Tongue Seizing Forceps
Auxiliary Lighting
Transport Chair
Drugs

- Non-injectable
  - Oxygen
  - Albuterol (inhaler)
  - Nitroglycerin
  - Nitrostat (sublingual tablet)
  - Nitrolingual spray (translingual)
  - A form of glucose
  - Aspirin
Oxygen

- E cylinder
- Portable delivery system
- Not always treating patient in the operatory
Bronchodilator - Albuterol
Vasodilator - Nitroglycerin
Antihypoglycemic

Forms of glucose:

- Orange juice
- Soft drink (not DIET)
- Candy Bar
- Insta-Glucose
Thrombolytic

Aspirin

- 325 mg tablet
- Administer if MI is considered
- Crush or chew, then
Injectable:

- Diphenhydramine (Benadryl)- 50 mg (Adult)
- Epinephrine- 0.3 mg (Adult)

✓ preloaded syringe- Twinject, EpiPen
For Subcutaneous or Intramuscular Use Only

Twinject® 0.3 mg
(epinephrine injection, USP 1:1000)
each dose delivers 0.3 mg of epinephrine

Contains
One Twinject™ 0.3 mg Auto-Injector

For Allergic Emergencies (Anaphylaxis)

Distributed by:
Verus Pharmaceuticals, Inc.
San Diego, CA 92130 USA

Packaged by:
Hollister-Stier Laboratories LLC
Spokane, WA 99207 USA

NDC 13436-700-01

Rx Only

TWIST AND PULL TO OPEN

(epinephrine injection, USP 1:1000)
each dose delivers 0.3 mg of epinephrine

Two doses in each Twinject® auto-injector

Contains flaps. Handle with care.
Basic Emergency Algorithm- PABCD

- POSITION
- AIRWAY
- BREATHING
- CIRCULATION
- DEFINITIVE TREATMENT
Syncope (fainting)

- Treatment
  - Supine
  - Oxygen
  - Vitals
  - Patient will respond in less than one minute
Local Anesthetic Overdose

- Maintain airway
- Oxygen
- BLS (as appropriate)
- Seizures?
- Activate EMS
### Maximum Recommended Doses for Local Anesthetics

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose (mg/kg)</th>
<th># cartridges in an adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine</td>
<td>7 [4.5]</td>
<td>11 [8]</td>
</tr>
<tr>
<td>Prilocaine</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Mepipvacaine</td>
<td>4.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Bupivacaine</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Articaine</td>
<td>7</td>
<td>-</td>
</tr>
</tbody>
</table>
Grand Mal Epilepsy

- Maintain the airway/ head support
- Oxygen when possible
- Protect the patient- light restraint
- Monitor the patient- call for parent, guardian, friend
Hypertension

- Most common reason for acute intraoperative hypertension during a dental procedure
  - Inadequate local anesthesia
- Consider nitroglycerin (ED medications)
- Take vital signs at each appointment!
- Have baseline vital signs in
Orthostatic Hypotension

- Reseat patient if upon arising
- Supine or Trendelenburg if still in dental chair
- Oxygen PRN
- Following procedure, raise chair slowly
Hyperventilation

- Insure oxygenation with CO$_2$ retention
  - Paper bag
  - Cupped hands
- Oxygen mask with 0.5 liters per minute flow
Acute Asthma Attack

- Let patient use their own inhaler
- If no relief try inhaler from the emergency kit
- Oxygen
- Position
  - sitting with the arms forward
- Consider epinephrine
Mild Allergic Reaction

- Diphenhydramine- 50 mg IM
- Position patient
- Oxygen PRN
- Oral diphenhydramine 50 mg QID for 3 days
Anaphylaxis (Severe Allergy)

- Activate EMS- 911
- Epinephrine
- Oxygen
- Vitals
- Supine

⚠️ This is the most significant ME to treat!!
Hypoglycemia

- Signs & Symptoms
  - Sweating
  - Tachycardia
  - Feeling faint
  - Mental confusion
  - Loss of consciousness
Angina Pectoris

➢ Patient with a history of angina
  ➢ Let them take their normal dose of nitroglycerin from their medication
  ➢ If no relief, try your nitroglycerin from the emergency kit

➢ Evaluate patient before appointment

➢ Consider pre-treatment with nitroglycerin
Angina Pectoris

- Oxygen
- Vitals
- Position
  - Comfortable

If no relief five minutes after the FIRST dose, consider it to be an acute myocardial infarction
Angina Pectoris

- First episode
  - Consider it to be an acute MI
  - Activate EMS
Acute Myocardial Infarction

- Oxygen
- 911
- Vitals
- Position- comfortable
- Aspirin
- Consider
  - N₂O/O₂
Cardiac Arrest

- BCLS
- Oxygen
- Call 911
- AED!
- Position - Supine
Determine Unresponsiveness

- Call 911
- Never hesitate to activate EMS if you are not comfortable with the situation
- Do not delay in calling for help
- AED
Neurons are the MOST sensitive cells in the human body to anoxia.

Irreversible changes develop within 2 minutes.
Basic Cardiac Life Support

Emergency Cardiac Care 2000

P . . . Position
A . . . Airway
B . . . Breathing
C . . . Circulation
D . . . Defibrillation
Automated External Defibrillator
Automated External Defibrillator
A simple rationale supports defibrillation as early as possible

(1) The most frequent initial rhythm in sudden cardiac arrest is VF (90% of adults)
(2) The only effective treatment for VF is electrical defibrillation
(3) The probability of successful defibrillation diminishes rapidly over time. (10% /minute)
(4) BCLS tends to preservation of heart and brain function. Basic CPR alone, however, cannot convert hearts in VF to a normal rhythm
### Effectiveness of early defibrillation programs

<table>
<thead>
<tr>
<th>Location</th>
<th>Before early defibrillation</th>
<th>After early defibrillation</th>
<th>Odds ratio for improved survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County, WA</td>
<td>7</td>
<td>26 (10/38)</td>
<td>3.7</td>
</tr>
<tr>
<td>Iowa</td>
<td>3 (1/31)</td>
<td>19 (12/64)</td>
<td>6.3</td>
</tr>
<tr>
<td>SE Minnesota</td>
<td>4 (1/27)</td>
<td>17 (6/36)</td>
<td>4.3</td>
</tr>
<tr>
<td>NE Minnesota</td>
<td>2 (3/118)</td>
<td>10 (8/81)</td>
<td>5.0</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>4 (32/893)</td>
<td>11 (33/304)</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Values are % surviving and, in parentheses, how many patients had VF.
Rochester, MN

- Efficient Paramedic Service-
  - 20% survival from cardiac arrest
  - After equipping police
    - 40% survival

- Survivors received shock w/i 5.6 min
- Amongst those dying received shock just 80 seconds later
- "When I say one minute makes a difference, our statistics bear that out".

Dr. Roger White, Director, Rochester MN early defibrillation program.
BE PREPARED!

- Know patient’s medical history
- Be aware/recognize early
- Have a plan
- Consider regular office mock drills
- Institute of Medical Emergency Preparedness

www.emergencyactionguide.com
Office Emergency Protocol

Medical Emergency Book

Institute of Medical Emergency Preparedness
With the Red E you are ready to handle an Emergency.
www.getrede.com
Office Emergency Protocol

4. RECOMMENDED ERT STAFF TRAINING
ERT Staff should be trained in Real E (ERT) and RT for select staff, in addition to the other emergency training that all staff receives.

5. RESPONSIBILITIES AND RIGHT OF CARE REFUSAL
ERT Staff are required to know the policies and procedures for ERT. In order to maintain patient safety, all staff must be able to perform in an emergency situation. If an employee is unable to follow the policies and procedures, they must be removed from the emergency situation and replaced with a qualified employee who can follow the policies and procedures.

6. RED E MEDICAL CENTER: THE ALL IN ONE LOCATION SOLUTION
A. The Red E Medical Center is a medical facility that is designed to be accessible to all staff and patients in the event of an emergency.

7. RED E MEDICAL EMERGENCY BOOKS (ACTION GUIDES) AND WORKBOOKS
Red E Medical Emergency Book (Action Guide) is a tool that

8. CHARTS 

9. WORKSHOPS
## Office Emergency Protocol

### Emergency Treatment Record

**White-File Copy**

**Yellow-EMS Copy**

**NOTE:** Fill out and keep White copy for your files. Give Yellow copy to EMS.

- **Person’s Name:** 
- **Date:** 
- **Time:** 
- **Allergies:** 
- **List all medications taken prior to emergency:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Blood Pressure</th>
<th>Pulse</th>
<th>Resp</th>
<th>Oxygen Saturation %</th>
<th>Oxygen Flow L/min</th>
<th>Medications Administered</th>
<th>Medication Dosage</th>
<th>Medication Route (IV, IM, PO, SL)</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

- **Called 911 EMS at (time):** 
- **EMS arrived at (time):** 
- **EMS called by (who):** 
- **Person taken to what hospital:** 
- **Condition of person when transported from site:**

- **EMS personnel:**
- **People present:**

- **Signature of person recording events:** 
- **Phone:**
Thank You!!

Arjun

Meena