# Medical Emergency Management
Florida State College at Jacksonville
Dental Clinic

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Equipment and Supplies</td>
<td>3</td>
</tr>
<tr>
<td>General Procedures for Clinic Patient Emergency</td>
<td>8</td>
</tr>
<tr>
<td>Protocol for Clinic Emergency</td>
<td>9</td>
</tr>
</tbody>
</table>

## History

<table>
<thead>
<tr>
<th>Review Committee</th>
<th>Review Committee</th>
</tr>
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<tr>
<td>Cynthia Wampler, RDH, MS</td>
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<td>January, 2017</td>
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Plan for Prevention and Management of Medical Emergencies

Several safeguards are in place for proper prevention and management of medical emergencies in the dental programs clinics.

1. Students entering the program must show proof of CPR certification. Students and faculty must renew their certification every two years as required by Florida State law.

2. A dental office emergencies course that includes signs, symptoms and treatment of the most common dental office medical emergencies is a required course of study for both dental hygiene and dental assisting students. The dental hygiene students experience both didactic and laboratory components to the emergencies course. The laboratory segment uses active learning, which includes role-playing medical emergencies on a weekly basis. The role-playing of a specific emergency that the student must recognize, identify and treat is required for the final exam for the laboratory portion of this course.

3. Each fall faculty are given a seminar in specific clinic procedures for medical emergencies and a review of the more common dental office emergencies seen in practice. This gives the faculty an opportunity to have a clear understanding of their role in the event of a medical emergency in the dental hygiene clinic and proper emergency protocol for emergency situations.

Emergency Equipment and Supplies

1. Oxygen

Oxygen is present in the dental hygiene and dental assisting clinic. There are three oxygen units available in Size E cylinders. This cylinder at capacity contains 560 liters, thus providing approximately 35-minutes of continuous oxygen at normal flow rates (10 liters). Each unit is equipped with a nasal canula, and low flow O2 regulator. A pulse oximeter will be used to determine the need for oxygen based on the patient’s blood oxygen saturation level. Nonrebreather masks are available on the emergency cart for patients with blood saturation below 95. The oxygen tanks are placed in Bay A and Bay B at unit numbers #8 and #9, and in the dental assisting clinic under the TV. All three cylinders are checked once a month on the 1st Thursday for good operating condition by the sterilization monitor using the following protocol:

Maintenance of E Cylinder Oxygen Tank (attached to oxygen cylinders)

This will be done the 1st Thursday of every month by the sterilization monitor.

1. Look at the tank pressure. The pressure should be above 800psi; if it is not, inform Ms. Raulerson
2. **Check** the oxygen supply line to the resuscitator to make sure there are no twists or knots.

3. **Record the psi indication** with date on the maintenance checklist.

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**Operation of Oxygen Tank**  
The E cylinder Oxygen Tank (attached to oxygen cylinders)

**To turn on:**
1. Be sure flowmeter dial is on “0”.
2. Use dial to open and adjust flow of oxygen to indicated level for patient needs.
3. Attach appropriate delivery system to patient based on chart attached to oxygen tank.

**To turn off:**
1. Remove oxygen delivery system from patient.
2. Turn the **Low Flow Regulator Dial** to 25 to bleed the oxygen from the system.
3. Turn the **Low Flow Regulator Dial** to 0 to turn shut off the flow of oxygen.
## Oxygen Delivery Systems

<table>
<thead>
<tr>
<th>Device</th>
<th>Indications</th>
<th>Flow Rate</th>
<th>Oxygen Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannula</td>
<td>For patient who is breathing and needs low levels of oxygen. Patient is cold, diaphoretic, syncopal even though SpO2 is 95%+</td>
<td>2-6 liters per minute</td>
<td>25-40%</td>
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</tbody>
</table>
| Face Mask                     | For patient who is breathing and needs moderate levels of oxygen:  
• Or cannula is not tolerated | 8-12 liters per minutes | 60%             |
| Non-Rebreather Mask           | For patient who is breathing and needs high levels of oxygen (SpO2 below 95%):  
• In shock or signs of shock | 15 liters per minute          | 60-90%           |
| Bag Valve Mask (may be used with room air in COPD) | When patient has stopped breathing or needs respiratory assistance due to respiratory depression. Bag valve mask is used instead of mouth-to-mouth resuscitation. (SpO2 below 95%) | 15 liters per minute | 90-100%         |
| Demand valve resuscitator    | Positive pressure delivery of oxygen on demand. (SpO2 below 95%)             | Used By Doctors or EMT’s Professionally Trained | 100%            |

### Bag-Valve-Mask

The Bag-Valve-Mask (BVM) can be used for ventilation of the patient’s lungs with atmospheric air or can be used with the oxygen unit. This Bag-Valve-Mask (BVM) is unique with the arrangement of one-way valves and oxygen lines. One can administer a 90-100% concentration of oxygen to the patient when used with the oxygen unit. See the chart attached to the oxygen tank for indications for use of the BVM and other oxygen administration devices. The adult and pedo size Bag-Valve-Mask (BVM) can be found on the Emergency Cart.
Emergency Cart

The emergency cart is located against the wall at the back of Bay A between the filing cabinet and counter where the computer is located. It is easily moved to any dental chair in the clinic.

It contains the following:

- First Aid Kit
- Emergency Medical Kit
- Adult Blood Pressure Cuff and Stethoscope
- Child Blood Pressure Cuff and Stethoscope
- CPR Quick Reference Guide
- Adult Bag-Valve-Mask (BVM)
- Pedo Bag-Valve-Mask (BVM)
- Non-rebreather masks (3)
- Pulse oximeter
- Medical Emergency Report

Emergency Medical Kit

Injectable drugs and sedatives are located on the emergency cart in the dental hygiene clinic in the emergency medical kit. These are for administration by the dentist only. The emergency medical kit contains the following items:

- Airway aids
- Stimulant (Ammonia crush inhalants)
- Antiallergenic (Epinephrine ampule and Diphenhydramine; both injectables, Twinject Auto-injector 1:1000)
- Syringes
- Analgesic (Aspirin)
- Bronchodilator for asthma (Albuterol inhaler)
- Tourniquet
- Oral carbohydrate- Insta-Glucose gel
- Nitroglycerine Sublingual Spray
- CPR Pocket Mask
**First Aid Kit** – first aid kits are located in the main clinic (under the TV & in the sterilization room) and in the dental lab, adjacent to the projection screen.

- Bandages
- Gauze Squares
- Gauze roll and scissors
- Elastic bandage
- Cleansing wipes
- Tweezers
- Tape
- Burn Cooling Gel
- Cold Pack
- Razor

**Emergency Eyewash Station**

There are two emergency eyewash stations within the clinic. One is in the sink across from x-ray rooms 1 & 2 in the main clinic. The other is in the dental laboratory across from the dark room. The Maintenance Department inspects each station monthly and maintains a record in their department.

A third eyewash station is being installed in the Sterilization Room and should be available by early March, 2017.

**Fire Blankets**

Fire blankets are wall mounted and located in the sterilization area and the dental lab.

**Emergency Phone System:**

The ambulance service can be reached by dialing **9-911** emergency phone number from any phone in the department. Response time for an ambulance or emergency vehicle is 5-7 minutes to reach North Campus.

When reporting a need for ambulance service, give the following information:

- State that your need for the rescue unit is an emergency.
- Explain the nature of the emergency.
- Give name and age of injured person.
- Specify exact location: FSCJ North Campus 4501 Capper Road Building A, Room 320H Third Floor
- Give your name/ phone number (904) 766-6571 (Dental Programs office).
**Automatic External Defibrillators (AED):**

Two AEDs are located within the Dental Clinic, one in the Dental Hygiene Clinic on the post adjacent to the Reception Office window and one adjacent to the Sterilization Area in the Dental Assisting Clinic. Each unit is in a wall-mounted case and contains both an adult and children’s pad set. A battery check is conducted on a regular schedule by FSCJ North Campus Security. Security also tracks expiration dates on the pads so that timely reordering can be accomplished. Training in the use of the AEDs is part of CPR training and is supplemented for both dental hygiene and assisting students as it relates to the particulars of our units.

**General Procedures for a Clinic Emergency with Patient**

1. When an emergency situation occurs with a patient, the first student summons a second student to get the instructor and the first student stays with the patient. **Do not leave the patient.** The first student is responsible for monitoring the patient’s blood pressure, pulse, and respiration.

2. The dentist (when present) should take charge of the situation. If a dentist is unavailable or not present, the clinic faculty will take charge.

3. The dentist (when present) will determine the need for oxygen, CPR, or emergency rescue services.

4. The dental faculty should call 9-911 for help and then advise the Front Office personnel to call FSCJ security to alert them of the emergency and that 911 has been called.

5. The Front Office personnel will contact the North Campus administration at 766-6553.

6. The Emergency Ambulance response time to North Campus is 5-7 minutes.
Protocol for Dental Clinic Medical Emergency
Heart attack, Seizure, Allergic reaction, etc.

**Student #1**
1) Remains at the chair with patient
2) Instructs **Student #2** to notify Dentist of Emergency

**Student #2**
1) Notifies dentist
2) Retrieves oxygen and emergency cart

**Dentist**
1) Takes charge of situation
2) Determines need for oxygen or CPR/AED and administers emergency procedures.
3) Determines extent of emergency and whether to call 9-911

**Dental Program Faculty**
1) Assists the DDS in emergency procedures.
2) Calls 9-911 and notifies Administrative Specialist to make other phone contacts
3) If needed, faculty must complete the patient data form on Emergency Cart clipboard to send with patient to the Emergency Room.

**Department Secretary or Student Receptionist**
Contact the North Campus administration @ X6553