

# Department of Community Health

EMS & Trauma Systems Section

Robin Shivley, Manager

# Topics

- Pharmacy Issues
- State Protocols
- MCA Activities
- Burn Surge Plan
- Audits/Complaints/Enforcement
- Life Support Agency Inspection Issues
- New Equipment Requirements
- Criminal Background Checks
- National Education Standards
  - Objectives
  - Testing
- EMS for Children

# Pharmacy Issues

- Do IV fluids and ancillary supplies (catheters, etc.) need to be locked and secured?
- Answer: In reviewing the pharmacy law, I could not find where these items still need to be locked and secure. The department will be changing the inspection requirement to secured.
- Question has been raised – how can medications be acquired? There are a number of scenarios out there on how ambulance services are obtaining medications.
  - What do the administrative rules state?

# Pharmacy Issues

- Rule 22207(1)(k) and (3)
- Written procedures for the security, control, dispensing, and exchange of pharmaceuticals, intravenous solutions, tubing, and related apparatus. Life support agency medication exchange shall only take place with a participating hospital or freestanding surgical outpatient facility.
- Each MCA shall develop specific protocols applicable to the acquisition, storage, and use of drugs, IV fluids and medical devices. All drugs and IV fluids shall be under the control of a pharmacist licensed in this state affiliated with a participating MCA hospital or free standing surgical outpatient facility.

# State Protocols

- During the 2007 NHTSA Reassessment, the following recommendations were made:
  - State Model protocols should be standard for all MCAs to ensure uniformity of care and to allow for movement between MCAs
  - MCAs should continue consolidation of protocols and requirements so the same protocols, standards, etc., exist across the state

# State Protocols

- Updated protocols for all MCAs were due June 1, 2010
- Protocols were received from all but 10 MCAs. The Department has corresponded with those MCAs.
- Based upon protocols submitted, the QA Task Force has recommended a number of suggestions.

# State Protocols

- Development of Supplemental State protocols:
  - Cyanide Exposure
  - Pain Management
  - Nitro Drip
  - Termination of Resuscitation
- These protocols will be reviewed at the October QA meeting. Once approved sent to MCAs.

# State Protocols

- Development of Supplemental State protocols:
  - Nebulized bronchodilators for EMT and Specialist
  - Epi-Pen for MFR
  - Airway Management -- Needle Cric (pre or post radio selection)
  - Pleural Decompression (pre or post radio selection)
  - Pediatric Altered Mental Status (add glucagon to Paramedic level)
  - Adult Trauma (allows for commercial devices – optional)

# State Protocols

- Protocols that have been revised and will be sent to MCAs:
  - Respiratory Distress

# State Protocols

- New protocols under review:
  - EMS Scope of Practice Policy
  - CPAP for BLS
  - STEMI

# State Protocols

- Protocols that have been identified as needing revision:
  - MCI
  - Vascular Access – flow rate needs to be consistent
  - Chemical Exposure
  - Heat Emergencies
  - Pain Management (make clearer regarding morphine/fentanyl and will discuss removing pain meds from all protocols and reference in pain management procedure).
  - Altered Mental Status (clearer on Naloxone)

# State Protocols

- Protocols that have been identified as needing revision:
  - Pediatric Bronchospasm (fix drug box related to albuterol/atrovent)
  - Pediatric Poisoning/Overdose – will use Saginaw's to update the state protocol.
  - Abdominal Pain – adding language from Macomb.
  - Heat Emergencies
  - Pediatric Emergencies – add language regarding minimize scene time.

# State Protocols

- Protocols that have been identified as needing revision:
  - Pediatric Bradycardia – delete 1mg after epinephrine
  - 12 Lead – revise to allow for transmission
  - CPAP/BiPap – allow for selection of required or optional
  - Helmet Removal – Dr. McGraw and Dr. Domeier will rewrite.
  - Interfacility Transfer Protocol

# State Protocols

- Protocols that will be added with new revision:
  - Impedance Threshold Device (optional)
  - Pediatric Fever (optional)

# MCA Activities

- Developing a MCA Evaluation Tool
  - NHTSA Reassessment Recommendation: MCAs should be evaluated regarding their ability to provide their statutory responsibilities
  - Develop an evaluation process for MCAs to ensure compliance and uniformity across the state
- Updating the MCA Handbook
- Updating the Medical Director Curriculum

# Multi-Casualty Incident Burn Plan: What role will I play?



**Michelle Mora RN, BSN, EMT-P**  
**Stewart C. Wang, MD PhD FACS**

# Michigan Burn Plan Background- Development and Contributors

- Dr. Jenny Atlas
- Melissa Barker
- Amanda Corwin
- Dr. Don Edwards
- Dr. Jerry Evans
- Dr. Bill Fales
- Deb Harkins
- Karla Klas
- Rachel Milkowski
- Dr. Jeff Nigel
- Linda Scott
- Robin Shively
- Michelle Mora
- Dr. Robert Takla
- Dr. Stewart Wang

**The Michigan Department of Community  
Health  
Office of Public Health Preparedness  
EMS & Trauma Systems Section**

**University of Michigan**

**Healthcare Preparedness Regions  
Region 1  
Region 2 South  
Region 2 North  
Region 3  
Region 5  
Region 6**

# Purpose of the Plan

- Developed in an effort to expand the ability to provide burn care
- Safeguard and prioritize the utilization of limited resources
- Incorporates utilization of “adjusted environments of care”
  - Planning for the provision of stabilizing care for burn patients in facilities that are NOT normally associated with providing definitive care to burn patients



# Purpose of the Plan

- Designed as adjunct to local preparedness efforts
- Applies to various levels of government to include the state and/or multi-state level
- Provides guidance for:
  - Uniform triage of burn patients
  - Categorization of hospital resources
  - Critical burn surge supplies based on regional population and projected surge capacity needs
  - Staff and training readiness for patient care
  - A communication model for the management of a MCI burn incident.



# Planning Assumptions

- **Adjusted standards of patient care will be provided until a patient can be transferred for definitive care to a recognized burn center**
  - Adopt response structures capable of interfacing with one another in order to provide a coordinated response in a timely manner for at least the first 72 hours

# Planning Assumptions

- Federal assets may not be readily available
  - Need for self-reliance and assistance with partners to sustain the needs and care for patients for at least first 72 hours.



# Planning Assumptions

- **Regional Supply Caches**
  - Include supplies that will simplify patient care provided in a mass casualty environment, thus minimizing the staff training needed to care for burn injuries
  - Especially will be critical in an environment where staff resources will already be stretched beyond capacity



# Planning Assumptions

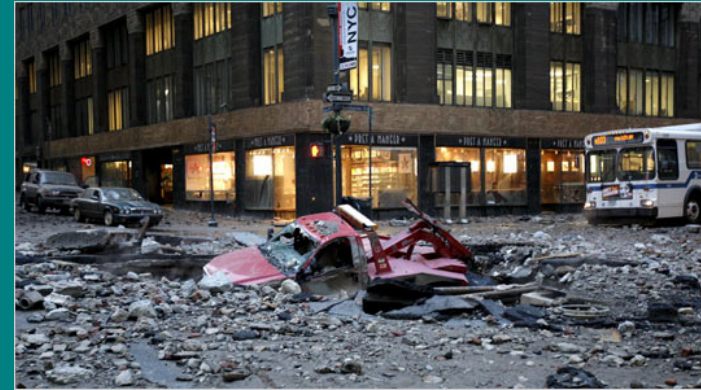
- Supply Staging
  - Maintain stock
    - 16 x 16 sheets of silver based long acting dressing
    - Jars of Silvadene



# The Plan

## ■ Mass Casualty Burn Incident

- Include but are not limited to mass casualties involving:
  - Inhalation injuries
  - Size, depth and location of burn area
  - Chemical or radiological contamination/exposure
  - Presence of other trauma related injuries which compound the intensity of care and resources required for ongoing patient care
  - Casualty transport resources
  - Co-existence of other major burn MCIs in other areas of the State or multi-state region



# The Plan

- **Mass Casualty Burn Incident Burn Stages**
  - Stage I (10-24 patients)
    - Any event in which local trauma/burn resources are overwhelmed with patients.
  - Stage II (25-100 patients)
    - Any event in which regional trauma/burn resources are overwhelmed with patients.
  - Stage III (Exceeds 100 patients)
    - Any event in which state trauma/burn resources are overwhelmed with patients.

# The Plan

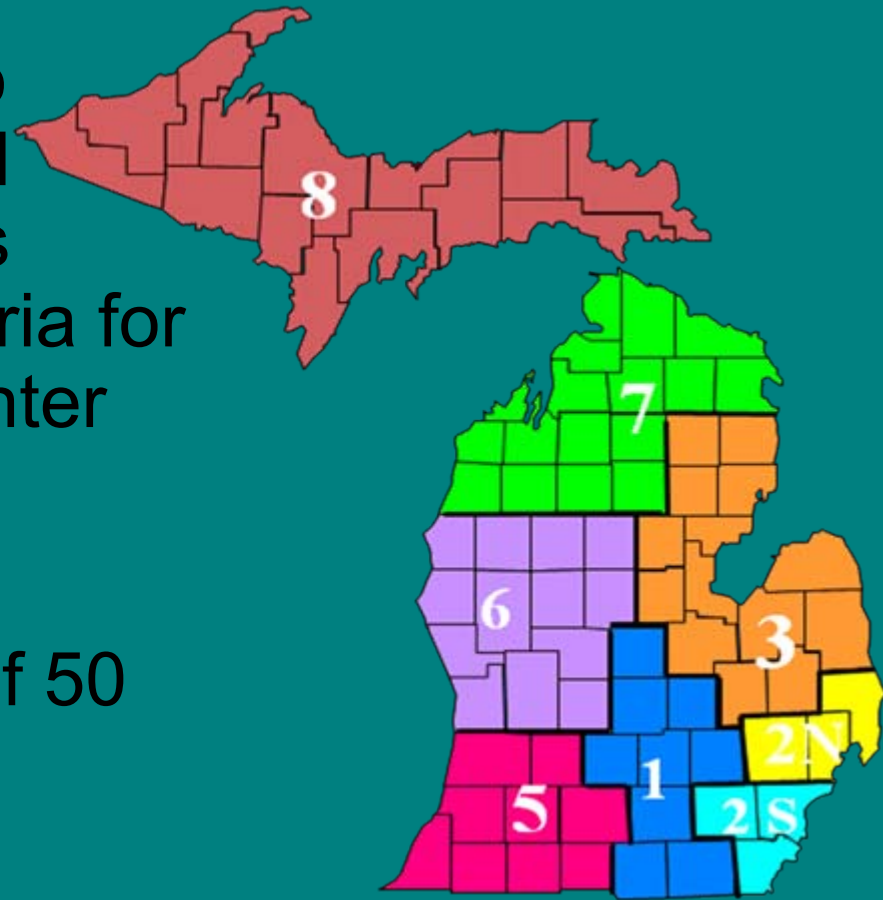


## ■ Mass Casualty Burn Incident Burn Stages

- In addition to the volume of patients, the following is included in each stage:
  - Have  $\geq 30\%$  TBSA Burn
  - Meet Mass Casualty Burn Center Referral Criteria
  - Qualitative or quantitative nature of injuries exceed local capacity to provide effective care

# Concept of Operations

- Each Region should plan to provide initial treatment and stabilization for burn victims triaged as meeting the criteria for a burn referral to a burn center
- Coincides with Statewide Trauma System
- Based on population ratio of 50 casualties per million, or a minimum of 25 patients



# Concept of Operations

- To successfully create an operational statewide and/or multi-state regional plan
- Four basic premises must be understood and incorporated into each regions response plan
  - ❖ Regional Medical Coordination Centers (MCCs)
  - ❖ State Burn Coordination Center (SBCC)
  - ❖ Michigan State Burn Centers
  - ❖ Regional Burn Surge Facilities

# Organization & Assignment of Responsibilities

- **Regional Medical Coordination Centers (MCC's)**
  - Activated when emergency medical care coordination is needed in response to a real or potential MCI.
  - Functions
    - ❖ Support to hospitals, local EOC's, other RMCC's and the CHECC
    - ❖ Current availability of regional medical resources
    - ❖ Coordination of requests and receipt of intra and extra-regional medical resources
    - ❖ Casualty transportation system

# Organization & Assignment of Responsibilities

- **State Burn Coordinating Center (SBCC)**
  - Support with preparedness as well as during a Burn Multi-Casualty Incident
- University of Michigan Health System
  - Medical Director
    - Dr. Stewart Wang
  - Program Administrator
    - Melissa Barker, RN

# Organization & Assignment of Responsibilities

- SBCC
  - Support Preparedness
    - Training
      - Website ([www.michiganburn.org](http://www.michiganburn.org))
        - Educational Modules
      - Hands on Training
      - ABA On-Line
    - Development of Protocols
    - Rotation and updating of burn supply caches
    - Database
    - Exercises

# Organization & Assignment of Responsibilities

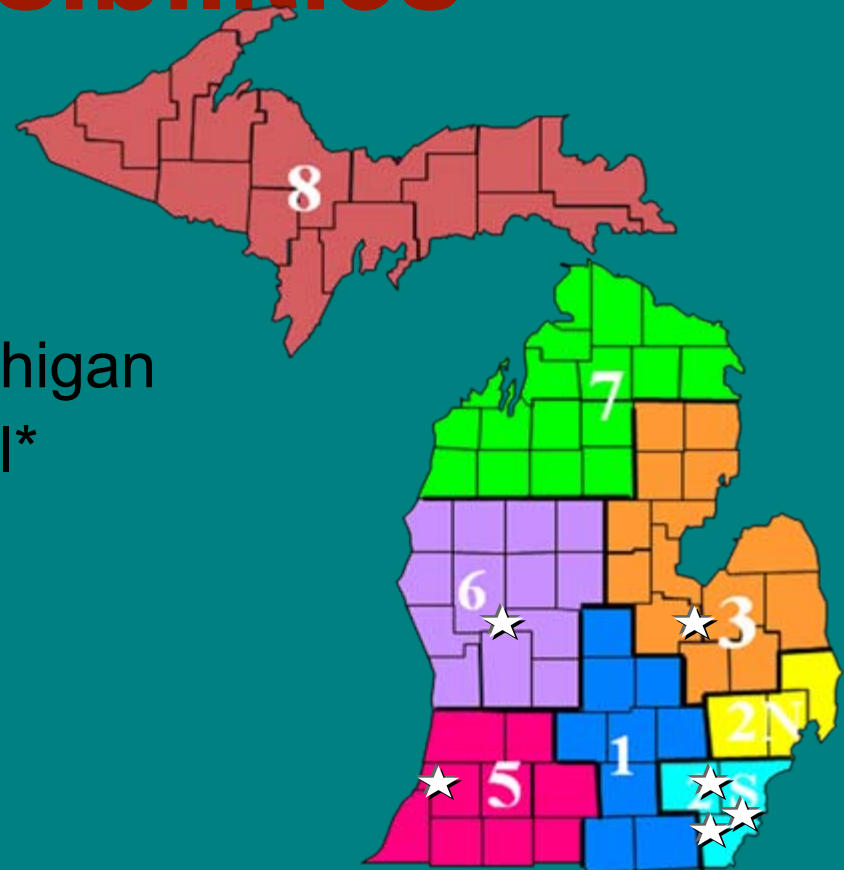
- SBCC
  - During an actual Burn MCI
    - Assistance in managing any mass casualty burn incident in which the resources of any given region or the state are exceeded
    - Monitor the triage and transport of burn casualties to MI Burn Centers and Burn Surge Facilities
    - Notify SBCC in neighboring states or ABA as necessary

# Organization & Assignment of Responsibilities

- **Michigan Burn Centers**

- University of Michigan\*
- Children's Hospital of Michigan
- Detroit Receiving Hospital\*
- Hurley Medical Center
- Bronson
- Spectrum Health

\*ABA Verified



# Organization & Assignment of Responsibilities

- Michigan Burn Centers
  - Based on ACS criteria
    - Identified as accepting burn referrals
    - Able to provide definitive care for burn patients
  - Work in conjunction with SBCC to manage flow of burn surge patients to ensure the optimal use of the states definitive burn care capacity

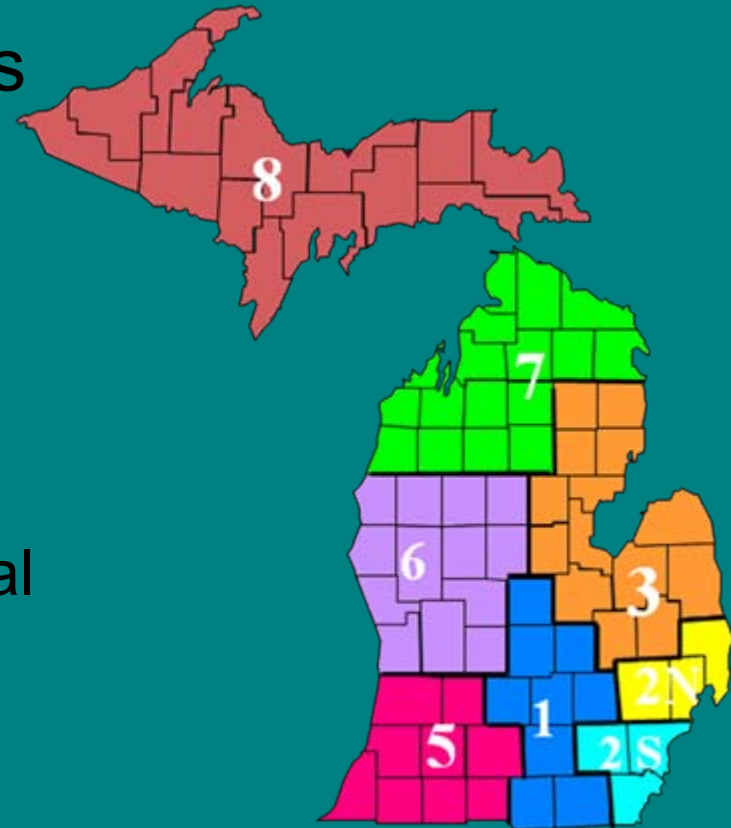


# Organization & Assignment of Responsibilities

- **Regional Burn Surge Facilities (BSFs)**
  - Regions who have a State Burn Center, will have one BSF initially
  - Regions without a State Burn Center, will have two BSF's initially
  - Intent is to develop a new resource within the region not typically associated as being a traditional “burn center”
  - Goal
    - Multilateral increase in short-term capabilities across regions, state and ultimately GLHP.

# Organization & Assignment of Responsibilities

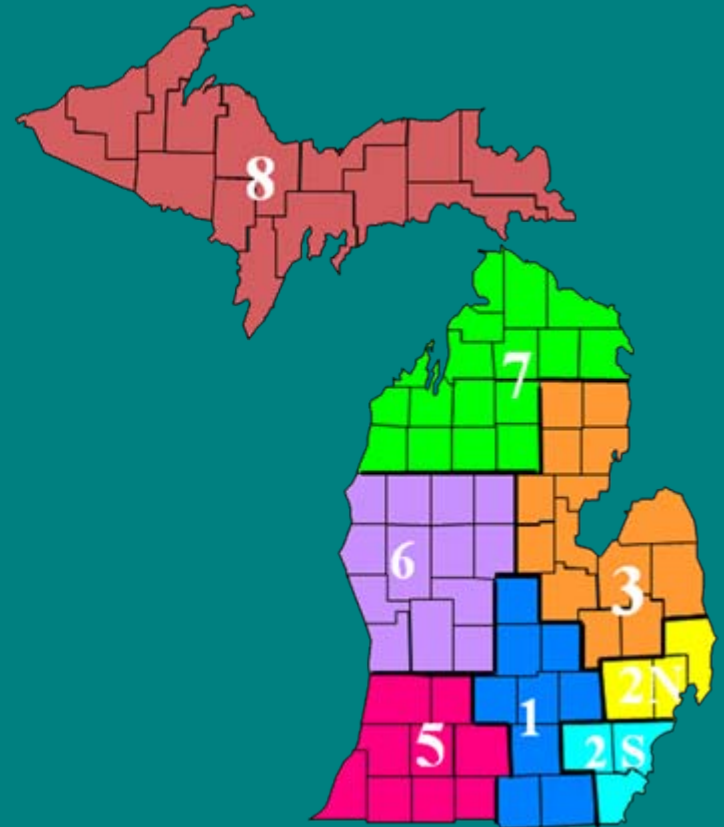
- Regional Burn Surge Facilities (BSFs)
  - Region 1
    - Sparrow Hospital
  - Region 2 North
    - Wm Beaumont
    - Pontiac Osteopathic Hospital
  - Region 2 South
    - Henry Ford Hospital



# Organization & Assignment of Responsibilities

## Regional Burn Surge Facilities

- Region 3
- Region 5
  - Borgess
- Region 6
  - St. Mary's
- Region 7
  - Munson Medical Center
  - Northern Michigan
- Region 8
  - Marquette General Hospital
  - Portage Health



# Organization & Assignment of Responsibilities

- **Regional Burn Surge Facilities (BSFs)**

- **BSF Selection Criteria**

- Preferably Level I or II trauma Center
- Telemedicine capabilities, desirable
- On staff at each BSF (at all times)
  - 15 nurses
  - 5 physicians
- 24 hour nursing care for burn patients
  - ABLS trained
- ABLS-trained physicians available in-house during burn MCI



# Organization & Assignment of Responsibilities

- Regional Burn Surge Facilities (BSFs)
  - Function
    - Initial stabilization/evaluation/transport staging center with support of the region MCC and CHECC if a mass burn MCI occurs.
    - Care for first three to seven days
  - Support from SBCC
    - On-site burn consultation
    - Secondary triage of burn casualties
  - Patients treated and discharged should be referred to a Burn Center for complications and any needed long term follow-up

# Organization & Assignment of Responsibilities

- Reliance on our Great Lakes Healthcare Partnership



Friends in Need: Michigan's burn mass casualty plan

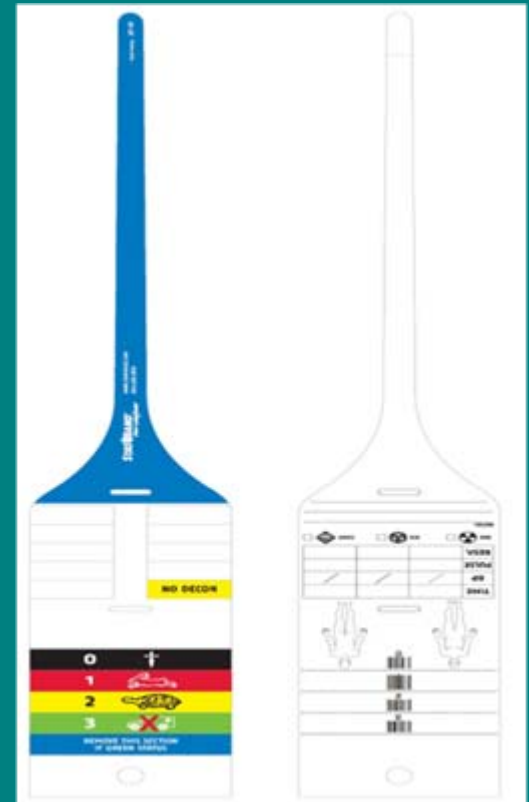
# Organization & Assignment of Responsibilities

- Emergency Medical Services
  - Patient Transport
    - Initial-from scene
    - Inter-facility
  - Other Options
    - Buses
    - Air Medical
    - Ambulance Strike Teams



# Other Health Care Partners that make the plan successful...

- **Emergency Medical Services**
  - Dispatch information
  - On scene triage
    - Standard Triage Categories-  
Michigan Triage Tag
      - Total Body Surface Area (TBSA) Burn
      - Age
      - Inhalation injury
      - Associated severe mechanical trauma



# Website Interface

www. Michiganburn.org



734-936-BURN (936-2876)

### DISASTER PLANS

- MI Burn Mass Casualty Plan
- Michigan Burn Disaster Database
- EMResource (requires login)
- Google Maps of MI Burn Facilities

### BURN ESSENTIALS

- Fluid Resuscitation Protocol
- Peds Fluid Resuscitation (excel)
- Adult Fluid Resuscitation (excel)
- Difficult to Resuscitate Protocol
- Nutrition Algorithm for Burns
- Burn Injury FAQs
- Advanced Burn Life Support
- Burn Mass Casualty Links



The State of Michigan Burn Coordinating Center has developed these modules to provide just-in-time training for pre-hospital and medical personnel caring for burn patients following a mass casualty event. This content is intended to support all levels of care for these patients as the triage and coordination of transfer is addressed.

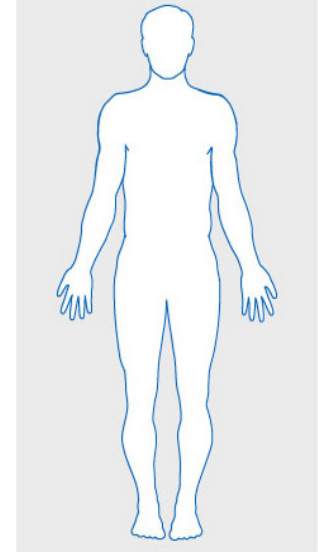
### SELECT LEARNING MODULE

- Burn Assessment and Classification
- Debridement: Cleaning Wounds
- General Burn Care
- Adult Sedation and Pain Management
- Peds Sedation and Pain Management
- Medical Nutrition for Burns
- Care by Body Area
  - Face, Neck and Ears
  - Upper Extremity Including Hand/Fingers
  - Chest, Abdomen and Back
  - Buttock, Groin, and Genitalia
  - Lower Extremity Including Foot/Toes

### SELECT TRAINING VIDEO

- Face and Ears: Burn Dressing
- Neck: Acticoat
- Neck: Silvadene
- Upper Extremity: Acticoat
- Upper Extremity: Silvadene
- Chest, Abdomen & Back (Mobile): Acticoat
- Chest, Abdomen & Back (Mobile): Silvadene
- Chest, Abdomen & Back (Immobile): Acticoat
- Chest, Abdomen & Back (Immobile): Silvadene
- Groin & Genitalia: Silvadene
- Buttocks: Acticoat
- Buttocks: Silvadene
- Lower Extremity: Acticoat
- Lower Extremity: Silvadene

### SELECT AREA BURNED



Friends in Need: Michigan's burn mass casualty plan. This website is a part of a project that is being supported 56% with funding by the University of Michigan Health System, and 44% by the Michigan Department of Community Health with funding from the U. S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) Hospital Preparedness Program Cooperative Agreement number 6U3REP090098-001.



## EMERGENCY BURN TRIAGE AND MANAGEMENT



### HOME

[Blank Form Download](#)[Manage Patient Data](#)[Burn Care Training](#)[About Us](#)

### Login

U: P: 

The State of Michigan Burn Coordinating Center has developed this database to track patients injured in a Burn Mass Casualty Incident within the state. This system is an integral part of the Burn Mass Casualty plan, providing essential information on patient status to assist in the triage and treatment of these patients at predefined surge facilities while coordination of transfer is addressed.

This site will allow approved users to:

- [Enter new patients](#)
- [Add detail about patient status](#)
- [Upload photos and documents related to patient status](#)
- [Download necessary forms for patient care](#)
- [Learn more about the State of Michigan Burn Coordinating Center](#)
- [Connect with training materials for the care of burn patients](#)

# Training and Reference Modules

www.michiganburn.org

## Burn Care: Abdomen, Chest and Back

Presented by:  
Sarah Taylor, BSN  
University of Michigan Trauma Burn Center

### Debridement/Cleansing of Burns

- Make sure all loose tissue is removed from the affected area.
- Open and drain any intact blisters over 1 inch diameter
- [Debridement module](#)



Chest, Abdomen and Back Burns



### Assess the Wound

- Assess for compartment syndrome
- Bladder Pressure and Respiratory exam
- [Burn Classification Module](#)
- [Emergency Procedure Module](#)



Chest, Abdomen and Back Burns



# Multimedia On-Demand Support

- Combined with video and narration into interactive modules – cookbook reference

The screenshot shows a multimedia presentation interface. At the top left, the title is "Arm\_Hand\_Burns (02:29 / 04:07)". The University of Michigan Health System logo is visible. Below the logo, the presenter's name is "Amanda Corwin, BSN, RN, UMHS Disaster Preparedness Team". A navigation menu on the left lists 11 topics, with "9. Dressing with Silvadene" selected. The main content area features a video frame titled "Dressing with Silvadene" showing a person in blue scrubs applying a dressing to a patient's hand. Below the video, the text "Hand and Arm Burns" is displayed, along with the University of Michigan Trauma Burn Center logo. At the bottom, a control bar shows "articulate POWERED PRESENTATION", "SLIDE 9 OF 11", "PLAYING", and a timer "00:21 / 01:30".

Friends in Need: Michigan's burn mass casualty plan

# Audit Process

- Random Audits – the department may require an applicant or licensee to submit documentation to demonstrate compliance with the CE requirement.
- The applicant or licensee shall maintain documentation of their compliance with CE requirement for a period of 1 year after the expiration date of the license.

# Audit Process

- Failure to provide documentation creates a rebuttable presumption that the licensee has made a false and fraudulent statement in applying for a license to practice EMS.
- Acceptable documentation of CE shall include:
  - Name of licensee
  - Name of sponsoring organization & IC number
  - Title of program
  - Hours of CE awarded per category
  - Date of program
  - Signature of IC or designee

# Failure to Meet CE Requirements -- Revocation

- MFR Revocation
  - Missing 4 or more credits
- EMT Revocation
  - Missing 7 or more credits
- EMT-Specialist Revocation
  - Missing 8 or more credits
- Paramedic Revocation
  - Missing 10 or more credits
- IC Revocation
  - Missing 7 or more credits

Note: Revocation is for 3 years. If this occurs, an individual would start the entire licensure process from the start.

# Audits

- Failure to meet requirements leads to suspension or revocation – 2009
  - 53 Suspended
  - 59 Revocations
  - 27 Voluntarily surrendered in lieu of disciplinary action

# Audits

- Failure to meet requirements leads to suspension or revocation – 2010 (as of 9/1/10)
  - 54 Suspended
  - 8 Revocations – 30 pending administrative tribunal decision
  - 20 Voluntarily surrendered in lieu of disciplinary action

# Audit Process

- Total audits conducted in 2009 was 780 – all levels.
- Compliance rate is 73%
- Total audits conducted in 2010 as of 6/30/10 are 357 – all levels
- Compliance rate is 75%
- Note: compliance rate has improved considerably since audit process began.

# Personnel Enforcement

- In 2009, we took 172 enforcement actions against EMS personnel:
  - 8 Emergency Orders (criminal sexual conduct, felony drug conviction, drug diversion, child pornography, child abuse (5 EOs to suspend; 3 EOs to revoke))
  - 60 licenses revoked (57 for CE non-compliance; 3 other)
  - 54 licenses suspended (53 for CE non-compliance)
  - 10 licenses issued consent order with monitoring
  - 13 licensure applications denied
  - 27 voluntarily surrendered due to pending disciplinary action (all CE non-compliance)

# Personnel Enforcement

- In 2010, as of 9/1/10, we have taken 109 enforcement actions against EMS personnel:
  - 6 Emergency Orders (criminal sexual conduct, felony drug conviction, drug diversion (3 EOs to suspend; 3 EOs to revoke)
  - 15 licenses revoked (8 for CE non-compliance; 7 other)
  - 54 licenses suspended (all for CE non-compliance)
  - 6 licenses issued consent order with monitoring
  - 8 licensure applications denied
  - 20 voluntarily surrendered due to pending disciplinary action (all CE non-compliance)

# Personnel Complaints

- 2009: 254 personnel complaints were received
  - 65% related to continuing education
  - 32% related to criminal convictions
  - 3% other
- 2010: 172, as of 9/1/10, personnel complaints received
  - 60% related to continuing education
  - 35% related to criminal convictions
  - 5% other

# Agency Complaints

- 2009: 47 complaints
- 2010: As of 9/1/10 -- 38 complaints
- Majority (70%) fall into 2 categories:
  - Inappropriate patient care
  - Unlicensed personnel/agencies/vehicles

# Agency Enforcement

- 2009: Enforcement Actions
  - 1 Emergency Revocation – Critical Non-Compliance
  - 3 Monitoring of Education Programs
- 2010: Enforcement Actions
  - 8 Monitoring of Education Programs

# Life Support Agencies

- Agency inspections – top 5 areas of non-compliance:
  - No documentation that each individual operating a licensed life support vehicle during an emergency or patient transport has completed a department approved vehicle operation education and competency assessment.

# Life Support Agencies

- Agency inspections – areas of non-compliance:
  - No assurances/documentation that agencies are providing clinical competency assessments prior to the individual practicing.
  - No documentation/evidence of an orientation for EMS personnel to familiarize with agency's policies and procedures.

# Life Support Agencies

- Agency inspections – areas of non-compliance:
  - No written policies and procedures that address safety and accident reduction & comply with state and federal laws (CLIA is the most non-compliant).
  - No documentation that EMS personnel are trained on equipment.

# Life Support Vehicles

- Vehicle inspections – areas of non-compliance:
  - Water
  - Current Fire Extinguisher tags
  - Masks – O<sub>2</sub> administration -- critical
  - Cervical Immobilizers – critical
  - BVM with O<sub>2</sub> ports -- critical

# Life Support Agencies

- Accept CAAS and CAMTS Accreditation in lieu of agency inspection.
- May begin inspecting agencies for compliance with data submission.
- Additional equipment being added to vehicle requirements.

# New/Clarification Related to Equipment Requirements

- Nasal Cannulas – currently require 2 – changing to 1 adult and 1 child
- BVM Masks – will require adding 1 neonate mask
- Nasal Airways – currently do not require – will require 2 nasal airways: 1 size between 16-24 fr and 1 size between 26-34 fr
- Blanket – currently require 2 – change to require at least 1 thermal absorbent blanket.

# New/Clarification Related to Equipment Requirements

- Endotracheal tubes – currently require 3-9 (2 each whole size). Change to require: 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6, 7 and 8 (2 each).
- Laryngoscope blades – currently require curve or straight (sizes 1-4) – change to require both.
- Stylettes – currently not required – change to require adult and pediatric size.
- Magill Forceps – currently require 1 – change to require 1 adult and 1 pediatric size.

# New/Clarification Related to Equipment Requirements

- End-tidal Co<sub>2</sub> Detection Capability: either quantitative Capnography (1) or colormetric in sizes adult and pediatric (2) – currently not required – changed to require.
- IO – currently not required – changed to require IO 15 ga or greater.
- Syringes – currently not required – changed to require at least 2 sizes including 1 cc.
- Transcutaneous pacemaker with adult and pediatric pads/cables (may be integrated with monitor/defib) – currently not required – changed to require.
- AED – changed to require adult and pediatric pads.

# Criminal Background Checks

- Significantly increased (75 applications per month with 25 needing further action) – applications take time to process
- Website: Criminal Conviction Guidelines – link to Section 20173a
- Informal Conference
- Subcommittee to review applicants
- Recommendations are made based upon criminal history lien, court documents, etc.

# Reporting of Convictions

What to report? Any felony or misdemeanor conviction  
(no traffic tickets or parking tickets)

Who should report? Everyone  
(if you don't, someone else may)

Report in writing prior to renewal

The investigation process

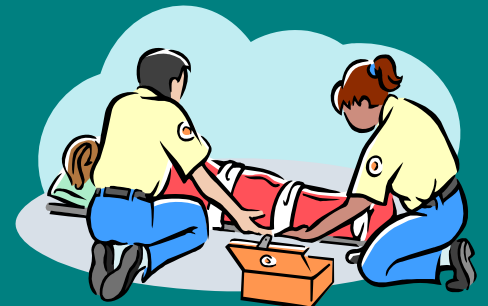
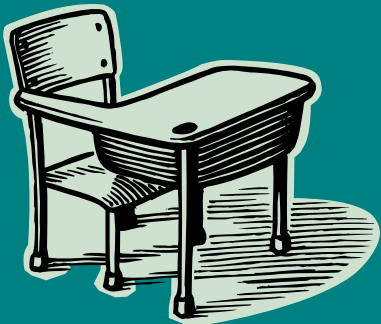
Sabrina Slee

[ssslee@michigan.gov](mailto:ssslee@michigan.gov) 517 335-3625





# Education



# Education Standards Task Force

Recommendations to EMSCC at March 2010 meeting:

**MFR:** Minor revisions in language and content; exceed NES for Emergency Medical Responder (EMR) level.

**EMT:** Same as above.

**Paramedic:** Adopt Paramedic NES and Instructional Guidelines.

**You:** “Hey, stupid, you forgot the EMT-S level!”

**Me:** “No, remain calm. EMT-S is on the next slide.”



# Education Standards Task Force

Recommendations to EMSCC at March 2010 meeting:  
**EMT-S**: Recommend to stay unchanged. EMSCC voted to recommend change to Advanced EMT level (still to be called EMT-S in MI)

Bottom Line: Add drugs,  
lose ET intubation.



- A. Albuterol
- B. Aspirin
- C. Dextrose (50%)
- D. Epinephrine (Intramuscular or Subcutaneous)
- E. Glucagon
- F. Glucose
- G. Intravenous Fluids
  1. Dextrose 5% in water
  2. Normal Saline
  3. Lactated Ringer's
- H. Naloxone
- I. Nitroglycerin
  1. Paste
  2. Spray
  3. Tablets
- J. Oxygen
- K. Nitrous Oxide

# NO PRESENT CHANGES IN ANY MICHIGAN COURSE OBJECTIVES

Process: EMSCC → Ed. Stndrds. Task Force → EMSCC  
→ MDCH → Adoption or Rejection



# EMS for Children Activity

- EMS length-based tape under development
- Surveying hospitals to determine if transfer guidelines and agreements are in place for pediatric patients
- Surveying life support agencies to determine if they carry all the National Pediatric equipment