
HAVE PAPER & PEN?
SHARING A LOT OF INFO TODAY!
MIGHT HAVE SOME LIGHTBULB MOMENTS

REGION 8 TRAUMA ADVISORY COUNCIL

APRIL 2024

AGENDA

Call to order

Agenda

Minutes

Public comment

AGENDA

State updates	• Gary Wadaga • Lyn Nelson
Old Business	• Trauma Transfer Guidelines • Geriatric Management

ICD-10 codes do not specify these types of ORVs!

The Region 8 Trauma Network wants to track and trend ORV crashes, just like we do with snowmobiles. Both of these other land transport types of crashes with critically injured patients rival the number of severely injured in motor vehicle crashes.. In your EMS patient care report narratives, please use:

side by side or **SXS**

This will allow us to keyword search your narratives and analyze injury patterns and protective equipment use. The Regional Trauma Coordinator will provide aggregate analysis to the Region 8 Trauma Network and the State of Michigan Ride Right Committee.

Questions? NelsonL7@michigan.gov

www.michigan.gov/rideright

RIDE RIGHT

2024 MCA MEDICAL DIRECTOR AND KEY STAFF TRAINING

To register click link below:
[MCA Training 2024]

AUDIENCE: MEDICAL DIRECTORS, KEY STAFF, BOARD MEMBERS, ADVISORY BODY MEMBERS, PSRO MEMBERS

UPPER & LOWER Peninsula 2024:

Upper Peninsula

April 16, 2024 (Tues) 9:30 a.m.-12:30 p.m. in ONTONAGON

April 17, 2024 (Wed) 9:30 a.m.-12:30 p.m. in ESCANABA

April 18, 2024 (Thurs) 2:30 p.m-5:30 p.m. in NEWBERRY

Lower Peninsula

May 22, 2024(Wed) 9:30 a.m.-12:30 p.m. in ALPENA

May 23, 2024 (Thurs)9:30 a.m.-12:30 p.m. in MIDLAND

June 11, 2024 (Tues) in 9:30 a.m.-12:30 p.m. in OAKLAND COUNTY

June 20 , 2024 (Thurs) 9:30 a.m.-12:30 p.m. in OAKLAND COUNTY

August 29, 2024 (Thurs)9:30 a.m.-12:30 p.m. in KALAMAZOO

November 6, 2024 (Wed) 9:30 a.m.-12:30 p.m. in LANSING

Questions? Please Contact: EMS@MICHIGAN.GOV

TRAINING CONTENT:

- Basics of Michigan MCA structure and legal underpinnings
- Protocols – anatomy of a protocol and processes for submission and approval
- Complaints/Compliance – requirements and processes

*This training also serves as MCA Director Orientation

MDHHS Michigan Department of Health & Human Services

Bureau of Emergency Preparedness, EMS and Systems of Care

Chemical Surge Virtual Tabletop

Your Healthcare Coalition is inviting you to participate!

Solution: The Western Regional Alliance for Pediatric Emergency Management (WRAP-EM) will be hosting a multi-HCC Virtual Tabletop Exercise (VTTX) for Healthcare Coalitions to validate Chemical Surge Annexes. In addition to fulfilling HPP requirements, there are potential benefits for HCCs to share and learn from each other, hearing other challenges and questions by participating jointly in a Virtual TTX.

Format:

- 2½ - 3 hour facilitated Virtual TTX with participation for up to 10 HCCs.
- WRAP-EM, the Primary host will provide the exercise documentation, guide the process, and run the technical side of the Virtual TTX.
- There will be three breakout sessions covering different sections of the Annex.
- Each HCC will host and facilitate their breakout room for discussion their Coalition Chemical Surge Annex.
- Breakouts will be asked to have a spokesperson to share highlights after each breakout when returning to Main Room.
- Each HCC is responsible for completing the required documentation and After-Action Report and feedback to WRAP-EM host.

Date & Time: Tuesday, April 30, 9:00 am - 12:00 pm PDT

ALL Healthcare Coalition Members & Participants

Please register individually using the link below

Click here to register

WRAP-EM Western Regional Alliance for Pediatric Emergency Management — AZ, CA, NV, OR, WA, UT

TRAUMA TRANSFER GUIDELINE

EDUCATION FOR ED & EMS,

DOCUMENTATION,

AUDIT FILTERS

Region 8 Trauma Transfer Guidelines

Goals of Care

- Do notify EMS early to facilitate timely transport
- Do communicate to destination Trauma Team if you need guidance
- Do not delay transfers for unnecessary studies

All trauma transfers are reviewed for optimal care and timely transport to destination. Feedback to facilities will include recommendations from trauma team and team debriefing. Both facilities are encouraged to discuss for ongoing improvement.

Emergent Transfer (Goal within 1 Hour of Arrival)

- Systolic BP < 90mmHg
- Labile BP despite 1L of IV fluids or requiring blood products to maintain blood pressure
- GCS ≤ 8 or lateralizing signs
- Penetrating injuries to head, neck chest or abdomen
- Fracture / dislocation with loss of distal pulses and/or ischemia
- Pelvic ring disruption or unstable pelvic fracture
- Vascular injuries with active arterial bleeding

Treatment & Diagnostics following ATLS

- Airway interventions
- Portable Chest & Pelvis X-ray
  - Decompression/Chest Tube
  - Pelvic Binder
- FAST (if + w/SBP < 90, give blood)
- Fluid Resuscitation (if necessary)
  - Consider TXA, if bleeding susp
  - Blood Products
- Additional Studies (ONLY if no transport delay)
  - Head, C-Spine CT
  - Chest/Abd/Pelvis
- *All further diagnostics and treatments facilitated with discussion of accepting* trauma team

Urgent Transfer (Goal within 2 hrs of Arrival)

Physiologic

- Systolic BP ≤ 110mmHg may represent shock in patients > 60 yo

Neurologic

- Worsening GCS since initial presentation
- Spinal cord injury

Extremity Injuries

(Antibiotics for open fractures!)

- Amputated extremity proximal to wrist or ankle
- Open long bone fractures
- Two or more long bone fracture sites
- Crush injury

Thoracic & Abdominal Injuries

- Major chest wall injury:
  Multiple rib fractures in a patient > 65 yo, pulmonary contusions, flail chest.
- Free air, fluid, solid organ injury noted on diagnostic testing

Burns

- Follow burn center criteria for transport to appropriate facility (michiganburn.org)

Special Considerations

- Adults > 60 yo
- Pediatric
- Pregnant
- Anticoagulant / Antiplatelet use
- Advance disease (cardiac, resp, diabetes, ESRD)

SUPPORT AND TRAINING

UPPER PENINSULA RURAL BYSTANDER CARE PROGRAM

Section 402 Emergency Medical Services

CP-22-01-j Special Projects;
Awarded: $20,000; Expended: $0

Section 402 Emergency Medical Services

CP-22-03-w PI&E; Awarded: $2,000;
Expended: $1,946

BACKGROUND

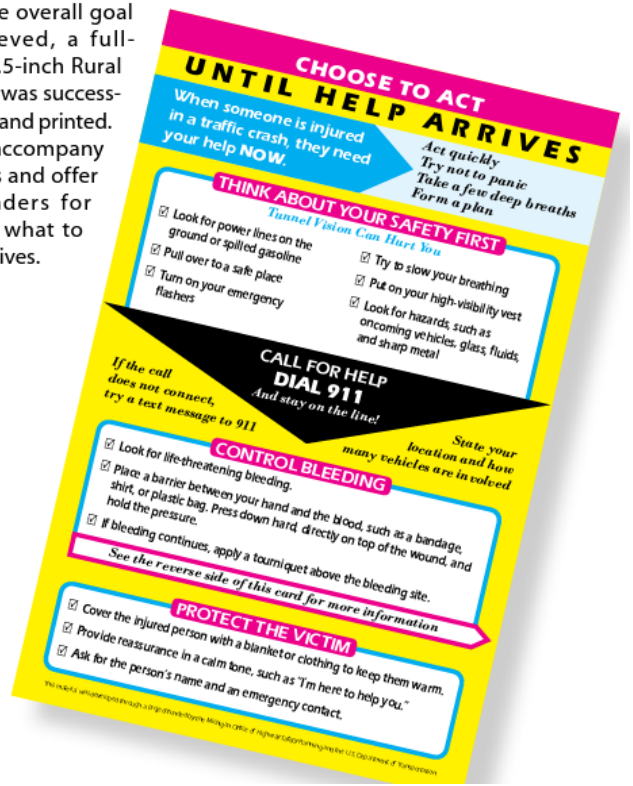
A national rural bystander care training curriculum will be used to teach people to render potentially lifesaving care at the scene of a motor vehicle crash until an ambulance arrives. The $2,000 funded under the CP-22-03-w Public Information and Education (PI&E) is for the production and printing of the PI&E materials costs. The $20,000 under the CP-22-01-j Special Projects grant is for supplies/operating and contractual costs.

PROJECT GOAL AND RESULT

- Conduct the rural bystander care training program for 150 people in the Upper Peninsula by September 30, 2022. **Goal not achieved**

Nine volunteer instructors from across the Upper Peninsula were trained in the Until Help Arrives curriculum. The U.P. Health Systems provided a volunteer instructor/coordinator with activities to begin in FY2023. With ongoing supply-chain issues preventing the delivery of needed items for the first aid kits, this program will be continued in FY2023.

Although the overall goal was not achieved, a full-color, 5.5- by 8.5-inch Rural Bystander Card was successfully developed and printed. The cards will accompany the first aid kits and offer helpful reminders for bystanders on what to do until help arrives.



UNTIL HELP ARRIVES bystander care

- FEMA curriculum
- Volunteer instructors that are retired or current healthcare providers
- Student materials provided by Office of Highway Safety Planning, MSP
- Target population: motorists


MEDI-FIRST
Combine ABD Pad
CALL 911


CHOOSE TO ACT
UNTIL HELP ARRIVES


CHOOSE TO ACT
UNTIL HELP ARRIVES

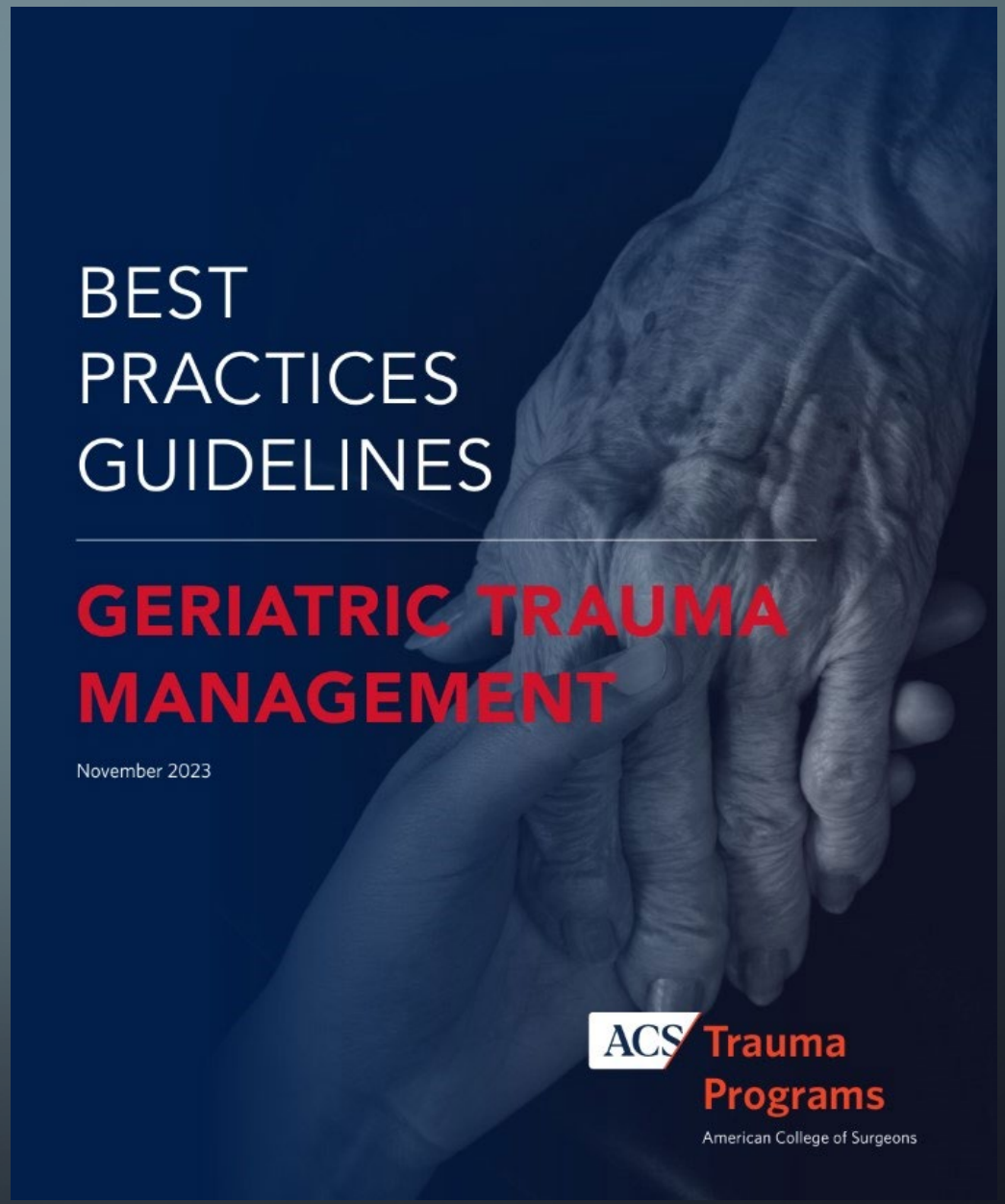
PROCESS

Executive Support	RTN affirms support of the project.
Instructors	Project Leads: Ann Clancy-Klemme and Lyn Nelson, analyst Levi Lauren. April 15 deadline for 1st slate of volunteer instructors.
Train the Trainer	Virtual training, distribute instructional materials and documentation requirements.
Logistics	Distribute kits to instructors, schedule courses, complete documentation, leads meet quarterly with OHSP.

GERIATRIC TRAUMA MANAGEMENT AD HOC COMMITTEE

Meetings

- Prioritization
- Topics
- Survey



Last year, hospitals in Region 8 placed 1,492 incidents into the trauma registry of patients aged 65 or older.

(Patient Registry, extract 4/9/2024, all incidents CY2023 65+.)

17.7% of Michigan residents are aged 65 years or older,
whereas in the UP 22.9% of residents are 65 or older.
If college and university populations in addition to prisons' populations were subtracted,
the percentage of persons 65 years and older residing in the UP increases from
22.9% to 24.9%.

(2021 UP Community Health and Needs Assessment)

Geriatric trauma care is exceedingly diverse due to baseline variability. Providers must have a high index of suspicion for complicating factors in each individual patient. Prior medical records can be invaluable, when available, for determining baseline heart rate, blood pressure, rhythm and medications that may influence trauma care.

Your Geriatric Trauma Management Ad Hoc Committee submits:

Part 1 Acute Care Management/Primary Survey

A through F

A: AIRWAY

Potentially difficult to secure airway due to tissue redundancy, loss of muscular pharyngeal support, and limited mandibular protrusion. Have airway adjuncts and rescue airways available. Second-generation supraglottic devices offer greater aspiration protection.

A: AIRWAY

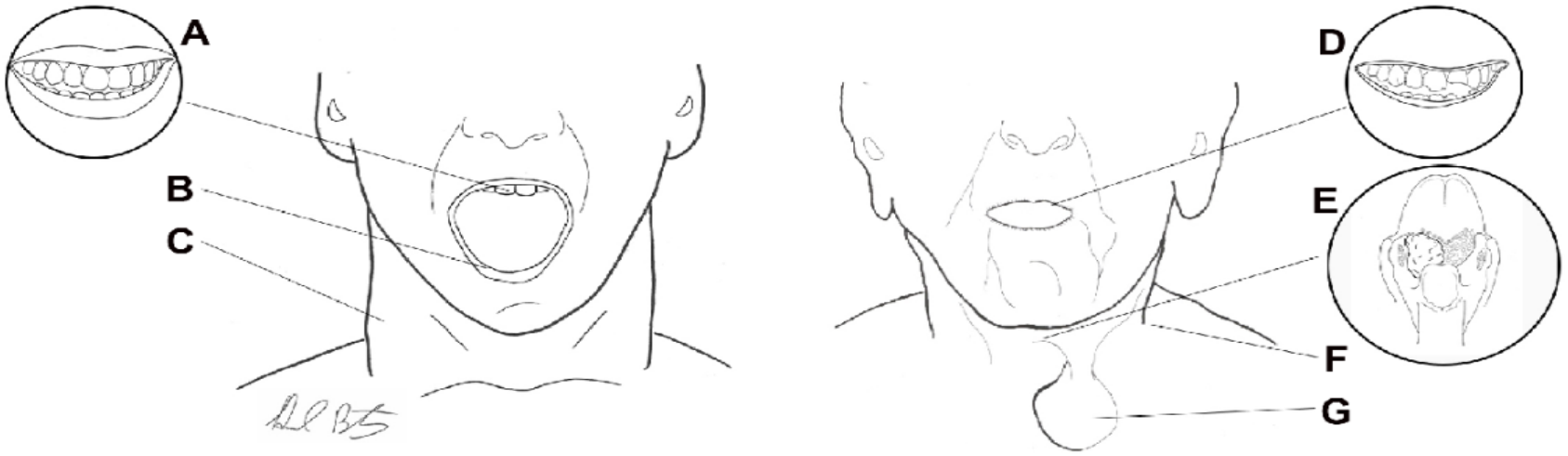


Figure 1 Anatomical variation in young and elderly. Notes: (A) Teeth present and undamaged; (B) thick lips, ability to open mouth widely; (C) long, thick, muscular neck; (D) damaged and missing teeth, thin and fragile lips, inability to open mouth widely; (E) posterior view of oropharyngeal cancer at base of tongue; (F) short, stiff neck; and (G) thyroid mass. Collapse

Published in Clinical Interventions in Aging 2015

Anatomic and physiopathologic changes affecting the airway of the elderly patient: implications for geriatric-focused airway management

Kathleen N. Johnson | Daniel B Botros | L. Groban | Y. Bryan

A: AIRWAY

Arthritis

Can cause difficult cord visualization and intubation

Temporomandibular joint disease

May required the need for cricothyroidotomy

Dentition

Leave dentures in when bagging

Take dentures out when intubating

Airway collapse/friable and dry mucosal tissues

Increased tendency for airway collapse and obstruction

A: AIRWAY

Dose adjustments for RSI

Ketamine = Increased oxygen demand

Propofol = Generally well tolerated

Ketofol = Combination of ketamine and propofol improved hemodynamic stability

Etomidate = Reduced dose

Fentanyl = Reduce dose by 20% to 40%

Reduced dose on all other opioids

Midazolam = Reduce dose by 20% to 40%

Succinylcholine (depolarizing neuromuscular blocking agent) = May have a 2-minute delay and a longer duration of action

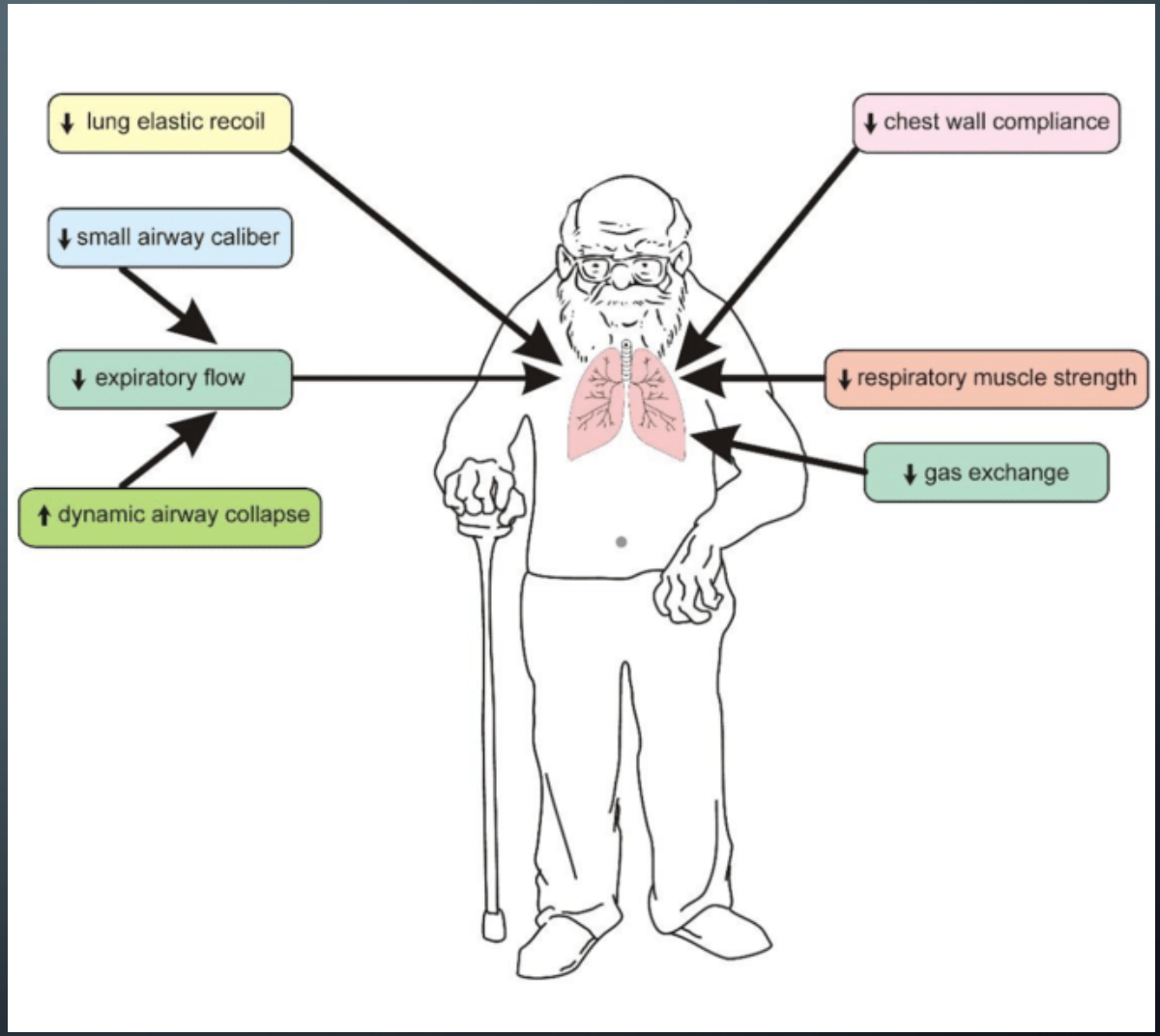
Rocuronium (nondepolarizing neuromuscular blocking agent) = Have longer duration of action

Cisatracurium (nondepolarizing neuromuscular blocking agent) = Has smallest duration variability and greatest reliability

B: BREATHING

Older adults may have a normal respiratory rate of up to 25 breaths per minute.

A higher rate can be the first sign of lower respiratory tract compromise.



Handgrip Strength and Pulmonary Disease in the Elderly: What is the Link?
January 2019, Aging and Disease 10(5); DOI:10.14336/AD.2018.1226

B: BREATHING

Hypoxia and Hypercarbia

- Geriatric patients have weaker respiratory muscles and decreased elastic recoil reducing vital capacity
- Increased dead space and decreased respiratory reserve
- Response to hypoxia and hypercarbia declines by 50% and 40%, respectively
- Maintain oxygen saturation in the low 90’s

B: BREATHING

Ventilator Management

- Low volumes and lower-pressure ventilation associated with better outcomes
- Consider vent settings of 6 mL/kg and plateau pressures of 30cm of H_2O or less
- PCO2 should guide assessment of ventilation not pulse oximetry
- Hyperventilated trauma patients appear to have increased mortality compared with non-hyperventilated patients

Remember:
Patients with absolute or relative hypovolemia, high ventilation rates and positive pressure ventilation may compromise venous return, worsening hypotension, and even cardiovascular collapse.

C: CIRCULATION

Cardiovascular abnormalities can precipitate traumatic events as well as develop in response to them.

Hypotension, hypertension, tachycardia, bradycardia and orthostasis are examples.

C: CIRCULATION

- High index of suspicion for occult hemodynamic instability
  - Shock Index (SI = heart rate divided by systolic blood pressure) < 1 is associated with higher mortality
- Heart rate over 90 or SBP under 110 = trauma alert
- Fluid resuscitation is a "*start low, go slow*" to minimize the risk of fluid overload
  - Crystalloid boluses should be 250-500 cc with frequent reassessment of response
  - Transfusion should be considered early as baseline anemia from dietary causes (iron and vitamin deficiency), occult GI losses and anemia of chronic illness (renal failure) may be present and misdirect management
  - New or chronic atrial fibrillation, as well as atherosclerosis, predisposes to fluid overload

C: CIRCULATION

Cardiovascular status via vital signs may be inaccurate due to blunted responses from medications *(Beta-blockers, calcium channel blockers)*

Other means of assessing perfusion such as serum lactate levels

- Lactate over 2.4 indicates inadequate perfusion and hemodynamic instability
- Even when normal, lactate levels should be rechecked in 30 minutes

Anticoagulation medications increase risk of hemorrhage

- Consider reversal early

D: DISABILITY

Gentle slow approach is key

Reduced hearing and vision could add to confusion in the environment

Glaucoma, cataract surgery or some systemic meds may cause altered eye findings on GCS

Preexisting dementia may cause falsely decreased GSC due to unknown baseline

Dementia and cognitive impairment are risk factor for falls and TBI's

Delirium is an acute phase of confusion; frequently missed and signal for acute illness

Cervical spondylosis increases risk for spinal cord injury

E: EXPOSURE

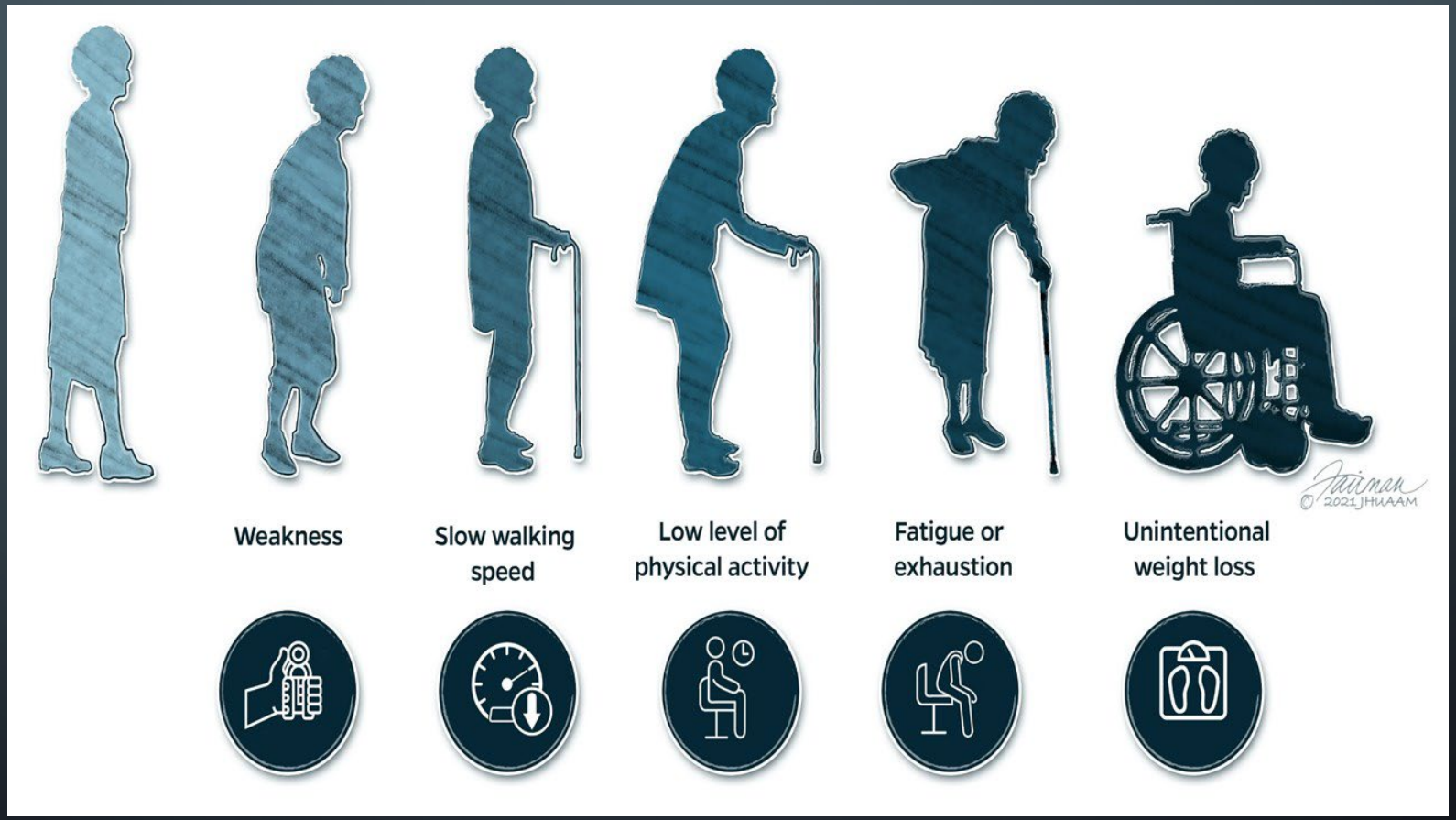
More susceptible to hypothermia and skin breakdown

- ✓ Attempt to warm
- ✓ Hypothermia can cause dysrhythmia and coagulopathy
- ✓ Increase room temp, warm blankets, warming devices, warmed fluids

Skin breakdown can occur in as little as 2 hours

- C-collars, backboards, stretchers, immobility all can cause skin breakdown
- Pad areas of risk - chin, occiput, sacrum and heels
- Early CT scan, reading, and equipment removal

F: FRAILITY



https://www.hopkinsmedicine.org/news/newsroom/news-releases/2021/03/multisystem-failure-regarding-frailty-necessitates-multisystem-intervention

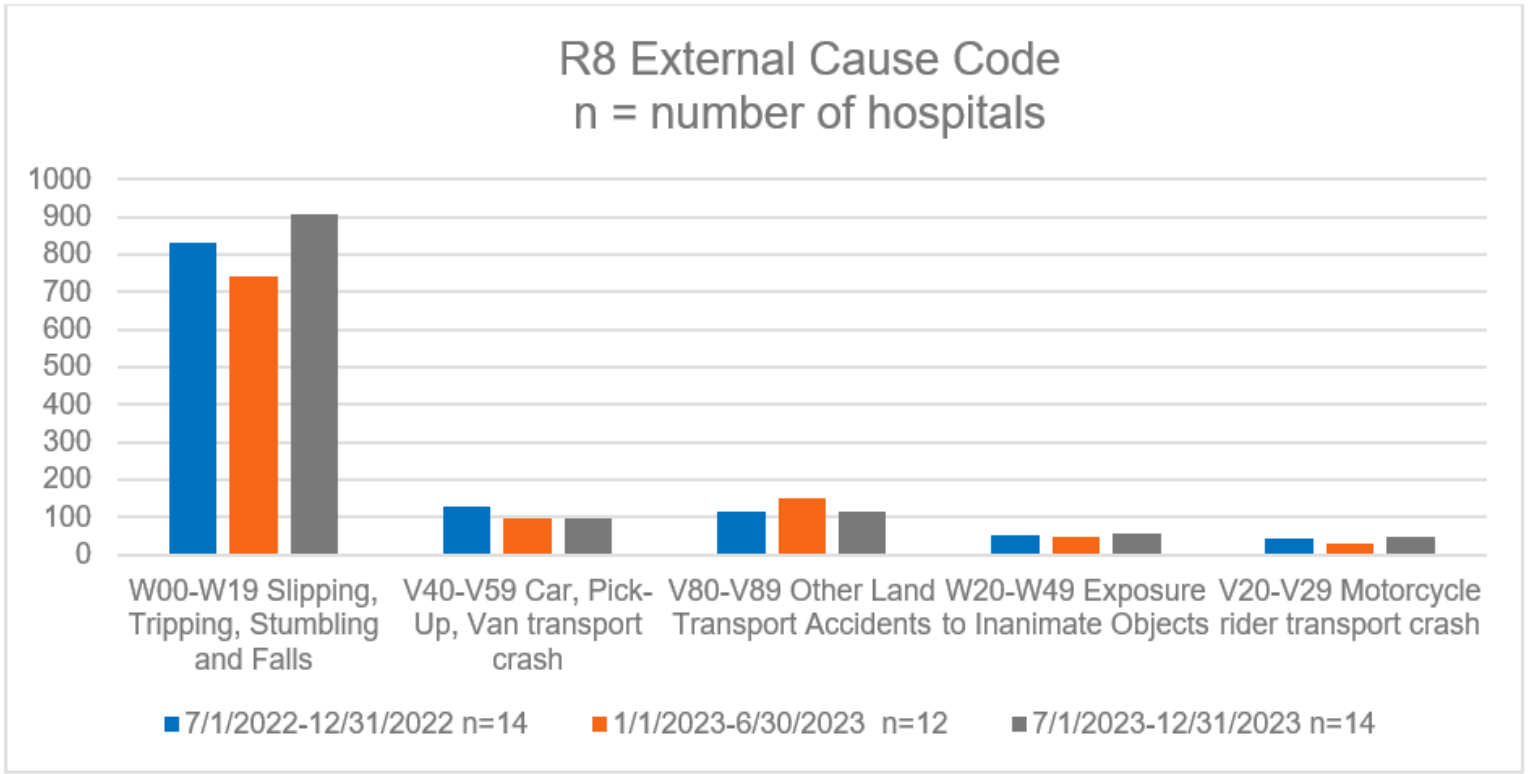
F: FRAILITY

Identification of frailty can help guide decisions about patient management and prognosis

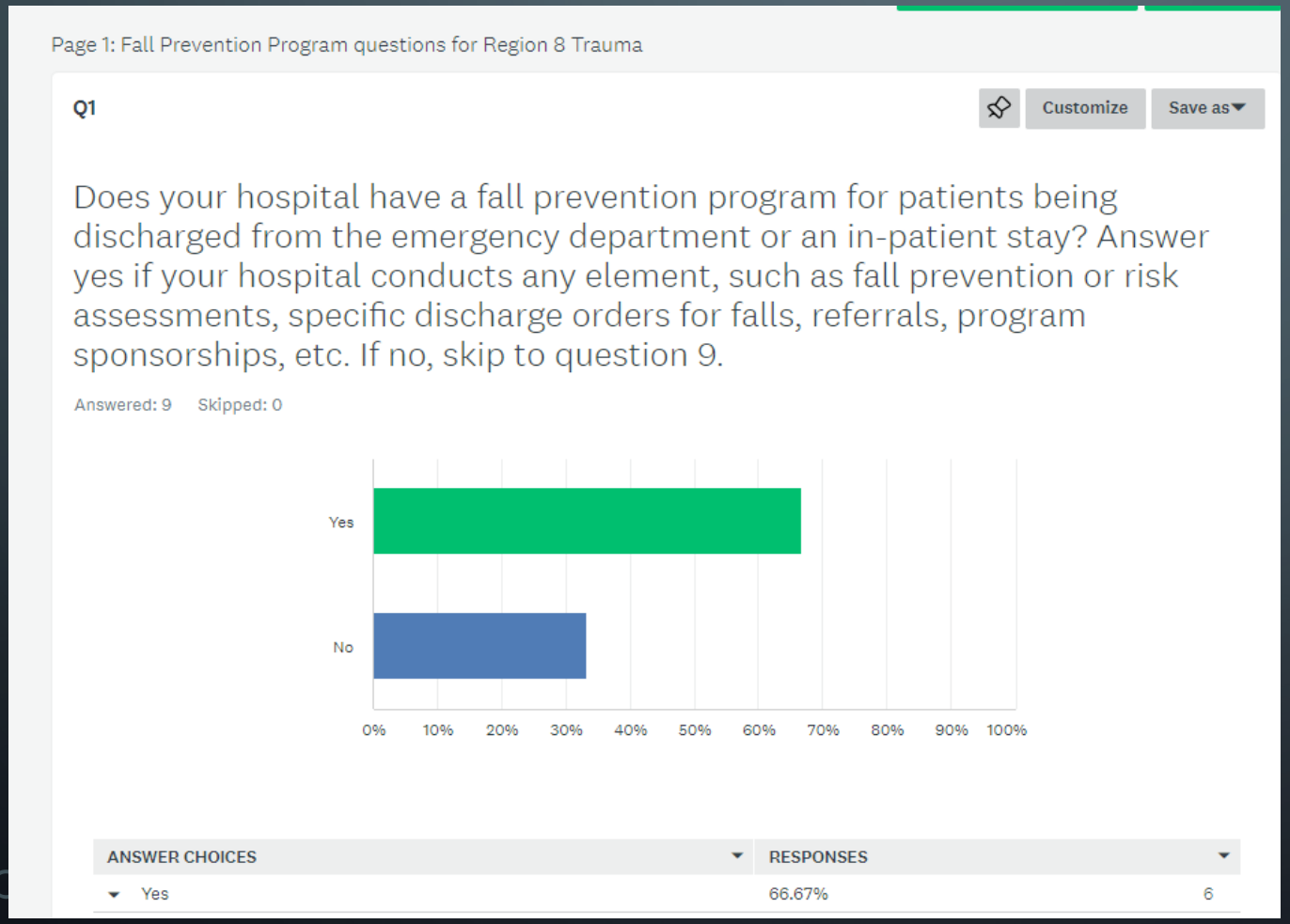
Frailty is a dynamic state of heightened vulnerability to stressors. It is a multidimensional syndrome that places individuals at risk for adverse health outcomes, including falls, disability, admission to hospital and death.
(Clegg A, Young J, Iliffe S, et al. Frailty in elderly people. Lancet 2013;381:752–62)

SLIP, TRIP, STUMBLE, FALL

TOP External Cause of Injury ICD-10 Codes



FALLS SURVEY – do you have a program?



Page 1: Fall Prevention Program questions for Region 8 Trauma

Q1

Customize | Save as

Does your hospital have a fall prevention program for patients being discharged from the emergency department or an in-patient stay? Answer yes if your hospital conducts any element, such as fall prevention or risk assessments, specific discharge orders for falls, referrals, program sponsorships, etc. If no, skip to question 9.

Answered: 9 Skipped: 0

ANSWER CHOICES	RESPONSES	
Yes	66.67%	6

Participating hospitals:

Aspirus Ironwood
Aspirus Keweenaw
Baraga
Helen Newberry Joy
Munising Memorial
MyMichigan Sault
OSF St. Francis
UPHS Bell
UPHS Marquette

Missing:

Aspirus Iron River
Marshfield Dickinson
Schoolcraft
UPHS Portage

FALLS SURVEY – who steers the program

Our program doesn't have one sole person who steers the program. Patients that are identified as high risk per their fall risk assessment score will be provided with fall prevention education. Patients who present to the ED for a fall will be given fall prevention education verbally by their nurse as well as written education. The tools/education that is used comes right from our Meditech charting system.

Chief Nursing officer and Patient Safety Director

We assess all our inpatients for fall risk. Needs to be added to the ED.

EPIC driven fall risk assessment and safety bundles

FALLS SURVEY – target population

Patients with high fall risk assessments scores as completed by their nurse and patients who present who present to the ED for a fall / injury related to a fall.

All patients- ED and INPT

Pt's that trigger being a risk for falls.

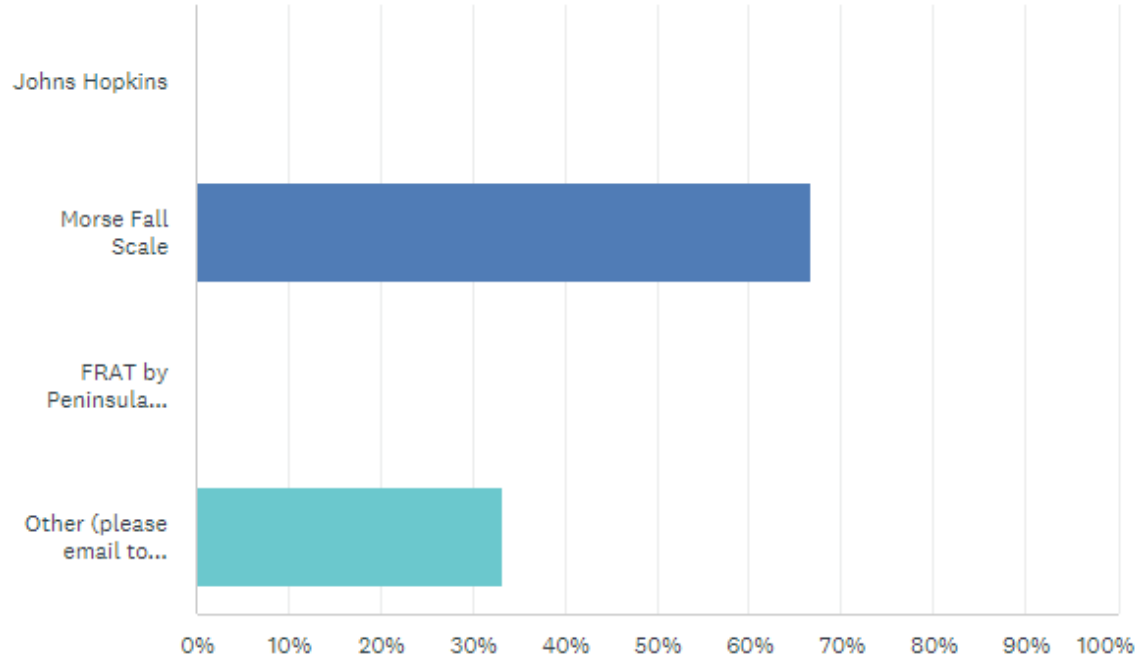
High risk fall patients

All patients

All fall patients

What fall risk assessment tool is used?

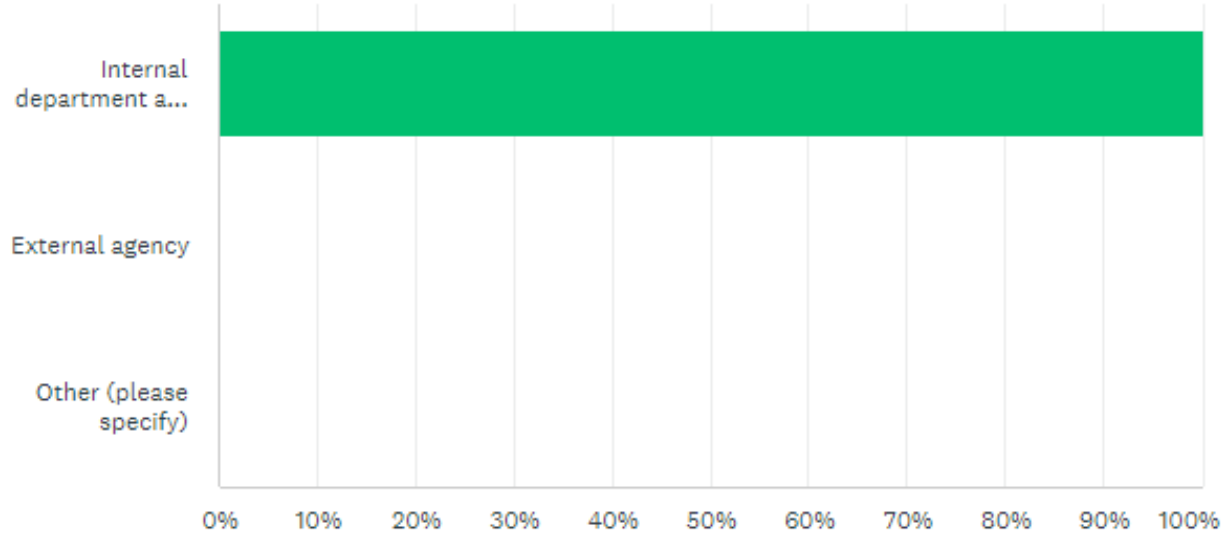
Answered: 6 Skipped: 3



ANSWER CHOICES	RESPONSES	
Johns Hopkins	0.00%	0
Morse Fall Scale	66.67%	4
FRAT by Peninsula Health Prevention Service	0.00%	0
Other (please email to NelsonL7@michigan.gov)	33.33%	2
Total Respondents: 6		

Who uses the risk assessment tool? (internal department/role OR external/agency)

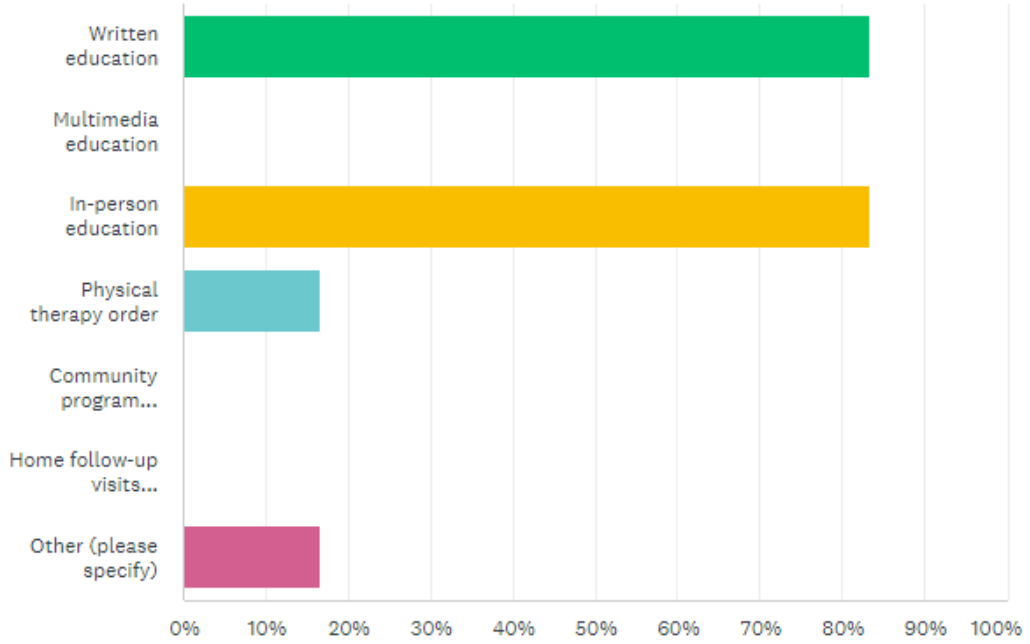
Answered: 6 Skipped: 3



ANSWER CHOICES		RESPONSES	
Internal department at hospital		100.00%	6
External agency		0.00%	0
Other (please specify)	Responses	0.00%	0
TOTAL			6

What do you provide to the patient?

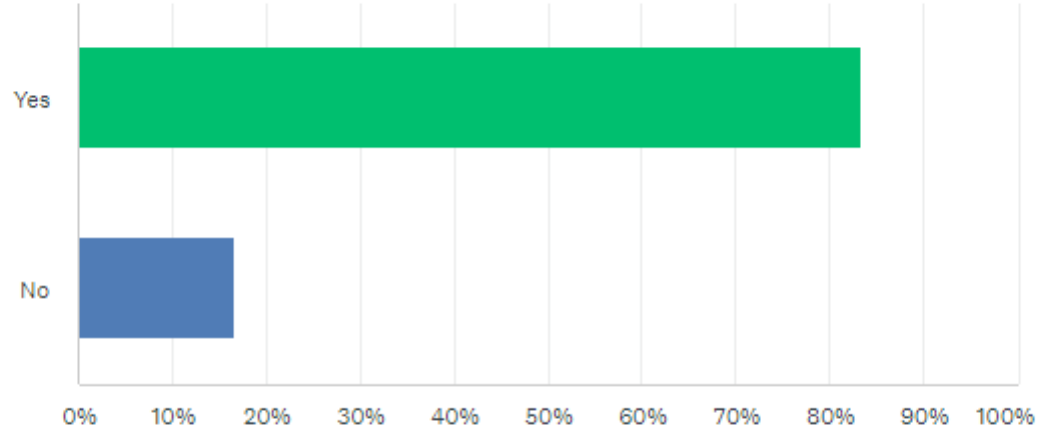
Answered: 6 Skipped: 3



ANSWER CHOICES		RESPONSES	
Written education		83.33%	5
Multimedia education		0.00%	0
In-person education		83.33%	5
Physical therapy order		16.67%	1
Community program referral		0.00%	0
Home follow-up visits in-person or via phone		0.00%	0
Other (please specify)	Responses	16.67%	1

If you provide the education, are the patient's support systems (caregivers) encouraged to be present?

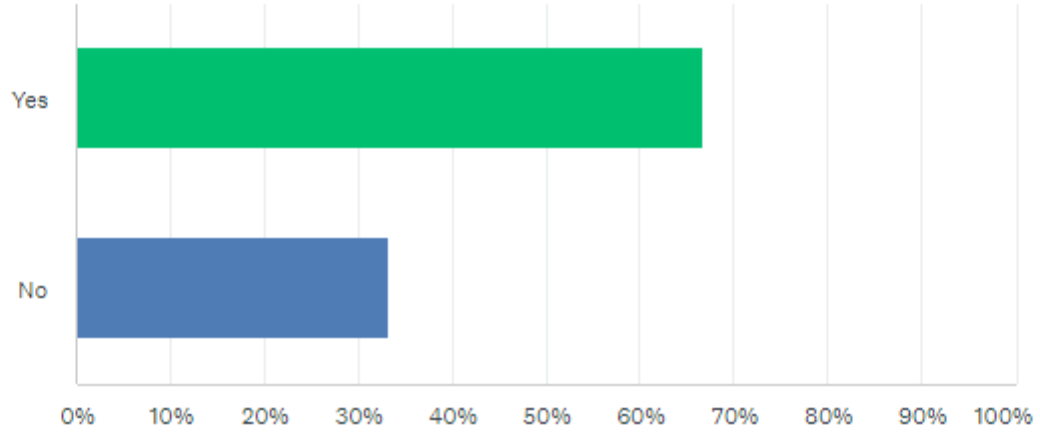
Answered: 6 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	83.33%	5
No	16.67%	1
TOTAL		6

Is medication and nutrition education part of the education conducted internally or externally?

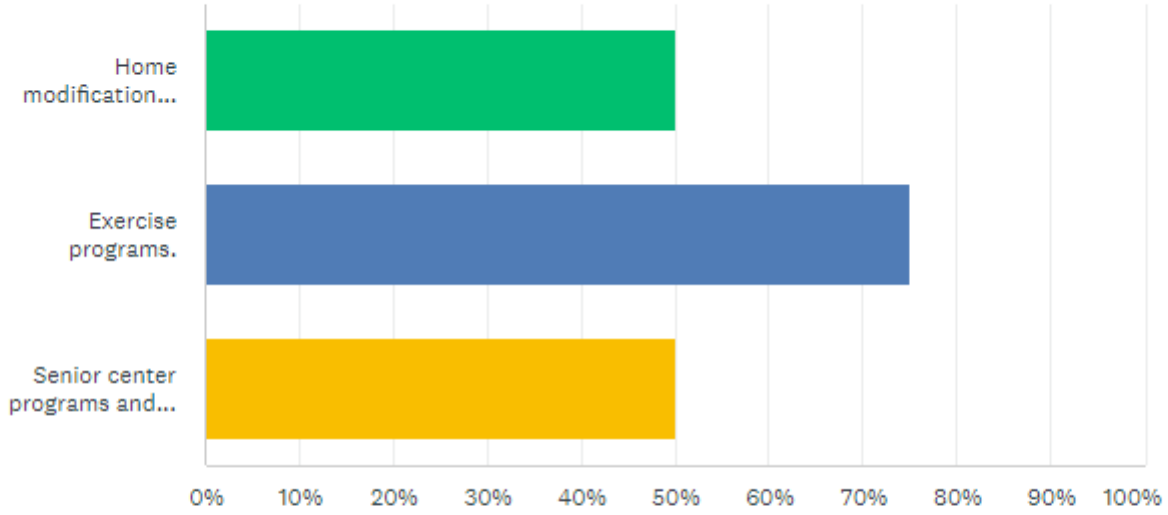
Answered: 6 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	66.67%	4
No	33.33%	2
TOTAL		6

Is your hospital informed of and collaborating with community programs?

Answered: 4 Skipped: 5

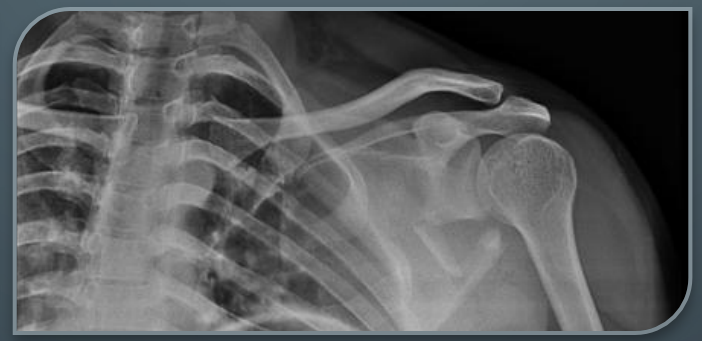


ANSWER CHOICES	RESPONSES	
Home modification programs.	50.00%	2
Exercise programs.	75.00%	3
Senior center programs and activities.	50.00%	2
Total Respondents: 4		

NEW BUSINESS

PREHOSPITAL

National Prehospital Assessment in May!

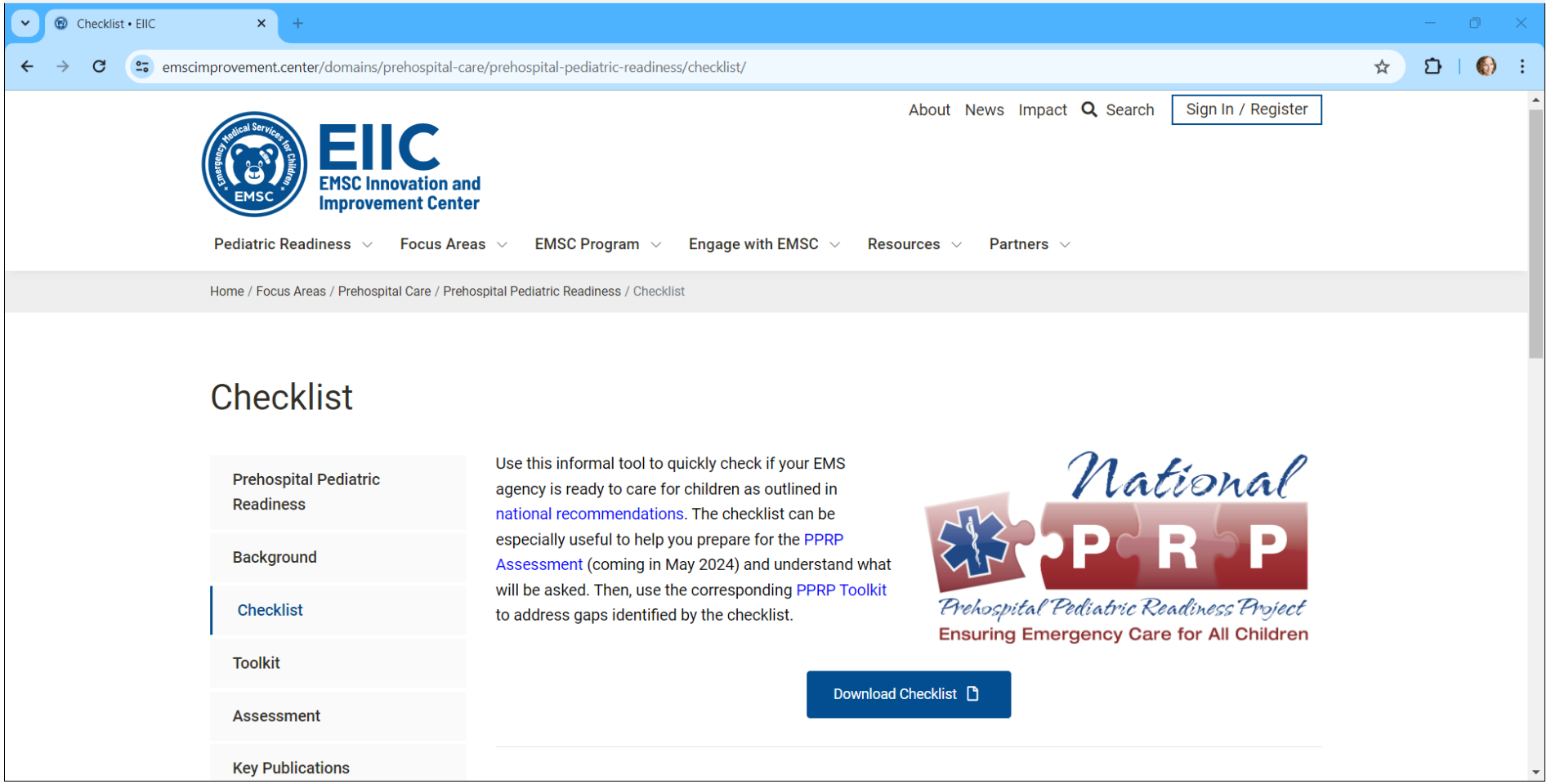


RIB FX GUIDE

Corewell Gerber LIV TC study

WARMING PATIENTS

EMS documentation – temperatures & warming patients



https://emscimprovement.center/domains/prehospital-care/prehospital-pediatric-readiness/checklist/

Hospital Based PECCs

https://forms.office.com/g/ZyXj3zCxyF

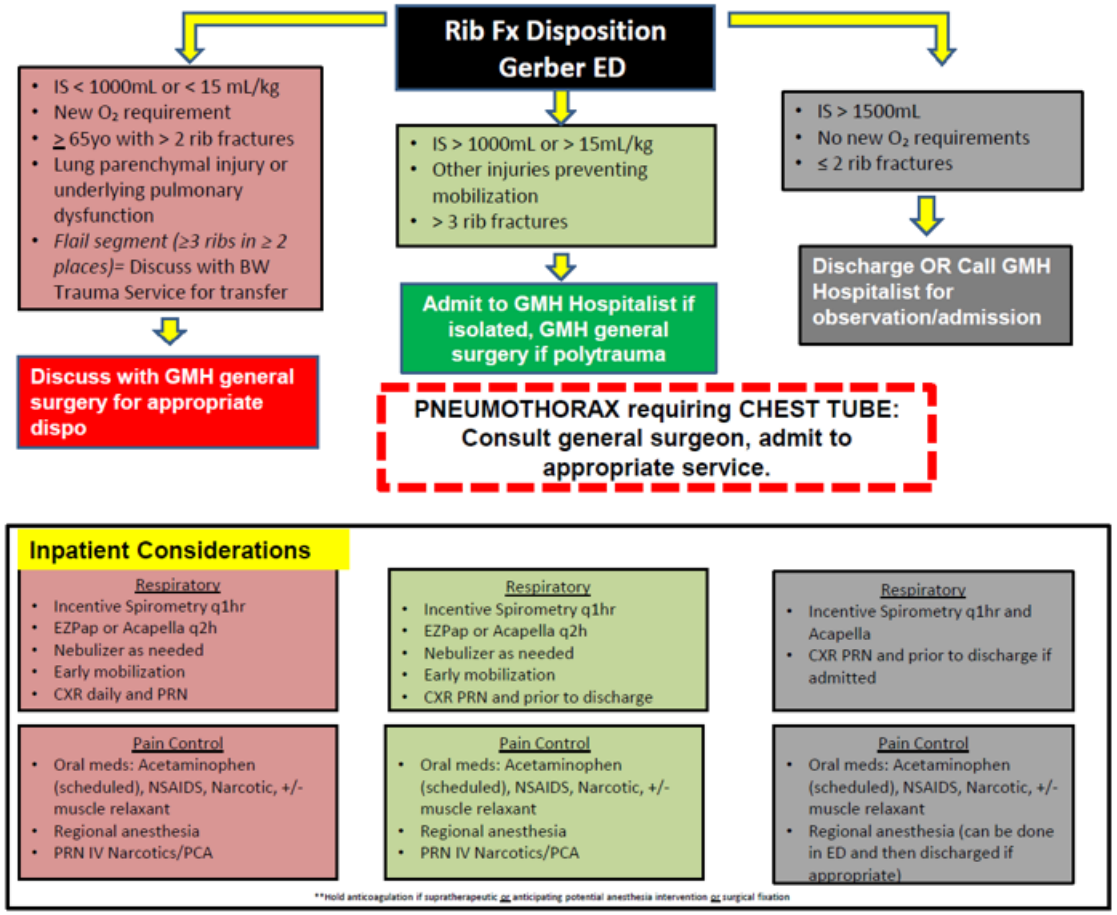
https://forms.office.com/g/BPC8v8fz8K

Rib Fracture Disposition

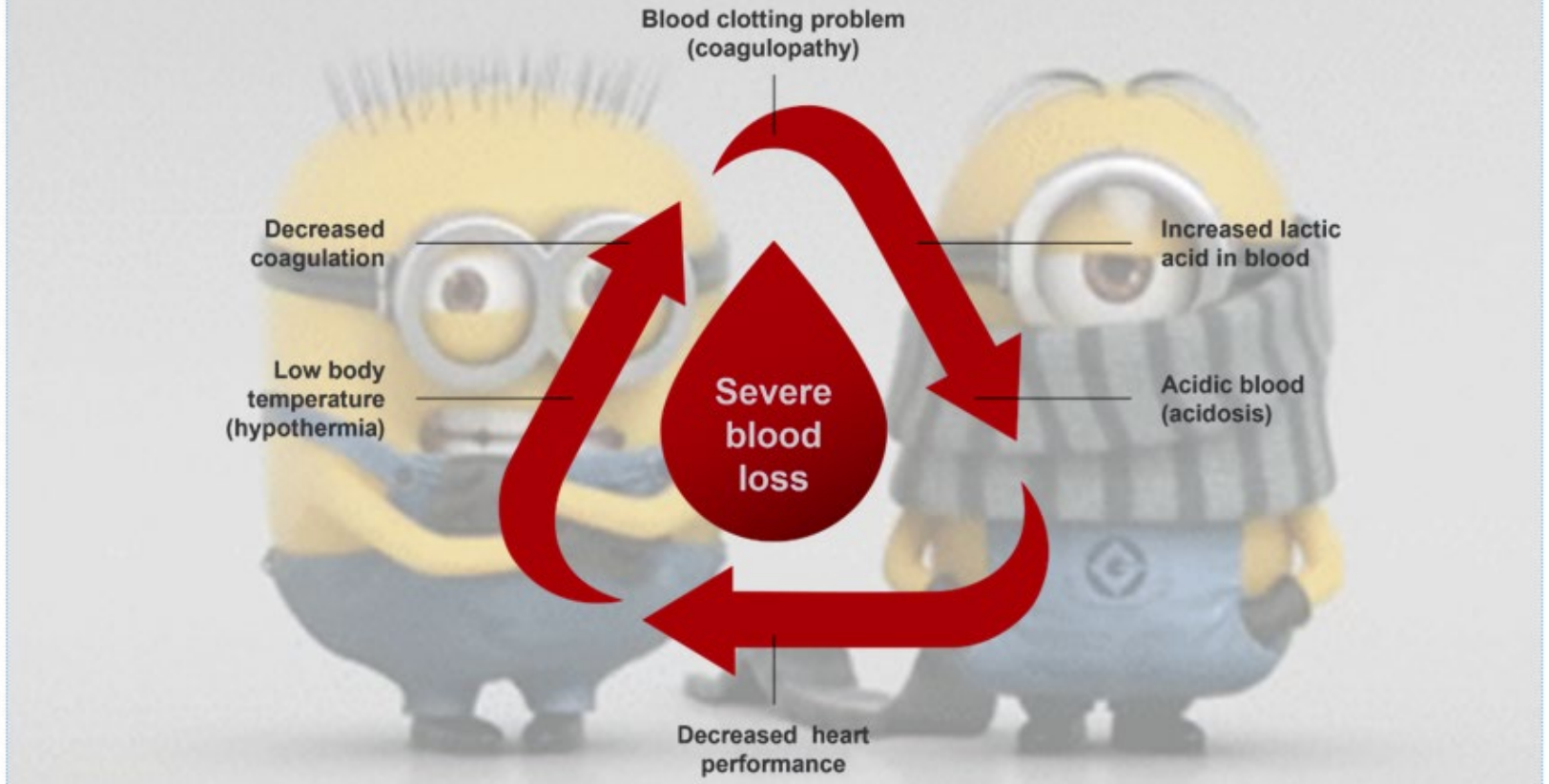
Corewell Health

-Created via collaboration with General Surgeon Dr. Schafer

-Incorporates pt data (including incentive spirometry level, age, number of rib fractures, oxygen requirements) into the disposition decision-making process



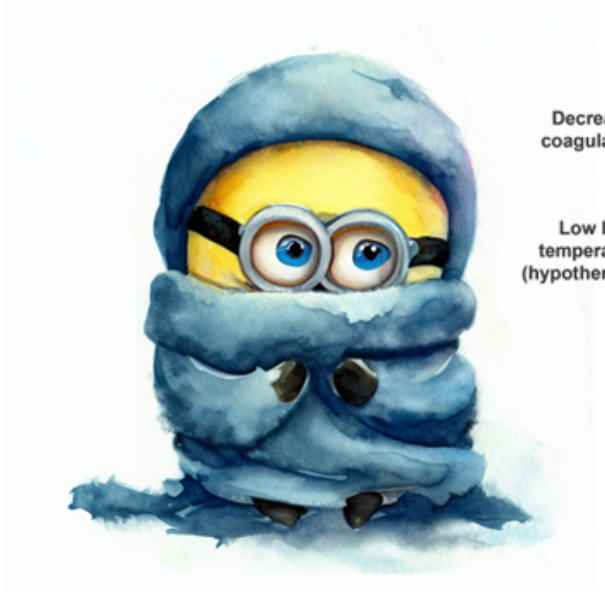
Keep your patients warm!

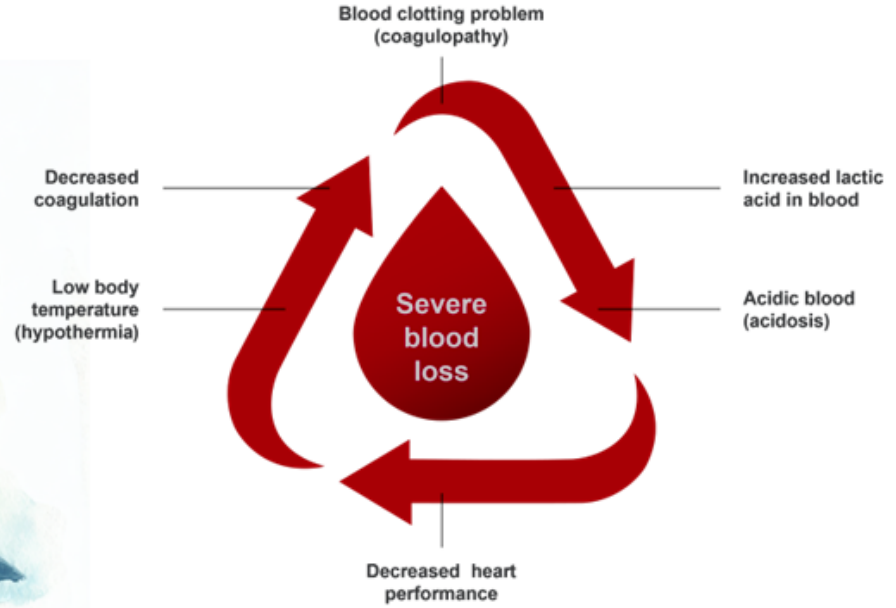


UP Health System Marquette Trauma Department

Jodi.McCollum@lifepointhealth.net - (906) 449-3090

Warm the patients!

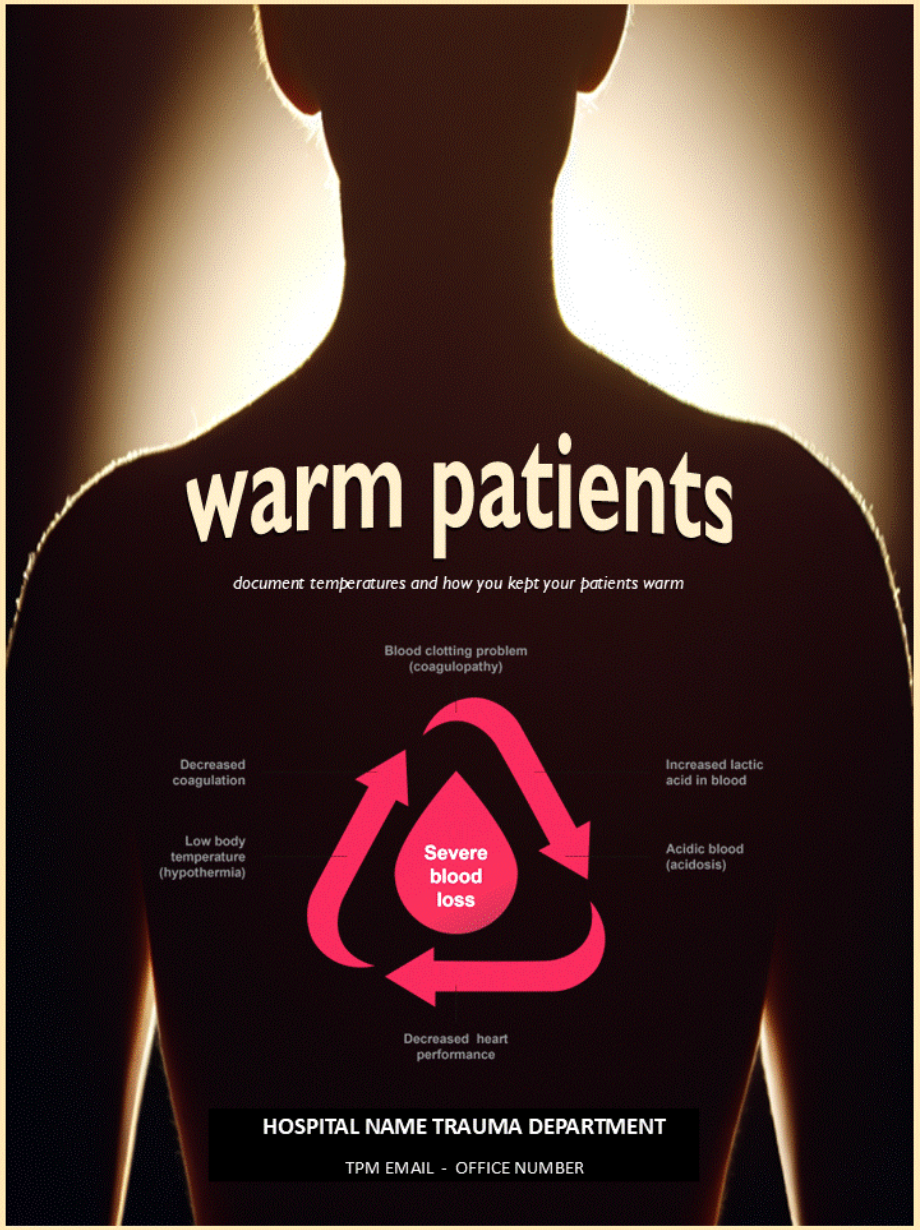




Document temperatures and how you kept your patients warm.

HOSPITAL NAME TRAUMA DEPARTMENT

TPM EMAIL - OFFICE NUMBER

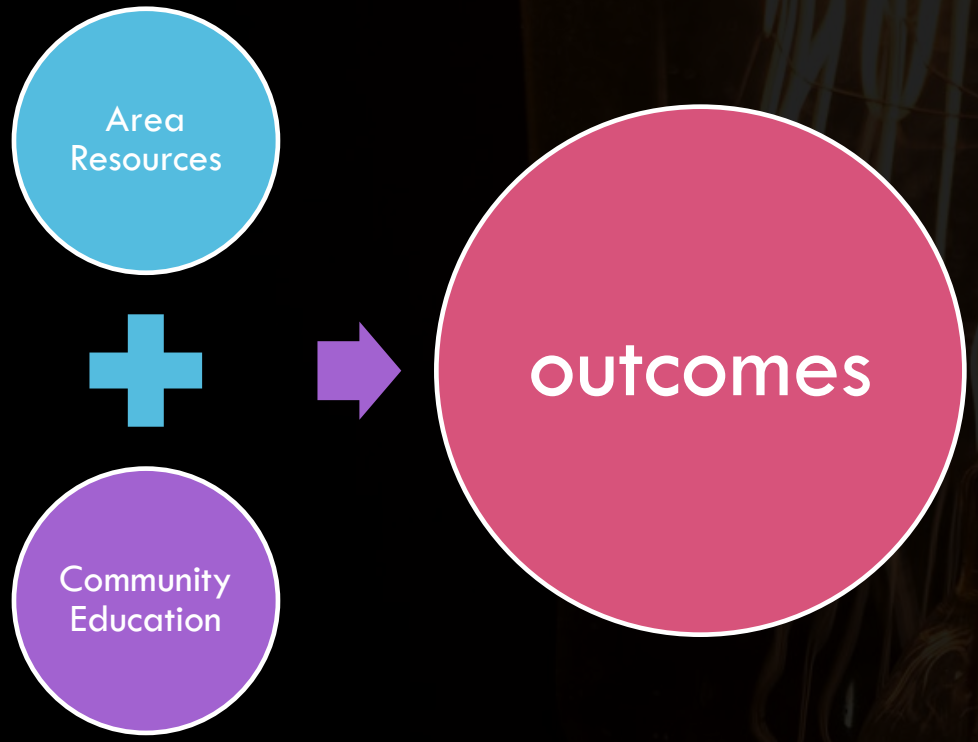

warm patients
document temperatures and how you kept your patients warm
Blood clotting problem (coagulopathy)
Decreased coagulation
Increased lactic acid in blood
Low body temperature (hypothermia)
Severe blood loss
Acidic blood (acidosis)
Decreased heart performance
HOSPITAL NAME TRAUMA DEPARTMENT
TPM EMAIL - OFFICE NUMBER

Hyperbaric

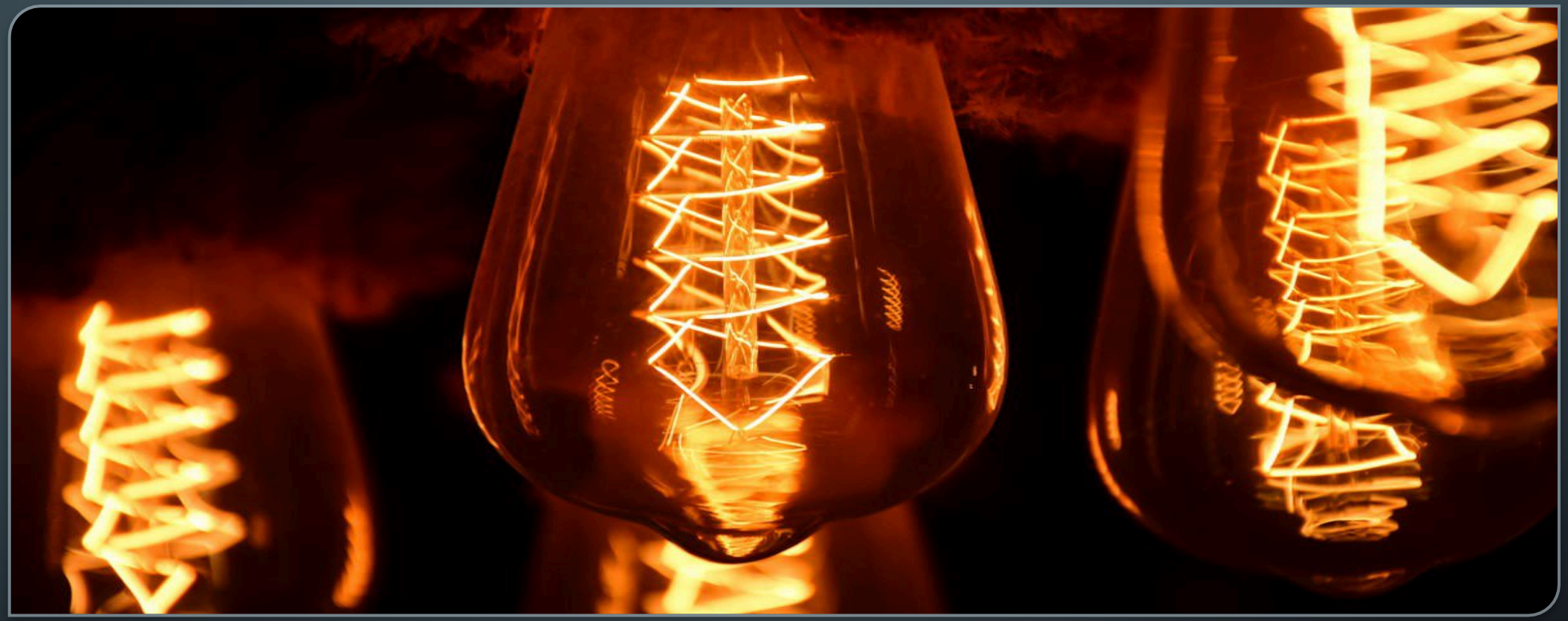
emergent patients

Who are you contacting?

ASPIRUS ONTONAGON HOSPITAL CLOSURE



REPORTS



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