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Pen Light

Pen lights are primarily used by Emergency Medical Responders to gauge pupil response to light…but have many other uses whenever a bit of illumination is needed.

Many pen lights have a pupil sizing chart on the side…to make it easier for EMR's to estimate and compare pupil sizes.

Examination Gloves

Gloves come in many different sizes and materials for Emergency Medical Responders to help prevent disease transmission.

Latex has become less desireable in medical fields due to a relatively high frequency of latex allergies. Nitrile is a commonly used alternative material.

Pocket Mask / Resuscitation Mask

Pocket Masks are used by Emergency Medical Responders for Rescue Breathing and Assisted Ventilations…when a Bag Valve Mask is not available.

The one-way-valve offers responders a measure of protection from vomit, blood and sputum.

AED

Automated External Defibrillators analyze heart rhythms, and when used in conjunction with CPR, can deliver a shock which resets the heart into a normal rhythm.

Emergency Medical Responders place two pads on the chest, and connect them to the AED.

Nebulizing Mask

Nebulizing masks allow Emergency Medical Reponders to deliver certain types of medication in a “mist” form.

The medication is added as a liquid to the chamber below the facepiece, and pressurized oxygen “Nebulizes” it into a mist.

Nasal Canula

Nasal Canula can be connected to an oxygen regulator to deliver low-flow oxygen to a patient.

Generally used in non-emergency or long term circumstances by EMR practitioners.

Oxygen Flow Rates set at 2-4 lpm (liters per minute)

Simple Mask

Simple Oxygen Masks are widely used by Emergency Medical Responders in British Columbia as a method of delivering Oxygen to patients. Tubing carries O2 from the regulator to the facepiece.

Oxygen flow rates set for 6-15 lpm (liters per minute)…most commonly 10 lpm.

Non-Rebreather Mask

Non-Rebreather Masks have a Reservoir attached to the facepiece, which collects close to 100% pure oxygen from the regulator.

Oxygen Flow Rates set for 8-15 lpm…most commonly 15 lpm by Emergency Medical Responders in BC and Alberta.

Oxygen Cylinder

Oxygen Cylinders hold pure Oxygen gas in a compressed state…generally at 2000 psi. Larger cylinders hold more Oxygen, while smaller cylinders are more portable.

Emergency Medical Responders attach a Regulator to the Cylinder, in order to deliver the O2 to their patients….and replace the Cylinder once it reaches 500 psi.

Oxygen Regulator

Oxygen Regulators provide EMR's a means of controlling the flow of O2.

3 pins on the Regulator line up with 3 holes on the Cylinder valve stem…and are held in place with a Yoke Screw.

The Pressure Gauge shows how much Oxygen is in the Cylinder, while the Flow Meter controls the delivery rate in lpm (Liters per Minute)

Oxygen Wrench

Oxygen Wrenches have two small rectangular fittings, which line up with the rectangular valve stem of an Oxygen Cylinder.

Emergency Medical Responders use the wrench to open the Cylinder…which opens the flow from the Cylinder to the Oxygen Regulator.

Entonox Regulator

Entonox Regulators work in a similar fashion to Oxygen Regulators…but are connected to an Entonox Cylinder.

Entonox is a 50-50 mixture of two gasses…Oxygen and Nitrous Oxide. When delivered by Emergency Medical Responders in this ratio…Entonox has pain relieving analgesic effects.

K-E-D

Kendrick Extrication Devices give Emergency Medical Responders a means to immobilize a patient's upper body…while in a seated position.

K-E-D's are commonly utilized at Motor Vehicle Accidents and in Confined Spaces.

Traction Splint

Although many companies manufacture Traction Splints…SAGER is the model most commonly utilized by Emergency Medical Responders working for BCAS.

Traction Splints can be used in conjunction with Entonox, or without it, to prevent bone fractures from compressing.

Clamshell Stretcher

Also known as a Robertson Orthopedic Device (R-O-S).

Clamshell Stretchers can be split in half…slid underneath the patient…then reconnected; so the Emergency Medical Responder can lift the patient without having to roll or move them first.

Spine Board

Also referred to as a Back Board.

Spine Boards are used by Emergency Medical Responders to safely lift their patients onto a stretcher…with the option of maintaining spinal immobilization.

Patients are secured to the board with Velcro or Spider Straps.

Spider Straps

Spider Straps are used by Emergency Medical Responders to secure patients to a Spine Board.

Velcro straps are placed over the patient, and looped through the handles on the side of the Spine Board…starting from the shoulders and moving down.

Color coding helps keep the straps organized.

Hard Collar

Hard collars are used by Emergency Medical Responders to help stabilize potential spinal injuries.

Some collars are adjustable…while others are manufactured in pre-sized format.

Head Pads

Head Pads are secured to the top of a Spine Board…to secure the head of a patient after the body has been secured.

Many manufactures and variations exist. Ferno is commonly utilized by Emergency Medical Responders and Rescue Technicians working in British Columbia.

Foam Rolls

Foam Rolls are commonly utilized by Emergency Medical Responders working for BCAS…as a head stabilization tool.

The Rolls are placed on both sides of the patient's head, after being secured to a spine board. Two tape straps are secured over the forehead and under the chin.

The Rolls may or may not be connected by a thin piece of foam pad.

Pulse Oximeter

Pulse Oximeters give Emergency Medical Responders a means of measuring the amount of Oxygen in their patient's blood stream.

Also referred to as Sp02…blood oxygen levels can be a useful indication of overall patient condition.

Pulse oximeters have limitations…so EMRs use these readings cautiously.

Stethoscopes

Emergency Medical Responders use Stethoscopes to listen for a variety of sounds which would otherwise be undetectable.

Heart Beats and Pulse Rates are auscultated (listened for) during Blood Pressure measurement.

Abnormal breathing sounds can be detected in cases of Pneumonia or other chest related injuries and illnesses.

Blood Pressure Cuff

Also referred to as a Sphygmomanometer.

Blood Pressure Cuffs allow Emergency Medical Responders to measure the pressure being exerted by a patient's circulatory system. Systolic…the amount of pressure while the heart is squeezing; and Diastolic…the amount of pressure while the heart is relaxed.

Measured in Millimeters of Mercury (mmHg).

Blood Glucose Monitor

Blood Glucose Monitors usually rely on a small drop of blood placed onto a test strip. The test strip is placed into the Monitor. In Canada…Blood Glucose is measured in Millimoles per Liter (mmol).

Emergency Medical Responders licensed by BC EMALB regard 4 mmol or lower as "Hypoglycaemic"…and 11 mmol or higher as "Hyperglycaemic".

Thermometer

When a patient is suspected of being hypothermic, hyperthermic or having a fever…Emergency Medical Responders can use a thermometer to measure their Body Core Temperature. Normal body core temperature is 37°C or 98.6°F.

Some models are inserted orally…while others may read Tympanic (ear) tissues.

Although Rectal temperatures are considered the most clinically accurate…that method is not generally utilized in emergency medical response.

SAM Splint

Generically referred to as a Speed Splint.

SAM Splints are made of a thin, flexible metal sheet encased in high density foam.

Emergency Medical Responders can utilize SAM Splints in a wide range of circumstances…for a wide range of injuries.

Medical Scissors

Emergency Medical Responders can use Medical Scissors to cut articles of clothing, seatbelts, straps, old bandages, hair, and almost anything else getting in their way.

Cutting clothing away is often better patient care than simple removal…as it prevents movement of injuries.

Speed Straps

Speed Straps are made of durable elastic fabric with hook and loop (Velcro) fasteners.

Emergency Medical Responders working for BCAS routinely use Speed Straps for injury immobilization…although their length and fastening mechanism do create limitations.

Glucose Gel

Emergency Medical Responders can give their patients Glucose Gel when Blood Sugar readings below 4 mmol indicate Hypoglycaemia (Low Blood Sugar).

Glucose can be administered to an unresponsive patient…but precautions must be taken to ensure they don't gag or choke.

Nitroglycerin Spray

Emergency Medical Responders can administer Nitro Spray sublingually, if the patient's medical history and physical condition meet the requirements.

One spray contains 4 micrograms of Nitroglycerin, which is a vasodilator, expanding the patient's blood vessels to allow more blood to flow to the starving heart muscle.

ASA

Acetylsalicylic Acid (ASA) is a "platelet inhibitor" which can prevent blood clots from either forming or getting bigger in the blood stream.

If a patient suffering Chest Pains indicative of Myocardial Infarction has safely taken ASA in the past…Emergency Medical Responders may administer either two 80 mg tablets or one 325 mg tablet; to be chewed by the patient.

Tourniquet

When Direct Pressure and all other options have failed…Emergency Medical Responders can apply a Tourniquet, as a last resort, to control major external bleeding.

The Tourniquet is placed approximately 2 inches "upstream" from the injury, and turned until the bleeding stops. The Tourniquet is secured in place, and checked every 10 minutes.

O.P.A.'s

Oropharyngeal Airways (O.P.A.'s) are utilized by Emergency Medical Responders to prevent an unresponsive patient's tongue from blocking the back of their throat.

O.P.A.'s are colour coded to make on-scene sizing quicker. They range in sizes up to 12 cm…with the curved section matching the distance from the patient's earlobe to the corner of their mouth.

N.P.A.'s

Nasopharyngeal Airways are utilized by Emergency Medical Responders in circumstances when an O.P.A. is impractical.

The N.P.A. is sized by measuring the distance from the nostril to the earlobe. The N.P.A. is then inserted, with lubrication into one of the patient's nostrils. The Right nostril is typically larger, making insertion easier.

Manual Suction

Manual Suction devices make it possible for Emergency Medical Responders to prevent blood or saliva from choking an unresponsive patient.

Suctioning is not typically effective on vomit or other "chunky" substances.

B.V.M.

Bag Valve Masks are used to supplement the quality of a patient's breathing during Respiratory Distress, and for Rescue Breathing in the case of Respiratory Arrest.

A reservoir on the back of the B.V.M. holds 100% Oxygen (when connected to an O2 Regulator at 15 lpm)…and has the highest O2 delivery concentration available to Emergency Medical Responders.

B.V.M.s are a two rescuer tool which come in Adult, Child and Infant sizes.

# Cling Gauze Roll Also referred to as Roll Gauze. Cling Gauze is made of loosely woven non-sterile fabric, which gives it a small amount of non-elastic stretch. Roll Gauze is commonly used by Emergency Medical Responders to secure dressings and control bleeding.	
# Crepe Roll Also referred to as a Crepe Bandage. Crepe Bandages are more tightly woven and sturdier than Cling Gauze, with a small amount of non-elastic stretch in the fibers. Crepe Rolls are commonly used by Emergency Medical Responders to secure dressings and control bleeding.	
# Tensor Bandage Tensor Bandages are woven with elastic fibres integrated, creating a large amount of elastic stretch. This "stretchiness" can make Tensors the most effective and secure bandage for Emergency Medical Responders to control bleeding…but can also create circulation issues as the fibers continuously tighten over time.	
# Esmarch Bandage Esmarch Bandages are made of heavy duty silicone/latex, which make it non-permeable and extremely elastic. Emergency Medical Responders typically use Esmarch Bandage as a make-shift Tourniquet…or cut off a section as an occlusive dressing to cover a penetrating chest injury.	

Triangular Bandage

Emergency Medical Responders can utilize a Triangular Bandage for a wide variety of purposes including: Arm Sling…Direct Pressure to secure a dressing…Leg Splinting…Ring Bandage….Tourniquet…and much more.

Steri-Strips

Although not commonly used in emergency medical response…EMR's working as Workplace First Aid Attendants may use Steri-Strips to hold the edges of deeper lacerations together as the wound heals.

Similar to "Stitches" applied at a hospital…but not as invasive.

Butterfly Bandages

Although not commonly used in emergency medical response…EMR's working as Workplace First Aid Attendants may use Butterfly Bandages to hold the edges of deeper lacerations together as the wound heals.

Similar to "Stitches" applied at a hospital…but not as invasive.

Burn Dressings

Burn Dressings are typically large surface, non-stick dressings, kept sterile in their package until needed.

Emergency Medical Responders will use Burn Dressings to lightly cover burned areas…after first cooling the burn…to prevent infection.

Although many responders mistakenly wet or moisten the Burn Dressing…it should be kept dry to maintain asepsis.

Bulk Gauze

Bulk Gauze is made of loosely woven fabric, and is packaged in non-sterile stacks.

Emergency Medical Responders can use Bulk Gauze for wound cleaning, direct pressure for bleeding, or many other purposes.

Abdominal Pads

Abdominal Pads are absorbent Sterile dressings.

Emergency Medical Responders will typically pick up an Abdominal Pad by the blue stripe, and place the other side against a wound. This technique helps minimize wound contamination and prevents infection.

Medical Tape

Medical Tape is available in a wide range of sizes and compositions…with advantages and disadvantages to each variety.

Emergency Medical Responders will generally opt for the stronger, water-proof varieties, which are more suitable in an emergency response setting.

Tape can be used for securing dressings, splinting and securing head immobilization.

Instant Cold Pack

Instant Cold Packs are activated by squeezing the outer package, which “pops” the inner bag and allows two chemicals to mix.

Cold Packs can be used by Emergency Medical Responders to alleviate pain and swelling in many minor injuries. Cold Packs can also be used to help reduce body core temperature for Hyperthermia.

Instant Hot Pack

Instant Hot Packs are activated by squeezing the outer package, which “pops” the inner bag and allows two chemicals to mix.

Hot Packs can be used by Emergency Medical Responders to help increase body core temperature for Hypothermia.

Sterile Gauze

Sterile Gauze is made of loosely woven fabric, and is stored in Sterile packaging.

Emergency Medical Responders can use Sterile Gauze for wound cleaning, direct pressure for bleeding, or many other purposes.

Non-Stick Gauze

Non-Stick Gauze is made of loosely woven fabric, and is stored in Sterile packaging.

Emergency Medical Responders can use Non-Stick Gauze for wound cleaning, direct pressure for bleeding, or many other purposes.

Non-stick Gauze is considered better patient care than other options as the fabric does not cling to the wound during removal in hospital…but is more expensive.

Cotton Applicators

Cotton Applicators can be used by Emergency Medical Responders to clean debris from small or delicate wounds.

EMR’s working as Workplace First Aid Attendants may also use Cotton Applicators to carefully remove loose objects from a patient’s eye.

Tongue Depressors

Emergency Medical Responders can use Tongue Depressors as finger splints…or more commonly to scrape Glucose Gel on the inside of an unresponsive, hypoglycaemic patient's cheek.

Sterile Saline

Sterile Saline is typically used by Emergency Medical Responders for one of two purposes.

To irrigate an open wound or eyes…or to cool a burn. In instances of Pepper Spray…Sterile Saline can be used with "Baby Shampoo" to rinse off residual spray.

Drip Set

Drip Sets are needed to carry and regulate Intravenous Fluids to an IV Catheter.

Emergency Medical Responders can calculate and set specific flow rates based on the "drip-size" of the Drip Set.

Three sizes are common: Micro (Mini)…Standard (Regular)…and Macro (Adult). Sizing is determined by the size of the individual drips.

IV Bag

Intravenous (IV) fluids are available in a wide range of sizes and compositions.

The size of the bag only relates to how much fluid is contained…and has nothing to do with how fast the fluid is released…that is determined by the Drip Set).

Normal Saline, Ringer's Lactate, D10W, D5W, and 2/3-1/3 are common IV solutions.

Epinephrine Although considered "Out-of-Scope" by BC EMALB for Emergency Medical Responders Licensed in British Columbia…Epinephrine can be administered by EMR's in Alberta and other provinces across Canada. In BC…Emergency Medical Responders can "Assist" a patient with their own Epi-Pen…but cannot carry or administer Epinephrine.	
Ventolin- Salbutamol Although considered "Out-of-Scope" by BC EMALB for Emergency Medical Responders Licensed in BC…Ventolin and Salbutamol can be administered by EMR's in Alberta and other provinces across Canada by Nebulizing Mask. In BC…Emergency Medical Responders can "Assist" a patient with their own Asthma Medication…but cannot carry or administer it.	
Ambulance Stretcher Also referred to as a Cot. Emergency Medical Responders transport their patients on a Stretcher…which is adjustable for both patient comfort and rescuer ergonomics.	
Safety Glasses Emergency Medical Responders want to protect themselves from disease transmission…including chemicals or bodily fluids in the eyes.