

CRISIS MANAGEMENT IN ATHLETICS

A Medical Threat Assessments Paradigm

Matthew Bitner, MD, MEd, FACEP

Professor and Chair, Department of Emergency Medicine, Prisma Health–Upstate

University of South Carolina School of Medicine Greenville

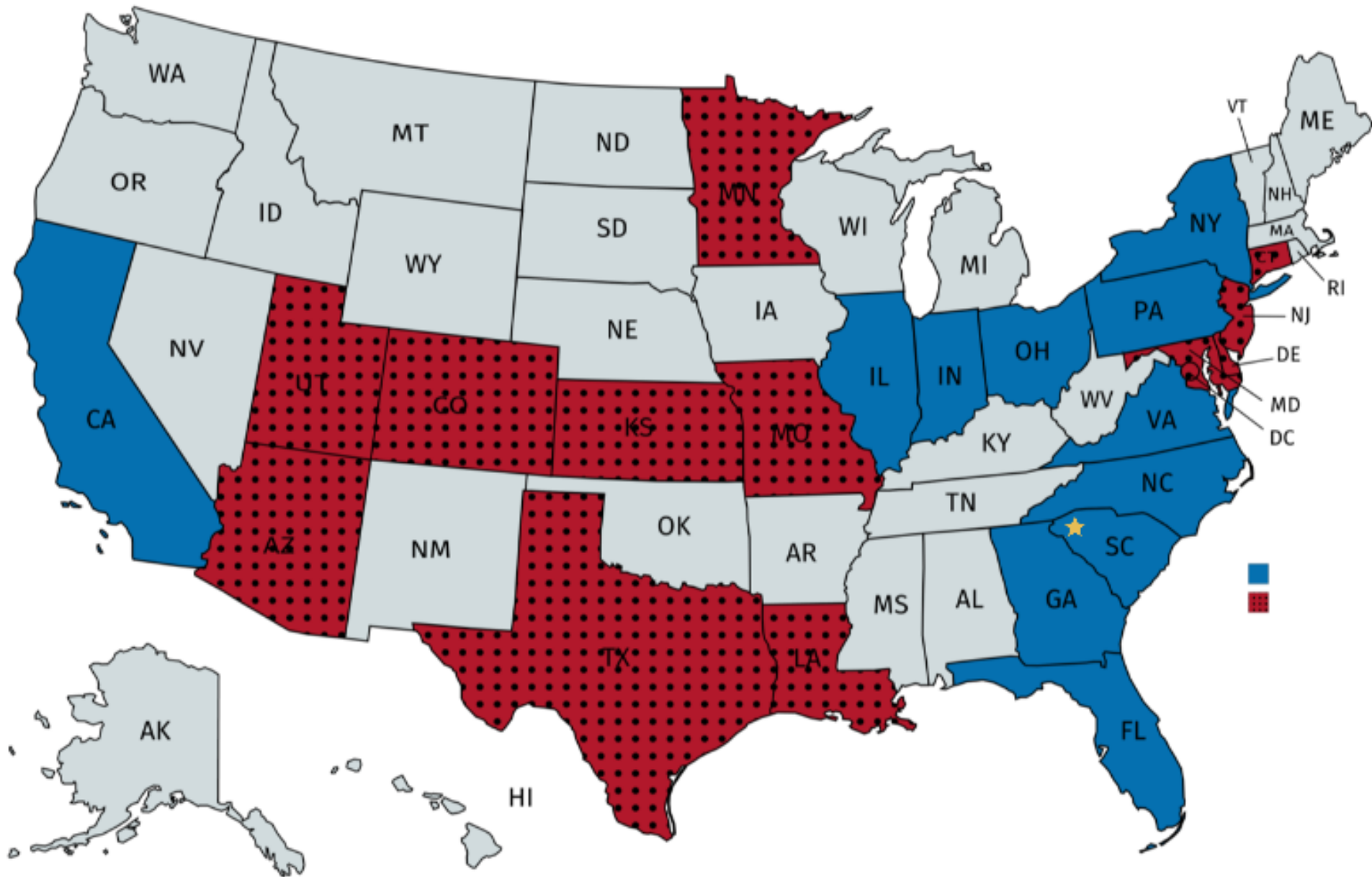
Professor, Clemson University School of Health Research

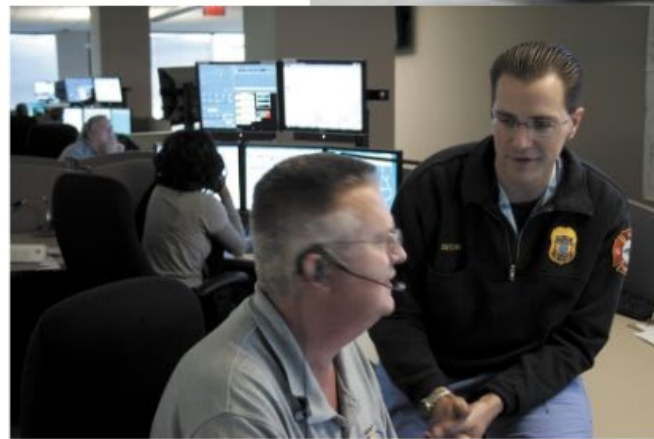
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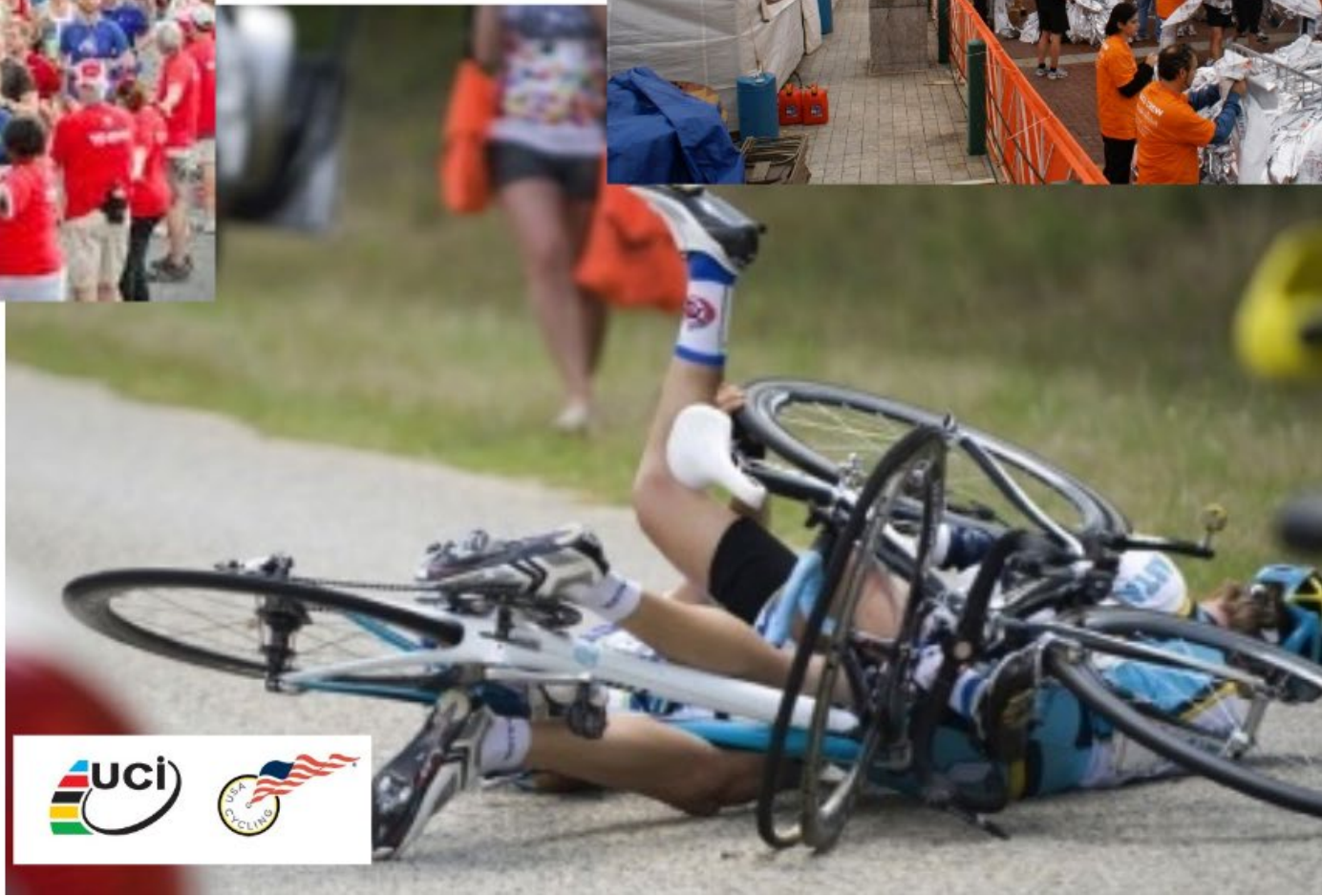
Disclosures

- Senior Physician and Founder, Vigilint Protective Health Solutions, a global telemedicine, medical advisory, logistics and professional staffing company.
- Chief Medical Information Officer and Director of Integrated Training for Medical Sports Group, a medical consulting firm
- No pertinent financial disclosures related to this presentation













Assumptions

- You are an enthusiast.
- You are a professional.
- You are well trained.

Objectives

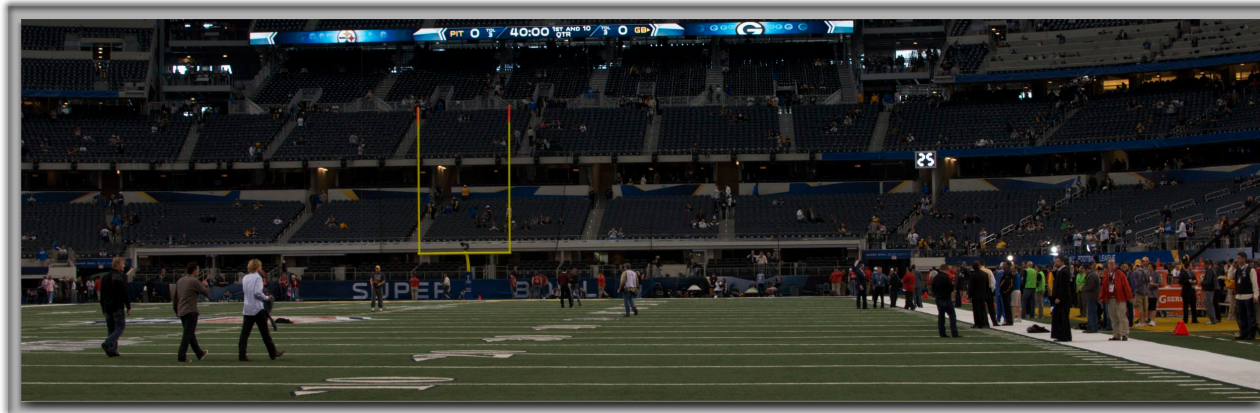
- Review Mass gathering event definitions/paradigms and structure
- Recognize a medical response objective
- Illustrate how to perform a thorough medical threat assessment and medical risk analysis for crisis management
- Describe Athletic Staff/Prehospital partnerships
- Explain concept/approaches to Critical Incident Stress Debriefings

Definition

A public event attended by more than 1,000 people

A public event attended by more than 25,000 people

.....and many more



Mass Gathering

A situation (event) during which crowds gather and where there is the potential for a delayed response to emergencies because of limited access to patients or other features of the environment and location



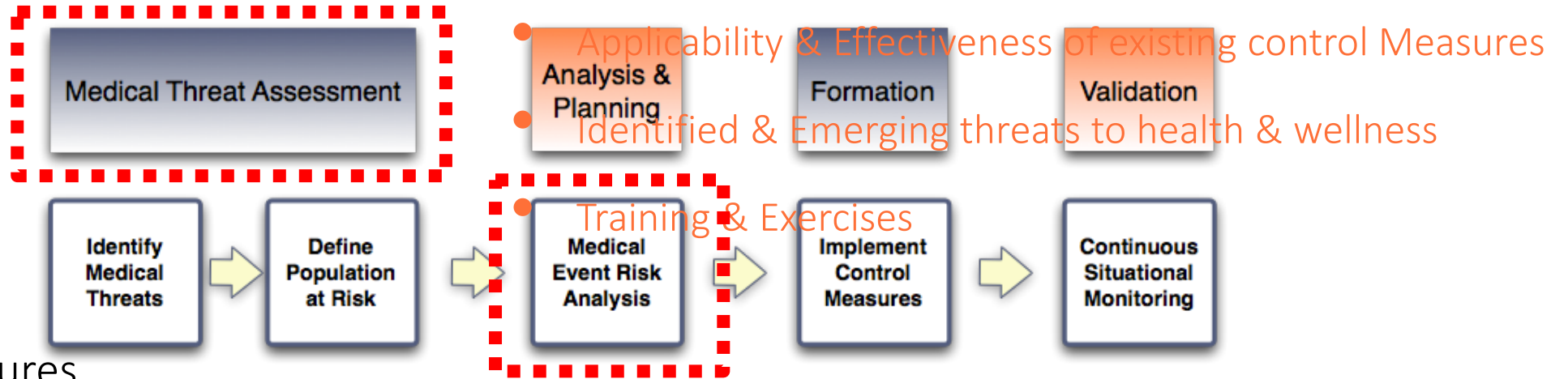
Prehosp Disast Med 2007;22(2):131–135





Emergency Medical Response Planning

4 Phases



- Control Measures

- Products & Services

- Policies & Procedures

- Training & Exercises

- Rank Order Threats to Health & Wellness

- Significance

- Likelihood

- Identification & Categorization

- General & Site specific threats to health and wellness

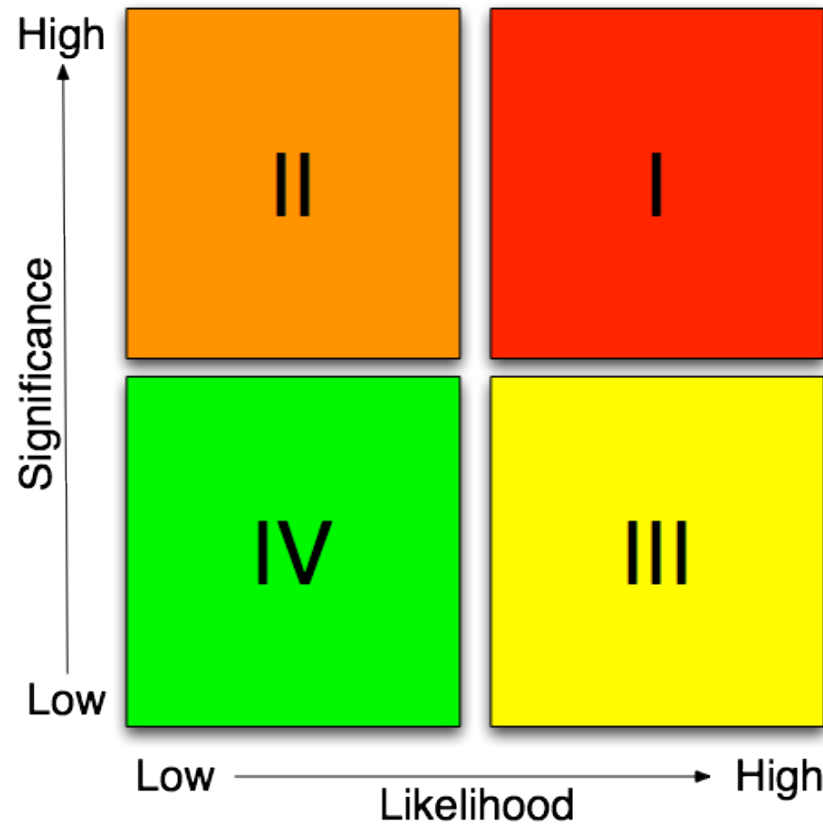
- Daily & Special event populations

-Comprehensive

-Tailored

-Reliable

Medical Threat Assessment



Category II

- Secondary Risks
- Control Measures
 - Active Detection
 - Frequent Monitoring

Category IV

- Low Likelihood
- Low Significance
 - Minimal Monitoring
 - Revisit as Needed

Category I

- Primary Risks
- Control Measures
 - Active Prevention
 - Active Mitigation

Category III

- Low Significance
- Control Measures
 - Monitor
 - Reevaluate Regularly

Key Variables

Type

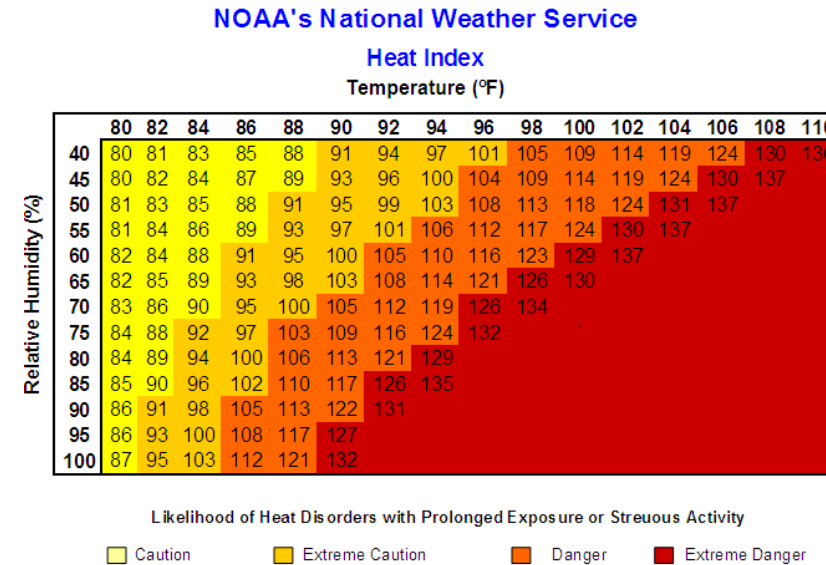
Duration

Unique Hazards

Temperature &
Humidity

Altitude

Crowd control/Rolling
closure



Significant Change in the athletic paradigm

- High Speed/Impact
- Potential for multiple simultaneous casualties
- Medicine on display
- Often Rural/isolated settings
- Limited Staff
- Limited Resources
- Competing? interests

Risk Analysis Matrix

Specific Medical Emergency	Likelihood of Occurrence	Clinical Efficacy of Prehospital Intervention	Consequence of Non-Treatment	Composite Score
Cardiac Arrest	Low -1	Clear & Time Dependent - 4	Severe - 4	9
Injuries from falls/Crashes	Intermediate High - 3	Clear - 3	Intermediate -3	9
Heat related injuries/ weather	Intermediate low - 2	Clear - 3	Intermediate -3	8
Anaphylaxis	Intermediate Low - 2	Clear & Time Dependent - 4	Intermediate - 3	9
Medical exacerbations (Diabetes, Asthma, Psych., etc).	Low -1	Clear - 3	Intermediate or Severe (depends on condition) 3/4	7/8
Crowd Injury	Low - 1	Clear - 3	Intermediate - 3	7
Headache (Non-traumatic)	Intermediate Low - 2	Unproven - 1	None - 1	4

Composite Scoring

Scores greater than 8

- primary focus of emergency medical response planning

Scores between 5 and 8

- secondary focus of emergency medical response planning

Scores between 3 and 4

- tertiary foci of emergency medical response planning

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Classic Patient Presentation Rate

	Range	Weighted Average
per 1,000	.14 to 90	1

Classic Transport to Hospital Rate

	Range	Weighted Average
per 1,000	.01 to .55	0.03

Medical Objectives vs Response Objectives

Medical
Objectives: Think
Mission
Statement

Response
Objectives: Think
Deliverables!

Medical Objectives : Mission

Primary:

Establish rapid access to the injured or ill

Effective provision of time critical interventions

Secondary:

Timely provision of transportation to a hospital

Development of mass-casualty contingency plans

Tertiary:

Provision of on-site care for minor illness and injury

Response Objectives : Deliverables

- Examples
 - Professional Rescuer to victim within one minute of event.
 - Ability to assess, stabilize and splint (as appropriate) within 3 minutes in event of orthopedic injuries
 - Ability to have ALS to side of patient with critical medical/trauma complaint within 5 minutes and 7 minutes respectively.

Athletic Staff/Prehospital partnerships

- Venue specific emergency action plans
- Practice/Competition differences
- Emergency
 - Personnel
 - Communications
 - Equipment
- High performing teams
- #safebydesign



MEDICAL PLAN (ICS 206)

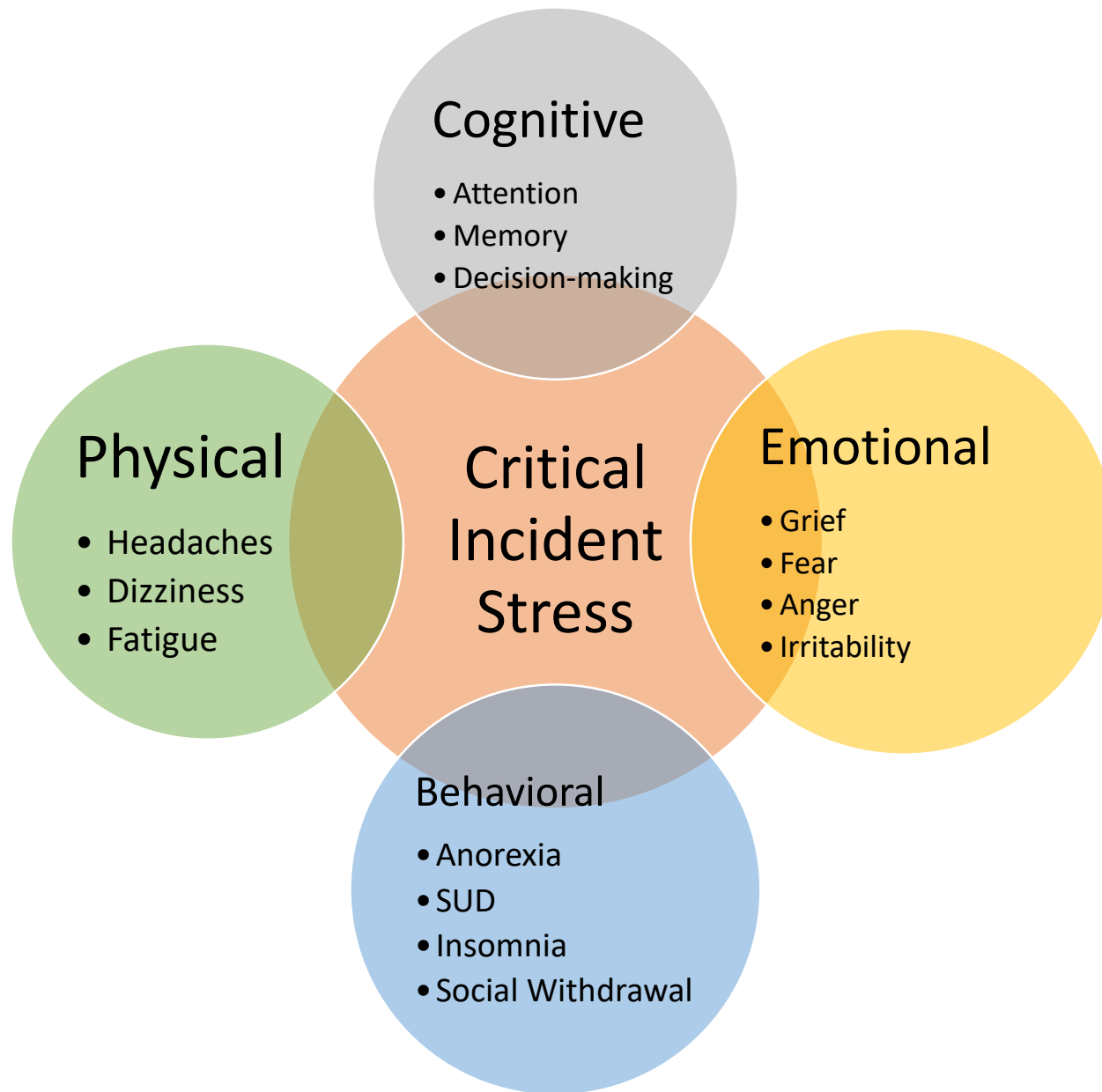
1. Incident Name:		2. Operational Period: Date From: _____ Time From: _____		Date To: _____ Time To: _____			
3. Medical Aid Stations:							
Name	Location	Contact Number(s)/Frequency	Paramedics on Site?				
			<input type="checkbox"/> Yes <input type="checkbox"/> No				
			<input type="checkbox"/> Yes <input type="checkbox"/> No				
			<input type="checkbox"/> Yes <input type="checkbox"/> No				
			<input type="checkbox"/> Yes <input type="checkbox"/> No				
			<input type="checkbox"/> Yes <input type="checkbox"/> No				
			<input type="checkbox"/> Yes <input type="checkbox"/> No				
4. Transportation (indicate air or ground):							
Ambulance Service	Location	Contact Number(s)/Frequency	Level of Service				
			<input type="checkbox"/> ALS <input type="checkbox"/> BLS				
			<input type="checkbox"/> ALS <input type="checkbox"/> BLS				
			<input type="checkbox"/> ALS <input type="checkbox"/> BLS				
			<input type="checkbox"/> ALS <input type="checkbox"/> BLS				
5. Hospitals:							
Hospital Name	Address, Latitude & Longitude if Helipad	Contact Number(s)/ Frequency	Travel Time		Trauma Center	Burn Center	Helipad
			Air	Ground			
					<input type="checkbox"/> Yes Level: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
					<input type="checkbox"/> Yes Level: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
					<input type="checkbox"/> Yes Level: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
					<input type="checkbox"/> Yes Level: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
					<input type="checkbox"/> Yes Level: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Special Medical Emergency Procedures:							
<input type="checkbox"/> Check box if aviation assets are utilized for rescue. If assets are used, coordinate with Air Operations.							
7. Prepared by (Medical Unit Leader): Name: _____ Signature: _____							
8. Approved by (Safety Officer): Name: _____ Signature: _____							
ICS 206		IAP Page _____		Date/Time: _____			

Role in Response and Mitigation

- Predefined vs Luck
- Location/Contact information/Condition
- Assist with Direction of arriving responders
- Allow Access to patient
- Designated “flag” person (“you in the red shirt”)
- Scene Control/Discretion
 - Team, Non-medical
- Recognize stressors





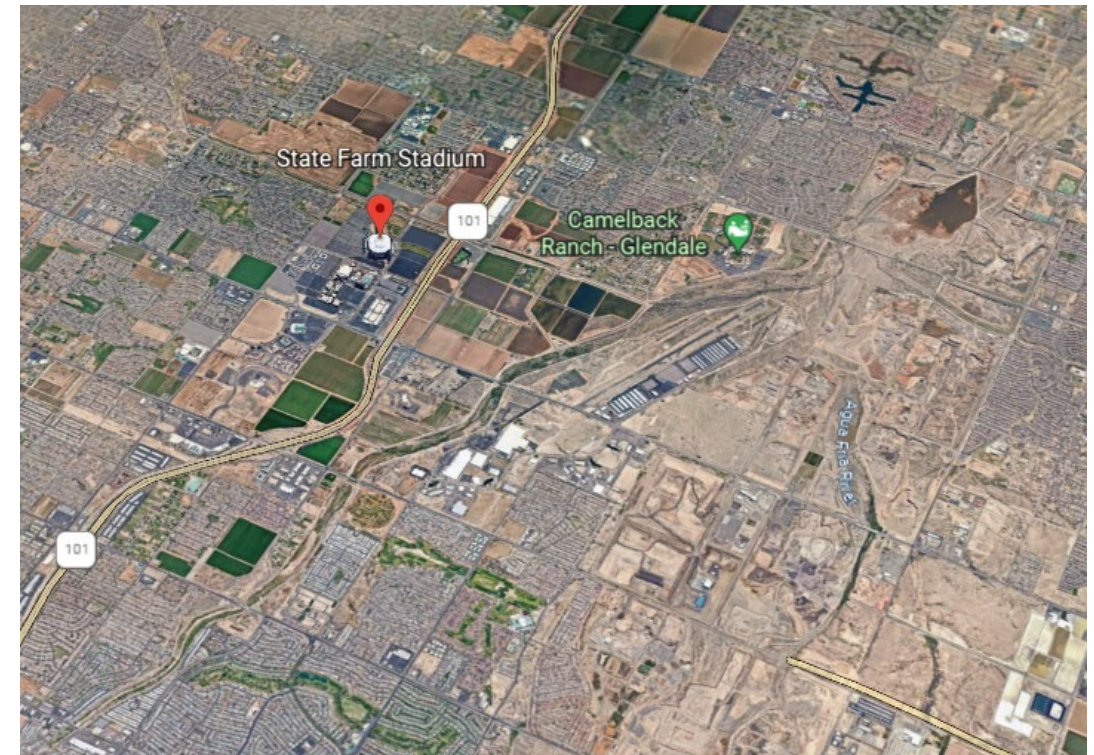


Critical Incident Stress Debriefing

- Facilitator-led
- 7 phases/steps
 - Introduction
 - Facts
 - Thoughts
 - Reaction
 - Symptoms
 - Teaching
 - Re-entry/Linkage

50,000 foot view

- 90% Logistics
- 10% Medicine
 - Albeit an incredibly important 10%
- Planning and transparency are key to
 - Team/Athlete satisfaction
 - Medical Staff satisfaction
 - Garner support of key stakeholders
 - Organizers/Production
 - EMS/Collaborating agencies
- Standardized Approach
 - Movement, Staffing, Communications
 - NIMS/ICS
- Caring for your team
 - Awareness
 - Resources



Summary

- Perform a thorough medical threat assessment
- Clearly identify your Objectives
- Formulate a plan that aligns with your objectives
 - Logistics, supplies, and personnel
- Establish strong partnerships and define roles a priori
- Take care of your team

Matthew.Bitner@prismahealth.org

PRISMA

HEALTHSM

Questions?

