns - Thermal/Electrical/Chemical

 Ask to speak directly to the patient, if possible!

Medic:

- Where is the patient burned?
- What is the extent of the burns?
 Blisters/skin sloughing?
- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Is the patient having difficulty swallowing?
- If head or face burn:
 - Is the patient coughing?
 - Are the patient's nose hairs burned?
 - Is the patient burned around their mouth or nose?
 - If male, is the mustache burned?
- How was the patient electrocuted?

BLS Red:

- If household electrocution, what was the source?
- Are they still in contact with the electrical source?
- Are there any other injuries?

Pre-arrival Instructions

- If unconscious and not breathing normally, go directly to ageappropriate CPR PAI
- If unconscious and breathing normally, go directly to Unconscious/Breathing (trauma) PAI

Thermal (Heat, Smoke Inhalation, Hot Substances):

- Loosely cover the patient with a clean sheet or blanket, to prevent heat loss.
- Remove patient from heat source.
- If burning agent is still on skin (tar, hot oil, plastics), flush burned area in cool clean water (not ice).

Electrical (Electrocution, Lightning Strike): • Turn power off, if safe.

Chemical:

- Have patient remove contaminated clothing, if possible.
- Continuously flush chemicals from burns to eyes, remove contacts.
- If chemical is powder, brush off completely and rinse with water.
- Get information on chemical (Acid/ Alkali) (MSDS Sheet if available).

Short Report

- · Danger to field units, if present
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

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22R8

Background Information

Drowning/Near Drowning/Diving or Water-related Injury

It is very important to remember that there are often head or neck injuries present in water-related accidents and near drowning victims. Also, accidents involving scuba diving are often associated with air embolism or the "bends" which are nitrogen "bubbles" in the tissues. Patients that have been in cold water such as Puget Sound often have severe hypothermia and require more support than a warm water victim.

Critical incidents:

Any respiratory difficulty will only get worse in the water-related injury for the first 24 hours following immersion.

Scuba diving accidents are critical because of the potential for air embolism or the "bends" to develop.

Additional advice that can be given to on scene RP's is to assure that the patient conserves body heat with warm, dry clothes or blankets pending EMS arrival.

Non-critical incident:

Confirmed submersion of the patient may be significant since many of these patients will develop lung difficulties after (up to 24 hours) they are pulled out of the water and are assumed to be stable.

Medic Response

23M1 Unconscious or not breathing

23M2 Respiratory Distress (one required):

- Unable to speak normally (work of breathing)
- Sitting, standing or leaning forward to breathe (tripod)

23M3

23M4 Scuba diving accident

BLS Red Response

- 23R1 Submersion, patient conscious
- 23R2 Patient coughing
- 23R3 Other injuries: neck/back
- 23R4 No verifiable info available from RP
- 23R5 Breathing difficulty
- **23R6** Minor water-related injury, patient not submerged:
 - Extremity fracture
 - Major lacerations w/controllable bleeding

BLS Yellow Response

23Y1

TRP

- **23T1** Minor water-related injury, patient not submerged:
 - Isolated fracture/dislocation of toe/finger
 - Minor lacerations w/controlled bleeding

Vital Points

Drowning/Near Drowning/Diving or Water-related Injury

Ask to speak directly to the patient, if possible!

Medic:

- Is the patient in or out of the water?
- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Is this a scuba diving accident?

BLS Red:

- How long was the patient under water?
- Has the patient been removed from the water?
- What was the patient doing before the incident?

Pre-arrival Instructions

- If unconscious and not breathing normally, go to age-appropriate CPR PAI with ventilations.
- If unconscious and breathing normally, go directly to Unconcious/Breathing (Trauma) PAI.
- Toss them a floatation jacket/object, if available.
- Keep patient warm.
- Do not move patient around, attempt to protect head and neck.
- If patient vomits roll patient on their side.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Other agencies responding

Short Report:

- Is patient out of the water
- Is the patient on land or in a boat?

Falls/Accidents/Pain

Background Information

Much of EMS work in the trauma field is based on mechanism of injury, and this category depends significantly on the mechanism of injury to assess dispatch priorities.

Critical priorities:

Falls associated with significant medical problems such as chest pain, dizziness, headache or diabetes may be heralding a life-threatening illness that should have a paramedic evaluation.

Industrial accidents with crushing or penetrating injury have the potential for significant blood loss or vital organ impairment.

Amputations or entrapments above the level of the fingers or toes should have MEDIC evaluation for significant blood loss.

Spinal injuries should have paramedic evaluation for neurogenic shock.

Uncontrollable bleeding is bleeding that cannot be controlled by direct pressure with a clean cloth or sanitary napkin. Paramedics should not be dispatched until the RP has attempted to control bleeding without success.

Head Injuries - The best indicator of severity of injury in the patient with a head injury is level of consciousness. A patient with a decreased level of consciousness indicates there is ongoing injury to the brain. This is often from a collection of blood that may be developing around the brain (subdural or epidural hematoma) or within the brain tissue (intracerebral hematoma).

Swelling of brain tissue due to bruising of the brain (contusion) may also cause a deteriorating level of consciousness. Obviously the unconscious, unresponsive patient has severe brain dysfunction and requires immediate paramedic intervention.

Mechanism of injury is important in all trauma assessment. Head injuries are very commonly associated with cervical spine injuries and patients with head injuries should not be moved until EMS personnel are on the scene, unless a life-threatening situation exists.

Critical symptoms associated with head injuries include:

- decreasing level of consciousness
- breathing difficulty may be due to airway difficulty or associated injuries
- signs/symptoms of shock

Non-critical symptoms of head injuries include:

- a brief loss of consciousness (< 5 minutes)
 followed by an awake, alert state (this is very common and
 does not indicate a critical risk factor in evaluating head
 injuries)
- amnesia for the event causing the injury

Dispatch Criteria Medic Response 24M1 Unconscious or not breathing 24M2 Decreased LOC, non-responsive to verbal or touch **24M3** Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod) **24M4** Trauma with sign of shock: Syncope or near syncope when sitting/standing 24M5 Falls 10ft or greater, patient still down **24M6** Bilateral femur fractures 24M7 Amputation/entrapment above finger/toes Trauma with paralysis 24M8 24M9 Uncontrollable arterial bleeding 24M0 **BLS Red Response** 24R1 Single syncope **24R2** Falls associated with or preceded by: • Pain/discomfort in chest • Dizziness • Headache Diabetic **24R3** Amputation/entrapment of fingers/toes 24R4 Minor head/neck/shoulder injury **24R5** Patient trapped, without obvious injury 24R6 Major laceration with controllable bleeding **24R7** • Extremity fracture • Single femur fracture Hip fracture and/or dislocation 24R8 No verifiable info available from RP 24R9 Breathing difficulty **BLS Yellow Response** 24Y1 24Y2 Patient assist 24Y3 Hip pain, ambulatory 24Y4 **TRP** Minor lacerations (controlled bleeding), bumps or 24T1 Involved in accident, no complaints 24T2 24T3 Neck/back/shoulder pain 24T4 Fracture/dislocation of finger or toe

Vital Points

 Ask to speak directly to the patient, if possible!

Medic:

- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- Can the patient respond to you and follow simple commands?
- Can the patient answer your questions?
- Is the patient combative (wanting to fight you)?
- How far did the patient fall?
- What did the patient land on?
- What part of the body has been amputated?
- Do you have the amputated parts?
- Is the patient able to move their fingers and toes?
- Is the patient bleeding?If yes, from where?

BLS Red:

- Are there any obvious injuries?
- Did the patient complain of any discomfort or illness just prior to the fall?
- If accident, what part of the body has been injured?

Falls/Accidents/Pain

 If unconscious and breathing normally, go directly to Unconcious/Breathing (trauma) PAI

Pre-arrival Instructions

- If machinery, turn it off. (Try to locate maintenance).
- Do not move patient (if no hazards).
- Cover patient w/blanket and keep calm.
- Nothing by mouth.
- If external bleeding, use clean cloth and apply pressure directly over it. DO NOT REMOVE, apply additional cloths on top if needed.
- Locate any amputated parts or skin and place in clean plastic bag, not on ice.
- Request witness to remain at scene, if possible.

Short Report

- Danger to field units, if present
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Motor Vehicle Accident (MVA)

Background Information

Much of EMS work in the trauma field is based on mechanism of injury, and this category depends significantly on the mechanism of injury to assess dispatch priorities.

Critical priorities:

Confirmed or unknown injuries with the following mechanisms at a speed greater than or equal to 40 mph:

- Vehicle (car/motorcycle) vs. immovable object
- Vehicle vs. vehicle (Head-on or T-Bone)
- · Vehicle vs. motorcycle
- Patient ejected from vehicle
- MCI criteria
- Vehicle vs. pedestrian/bicyclist patient still down
- Roll over, patient trapped

Other critical criteria include patients with:

- Head injury with decreased level of consciousness
- Chest pain precipitating accident
- Unconscious/not breathing

"No Verifiable information from the RP" indicates that the RP simply passed by the accident and has no information. Information being fed to the caller from another party at the scene is considered "Verifiable Information".

Non-critical criteria for MVA include:

- rollover accidents less than 40 mph (which have a low incidence of life-threatening injury)
- patients who are walking about at scene
- police call for injury evaluation
- low speed less than 40 mph MVA's

Head Injuries - The best indicator of severity of injury in the patient with a head injury is level of consciousness. A patient with a decreasing level of consciousness indicates there is ongoing injury to the brain. This is often from a collection of blood that may be developing around the brain (subdural or epidural hematoma) or within the brain tissue (intracerebral hematoma).

Swelling of brain tissue due to bruising of the brain (contusion) may also cause a deteriorating level of consciousness. Obviously the unconscious, unresponsive patient has severe brain dysfunction and requires immediate paramedic intervention.

Mechanism of injury is important in all trauma assessment. Head injuries are very commonly associated with cervical spine injuries and patients with head injuries should not be moved until EMS personnel are on the scene, unless a life-threatening situation exists.

Critical symptoms associated with head injuries include:

- · decreasing level of consciousness
- combative patient often due to a frontal hematoma in the brain
- breathing difficulty may be due to airway difficulty or associated injuries
- · seizures following a head injury

Non-critical symptoms of head injuries include:

- a brief loss of consciousness (< 5 minutes) followed by an awake, alert state (this is very common and does not indicate a critical risk factor in evaluating head injuries)
- amnesia for the event causing the injury

Medic Response

25M1 Unconscious or not breathing

25M2 Decreased LOC, non-responsive to verbal or touch

25M3 Respiratory Distress (one required):

• Unable to speak normally (work of breathing)

• Sitting, standing or leaning forward to breathe (tripod)

25M4 Vehicle speed ≥ 40 MPH with any of the following mechanisms:

• Veh vs. immovable object

• Veh vs. Veh (Head-on or T-bone)

• Veh vs. Motorcycle

• Roll over, patient trapped

25M5

25M6 Trauma with sign of shock: Syncope or near syncope when sitting/standing

25M7 Patients ejected

25M8 Vehicle vs. Pedestrian/Bicyclist - patient still down

BLS Red Response

25R1 Injury accident:

• Vehicle speed < 40 MPH

• Vehicle speed ≥ 40 MPH, no medic criteria

• Unknown extent of injuries

25R2 Roll-over. < 40 MPH

25R3 No verifiable info available from RP

25R4 Patient trapped, < 40 MPH

25R5 Vehicle vs. Pedestrian/Bicyclist - minor injuries

BLS Yellow Response

25Y1

25Y2 Request for evaluation via personnel on location:

• Police • Fire Dept.

Vital Points

Motor Vehicle Accident (MVA)

 Ask to speak directly to the patient, if possible!

Medic:

- How fast was the vehicle traveling?
- What did the vehicle hit?
- Did the caller stop or drive by?
- How many patients are injured?
- Are the patients able to respond to you and follow simple commands?
- Are the patients having any trouble breathing?
- Are all of the patients free of the vehicle?
 Is anyone trapped in the vehicle due to injuries?
- Was anyone thrown from the vehicle?

BLS Red:

 Is the patient complaining of any discomfort?

Short Report:

 Are there any hazards present (fire, water, wires down?)

Pre-arrival Instructions

- Do not move patient, attempt to protect head and neck (if no hazards).
- If external bleeding, use clean cloth and apply pressure directly over it.
 DO NOT REMOVE, apply additional cloths on top if needed.
- Request witness to remain at scene, if safe to do so.

Short Report

- Danger to field units, if present
- Gender
- Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding

Background Information

Critical Bites

Concern for airway

Bites around the face or neck are considered critical because of the possibility of airway obstruction. If these bites are superficial, they may not be critical and therefore may not require a paramedic evaluation/response. If uncertain whether or not airway compromise exists, err on the side of caution and send a paramedic.

Uncontrollable Bleeding

Uncontrollable bleeding is bleeding that cannot be controlled by direct pressure with a clean cloth or sanitary napkin. If the RP and/or patient has made an attempt to control the bleeding and has not been successful, then a paramedic response is needed.

Respiratory Distress

Speak to the patient whenever possible to determine the work of breathing. Work of breathing is the effort it takes to move a sufficient amount of air.

Respiratory distress could be the result of airway compromise due to location of bite, systemic response to the venom, or secondary to shock due to blood loss. In any case, it is not important to determine why the patient is in respiratory distress, it is important to quickly assess the breathing and determine if the patient has any signs/symptoms of respiratory compromise.

Danger to Field Units

It is important to determine the location of the poisonous snake or the vicious animal in order to quickly notify the responding units of this location and make them aware of the situation.

If appropriate, call out animal control or other entity to assist in the containment and/or capture of the animal.

Medic Response

- 26M1 Unconscious or not breathing
- 26M2 Uncontrollable bleeding
- 26M3 Respiratory Distress (one required):
 - Unable to speak normally (work of breathing)
 - Sitting, standing or leaning forward to breathe (tripod)
- **26M4** Serious neck and/or face bites (one required):
 - Airway compromised
 - Decreased LOC
 - Uncontrollable bleeding
- 26M5 Bite from poisonous animal
- **26M6** Sign of shock: Syncope or near syncope when sitting/standing

BLS Red Response

- **26R1** Bites to face and/or neck with controlled bleeding
- 26R2 No verifiable info available from RP
- 26R3 Breathing difficulty

BLS Yellow Response

TRP

- 26T1 Swelling at bite site
- **26T2** Bites below neck, non-poisonous, controlled bleeding

Vital Points

Ask to speak directly to the patient, if possible!

Medic:

- Is the patient speaking normally?
- Is the patient having any trouble breathing?
- What part of the body was bitten?
- Is the patient bleeding?
- Does the bleeding stop when you apply pressure?
- What type of animal bit the patient?
- How does the patient look?
- How does the patient feel when they sit up?

Animal Bites

Pre-arrival Instructions

- Contain the animal, if it is safe to do so.
- Keep patient calm and still.
- If external bleeding, use clean cloth and apply pressure directly over it.
 DO NOT REMOVE, apply additional cloths if needed.
- Request witness remain at scene, if safe to do so.

Short Report

- Danger to field units, if present
- Gender Age
- Chief complaint
- Pertinent signs and symptoms
- Medical/surgical history, if relevant
- Other agencies responding PD and/or Animal Control?

TRP:

• Is there any swelling around the bite?

Short Report:

- Is the animal contained?
- Have PD and/or Animal Control been notified?
- Description of animal?

AUTOMATED EXTERNAL DEFIBRILLATOR INSTRUCTIONS

(Use if patient is over 8 years of age unless RP has PEDS attachment and has been trained)

- Has anyone there been trained to use the defibrillator?
- Get the patient flat on their back on the floor.
- Bring the defibrillator next to the patient's ear. Make sure it is not touching the patient.
- Kneel next to them.
- Bare the chest.
- Open the defibrillator case. (Look for a zipper, snaps on the side or a black button on the lid.)
- Turn the machine on and follow instructions.

<u>If help is needed, use the following instructions</u>: (Remind RP that your assistance is not delaying the response.)

- Pull out and open the foil pouch containing the electrode pads.
- Peel the backing off the pads.
- Place the pads on the person's chest following the pictures. Look to see that one pad is on the person's upper right chest, below the collarbone, and the other pad is on the person's left side, below the armpit.
- Check that the cord to the pads are plugged into the defibrillator. If not, do so now.
- Push the green button to turn on the machine.
- "Analyzing" means the defibrillator is deciding whether to shock or not.
- **Push** the analyze button if told to do so. **DO NOT** touch the person. (No one should be touching the cords or the person during analysis.)

The defibrillator will give one of two messages: "Shock advised" or "No shock advised."

Did the defibrillator tell you to push the shock button?

If YES:

SHOCK ADVISED: (The defibrillator is charging.)

- SHOUT, "STAND CLEAR!"
- MOVE BACK and make sure no one is touching the patient, including yourself.
- Push the shock button.
- The defibrillator may deliver up to 3 shocks in a row, with an automatic, short analysis between each shock. After 3 shocks, the AED will tell you to check pulse. If no pulse, begin CPR.

If NO:

NO SHOCK ADVISED: (No shock will be given at this time.)

- · Is she/he conscious & breathing normally?
- Begin CPR, I will help you, go directly to age-appropriate CPR PAI.
- · Leave Pads on Chest & Defibrillator turned on.
- After a period of CPR the defibrillator will tell you to stand clear to analyze. Follow the defibrillator's instructions.

CPR/Adults

- 1. Is there an AED (Automatic External Defibrillator) on the premise?
- 2. Does anyone there know CPR? (Trained bystanders may still need instructions. Ask!)
- 3. Get the phone **NEXT** to the person.
- 4. Listen carefully. I'll tell you what to do.
 - Get them FLAT on their back on the floor.
 - BARE the chest.
 - KNEEL by their side.
 - Put the HEEL of your HAND on the CENTER of their CHEST, right BETWEEN the NIPPLES.
 - Put your OTHER HAND ON TOP of THAT hand.
 - PUSH DOWN FIRMLY, ONLY on the HEELS of your hands, 2 inches.
 - Do it 50 times, just like you're PUMPING the chest. Count OUTLOUD 1-2-3...50. ***(correct rate if needed)
 - KEEP DOING IT: KEEP PUMPING the CHEST UNTIL HELP TAKES OVER. I'll stay on the line.

Ventilation Instructions: (for use when suspected cardiac arrest secondary to respiratory arrest)

- PINCH the NOSE: With your other hand, LIFT the CHIN so the head BENDS BACK.
- Completely COVER their MOUTH with your MOUTH.
- GIVE TWO BREATHS OF AIR (come back to the phone).

Foreign Body Airway Obstruction: (confirmed choking now unconscious)

• After each set of **30** compressions "**Look inside the mouth, remove any obvious obstruction**". If object is removed give two ventilations between each set of 30 compressions. If object not seen continue with compressions.

NOTE: IF CALLER REPORTS VOMITING, INSTRUCT CALLER TO:

- Turn their head to one side.
- Sweep out contents with your fingers before you resume.

^{***}If rescuer becomes too tired to continue instruct them to rest a short time then continue **compressions as soon as possible**.***

^{***}Then back to compression instructions (#4 above) but give 30 compressions between breaths.***

CPR/Children 1-8 Years

- 1. Does anyone there know CHILD CPR? (Trained bystanders may still need instructions. Ask!)
- 2. Listen carefully. I'll tell you what to do .
 - Move the child to a HARD surface (table or floor) near the phone.
 - BARE the chest.
 - PINCH the NOSE.
 - With your OTHER hand, LIFT the CHIN and TILT the head back.
 - If possible choking: "Look inside mouth, remove any obvious obstruction".
 - Completely COVER their mouth with your mouth and give 2 breaths.
- 3. THEN COME BACK TO THE PHONE. If I'm not here, stay on the line.
- 4. Listen carefully. I'll tell you what to do next.
 - Put the HEEL of ONLY ONE HAND on the CENTER of the chest, right BETWEEN the NIPPLES.
 - PUSH down firmly one-half the depth of the chest.
 - Do this **30** times **QUICKLY**. Count **OUTLOUD** 1-2-3-4-5...30
 - Then PINCH the NOSE, LIFT the CHIN, and gently tilt the head back.
 - Give 2 breaths.
 - Keep doing it until help can take over. I'll stay on the line.

NOTE: IF CALLER REPORTS VOMITING, INSTRUCT CALLER TO:

- Turn their head to one side.
- Sweep it all out with your fingers before you resume ventilations.

CPR/Neonate (Newborn-associated with field delivery)

- 1. Does anyone there know CPR for newborns? (Trained bystanders may still need instructions. Ask!)
- 2. Bring the baby to the phone.
- 3. Listen carefully. I'll tell you what to do.
 - Lay the baby FLAT on their BACK on a table.
 - BARE the baby's CHEST.
 - LIFT the CHIN slightly. MAKE SURE THE NECK REMAINS LEVEL.
 - TIGHTLY COVER the baby's MOUTH AND NOSE with your mouth.
 - GIVE 1 short BREATH of air.
 - Then come back to the phone. If I'm not here, stay on the line.
- 4. Listen carefully. I'll tell you what to do next.
 - Put your FIRST AND MIDDLE fingertips on the CENTER of the chest, right BETWEEN the NIPPLES.
 - PUSH down one-half the depth of the chest, 3 times. Count OUTLOUD 1-2-3.
 - Go do that. Then come back to the phone.
 - NEXT, LIFT the CHIN. MAKING SURE THE NECK REMAINS LEVEL.
 - TIGHTLY COVER the baby's MOUTH AND NOSE with your mouth.
 - GIVE 1 short BREATH of air.
 - Then come back to the phone.
 - KEEP DOING THIS until HELP CAN TAKE OVER.
 - **REMEMBER, 1 breath**, then **3 compressions**. I'll stay on the line.

NOTE: IF CALLER REPORTS VOMITING, INSTRUCT CALLER TO:

- Turn newborn on their side.
- Sweep out anything you can see with your fingertips. (Do not attempt to get anything out of the mouth that you cannot see
- No blind finger sweeps).

CPR/Infants 0-12 Months

- 1. Does anyone there know INFANT CPR? (Trained bystanders may still need instructions. Ask!)
- 2. Bring the baby to the phone.
- 3. Listen carefully. I'll tell you what to do.
 - Lay the baby FLAT on their BACK on a table.
 - BARE the baby's CHEST.
 - LIFT the CHIN slightly. MAKE SURE THE NECK REMAINS LEVEL.
 - If possible choking: "Look inside mouth, remove any obvious obstruction".
 - TIGHTLY COVER the baby's MOUTH AND NOSE with your mouth.
 - GIVE 2 BREATHS of air.
 - THEN COME BACK TO THE PHONE. If I'm not here, stay on the line.
- 4. Listen carefully. I'll tell you what to do next.
 - Put your FIRST AND MIDDLE fingertips on the CENTER of the chest, right BETWEEN the NIPPLES.
 - PUSH down one-half the depth of the chest. Do it 30 times RAPIDLY. Count OUTLOUD 1-2-3-4-5...30
 - Go do that. Then come back to the phone.
- 5. Listen carefully.
 - NEXT, LIFT the CHIN slightly, MAKING SURE THE NECK REMAINS LEVEL, and give 2 quick breaths of air.
 - Then, put your FIRST AND MIDDLE FINGERS on the CENTER OF THE CHEST, right BETWEEN the NIPPLES.
 - PUSH down one-half the depth of the chest. Do it 30 times RAPIDLY. Count OUTLOUD 1-2-3-4-5...30.
 - Follow with 2 breaths
 - KEEP DOING THIS. REMEMBER, 2 breaths, then 30 quick compressions.
 - Keep doing it until help takes over. I'll stay on the line.

NOTE: IF CALLER REPORTS VOMITING, INSTRUCT CALLER TO:

- Turn their head to the side.
- Sweep it out with your fingers before you resume ventilations. (Do not attempt to get anything out of the mouth that you cannot see No Blind finger sweeps).

CPR/Pregnant Woman (3rd Trimester)

- Does anyone there know CPR? (Trained bystanders may still need instructions. Ask!)
- 2. Get the phone **NEXT** to her, if you can.
- 3. Listen carefully. I'll tell you what to do.
 - Get her FLAT on her BACK on the floor.
 - Get a pillow or folded blanket and WEDGE it under the RIGHT SMALL of the BACK.*
 - BARE the chest.
 - KNEEL by her side.
 - PINCH the nose.
 - With your OTHER hand, LIFT the CHIN so the head BENDS BACK.
 - If possible choking: "Look inside mouth, remove any obvious obstruction".
 - COMPLETELY COVER her mouth with your mouth.
 - GIVE 2 breaths of air.
 - THEN, COME BACK TO THE PHONE! If I'm not here, stay on the line.
- 4. Listen carefully, I'll tell you what to do next.
 - Put the HEEL of your HAND on the CENTER of her CHEST, right BETWEEN the NIPPLES.
 - Put your OTHER HAND ON TOP of THAT hand.
 - PUSH DOWN FIRMLY, ONLY on the HEELS of your hands, 2 inches.
 - Do it 30 times, just like you're PUMPING her chest. Count OUTLOUD 1-2-3-4-5...30.
 - MAKE SURE the HEEL of your hand is on the CENTER of her chest, RIGHT BETWEEN the NIPPLES. Pump 30 times.
 - Then. PINCH the NOSE and LIFT the CHIN so the head BENDS BACK.
 - 2 MORE breaths and PUMP the CHEST 30 times.
 - KEEP DOING IT: PUMP the CHEST 30 times. Then 2 BREATHS.
 - KEEP DOING IT UNTIL HELP CAN TAKE OVER. I'll stay on the line.

*NOTE: When the woman is flat on her back, the position of the pregnant uterus can put pressure on the iliac vessels, the inferior vena cava and the abdominal aorta. To decrease this pressure, the person who is going to do CPR can wedge a pillow or a folded blanket, under the right small of the back, thus moving the uterus to the left side of the abdomen and alleviating pressure on areas where blood flow is vital.

BACKGROUND INFORMATION: Causes of cardiac arrest during pregnancy can be any of the following:

- Pulmonary embolism (blockage of the pulmonary artery by blood clot)
- Hypovolemia (diminished blood supply due to internal hemorrhaging)
- Amniotic fluid embolism
- Congenital and acquired cardiac disease
- Trauma

CPR/Tracheostomy/Laryngectomy Patients (Stoma)

Some patients have a tracheostomy - a surgical opening in the neck. This may be a result of a laryngectomy (removal of part of the upper airway) or other problem. This opening is called a "stoma" and the person breathes through it rather than through their mouth and nose. The stoma connects the airway (trachea) to the skin of the neck. This may appear as a small 1/2 inch slit or hole in the neck or as a metal or plastic flange plate with a "breathing hole." All patients with a stoma must be ventilated through this opening, **NOT** through the nose and mouth. In most patients, the mouth and nose are no longer connected to the lungs (laryngectomy), but in some there is still a partial connection through which air could escape (partial laryngectomy). In such cases the mouth and nose must be blocked whenever the patient is being ventilated through the stoma, or the air blown in will go out through the mouth and nose instead of into the lungs.

- 1. Does anyone there know CPR? (Trained bystanders may still need instructions. Ask!)
- 2. Get the phone **NEXT** to the person, if you can.
- 3. Listen carefully. I'll tell you what to do.
 - Get them FLAT on their BACK on the floor.
 - BARE the CHEST and NECK.
 - KNEEL by their side.
 - TILT the head back slightly. DO NOT let it turn to the side.
 - COMPLETELY SEAL the MOUTH by covering it with your hand and PINCH the NOSE shut.
 - COMPLETELY COVER the stoma with your MOUTH and GIVE 2 BREATHS of AIR into their LUNGS.
 - THEN COME BACK TO THE PHONE! If I'm not here, STAY ON THE LINE!
- 4. Listen carefully, I'll tell you what to do next.
 - Put the HEEL of your HAND on the CENTER of their CHEST, right BETWEEN the NIPPLES.
 - Put your OTHER HAND ON TOP of THAT hand.
 - PUSH DOWN FIRMLY, ONLY on the HEELS of your hands, 2 inches.
 - Do it 30 times, just like you're PUMPING their chest. Count OUTLOUD 1-2-3-4-5...30.
 - MAKE SURE the HEEL of your hand is on the CENTER of their chest, RIGHT BETWEEN the NIPPLES. Pump 30 times.
 - COMPLETELY SEAL the MOUTH and PINCH the NOSE shut.
 - COMPLETELY COVER the stoma with your MOUTH. GIVE 2 BREATHS.
 - KEEP DOING IT: PUMP the CHEST 30 times. Then GIVE 2 BREATHS.
 - KEEP DOING IT UNTIL HELP CAN TAKE OVER. I'll stay on the line.

NOTES:

- Remember to have the caller completely seal the mouth and pinch nose when performing ventilations through the stoma.
- If the caller reports that the neck opening is encrusted with mucous, instruct the caller to clean the opening with a clean cloth.

CHOKING - PREGNANT WOMEN (3rd Trimester) or OBESE

If person is <u>UNCONSCIOUS</u>, go to <u>CPR/Adults or CPR for Pregnant Women Instructions</u>.

If person is **CONSCIOUS**: Follow Step 1 below.

1. Is the person able to **TALK** or **COUGH**:

(If YES): STOP.

(If NO): Listen carefully. I'll tell you what to do next:

- Stand BEHIND the person.
- With your arms directly under the person's armpits. **ENCIRCLE** their **CHEST**.
- Place the thumb side of one fist on the MIDDLE of their BREASTBONE.
- GRAB that fist with your other hand and THRUST INWARD until the object is expelled.
- If the person becomes unconscious, go to appropriate CPR Instructions.

CHOKING - ADULT

If person is **UNCONSCIOUS**, go to CPR/Adult Instructions.

If person is **CONSCIOUS**:

1. Is the person able to **TALK** or **COUGH**:

(If YES): STOP

(If NO): Listen carefully. I'll tell you what to do next.

- Stand **BEHIND** the person. Wrap your arms **AROUND** the waist.
- Make a fist with **ONE** hand and place it against the **STOMACH**, in the **MIDDLE** slightly **ABOVE** the navel.
- **GRASP** your fist with the other hand.
- PRESS into the stomach with QUICK, UPWARD thrusts. Repeat thrusts until the item is expelled.
- If the person becomes unconscious, go to CPR/Adult Instructions.

CHOKING - CHILD (1-8 Yrs.)

If child is **UNCONSCIOUS**, go to CPR/Child Instructions.

If child is **CONSCIOUS**:

1. Is the child able to TALK or COUGH:

(If YES): STOP.

(If NO): Listen carefully. I'll tell you what to do next.

- Stand BEHIND the child. Wrap your arms AROUND the waist.
- Make a fist with **ONE** hand and place it against the **STOMACH**, in the **MIDDLE** slightly **ABOVE** the navel.
- GRASP your fist with the other hand.
- PRESS into the stomach with QUICK, UPWARD thrusts. Repeat thrusts until the item is expelled.
- If child becomes unconscious, go to CPR/Child Instructions.

CHOKING - INFANT (0 - 12 months)

If infant is **UNCONSCIOUS**, go to CPR/Infants Instructions.

If infant is **CONSCIOUS**:

- 1. There might be something blocking the baby's airway. Bring the baby to the phone.
- 2. Is the baby able to **CRY** or **COUGH**:

(If YES): STOP.

(If NO): Listen carefully. I'll tell you what to do next:

- BARE the baby's chest (open the shirt, lift the shirt).
- PICK up the baby, and turn the baby FACE DOWN so it lies along your forearm.
- SUPPORT the baby's JAW in your HAND with your arm resting on your thigh for support.
- **TILT** the baby, with the head down slightly. Use the heel of your other **HAND** to strike the **BACK** firmly **5** times, right between the **SHOULDER BLADES** Do that and come back to the phone.
- 3. Listen carefully.
 - Lay the baby FLAT on their back on a table or a hard surface.
 - Put your INDEX (First) and MIDDLE FINGERS on the CENTER of the chest, right BETWEEN the NIPPLES.
 - Push down 1 inch. Push down 5 times RAPIDLY. Count OUTLOUD 1-2-3-4-5.
 - Do that and come back to the phone.
 - Repeat steps until the item is expelled.
 - If the baby becomes unconscious go to CPR/Infant Instructions.

UNCONSCIOUS PATIENT/BREATHING NORMALLY - AIRWAY CONTROL

BREATHING NORMALLY (Non-trauma)

- Listen carefully. I'll tell you what to do.
 - Roll the patient on their side.
 - Check for normal breathing until help takes over.
 - Watch for the chest to rise and fall.
- 2. I have advised the dispatcher to send help. If the patient stops breathing normally or vomits, call back.

VOMITING/UNCONSCIOUS PERSON

Listen carefully. I'll tell you what to do.

- Turn their head to the side.
- Sweep it all out of the mouth with your fingers.
- Is the person breathing normally?
 (If YES): Continue watching the person. If the person stops breathing normally, CALL BACK.

(If NO): Go to age-appropriate CPR Instructions.

BREATHING NORMALLY (Trauma)

- Listen carefully. I'll tell you what to do.
 - Do not move the patient (especially head and neck), unless imminent danger to life.
 - Check for normal breathing until help takes over.
 - Watch for the chest to rise and fall.
- 2. I have advised the dispatcher to send help. If the patient stops breathing normally or vomits, call back.

VOMITING/UNCONSCIOUS PERSON

Listen carefully. I'll tell you what to do.

- Do not turn their head.
- Sweep it all out of the mouth with your fingers.
- Is the person breathing normally?

(If YES): Continue watching the person. If the person stops breathing normally, CALL BACK.

(If NO): IF PATIENT MEETS CRITERIA FOR CPR, GO TO AGE-APPROPRIATE CPR INSTRUCTIONS.

NOTE: Vomiting in an unconscious person is very serious. If possible, try to stay on the line until emergency personnel arrive at the scene.

CHILDBIRTH (for woman by herself)

- 1. Have you had a baby before?
- 2. How many minutes between your contractions? Contractions with **less than 2 minutes between them** (especially if the woman feels a **strong desire to push**), indicate birth may be **imminent**.
- 3. If there are more than 2 minutes between contractions: Listen carefully. I'll tell you what to do.
 - LIE in a comfortable position on your LEFT SIDE.
 - Take **DEEP** breaths in through your nose and out through your mouth.
 - We will get someone there as soon as possible.
- 4. If there are less than 2 minutes between contractions, and there is a strong desire to push: Listen carefully. I'll tell you what to do.
 - Try to stay on the line with me or keep the phone nearby.
 - If possible, get some clean towels or sheets. Place some on the floor. Keep the rest handy for later.
 - Remove your underwear.
 - Lie down on your BACK on the towels and relax, breathing DEEPLY through your MOUTH.
 - BEND your KNEES.
- 5. If she begins to deliver (crowning and pushing): Listen carefully. I'll tell you what to do.
 - The baby's head should deliver first.
 - There will be water and blood with delivery. THIS IS NORMAL.
 - When the baby is delivered, gently try to clean out its mouth and nose with a clean, dry cloth.
 - Do not CUT or PULL the cord.
 - Wrap the baby in a towel, or whatever is handy, and place it between your legs.
 - If/when the placenta (tissue at the other end of the umbilical cord) is delivered, WRAP IT.
 - Keep the placenta LEVEL with or SLIGHTLY ABOVE the baby.
 - If the baby does NOT start breathing on its own, rub its back or gently slap the soles of its feet.

If the baby DOESN'T begin breathing IMMEDIATELY on its own: Go to CPR-Neonates.

If possible, STAY ON THE LINE WITH ME.

- 6. If there is a leg, arm or buttock presenting:
 - REASSURE the mother. Tell her you will have someone there as soon as possible.
 - Ask her to remain on her BACK with her KNEES BENT.
 - Ask her to RELAX and BREATHE through her MOUTH.
 - Tell her NOT TO PUSH and NOT TO PULL ON THE LIMB.
- 7. If the umbilical cord is presenting, have the mother get on her knees with her head resting on the floor and her buttocks in the air. The Knee-Chest Position. Attempt to keep pressure off of the cord.

Postpartum Hemorrhage (external bleeding from the vagina, persistent abdominal rigidity or tenderness and signs of shock.)

- Firmly massage the lower abdomen in a circular motion.
- (Treat for shock): Keep the mother warm and elevate legs.
- Place a sanitary napkin over the vaginal opening.

CHILDBIRTH

- 1. Has she had a baby before?
- 2. How many minutes between her contractions? Contractions with less than 2 minutes between them (especially if the women feels a strong desire to push), indicate birth may be imminent.
- 3. If there are more than 2 minutes between contractions: Listen carefully. I'll tell you what to do.
 - Have her LIE in a comfortable position on her LEFT SIDE and take DEEP breaths. I have advised the dispatcher to send help.
- 4. If contractions are less than 2 minutes between contractions and if there is a strong desire to push: Listen carefully, I'll tell you what to do.
 - Get the phone **NEXT** to her, if you can.
 - Ask her to LIE on her BACK and relax, breathing DEEPLY through her MOUTH.
 - Ask her to remove underwear and BEND her KNEES.
 - Place clean towels UNDER her BUTTOCKS and have additional clean towels ready.
- 5. If she starts to deliver (baby's head appears): Listen carefully. I'll tell you what to do.
 - The baby's head should deliver first. CRADLE it and the rest of the baby as it is delivered. DO NOT PUSH OR PULL.
 - There will be water and blood with delivery. THIS IS NORMAL.
 - When the baby is delivered, CLEAN out it's MOUTH and NOSE with a CLEAN, DRY cloth.
 - Do NOT attempt to CUT or PULL the cord.
 - Wrap the baby in a clean towel, or whatever is handy, and place it between mother's legs.
 - Massage mother's lower abdomen very gently.
 - If the baby does NOT start breathing on its own, rub its back or gently slap the soles of its feet. If the baby DOESN'T begin breathing IMMEDIATELY, come back to the phone.

IF THE BABY DES NOT BEGIN BREATHING ON IT'S OWN: GO TO CPR/Neonate Instructions.

- If/When the placenta (tissue at the other end of the umbilical cord) is delivered, WRAP IT.
- Keep the placenta LEVEL with or SLIGHTLY ABOVE the baby.
- If possible, STAY ON THE LINE.
- 6. If there are complications (leg, arm, buttocks or umbilical cord presenting):
 - REASSURE the mother. Tell her you have dispatched aid.

Pre-Arrival Instructions for Common Complications:

Postpartum Hemorrhage (external bleeding from the vagina, persistent abdominal rigidity or tenderness and signs of shock.)

- Firmly massage the lower abdomen in a circular motion.
- (Treat for shock): Keep the mother warm and elevate legs.
- Place a sanitary napkin over the vaginal opening.

Breech presentation

- (If a foot or arm presents, delivery is not possible in the field.)
- Support the baby with your hands, allowing the buttocks and trunk to deliver spontaneously.
- Support the legs and trunk of the infant. Never attempt to pull baby from vagina by legs or trunk.
- Raise the infant's body up until its face protrudes.
- Did the baby deliver?
- (If unsuccessful, provide an airway for the baby): Push the vaginal wall away from baby's face.
- Keep doing that until help arrives.

If the head does not deliver within 3 minutes of trying the above: Maintain the airway. Don't pull or touch the extremity.

Place the mother with legs and buttocks elevated (Put something under her buttocks to elevate).

Prolapsed Umbilical Cord

- Place the mother on her knees with her head resting on the floor and her buttocks in the air. Do not permit her to lie flat.
- Attempt to keep pressure off the cord.