



Back To The Future:

A Simulation-Based Review of CardioPulmonary Physiology for Every Dental Practitioner

Dugoni School of Dentistry
125th Annual Alumni Meeting
February 9th, 2024

Jesse West Manton, DDS, MS, CHSE, DADBA

Chief, Division of Anesthesiology & Perioperative Care
Assistant Professor, Department of Oral & Maxillofacial Surgery
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University of the Pacific Arthur A. Dugoni School of Dentistry

HANDOUT RESOURCES

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UNIVERSITY OF THE
PACIFIC
Arthur A. Dugoni
School of Dentistry

Dentistry's Essentials of Emergency Medicine (DEEM): A Simulation-based Training Workshop

Saturday, March 28, 2024

8:30 am – 4:30 pm

9 CE units

Arthur A. Dugoni School of Dentistry

Jesse West Manton, DDS, MS, CHSE, DADBA

Luke Eric Manton, FFII, EMT



[Click HERE or Scan QR Code for
Registration Link:
DEEM Course - March 23, 2024](#)

Register online
dental.pacific.edu/CDEclasses

The Systematic Approach

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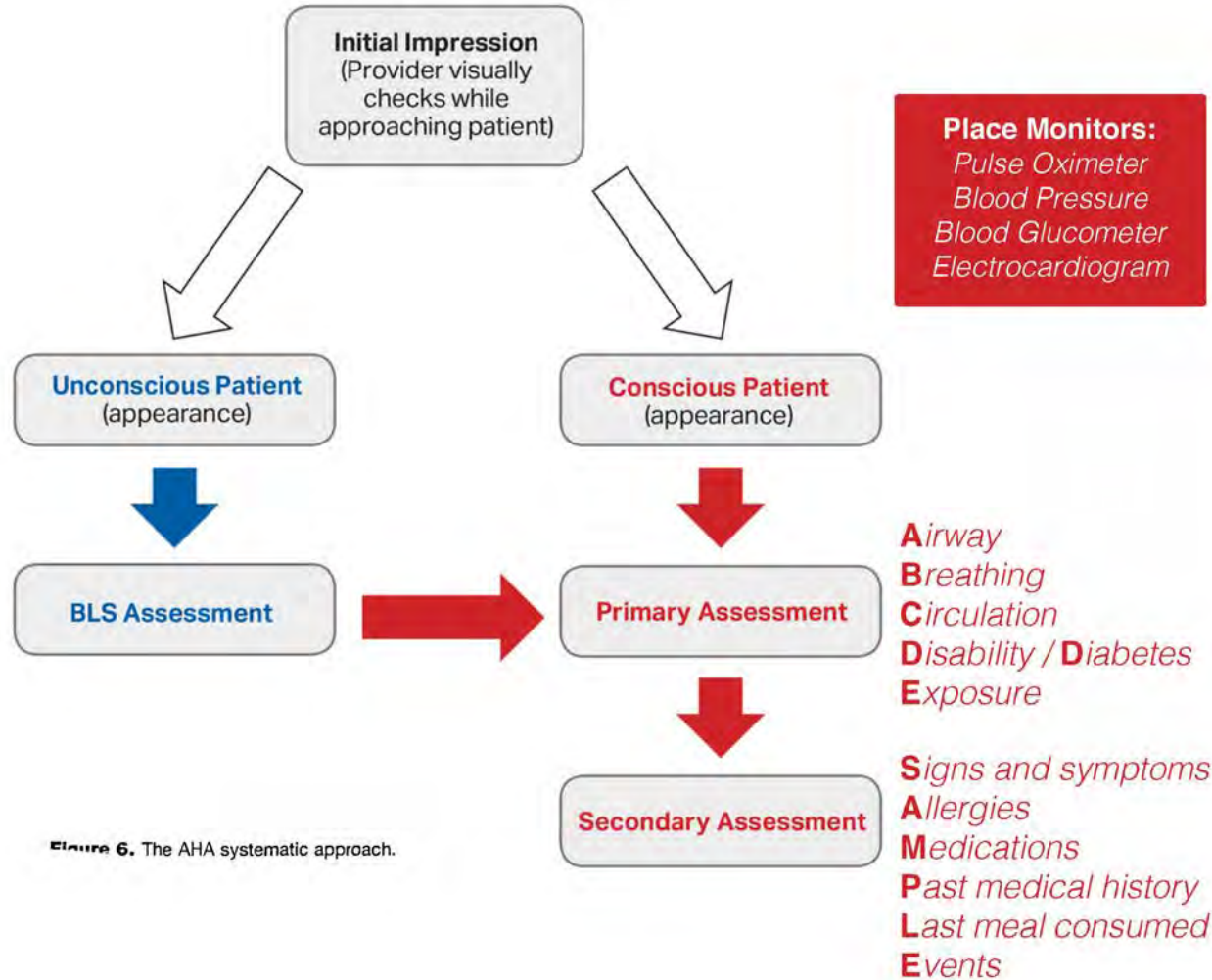
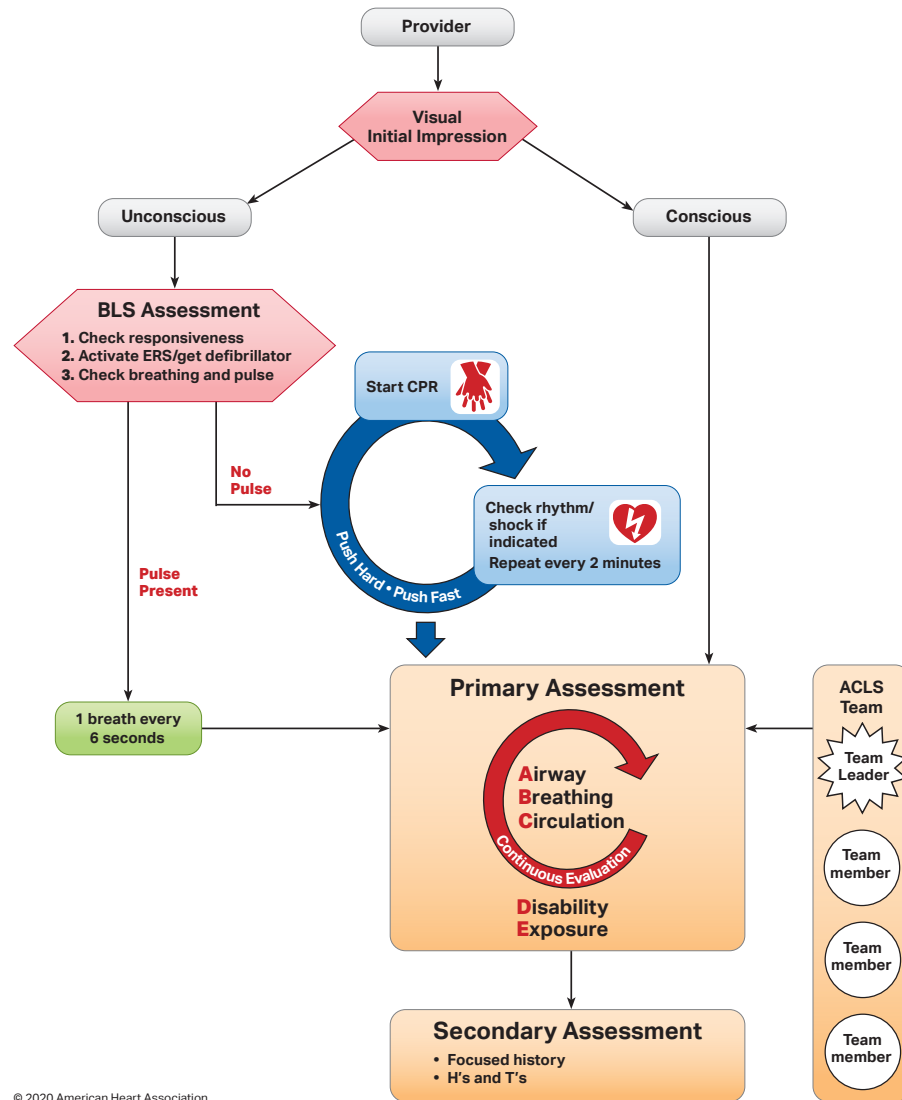


Figure 6. The AHA systematic approach.



American
Heart
Association®

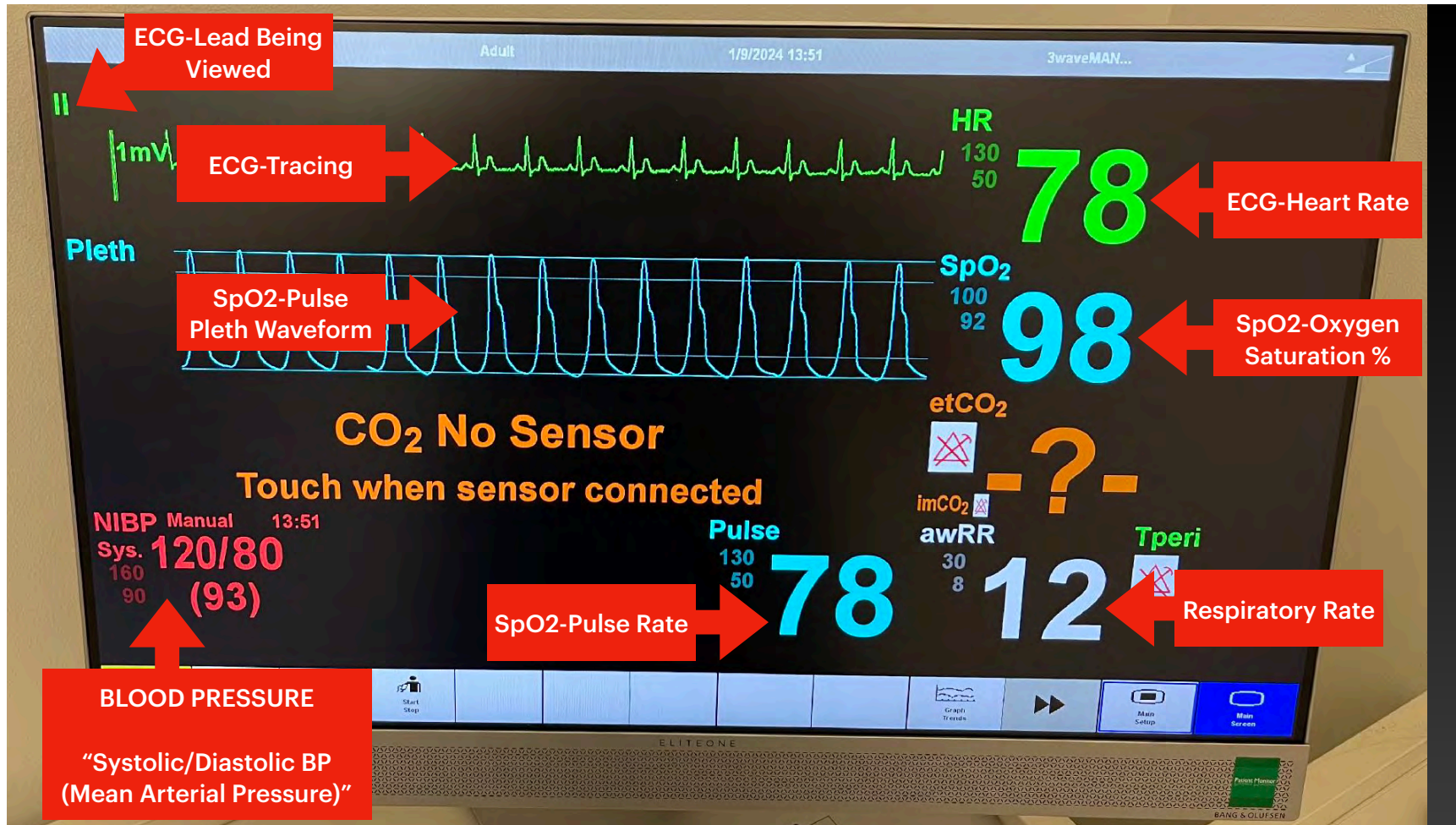
Expanded Systematic Approach Algorithm



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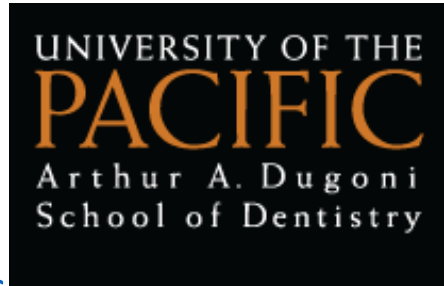
American Heart Association®



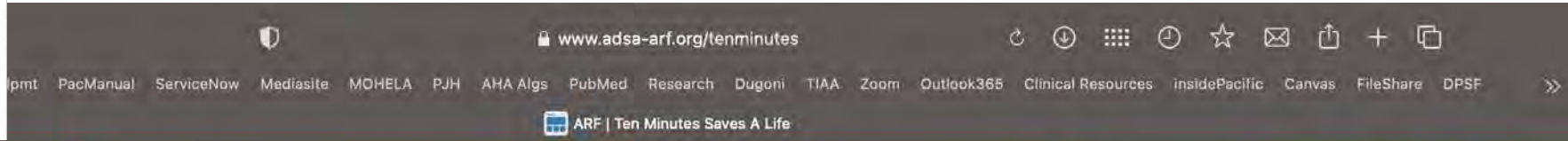
Click [HERE](#) or Scan QR Code for wikiHow Article:
[How to Read a Patient Monitor](#)

Click [HERE](#) or Scan QR Code for YouTube Video:
[Intro to Patient Monitor](#)





<https://www.adsa-arf.org/tenminutes>

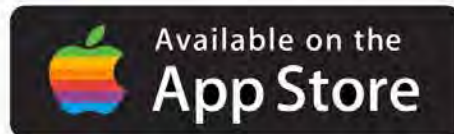


Ten Minutes Saves A Life!®

The goal of the Ten Minutes Saves A Life® ADASA Anesthesia Research Foundation initiative is to optimize patient safety and outcomes in office medical emergencies.

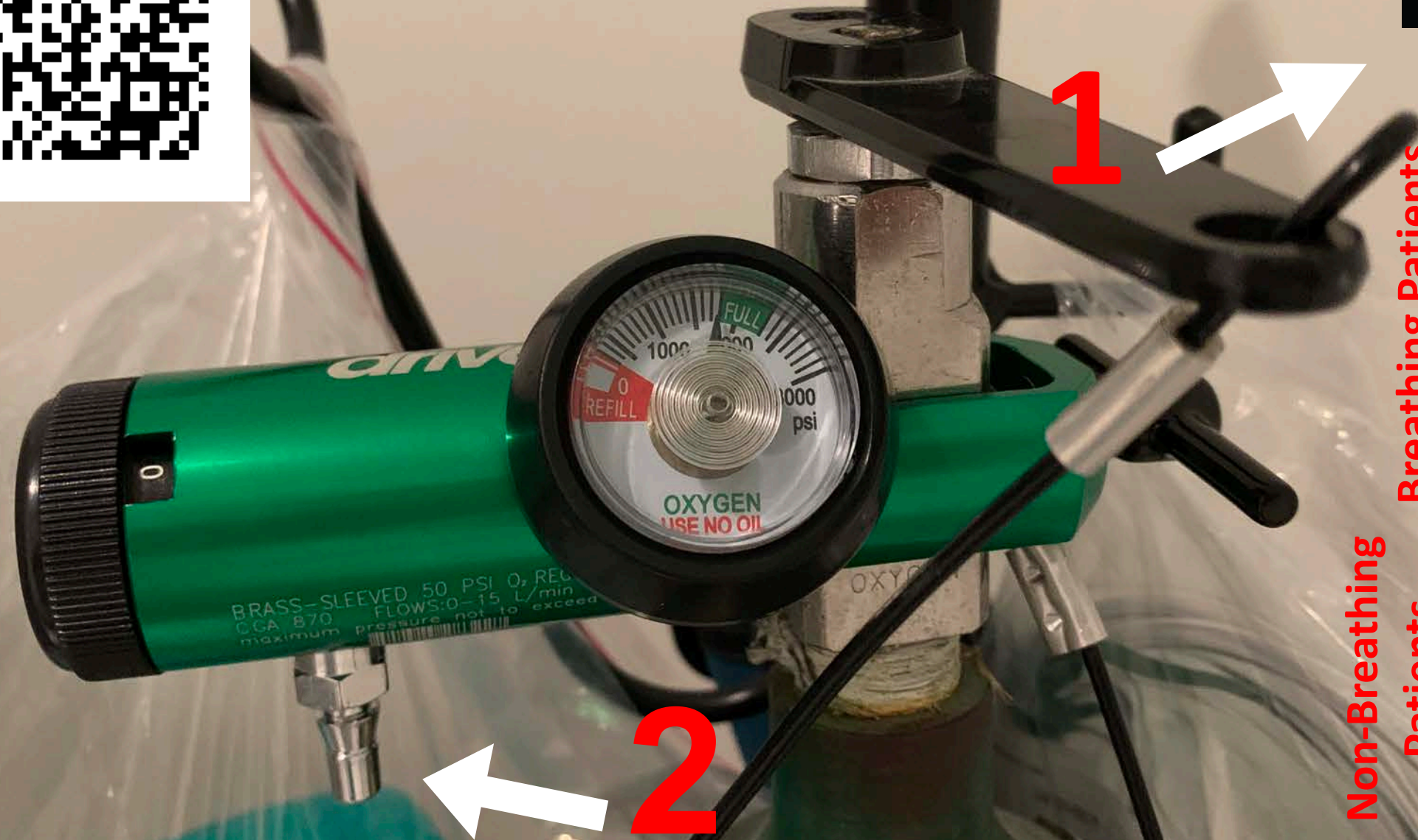
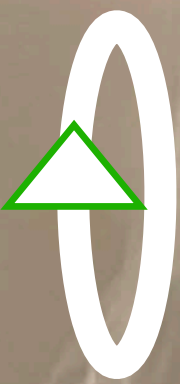
This program supports crisis resource management team training in the use of emergency drugs and equipment during the critical ten minute interval between recognition of a patient's medical emergency and arrival of EMS (emergency medical service) personnel.

Practitioners should be familiar with the suggested emergency drugs/equipment and have them immediately available.





3






Breathing Patients



Non-Breathing Patients

DELIVERY OF SUPPLEMENTAL OXYGEN: FLOW RATES + PERCENTAGES OF OXYGEN

Device	Flow Rates (L/min)	Delivered Oxygen (%)
	1	21-24
	2	25-28
	3	29-32
	4	33-36
	5	37-40
	6	41-44
Simple oxygen face mask 	6-10	35-60
Face mask with oxygen reservoir (nonrebreathing mask) 	10-15	95-100

Bag Valve Mask (BVM)



15+

95-100

Proper Position

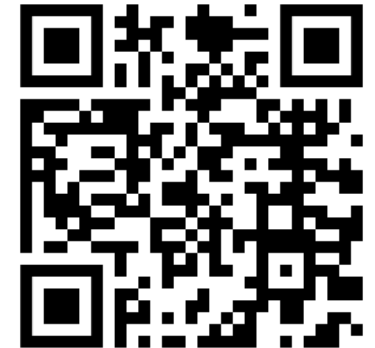
Place the patient in a proper sniffing posture to ensure an excellent nasal breathing pattern.

Tight Seal

Perform a C & E hold:
Little, ring, and middle fingers form an "E" and the index finger and the thumb form a "C" around the mask to provide a tight seal

Ventilate

Squeeze the bag over 1 second.
(Do not over-ventilate)



CRISIS RESOURCE MANAGEMENT



©2008 Diagram: S. Goldhaber-Fiebert, K. McCowan, K. Harrison, R. Fanning, S. Howard, D. Gaba

<https://emergencymanual.stanford.edu/downloads/>

CRISIS RESOURCE MANAGEMENT

Call for Help Early

- Call for help early enough to make a difference
- Err on the side of getting more help
- Mobilize early personnel with special skills if they may be needed

Designate Leadership

- Establish clear leadership
- Inform team members who is in charge
- 'Followers' should be active in asking who is leading

Anticipate and Plan

- Plan & prepare for high work-load periods during low work-load periods
- Know where you are likely headed during the crisis and make backup plans early

Establish Role Clarity

- Determine who will do what
- Assign areas of responsibility appropriate to knowledge, skills, and training
- Active followers may offer specific roles

Know the Environment

- Maintain situational awareness
- Know how things work and where things are
- Be aware of strengths and vulnerabilities of environment

Distribute the Workload

- Assign specific tasks to team members according to their abilities
- Revise the distribution if there is task overload or failure

Use All Available Information

- Monitor multiple streams of data and information
- Check and cross check information

Communicate Effectively

- Command and request clearly
- Seek confirmation of request (close the loop)
- Avoid "thin air" statements
- Foster input and atmosphere of open information exchange among all personnel

Allocate Attention Wisely

- Eliminate or reduce distractions
- Monitor for task saturation & data overload
- Avoid getting fixated
- Recruit others to help w/ monitoring

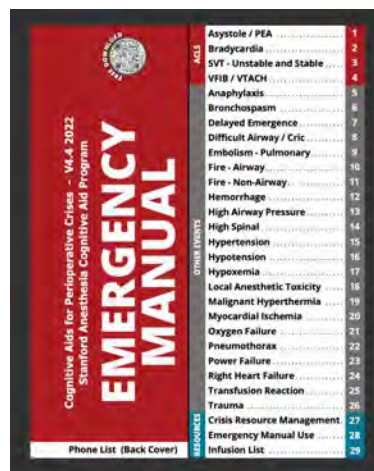
Mobilize Resources

- Activate all helpful resources including equipment and additional personnel

Use Cognitive Aids

- Be familiar with content, format, and location
- Support the effective use of cognitive aids

©2008 Diagram: S. Goldhaber-Fiebert, K. McCowan, K. Harrison, R. Fanning, S. Howard, D. Gaba





Dentistry's Essentials of Emergency Medicine (DEEM):

A Simulation-based Training Workshop

Saturday, October 21, 2023

SATURDAY March 23, 2024

Jesse Manton, DDS, MS, and Luke Manton, FFII, EMT

The Dentistry's Essentials of Emergency Medicine (DEEM) training program allows participants to practice and debrief medical emergency scenarios in a high-fidelity, controlled and safe environment. Our expert instructors provide robust training experiences using human patient simulators, audiovisual recordings and standardized patients. This workshop is designed to engage participants in challenging clinical cases and enable participants to problem-solve in a manner that is similar to a live clinical experience. You will use real medical equipment, learn to read a patient monitor and interact with dynamically responding patients in a fully functioning simulated dental operator. You will receive formative performance feedback as you progress through the live training, helping to identify your strengths and areas for improvement.

This intense learning experience will be fun and educational and will empower you to be at your best with your patients in the clinical arena. The clinical scenarios are designed to meet several learning objectives, including developing your skills in not only medical knowledge but also interpersonal communication, team leadership, resuscitation dynamics and systems-based practice.

Experts from emergency medicine, paramedicine, dental anesthesiology and perioperative care were consulted in the development of this course content to create an evidence-based, state-of-the-art training program. This program will help you be able to recognize a patient requiring urgent or emergent care and how to initiate evaluation and management in the dental setting.

This is the first time this simulation training workshop will be presented in the Bay Area.



photo courtesy of Jesse Manton

You Will Learn

- To increase your knowledge of up-to-date emergency medicine topics important to dentistry
- To recognize signs and symptoms of an unwell patient and determine the level of acuity
- To implement the systematic approach to assess an acutely unwell patient
- To implement an emergency action plan for a medical emergency situation
- To organize a dental team into a high-performance resuscitation team
- To evaluate vital signs continually to direct therapeutic interventions
- To execute appropriate therapeutic interventions following evidence-based guidelines
- To determine the patient disposition (home vs. hospital) for common medical urgencies and emergencies that occur in the dental setting
- To effectively transfer care to arriving emergency medical services using the SBAR communication tool
- To describe crisis resource management principles that promote effective resuscitation team dynamics
- To adapt your office team into a high functioning emergency response team

Who Should Attend

This intensive training is intended for general practitioners and specialists who only use local anesthesia, nitrous oxide or oral minimal or oral moderate sedation. Providers should be current in Basic Life Support (BLS) training.

Tuition: \$1,495

Program: 8:30 am – 4:30 pm

Location: MED/Sim Suite,
Arthur A. Dugoni School of Dentistry
155 Fifth Street, SF

Credits: This activity is designated for 9 units of continuing education credit (includes a one-hour, self-paced, virtual introduction).

Each workshop is limited to 8 participants; includes lunch and morning coffee/tea service.



REGISTER ONLINE

Click [HERE](#) or Scan QR Code for Registration Link:
DEEM Course - March 23, 2024

Your faculty bring you both experience and expertise in Anesthesiology, Perioperative Medicine, Pre-Hospital Emergency Medicine, and Paramedicine



Jesse West Manton, DDS, MS, CHSE, DADBA, is a dentist anesthesiologist and medical educator in the Dugoni School's Division of Anesthesiology and Perioperative Care, Department of Oral and Maxillofacial Surgery. He provides anesthesiology services to patients within the OMS SurgiCenter and teaches perioperative and emergency medicine to students, residents and practicing professionals.

He is recognized nationally for his efforts to improve emergency medicine training in dental education using simulation-based curriculum innovations. He has won numerous awards for his programs, presentations and publications.



Luke Eric Manton, FFII, EMT, is a firefighter and paramedic working within the Placer County Fire Department/CALFIRE. He started in fire and emergency medical services in 2010 and has functioned as an EMT, firefighter, rescue technician, paramedic, officer and educator. He has cultivated a passion in education and currently teaches multiple disciplines in fire, rescue and emergency medicine as well as being an adjunct faculty member at the Dugoni School of Dentistry.

REGISTER ONLINE dental.pacific.edu/CDEclasses

*Dues-paying alumni receive 15% off most programs;
recent Dugoni School grads receive 20% off.*

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