



Division of Public Health Services

*Office of the Assistant Director
Public Health Preparedness Services
Bureau of Emergency Medical Services*

150 N. 18th Avenue, Suite 540
Phoenix, Arizona 85007
(602) 364-3150 / 1-800-200-8523
(602) 364-3568 FAX

DOUGLAS A. DUCEY, GOVERNOR
WILL HUMBLE, DIRECTOR

MEDICAL DIRECTION COMMISSION

Date: January 29, 2015 - **Time:** 12:00 PM

Location: 150 N. 18th Ave., Conference Room 215A & 215B

Conference Call: 1-877-820-7831 - **Code:** 450908#

iLinc URL: <https://azdhsems.ilinc.com/join/xcpsxt>

You must register prior to the meeting to join the web conference session.

AGENDA

- I. Call to Order – Ben Bobrow, MD
- II. Roll Call - Jennifer Herbert (12 members, 7 required for quorum)
- III. Chairman’s Report – Ben Bobrow, MD
 - a. Attendance Report (Attachment III.a.)
 - b. Welcome new member
 - c. Vacancy
- IV. Bureau Report – David Harden, JD
 - a. Rules update
 - b. Overview of National EMS initiatives – Terry Mullins
 - c. Guidance document review – Terry Mullins
 - d. Workgroup prioritization – Terry Mullins
 - e. Electronic EMCT registration/certification
- V. Discussion and Action Items
 - a. Discuss, amend, approve MDC Minutes from September 29, 2014 (Attachment V.a.)
 - b. Discuss changes to the AZ EMS PI Plan – Rogelio Martinez, MPH
<http://www.azdhs.gov/bems/data/performance-improvement-tools.php?pg=pre-hospital-qa>
 - c. Discuss, amend, approve Controlled Substances Security Guidance Document – Charlie Smith (Attachment V.c.)
 - d. Discuss, amend, approved Over the Counter Medication Guidance Document – Josh Gaither, MD (Attachment V.d.)

Persons with disabilities may request a reasonable accommodation such as a sign language interpreter, by contacting Angie McNamara, Program Project Specialist II, at 602-364-3156; State TDD Number 1-800-367-8939; or Voice Relay Number 711. Request should be made as early as possible to allow time to arrange accommodations

“Health and Wellness for all Arizonans”

- e. Discuss, amend, approve adding Naloxone as a STR agent for EMT's on Table 5.1 (Scope of Practice) - Charlie Smith (Attachment V.e.)
- f. Discuss, amend, approve adding Naloxone as an approved agent for EMT's on Table 5.2 (Drug Box) - Charlie Smith (Attachment V.f.)
- g. Discuss, amend, approve the following drug profiles:
 - i. Propofol – Toni Gross, MD (Attachment V.g.i.)
 - ii. Insulin – Toni Gross, MD (Attachment V.g.ii.)
 - iii. Levophed (norepinephrine) – Toni Gross, MD (Attachment V.g.iii.)
 - iv. Hemostatic Agent – Toni Gross, MD (Attachment V.g.iv.)
- h. Discuss, amend, approve Pediatric Shock revision for TTTG - Toni Gross, MD (Attachment V.h.)
- i. Discuss Physician Orders for Life Sustaining Treatment (POLST) – Carol McMullin, MD, and Ms. Carol Bemis

VI. Reports

- a. Overview of the Arizona Fallen Firefighters and EMS Workers Memorial – Rick DeGraw (Attachment VI.a.)
- b. Trauma and EMS Performance Improvement Standing Committee – Gail Bradley, MD
 - i. Agency/Vendor Data Quality Assurance Reports for AZ-PIERS Workgroup (data field's completion, validation etc.)
- c. Education Standing Committee – Gail Bradley, MD
- d. Protocols, Medications and Devices Standing Committee - Toni Gross, MD
 - i. Pain Management Protocol Learning Management Module
- e. DQA - Rogelio Martinez, MPH
 - i. EMS Data Collection Coverage Map
 - ii. Quarterly Reports Update
- f. Community Integrated Paramedicine – David Harden, JD

VII. Agenda Items for Next Meeting

- VIII. Call to the Public: A public body may make an open call to the public during a public meeting, subject to reasonable time, place and manner restrictions, to allow individuals to address the public body on any issue within the jurisdiction of the public body. The Committee may ask staff to review a matter or may ask that a matter be put on future agenda. Members of the public body shall not discuss or take legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. A.R.S. § 38-431.01(G)

IX. Summary of Current Events

- a. February 8-9, 2015: 2015 Pediatric Symposium. Hilton Village of Oak Creek, Sedona
- b. February 12-13, 2015: February in Phoenix Trauma Symposium. Black Canyon Conference Center, Phoenix
- c. February 13, 2015: Arizona Resuscitation Academy. Public Safety Training Center, Mesa
- d. November 2-4, 2015: National Pediatric Disaster Conference. Scottsdale

- X. Next Meeting Date: May 21, 2015 @ 12:00 PM in rooms 215A & 215B – 2nd Floor 150 Building

XI. Adjournment

Persons with disabilities may request a reasonable accommodation such as a sign language interpreter, by contacting Angie McNamara, Program Project Specialist II, at 602-364-3156; State TDD Number 1-800-367-8939; or Voice Relay Number 711. Request should be made as early as possible to allow time to arrange accommodations

“Health and Wellness for all Arizonans”

Committee Attendance Report

Medical Direction Commission

		Present	Tele	Absent
Bentley Bobrow	Chair/ADHS BEMS Medical Director			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1/23/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Daniel Spaitte	Emergency Medicine Physician - Southe			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1/23/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frank Walter	Physician Specializing in Toxicology			
	9/20/2012	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2/25/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1/23/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/25/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gail Bradley	Physician Specializing in Cardiac Care/Vi			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1/23/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Harvey Meislin	Faculty Representative of Emergency M			
	9/20/2012	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2/25/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	1/23/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/29/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/25/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Jonathan Maitem	Emergency Medicine Physician - Central			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	1/23/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Medical Direction Commission

		Present	Tele	Absent
Kevin Foster	Physician Specializing in Trauma Surger			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1/23/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/29/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michael Ward	Emergency Medicine Physician - Wester			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1/23/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nicholas Theodore	Physician Specializing in Acute Head Inj			
	9/20/2012	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2/25/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1/23/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/25/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phillip Richemont	Physician with Full-Time Practice in a Ru			
	9/20/2012	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/16/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1/23/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5/29/2014	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	9/25/2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Toni Gross	Physician Specializing in Pediatric Medic			
	9/20/2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2/25/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/16/2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/26/2013	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1/23/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5/29/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/25/2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MEDICAL DIRECTION COMMISSION

September 25, 2014 - 12:00 PM

150 N. 18th Ave., Conference Room 215A&B

Meeting Minutes – DRAFT

Present

Frank Walter*
 Dan Spaite
 Gail Bradley
 Kevin Foster*
 Jon Maitem
 Maura Mahoney
 Michael Ward
 Toni Gross
 Nicholas Theodore*
 Phillip Richemont*

Absent

Ben Bobrow
 Harvey Meislin

*Indicates teleconference

- I. Call to Order – Gail Bradley, MD at 12:05 PM
- II. Roll Call - Jennifer Herbert (12 members, 7 required for quorum). A quorum was present
- III. Chairman's Report – Gail Bradley, MD
 - a. Attendance Report (Attachment III.a.) and recommendations
 - b. Vacancy
 - c. 2015 Meeting Schedule
- IV. Bureau Report – David Harden, JD
 - a. Rules update
 - b. Electronic EMCT registration/certification
- V. Discussion and Action Items
 - a. Discuss, amend, approve MDC Minutes from May 29, 2014. Jon Maitem, DO made the motion to approve the minutes, seconded by Michael Ward, DO. A vote was taken and the **motion carries.**
 - b. Discuss, amend, approve the AZ EMS PI Plan – Rogelio Martinez, MPH. Gail Bradley, MD, made the motion to approve the Plan, seconded by Jon Maitem, DO. A discussion ensued and Gail Bradley suggested that the friendly amendment to adopt the same changes discussed at EMS Council and STAB be incorporated. A vote was taken and the **motion carries.**
 - c. Discuss, amend, approve adding the new Spinal Motion Restriction Protocols to the TTTG – Gail Bradley, MD. Jon Maitem, DO, made the motion to approve the Protocol, seconded by Michael Ward, DO. A discussion ensued and Dan Spaite, MD, suggested several friendly amendments. A vote was taken and the **motion carries.**
 - d. Discuss, amend, approve the revised Adult Adrenal Insufficiency TTTG – Toni Gross, MD. Jon Maitem, DO, made the motion to approve the Protocol, seconded by Toni Gross, MD. A vote was taken and the **motion carries.**
 - e. Discuss, amend, approve the revised Pediatric Shock Including Hydrocortisone sodium succinate TTTG – Toni Gross, MD. Jon Maitem, DO, made the motion to approve the Protocol, seconded by Michael Ward, DO. A discussion ensued and several friendly amendments were suggested. A vote was taken and the **motion does not carry.**
 - f. Approve adding Proparacaine Hydrochloride Ophthalmic to Table 5.2 - Toni Gross, MD. Jon Maitem, DO, made the motion to approve the addition, seconded by Gail Bradley,

MD. A discussion ensued and the friendly amended to change the quantity to “1 bottle” was proposed. A vote was taken and the **motion carries.**

VI. Reports

- a. Trauma and EMS Performance Improvement Standing Committee – Rogelio Martinez, MPH
- b. Education Standing Committee – Gail Bradley, MD
- c. Protocols, Medications and Devices Standing Committee - Toni Gross, MD
 - i. Pain Management Protocol Learning Management Module
- d. DQA - Maureen Brophy, MPH
 - i. EMS Data Collection Coverage Map
 - ii. Operational Excellence
 - iii. Quarterly Reports Update
- e. Community Integrated Paramedicine Workgroup – David Harden, JD

VII. Agenda Items for Next Meeting

- a. EMS PI Plan

VIII. Call to the Public: None

IX. Summary of Current Events

- a. October 6, 2014: Level 1 Trauma Center 8th Annual EMS Conference, St. Joseph’s Hospital, Phoenix, AZ
- b. November 13-14, 2014: AZTrACC, Talking Stick Resort, Scottsdale, AZ

X. Next Meeting Date: January 29, 2015 @ 12:00 PM in rooms 215A & 215B – 2nd Floor 150 Building

XI. Adjournment at 1:09 PM

Approved by MDC

Date:

VISITORS PLEASE SIGN IN

Medical Direction Commission - September 25, 2014 at 12:00 p.m.

Name (PLEASE PRINT)		Organization & Position
1	Rebecca Haro	SEWFD EMS Coordinator
2	Shawna J. Jolly	PCC - Program Director
3	DAVID HARDEN	ADHX/REMSTI
4	RONALD MARTINEZ	FMC
5	Garth Gemar	GFD SFMD R/M
6	Van One	CFHMS
7	BRIAN G. BOWLING	NATIVE AZR - AZR METHODS
8	Tracy Schlosser	BEMC
9	Paul Wood	Banner
10	Brandon Long	AirMethods - Native Air / LifeNet
11		
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Controlled Substance Storage Security Guidance

Background

The Bureau of Emergency Medical Services and Trauma System (Bureau) has developed the following guidance document as technical assistance to the EMS community to identify and discuss areas of vulnerability in the storage and maintenance of EMS Medications.

Statutory & Regulatory Authority

A.R.S. § 36-2202 (A)(4): The director shall: adopt rules necessary to carry out this chapter.

Arizona Administrative Code (A.A.C.) Title 9, Chapter 25, Article 201, Subsection (F); establishes prescriptive criteria for agents and controlled substances.

Definitions

- “Agent” means a chemical or biological substance that is administered to a patient to treat or prevent a medical condition.
- “Controlled substance” has the same meaning as in A.R.S. § 32-1901, to be inclusive but not limited to opioids and benzodiazepines.
- “Authorized Emergency Medical Care Technician,” for the purpose of this guidance document, means an EMCT having medical direction and acting under an ALS scope of practice as identified in Article 5 of the Arizona Administrative Code.

Process

The following document was developed to provide guidance for EMS agencies, to promote best practices on compliance with applicable rules and statutes regarding use, storage, administration and wastage of pre-hospital agents and controlled substances utilized by authorized Emergency Medical Care Technicians and Emergency Medical Service provider organizations. It is important to continually evaluate the need for improving security and control measures in an operational area that if mismanaged could impact patient safety, provider safety and effect public trust.

Drug Box Containers: The Arizona Administrative Code is silent on the brand, material or style of drug box the EMS community is required to utilize in the field, it does prescribe:

1. That it must be a secured, dry, clean and washable receptacle.
2. While on a motor vehicle or aircraft, secured in a manner that restricts movement of the agent and the receptacle
3. Controlled substances, when not in use, must be stored in a locked container that is difficult to breach without the use of a power cutting tool

Drug Box Cleanliness: When a drug box is used, the EMCT is responsible for keeping the container clean and free of blood or other body fluids and protected from other damaging conditions.

Written Chain of Custody: A.A.C. R9-25-201 describes documentation criteria for each EMCT who takes custody of a supply of agents. Each time an EMCT takes custody of a supply of agents/controlled substances, that EMCT must perform an inventory of the agents/controlled substances. The following information must be documented on a written chain of custody log for each individual who takes custody of the supply of agents:

1. The name of the authorized individual
2. The EMCT certification number or employee identification number
3. The Date and Time the drug box was initially received
4. The Date and Time the drug box was placed in secure storage at an employer-defined authorized facility;
or
5. The Date and Time the drug box was transferred to another authorized individual

Inspection of Agents/Controlled Substances: All EMCT's should inspect the drug box and inventory the agents/controlled substances prior to accepting custody at the beginning of the shift. The drug box must contain at least the minimum supply of agents required for the highest level of service to be provided by the EMCT.

Whenever there is a transfer of the drug box to another authorized EMCT, both EMCT's should inspect the drug box and inventory the agents/controlled substances prior to transferring custody.

Inspection of any supply of agents/controlled substances needs to address all of the following:

1. Expiration dates
2. Deteriorated or contaminated agents
3. Container/label damage
4. Altered labels
5. Tampered seals
6. Depleted supply levels
7. Missing agents

If any of the conditions are noted:

1. Document any of the conditions
2. Obtain a replacement for each affected agent for which the minimum supply is not present; and
3. Notify the administrative medical director of a depleted, visibly adulterated, or missing controlled substance.

Inspection of individual agent Containers & Seals: Controlled substance individual containers are to be sealed at all times when not in use. Should a seal be found broken, or opened but not used, the contents need to be inspected immediately by an authorized individual and returned to the base hospital pharmacy or emergency medical service provider to be exchanged. During any inspection of the agents/controlled substances, authorized EMCT's should consider it best practice to observe the following:

1. Container end caps for needle puncture holes
2. Container caps for glue around the base of the rubber stopper
3. Container caps
4. The color of the contents
5. Look for debris inside the container
6. Labeling abnormalities
7. Appropriate amount of controlled substance is in the container
8. Syringe activation systems have not been activated

Storage and Security: Each individual drug box should be locked or sealed. Should the security device or seal be found broken, or a drug box opened, the contents need to be inspected and inventoried immediately by an authorized EMCT.

If the security device or seal on the drug box is discovered missing while performing patient care or after arriving at the hospital:

1. Continue patient care; you may continue to utilize the contents of the box.

2. If the medication needed is not present consider requesting another unit to meet on scene, but do not delay response or transport.
3. Conduct an inspection and inventory
4. Notify the EMS employer/supervisor.
5. Notify the administrative medical director and/or base hospital pharmacy of a depleted, visibly adulterated, or missing controlled substance

Administration of Agents/Controlled Substances: A.A.C. R9-25-502 tables 5.1 and 5.2 provides a list of agents/controlled substances and scope of practice authorized for administration by EMCT's in Arizona.

Each authorized EMCT shall document the following information on the patient care report:

1. Date and time of administration
2. Patient name
3. Patient address or scene location/identifier
4. Drug name
5. Dose of each administration
6. Route of administration
7. Effects of medication

Records should account for the use and disposition of all controlled substances utilized by an authorized EMCT.

Documenting Wastage of Controlled Substances: Authorized EMCT's must account for any useable quantity of a controlled substance. Unused quantities of controlled substances should be wasted beyond reclamation and witnessed by a minimum of one additional authorized person and the following documented on the patient care report and/or chain of custody log based on Medical Direction or EMS Provider policy:

1. Date of wastage.
2. Time of disposal/wastage
3. Patient's name
4. Drug name, drug strength, and quantity destroyed
5. The reason for the wastage
6. Printed name and Signature or initials of the person performing the disposal
7. Printed name and Signature or initials of the second person witnessing the disposal

Transfer of Agents Between Agencies: The transfer of controlled substances between agencies/providers in the field should be highly controlled through EMS Administrative Medical Direction policy. This practice should only occur in settings where extended out-of-service hours are required to replace patient use medications. According to AAC R9 25 201 (E)(3)(b) and (iv.) the transfer of controlled substances between agencies may only occur within the same administrative medical direction system if:

1. The Medical Director has identified and authorized individuals who ~~authorized~~ have access to the agents
2. Maintains a chain of custody for the agents (Chain of custody can be met through the use of a transfer of agents document approved by the Administrative Medical Director)
3. The transfer of agents document should be forwarded to the pharmacy replacing the agent for the resupplying agency, to adhere to the chain of custody requirement.

Disposal of controlled substances: Outdated, expired, deteriorated, damaged, or altered containers or labels of agents/controlled substances may only be destroyed by a Base Hospital Pharmacy or if the controlled substances are owned by an Emergency Medical Service provider organization, after prior approval from the United States Drug Enforcement Administration.

Return agents/controlled substances that are outdated, expired, deteriorated, damaged, or have altered containers or labels to the Base Hospital Pharmacy or the Emergency Medical Service provider, whichever owns the agents,

for the legal disposition of unwanted controlled substances in accordance with [United States Drug Enforcement Administration regulations](#).

Breakage and Spillage of Controlled Substances: Breakage of controlled substances does not constitute a "loss" of controlled substances. When there is breakage, damage, spillage, or some other form of destruction, any recoverable controlled substances must be disposed of according to DEA requirements.

If the breakage or spillage is not recoverable, document the circumstances of the breakage in the inventory records. Two individuals who witnessed the breakage must sign the inventory records indicating what they witnessed. Notify the Emergency Medical Service Provider manager. Obtain a replacement quantity. The submission of a DEA Form 41, *Registrants Inventory of Drugs Surrendered*, is not required for non-recoverable controlled substances.

If the base hospital pharmacy retains ownership of the controlled substances the base hospital pharmacist-in-charge will be immediately notified.

Reporting Losses & Thefts: Each time agents/controlled substances change hands or are used, documentation must be generated and maintained. There should be a paper trail to show the path of a controlled substance dosage unit from the day it was manufactured, through the distributor, to the hospital, pharmacy, Emergency Medical Service provider organization, authorized Emergency Medical Care Technician's, then the patient.

It is extremely important for authorized EMCTs to know and comply with controlled substance policy, base hospital and regional protocol and regulatory laws. If an EMCT commits an infraction, the employer's DEA registration or Certificate of Necessity may be at risk as well as any personal certification held. Emergency Medical Service provider organizations usually base their policies on state and federal laws; violating a written policy, may, in many cases be violating the law.

Whenever a controlled substance is missing and cannot be accounted for, then it is a reportable loss. All reportable losses, thefts and diversions of controlled substances must be reported to the Administrative Medical Director following the service provider's chain of command and if a base hospital retains ownership of the agents, the base hospital Pharmacist-in-Charge immediately. The Administrative Medical Director must notify the Bureau within 10 days of discovery.

A Base Hospital Pharmacist or the Emergency Medical Service provider (if the controlled substances are owned by the provider) should conduct an internal review and investigation to determine the manner of theft or loss and determine the amount missing. In cases of loss, theft or diversion of controlled substances, local law enforcement should be contacted to conduct an independent investigation.

A base hospital pharmacist or the Emergency Medical Service provider (if the controlled substances are owned by the provider) must report to the DEA within 1 day.

The DEA form may be submitted electronically on their website at www.deadiversion.usodj.gov.

It is best practice for Emergency Medical Service provider organizations and Base Hospital Medical Directors to both periodically review and conduct random inspections of agents, controlled substances inventory and chain of custody documents.

Individual EMCTs who demonstrate a noted increase or change in the pattern of administration of controlled substances should also trigger concern with the Emergency Medical Service provider organizations and Administrative Medical Directors. EMS personnel who divert drugs for personal use place their patients, their employers, and their coworkers at risk.

Emergency Medical Service provider organizations are required to have adequate controls in place to detect and address the diversion of controlled substances as prescribed by the United States Drug Enforcement Administration. Security measures include policies, best practices and required record keeping such as:

1. All controlled substances in a building or on a transport vehicle must be stored in a securely locked substantially built safe or cabinet.
2. The security provided must be commensurate with the quantity and types of controlled substances on the transport vehicle.
3. Controlled substances may not be left unattended where unauthorized persons would have access to them.
4. Controlled substances on ambulances must be stored in locked containers and storage areas.
5. Access to controlled substances should be restricted to the fewest people possible.

Emergency Medical Care Technicians are prohibited from allowing patients and visitors access to drug supplies.

Emergency Medical Care Technicians arriving at the receiving facilities should be constantly vigilant in maintaining a level of security for the drug box and its contents which typically remain on the transport vehicle while the patient is moved inside the facility.

An EMS provider organization, Base Hospital or Administrative Medical Director should have policies in place allowing the request of a drug test during the course of an internal investigation of a drug loss, theft or suspected diversion of controlled substances. It is best practice for EMS provider organizations, base hospitals or medical directors to request a timely drug test during the early course of an internal investigation. A third party lab should be used for definitive results based on the drug identified during the initial loss report.

Training: Utilizing case studies from investigation files to update current written procedures provides Emergency Medical Care Technicians with information on the current trends in diversion and assists with recognition of a co-worker who may be under the influence of controlled substances.

Training and quality improvement programs that include instruction on checks and balances related to controlled medication inventories would discourage tampering with or stealing controlled medications. With the introduction of this guidance document, provider organizations and base hospitals have an opportunity to analyze, modify (where necessary), and conduct current and topical training for EMS personnel. Developing standard tools such as log forms and policies would serve to maintain consistency across EMS agencies/regions.

Guideline for the Utilization of Over the Counter Medications by EMS Agencies

- A. Over the counter medications (OTCs) are FDA regulated substances that are readily available to the general public. Although regulated by the FDA, the general public may access and self-administer these medications without the advice or prescription from a licensed physician or other licensed-healthcare professional.
- B. DHS does not currently regulate the administration of OTC medications by Emergency Medical Care Technicians (EMCTs). In the absence of regulation, OTC medications should be treated like other FDA approved products that are not regulated by DHS, but are used in EMS operations.
- C. DHS recommends that the following clinical guidelines be met by EMS agencies which supply, carry, or distribute OTC medications:
 - 1. EMCTs may distribute OTC medications while involved in wildfire operations, special events, search and rescue, or when performing disaster relief.
 - 2. OTC medications may be distributed by EMCTs at the request of an individual and for the individual's self-administration only.
 - 3. EMCTs should only carry OTC medications approved by their medical director.
 - 4. Medical Directors should ensure EMCTs have appropriate knowledge of available OTC medications and the common contraindications of those OTC medications.
 - 5. Medical Directors shall develop a policy that outlines the types of OTC medications and circumstances in which those medications can be made available for self-administration.
 - 6. OTC medications shall be distributed in single dose packaging with instructions on the appropriate use of the medication kept on hand.

Table 5.1. Arizona Scope of Practice Skills**KEY:**

✓ = Arizona Scope of Practice skill

STR = Specialty Training Requirement: Skill requires specific specialty training with medical director authorization and involvement

* = Already intubated

Airway/Ventilation/Oxygenation		EMT	AEMT	EMT-I(99)	Paramedic
	Airway- esophageal	STR	✓	✓	✓
	Airway- supraglottic	STR	✓	STR	✓
	Airway- nasal	✓	✓	✓	✓
	Airway- oral	✓	✓	✓	✓
	Bag-valve-mask (BVM)	✓	✓	✓	✓
	BiPAP/CPAP				✓
	Chest decompression- needle			✓	✓
	Chest tube placement- assist only				STR
	Chest tube monitoring and management				STR
	Cricoid pressure (Sellick's maneuver)	✓	✓	✓	✓
	Cricothyrotomy- needle			STR	✓
	Cricothyrotomy- percutaneous			STR	✓
	Cricothyrotomy- surgical			STR	STR
	Demand valve- manually triggered ventilation	✓	✓	✓	✓
	End tidal CO2 monitoring/capnography			✓	✓
	Gastric decompression- NG tube			✓	✓
	Gastric decompression- OG tube			✓	✓
	Head-tilt chin lift	✓	✓	✓	✓
	Intubation- nasotracheal			STR	✓
	Intubation- orotracheal	STR	STR	✓	✓
	Jaw-thrust	✓	✓	✓	✓
	Jaw-thrust – modified (trauma)	✓	✓	✓	✓
	Medication Assisted Intubation (paralytics)				STR
	Mouth-to-barrier	✓	✓	✓	✓
	Mouth-to-mask	✓	✓	✓	✓
	Mouth-to-mouth	✓	✓	✓	✓
	Mouth-to-nose	✓	✓	✓	✓
	Mouth-to-stoma	✓	✓	✓	✓
	Obstruction- direct laryngoscopy			✓	✓
	Obstruction- manual	✓	✓	✓	✓
	Oxygen therapy- humidifiers	✓	✓	✓	✓

	Oxygen therapy- nasal cannula	✓	✓	✓	✓
	Oxygen therapy- non-rebreather mask	✓	✓	✓	✓
	Oxygen therapy- partial rebreather mask	✓	✓	✓	✓
	Oxygen therapy- simple face mask	✓	✓	✓	✓
	Oxygen therapy- venturi mask	✓	✓	✓	✓
	PEEP- therapeutic			✓	✓
	Pulse oximetry	✓	✓	✓	✓
	Suctioning- upper airway	✓	✓	✓	✓
	Suctioning- tracheobronchial		✓*	✓	✓
	Automated transport ventilator	STR	STR	✗	✗
Cardiovascular/Circulation		EMT	AEMT	EMT-I (99)	Paramedic
	Cardiac monitoring- multiple lead (interpretive)			✓	✓
	Cardiac monitoring- single lead (interpretive)			✓	✓
	Cardiac - multiple lead acquisition (non-interpretive)	STR	STR	✓	✓
	Cardiopulmonary resuscitation	✓	✓	✓	✓
	Cardioversion- electrical			✓	✓
	Carotid massage – (≤17 years)			STR	STR
	Defibrillation- automatic/semi-automatic	✓	✓	✓	✓
	Defibrillation- manual			✓	✓
	Hemorrhage control- direct pressure	✓	✓	✓	✓
	Hemorrhage control- tourniquet	✓	✓	✓	✓
	Internal; cardiac pacing- monitoring only			✓	✓
	Mechanical CPR device	STR	STR	STR	STR
	Transcutaneous pacing- manual			✓	✓
Immobilization		EMT	AEMT	EMT-I (99)	Paramedic
	Spinal immobilization- cervical collar	✓	✓	✓	✓
	Spinal immobilization- long board	✓	✓	✓	✓
	Spinal immobilization- manual	✓	✓	✓	✓
	Spinal immobilization- seated patient (KED,etc.)	✓	✓	✓	✓
	Spinal immobilization- rapid manual extrication	✓	✓	✓	✓
	Extremity stabilization- manual	✓	✓	✓	✓
	Extremity splinting	✓	✓	✓	✓
	Splint- traction	✓	✓	✓	✓
	Mechanical patient restraint	✓	✓	✓	✓
	Emergency moves for endangered patients	✓	✓	✓	✓
Medication administration - routes		EMT	AEMT	EMT-I (99)	Paramedic

	Assisting patient with his/her own prescribed medications (aerosolized/nebulized)	✓	✓	✓	✓
	Assisting patient with his/her own prescribed medications (ASA/Nitro)	✓	✓	✓	✓
	Aerosolized/nebulized (beta agonist)	STR	✓	✓	✓
	Buccal	STR	✓	✓	✓
	Endotracheal tube			✓	✓
	Inhaled self-administered (nitrous oxide)		✓	✓	✓
	Intradermal				✓
	Intramuscular (including patient assisted hydrocortisone)		✓	✓	✓
	Intranasal	STR	✓	✓	✓
	Intravenous push		✓	✓	✓
	Intravenous piggyback			✓	✓
	Intraosseous		STR	✓	✓
	Nasogastric				✓
	Oral	✓	✓	✓	✓
	Rectal		STR	✓	✓
	Subcutaneous		✓	✓	✓
	Sublingual		✓	✓	✓
	Auto-injector (self or peer)	✓	✓	✓	✓
	Auto-injector (patient's own prescribed medications)	✓	✓	✓	✓
IV initiation/maintenance fluids		EMT	AEMT	EMT-I (99)	Paramedic
	Access indwelling catheters and implanted central IV ports				✓
	Central line- monitoring				✓
	Intraosseous- initiation		✓	✓	✓
	Intravenous access		✓	✓	✓
	Intravenous initiation- peripheral	STR	✓	✓	✓
	Intravenous- maintenance of non-medicated IV fluids	✓	✓	✓	✓
	Intravenous- maintenance of medicated IV fluids			✓	✓
	Umbilical initiation				STR
Miscellaneous		EMT	AEMT	EMT-I (99)	Paramedic
	Assisted delivery (childbirth)	✓	✓	✓	✓
	Assisted complicated delivery (childbirth)	✓	✓	✓	✓
	Blood glucose monitoring	✓	✓	✓	✓
	Blood pressure- automated	✓	✓	✓	✓
	Blood pressure- manual	✓	✓	✓	✓
	Eye irrigation	✓	✓	✓	✓
	Eye irrigation (Morgan lens)				STR

	Thrombolytic therapy- initiation				STR
	Urinary catheterization				STR
	Venous blood sampling			✓	✓
	Blood chemistry analysis				STR
	Inter-facility med transport list, including pump administration \			STR	STR

Table 5.2. Eligibility for Authorization to Administer, Monitor, and Assist in Patient Self-administration of Agents by EMCT Classification; Administration Requirements; and Minimum Supply Requirements for Agents

KEY:

A = Authorized to administer the agent

SVN = Agent shall be administered by small volume nebulizer

MDI = Agent shall be administered by metered dose inhaler

* = Authorized to assist in patient self-administration

[] = Minimum supply required if an EMS provider chooses to make the optional agent available for EMCT administration

AGENT	MINIMUM SUPPLY	EMT	AEMT	EMT-I (99)	Paramedic
Adenosine	18 mg	-	-	A	A
Albuterol Sulfate SVN or MDI (sulfite free)	10 mg	A	A	A	A
Amiodarone or Lidocaine	300 mg or 3 prefilled syringes, total of 300 mg and 1 g vials or premixed infusion, total of 2 g	- -	- -	- A	A A
Aspirin	324 mg	A	A	A	A
Atropine Sulfate	3 prefilled syringes, total of 3 mg	-	-	A	A
Atropine Sulfate	Optional [8 mg multidose vial (1)]	-	-	A	A
Atropine Sulfate Auto-Injector	None	A	A	A	A
Atropine Sulfate and Pralidoxime Chloride (Combined) Auto-Injector	None	A	A	A	A
Calcium Chloride	1 g	-	-	-	A
Calcium Gluconate, 2.5% topical gel	Optional [50 g]	A	A	A	A
Charcoal, Activated (without sorbitol)	Optional [50 g]	A	A	A	A
Cyanokit	Optional [5 g]	-	-	-	A
Dexamethasone	Optional [8 mg]	-	-	A	A
Dextrose	50 g	-	A	A	A
Dextrose, 5% in H ₂ O	Optional [250 mL bag (1)]	A	A	A	A
Diazepam or Lorazepam or Midazolam	20 mg 8 mg 10 mg	- - -	- - -	A A A	A A A
Diazepam Rectal Delivery Gel	Optional [20 mg]	-	-	A	A
Diltiazem or Verapamil HCl	25 mg 10 mg	- -	- -	- -	A A
Diphenhydramine HCl	50 mg	-	-	A	A
Dopamine HCl	400 mg	-	-	-	A
Epinephrine Auto-Injector	Optional [2 adult auto-injectors 2 pediatric auto-injectors]	A	A	A	A
Epinephrine HCl, 1:1,000	2 mg	-	A	A	A

Epinephrine HCl, 1:1,000	Optional [30 mg multidose vial (1)]	-	A	A	A
Epinephrine HCl, 1:10,000	5 mg	-	-	A	A
Etomidate	Optional [40 mg]	-	-	-	A
Furosemide or Bumetanide	Optional [100 mg] Optional [4 mg]	-	-	A	A
Glucagon	2 mg	-	A	A	A
Glucose, oral	Optional [30 gm]	A	A	A	A
Hemostatic Agents	Optional	A	A	A	A
Hydrocortisone Sodium Succinate	Optional	-	*	*	*
Immunizing Agent	Optional	-	-	A	A
Ipratropium Bromide 0.02% SVN or MDI	5 mL	-	-	A	A
Ketamine	Optional [200 mg]	-	-	-	A
Lactated Ringers	1 L bag (2)	A	A	A	A
Magnesium Sulfate	5 g	-	-	-	A
Methylprednisolone Sodium Succinate	Optional [250 mg]	-	-	A	A
Morphine Sulfate or Fentanyl	20 mg 200 mcg	-	A	A	A
Nalmefene HCl	Optional [4 mg]	-	A	A	A
Naloxone HCl	10 mg	-	A	A	A
Naloxone HCl	Optional [prefilled atomizers] 4 mg	A	A	A	A
Nitroglycerin Sublingual Spray or Nitroglycerin Tablets	1 bottle 1 bottle	* *	A	A	A
Normal Saline	1 L bag (2) Optional [250 mL bag (1)] Optional [50 mL bag (2)]	A	A	A	A
Ondansetron HCl	Optional [4 mg]	-	-	A	A
Oxygen	13 cubic feet	A	A	A	A
Oxytocin	Optional [10 units]	-	-	A	A
Phenylephrine Nasal Spray 0.5%	Optional [1 bottle]	-	-	A	A
Pralidoxime Chloride Auto-Injector	None	A	A	A	A
Proparacaine Ophthalmic	Optional [1 bottle]	-	-	A	A
Rocuronium	Optional [100 mg]	-	-	-	A
Sodium Bicarbonate 8.4%	Optional [100 mEq]	-	-	A	A
Succinylcholine	Optional [400 mg]	-	-	-	A
Thiamine HCl	100 mg	-	-	A	A
Tuberculin PPD	Optional [5 mL]	-	-	A	A
Vasopressin	Optional [40 units]	-	-	-	A

GENERIC NAME: Propofol

CLASS: General Anesthetic

Mechanism of Action:

Sedative-hypnotic agent. Suspected to produce effects by the positive modulation of the inhibitory function of the neurotransmitter gamma aminobutyric acid (GABA) through the ligand-gated GABA receptors

Indications:

Intensive care unit (ICU) sedation of intubated mechanically ventilated adult patients

Contraindications:

Allergies to eggs, egg products, soybeans, or soy products

Adverse Reactions:

Bradycardia, arrhythmia, hypotension, HTN, tachycardia nodal, decreased cardiac output, CNS movement, injection-site burning/stinging/pain, hyperlipemia, apnea, rash, pruritus, respiratory acidosis during weaning.

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

Increased effects with narcotics (eg., morphine, meperidine, fentanyl), combinations of opioids and sedatives (e.g., benzodiazepines, barbiturates, chloral hydrate, droperidol) and potent inhalational agents (e.g., isoflurane, enflurane, halothane). Concomitant fentanyl may cause bradycardia in pediatrics. Increased risk of propofol infusion syndrome with vasoconstrictors, steroids, and inotropes

Adult Dosages:

ICU Sedation: Initial: 5 mcg/kg/min IV for at least 5 min, then increased by increments of 5-10 mcg/kg/min IV over 5-10 min until desired clinical effect. Maint: 5-50 mcg/kg/min IV or higher may be required. Max: 4000 mcg/kg/hr.

Pediatric Dosages:

Safety and efficacy has not been well established for continuous sedation.

Routes of administration:

IV infusion

Onset of Action:

Less than 1 minute

Peak Effects:

1-2 minutes

Duration of Action:

4-8 minutes

Arizona Drug Box Minimum Supply:

None—Transport Agent

Monitoring:

Monitor for anaphylactic/anaphylactoid reactions, hypotension and/or cardiovascular depression, apnea, airway obstruction and/or oxygen de-saturation, decrease in cerebral perfusion pressure, signs/symptoms of propofol infusion syndrome, postoperative unconsciousness with increased muscle tone, pulmonary edema, increased vagal tone, pancreatitis, and other adverse events.

Special Notes:

- Fatal and life-threatening anaphylactic reactions reported.
- Proper use of aseptic technique required to prevent microbial contamination.
- Lower induction doses and slower rate of administration needed in elderly, debilitated or ASA-PS III/IV patients; monitor for early signs of hypotension, bradycardia, apnea, airway obstruction, and/or oxygen de-saturation.
- May cause propofol infusion syndrome in ICU sedation characterized by severe metabolic acidosis, hyperkalemia, lipidemia, rhabdomyolysis, hepatomegaly, and cardiac/renal failure. Consider alternative means of sedation if increased dose is required or metabolic acidosis occurs.
- Avoid abrupt d/c prior to weaning or for daily evaluation of sedation level; may result in rapid awakening with associated anxiety, agitation, and resistance to mechanical ventilation.
- Local pain, swelling, blisters, tissue necrosis reported following accidental extravasation.
- Failure to reduce infusion rate in ICU sedation for extended periods may result in excessively high blood concentrations. May elevate serum tri-glycerides when administered in extended periods; caution with disorders of lipid metabolism.
- Do not infuse for >5 days without drug holiday to replace zinc losses; consider supplemental zinc with chronic use in those predisposed to zinc deficiency.

- In renal impairment, perform baseline urinalysis/urine sediment, then monitor on alternate days during sedation.
- Correct fluid deficits prior to use.

DRAFT

GENERIC NAME: INSULIN

CLASS: Pancreatic hormone

Mechanism of Action:

Promotes glucose transport, which stimulates carbohydrate metabolism in skeletal and cardiac muscle and adipose tissue. Also promotes phosphorylation of glucose in liver, where it's converted to glycogen. Directly affects fat and protein metabolism, stimulates protein synthesis, inhibits release of free fatty acids, and indirectly decreases phosphate and potassium

Indications and Field Use:

Type 1 (insulin-dependent) diabetes mellitus; type 2 (non-insulin-dependent) diabetes mellitus unresponsive to diet and oral hypoglycemics

Contraindications:

Hypersensitivity to drug or its components
Hypoglycemia

Adverse Reactions:

Metabolic: hypokalemia, sodium retention, hypoglycemia, rebound hyperglycemia (Somogyi effect)

Skin: urticaria, rash, pruritus

Other: edema; lipodystrophy; lipohypertrophy; erythema, stinging, or warmth at injection site; allergic reactions including anaphylaxis

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

Drug-drug. Acetazolamide, albuterol, antiretrovirals, asparaginase, calcitonin, corticosteroids, cyclophosphamide, danazol, dextrothyroxine, diazoxide, diltiazem, diuretics, dobutamine, epinephrine, estrogens, hormonal contraceptives, isoniazid, morphine, niacin, phenothiazines, phenytoin, somatropin, terbutaline, thyroid hormones: ***decreased hypoglycemic effect***

Anabolic steroids, angiotensin-converting enzyme inhibitors, calcium, chloroquine, clofibrate, clonidine, disopyramide, fluoxetine, guanethidine, mebendazole, MAO inhibitors, octreotide, oral hypoglycemics, phenylbutazone, propoxyphene, pyridoxine, salicylates, sulfapyrazone, sulfonamides, tetracyclines: ***increased hypoglycemic effect***

Beta-adrenergic blockers (nonselective): ***masking of some hypoglycemia symptoms, delayed recovery from hypoglycemia***

Lithium carbonate: *decreased or increased hypoglycemic effect*

Pentamidine: *increased hypoglycemic effect, possibly followed by hyperglycemia*

Dosage:

Adults and children: ~~Loading dose of 0.15 units/kg (non-concentrated regular insulin) IV bolus, followed by~~ Continuous infusion of 0.1 unit/kg/hour until glucose level drops to 250 mg/dL or lower. ~~Then administer subcutaneously, adjusting dosage according to glucose level.~~

Routes of administration:

IV (Regular)

Onset of Action:

10-30 minutes

Peak Effects:

15-30 minutes

Duration of Action:

Unknown

Arizona Drug Box Minimum Supply:

NONE: Interfacility Transport Agent

Special Notes:

- ~~• Don't give insulin IV (except non-concentrated regular insulin), because anaphylactic reaction may occur.~~
- In patients with DKA care should be taken to not reduce blood glucose below 200-250 mg/dL in first 4-6 hours as rebound hypoglycemia may occur. Target decrease in blood glucose level should be ~75 mg/dL/hr.
- FSBG should be obtained every 30-60 minutes.
- For IV infusion, mix regular insulin only with normal or half-normal saline solution, as prescribed, to yield a concentration of 1 unit/mL.

References:

~~insulin. (n.d.) Nursing Spectrum Drug Handbook 2009. (2009). Retrieved November 27 2013 from <http://medical-dictionary.thefreedictionary.com/Insulin>~~

GENERIC NAME: NOREPINEPHRINE

CLASS: Sympathomimetic, Alpha- and beta- adrenergic agonist, inotropic cardiac stimulant, Vasopressor

Mechanism of Action:

Stimulates beta1 and alpha1 receptors in sympathetic nervous system, causing vasoconstriction, increased blood pressure, enhanced contractility, and decreased heart rate

Indications and Field Use:

Severe hypotension- due to cardiogenic, septic, or neurogenic shock either refractory to intravascular fluid boluses or in which intravascular fluid bolusing is contraindicated (e.g. pulmonary edema).

Contraindications:

- Hypersensitivity to drug
- Hypotension caused by blood volume deficit (except in emergencies until blood volume replacement is completed), profound hypoxia or hypercarbia
- Mesenteric or peripheral vascular thrombosis

Adverse Reactions:

CNS: headache, anxiety

CV: bradycardia, severe hypertension, arrhythmias

Respiratory: respiratory difficulty

Skin: irritation with extravasation, necrosis

Other: ischemic injury

Overdosage with norepinephrine may result in headache, severe hypertension, reflex bradycardia, marked increase in peripheral resistance, and decreased cardiac output. In case of accidental overdosage, as evidenced by excessive blood pressure elevation, discontinue norepinephrine until the condition of the patient stabilizes.

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

Alpha-adrenergic blockers: antagonism of norepinephrine effects

Antihistamines, ergot alkaloids, guanethidine, MAO inhibitors, oxytocin, tricyclic antidepressants: severe hypertension

Bretylium, inhalation anesthetics: increased risk of arrhythmias

Adult Dosages:

Initial dose: 2 to 4 mcg/min

Maintenance dose: Adjust the rate for a low normal blood pressure (usually 80 to 100 mm Hg systolic). The average maintenance dose ranges from 1 to 12 mcg/min (maximum dose 30 mcg/min).

Pediatric Dosages:

0.1 – 2 mcg/kg/min; 2 mcg/kg/min max

Routes of administration:

IV use large vein- central line preferable

Onset of Action:

Immediate

Peak Effects:

Immediate

Duration of Action:

1-2 minutes after infusion is stopped

Arizona Drug Box Minimum Supply:

NONE- Interfacility transport medication

Special Notes:

Use IV pump only to infuse
Monitor IV site closely for extravasation
Watch for signs of inadequate peripheral tissue perfusion, pale-cyanotic-black
Never leave patient unattended during infusion
Monitor VS Q 5 minutes
Infusions should be reduced gradually, avoiding abrupt withdrawal
Severe tissue necrosis can occur with extravasation

GENERIC NAME: Kaolin, Chitosan

CLASS: Hemostatic agent

Kaolin

Mechanism of Action:

- Kaolin is an inert mineral and it promotes clotting by two main modes of action:
 - Kaolin promotes the activation of Factor XII (FXII) in the presence of kallikrein and high molecular weight kininogen. Activated FXII initiates the intrinsic clotting pathway via the activation of Factor XI. Activated FXI continues the coagulation pathway that ends with the formation of a fibrin clot.
 - Kaolin promotes the activation of platelet-associated FXI and it is a distinct and separate molecule from plasma FXI. Activated platelet-associated FXI initiates the intrinsic clotting pathway in normal and FXII deficient patients.

Indications and Field Use:

- Life-threatening hemorrhage on external wounds as an adjunct with direct pressure when direct pressure is ineffective.

Contraindications:

- Application to injuries related to eyes or airway
- Kaolin powder should not be applied directly to the wound

Adverse Reactions:

- None

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

- None

Adult/Pediatric Dosage:

Quantity necessary to fully cover bleeding area

Routes of Administration:

Topical gauze or dressing

Onset of Action:

Immediate

Peak Effects:

5 minutes

Duration of Action:

Unknown

Arizona Drug Box Minimum Supply:

Optional- 1 packet

Special Notes:

For external use only
Do not remove once applied
Avoid contact with eyes

Chitosan

Mechanism of Action:

- A naturally occurring, bio-compatible polysaccharide that becomes extremely adherent when in contact with blood; seals the wound and controls bleeding. The red blood cells create a seal over the wound as they are drawn into the bandage.

Indications and Field Use:

- Life-threatening hemorrhage on external wounds as an adjunct with direct pressure when direct pressure is ineffective.

Contraindications:

- Application to injuries related to eyes or airway

Adverse Reactions:

- None

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

- None

Adult/Pediatric Dosage:

Quantity necessary to fully cover bleeding area

Routes of Administration:

Topical gauze or dressing

Onset of Action:

Immediate

Peak Effects:

Duration of Action:

Unknown

Arizona Drug Box Minimum Supply:

Optional-

Special Notes:

For external use only
Do not remove once applied
Avoid contact with eyes

Pediatric Shock

ABCDE Assessment

The pediatric patient may present hemodynamically unstable or with hypoperfusion evidenced by:

- Tachycardia out of proportion to temperature or degree of pain
- Altered mental status
- Delayed capillary refill greater than 2 seconds
- Pallor
- Peripheral cyanosis
- Hypotension (systolic blood pressure less than $[70 + (2 \times \text{years})]$ is a late finding in pediatric shock)

EMT/AEMT

- Support Airway
- High flow oxygen
- Assisted ventilation as needed
- Compression to area of active bleeding as needed
- “Head Down” positioning
- Maintain temperature

EMT-I/Paramedic

Follow EMT/AEMT standards

- If history of Adrenal Insufficiency (congenital adrenal hyperplasia, daily steroid use)
 - Stress dose steroids as per Adrenal Insufficiency guideline (see below)

Reassess

Consider Pressors IV:
Epinephrine (0.1-1 mcg/kg/min)
Dopamine (5-20 mcg/kg/min)

Transport per local protocol

AEMT Only:

- Establish IV (or IO if hypotensive or no pulse)
- Bolus with 20 ml/kg of NS over 10-20 minutes
- Check glucose
 - Treat glucose if <40 mg/dL
 - D10-5 ml/kg (<2 years) IV/IO
 - D25-2 ml/kg (2-8 years) IV/IO
 - D50-1 ml/kg (>8 years) IV/IO
- If history of Adrenal Insufficiency (congenital adrenal hyperplasia, daily steroid use) consider adrenal insufficiency guideline
- ~~Assist with patient's home medication hydrocortisone (Solu-Cortef)~~ Stress dose steroids as per Adrenal Insufficiency guideline (see below)

Reassess

Normal saline boluses in 20 ml/kg increments, up to 60ml/kg total (until vital signs/perfusion normal OR rales or hepatomegaly on exam)

- Exception: volume-sensitive conditions, 10 ml/kg increments: neonates (0-28 days), congenital heart disease, chronic lung disease, chronic renal failure

Transport per local protocol

Adrenal Insufficiency Guideline

- Stress dose steroids:
 - Assist with patient's home medication hydrocortisone (Solu-Cortef)*:
 - Adult: 100 mg IM
 - Child: 2 mg/kg IM or
 - 0 – 3 yo = 25 mg IM
 - 3 – 12 yo = 50 mg IM
 - ≥ 12 yo = 100 mg IM
 - OR
 - Methylprednisolone:
 - 1.5 mg/kg IV/IO

*preferred

Arizona Fallen Firefighter Memorial

In May 2013, Governor Brewer signed House Bill 2136, sponsored by Representative Bob Robson, authorizing the construction of a statewide memorial on Wesley Bolin Plaza to commemorate the loss of 104 firefighters and paramedics in Arizona since 1902. Arizona is one of only 9 states without a statewide memorial. This will be one of only a handful of state memorials commemorating wildland firefighters, paramedics, volunteers and professional firefighters.

Since then, members of the Arizona Firefighters & Emergency Memorial Commission have been working with the Arizona Department of Administration, the Governmental Mall Commission, the Arizona Historical Commission and Firefighters Charities to prepare for construction of the memorial beginning March 2015 with completion in October 2015.

A website, www.azfirefightersmemorial.com, has been established and plans have been approved by the Governmental Mall Commission and the Arizona Historical Commission. McCarthy Construction, Smith Group LLC, Coe & Van Loo, MRT Design and other groups have begun donating their time toward creating the memorial. Fundraising has been proceeding and about \$1,005,000 has been raised or committed toward the \$1.65 million cost from entities such as APS, SRP, Diamondbacks, SW Gas, Suns, Freeport McMoRan, Copperpoint, Cox, Arizona Materials LLC, Hensley, Blue Cross Blue Shield, Bashes, Professional Firefighters of Arizona, Molera Alvarez, Burch & Cracchiola, Brownstein Hyatt, Bryan Cave, Banner Health, Alliance Bank, Lee & Associates, Arizona Community Foundation, PHI Air Medical, Starwest Assoc., and many others. Donations are tax deductible. Currently, 49 corporate entities have committed \$937,000 and about \$70,000 has been raised from individual contributions.

Funds may be pledged for 2014 and for 2015.

All contributors will be recognized publicly on the website, in all publicity and at an event prior to the grand opening. Perpetual maintenance funds will be established with the State of Arizona and with the professional Firefighters of Arizona. No public or taxpayer funds will be utilized in this effort.

Two Arizona sculptors will create 10 life size bronze sculptures as part of the memorial – Rusty Bowers from Mesa and Paul Olesiewicz from Tucson, representing wildland firefighters, paramedics, volunteers and professional firefighters, male and female, and representing Arizona cultural diversity.

A bell tower and removal seating for 300 will be part of the memorial, but mostly the memorial will be a quiet place to consider the sacrifice and dedication of those firefighters who gave their lives on behalf of Arizona and its families.

Contributions may be made at www.azfirefightersmemorial.com or Arizona Fallen Firefighters memorial, 61 East Columbus, Phoenix, Arizona 85012.

Our purpose is not to mourn, but to remember.

Arizona Fallen Firefighters Memorial

September 11, 2014



SMITHGROUP JJR

CVL Consultants

MCCARTHY

150
SINCE 1864
YEARS

www.azfirefightersmemorial.com

Arizona Fallen Firefighter Memorial

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Funds may be pledged for 2014 and for 2015.

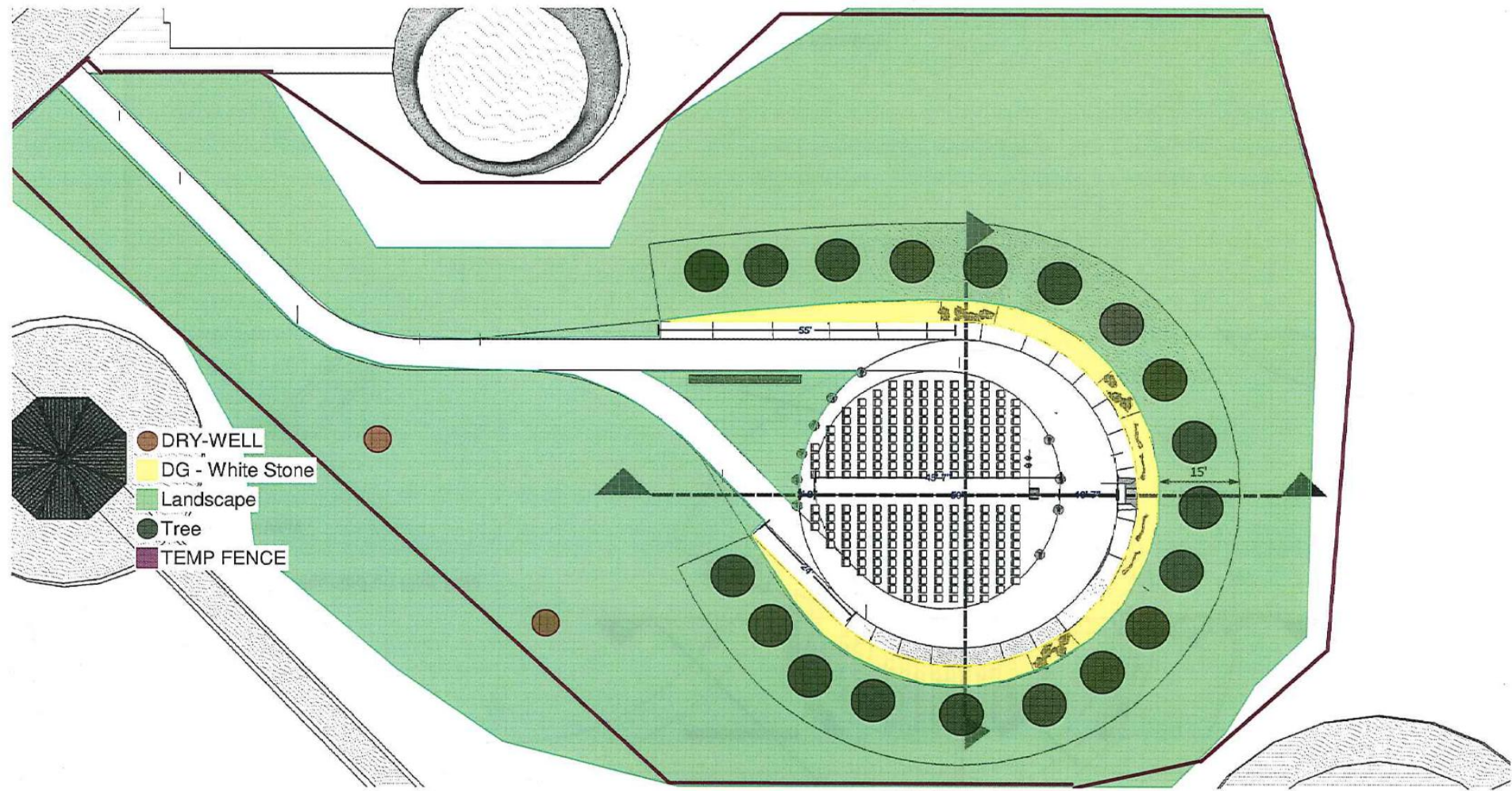
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Arizona Fallen Firefighters Memorial

September 11, 2014

Conceptual Budget Estimate



<i>Major Work Categories</i>	<i>BUDGET VALUE</i>
<i>Earthwork</i>	<i>\$64,112</i>
<i>Landscaping</i>	<i>\$70,147</i>
<i>Drainage</i>	<i>\$16,125</i>
<i>Concrete</i>	<i>\$186,928</i>
<i>Stone</i>	<i>\$464,245</i>
<i>Specialties</i>	<i>\$18,010</i>
<i>Electrical</i>	<i>\$41,490</i>
<hr/>	
<i>Direct Cost Subtotal</i>	<i>\$861,056</i>
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<i>Indirect SubTotal</i>	<i>\$238,918</i>
<i>Total Construction Budget Model</i>	<i>\$1,099,974</i>
<i>Architect - Design and Engineering</i>	<i>\$107,223</i>
<i>Artist - Bronze Sculpture</i>	<i>\$505,000</i>
<i>Total Budget Model</i>	<i>\$1,712,197</i>



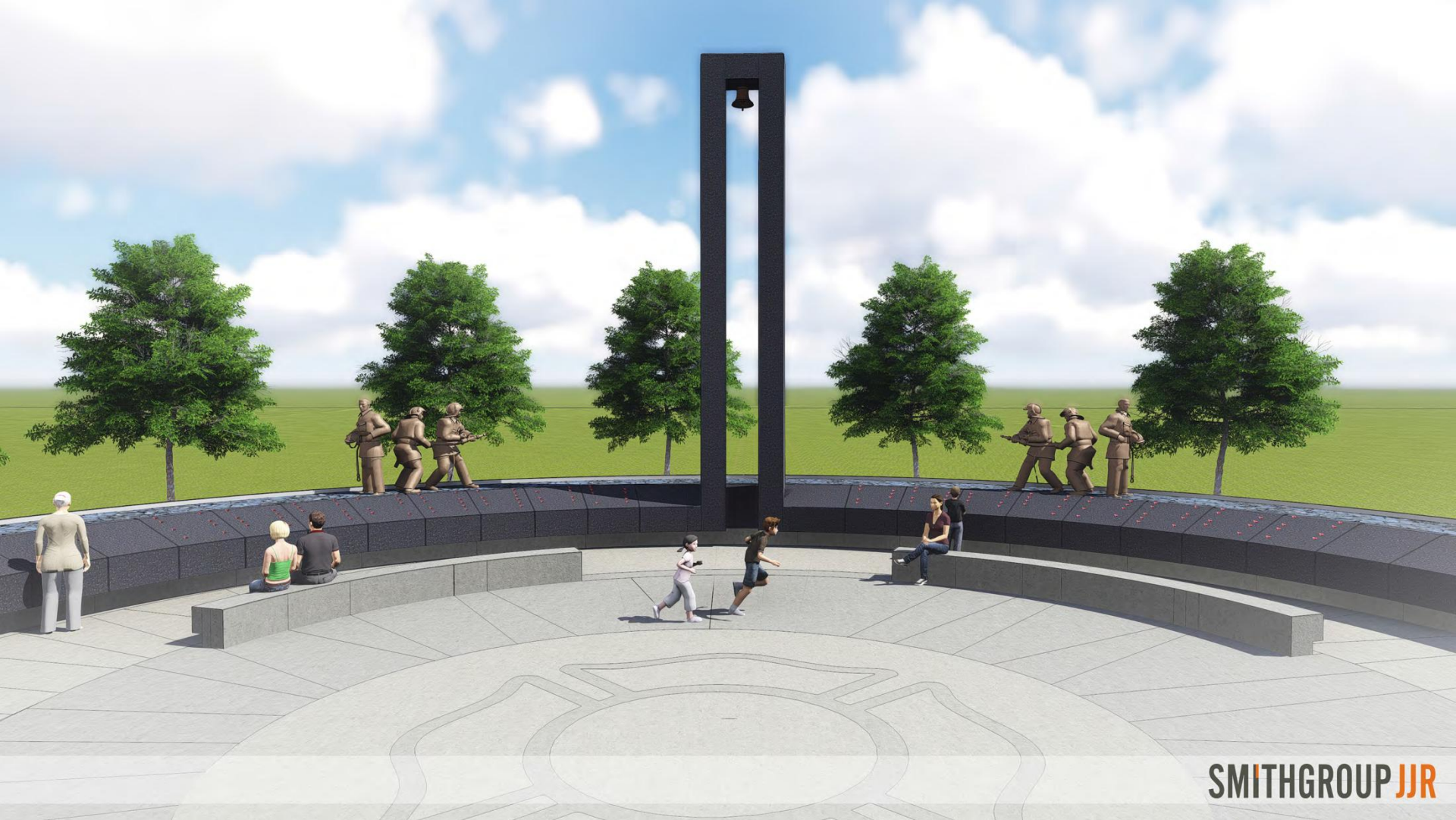


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Arizona Fallen Fire Fighter Memorial

- Planning, Fundraising and Construction time: 19 months. Construction March 2015 – September 2015.
- 10 life-size bronzes
- Ringing Belltower – secured
- Limited low level lighting
- Elevated wall – slated top with names/expansion
6 inches to 48"
- Removal seating for 256
- Removal podium
- Cost: Approximately \$1.6M

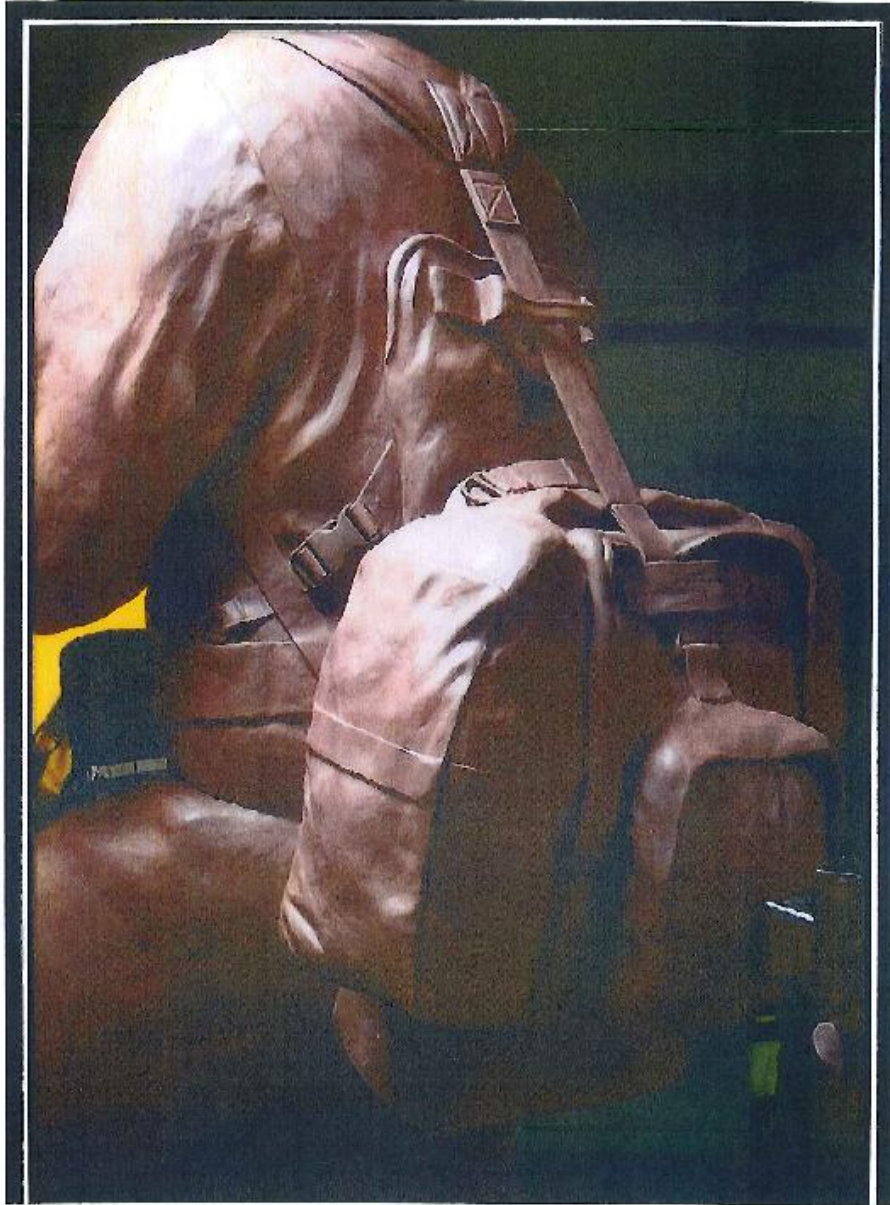




Detail: Chain saw motor in clay



Detail – wildland firefighter shoe stitching and laces in clay



Second wildland
firefighter in
progress – full
size, clay.



Pencil drawing – set of professional firefighters, left of bell tower.



PICCOLI

Pencil drawing - Second set of professional firefighters – right of belltower







Arizona Fallen Firefighter Memorial

An Arizona memorial dedicated to the courage and memory of Arizona firefighters and paramedics who gave their lives in service of others and that honors those who live with their absence.

**With each loss of a firefighter, our lives have been lessened.
With each sacrifice, our lives have been enriched.**

Tax Deductible donations may be made at:
www.azfirefightersmemorial.com

or

**Arizona Fallen Firefighter Memorial
c/o Phoenix Firefighters Charities
61 East Columbus, Phoenix, Arizona 85012**

Rick DeGraw, Chair, Arizona Fire Fighters & Emergency Paramedics Memorial Commission

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