

Advisory Committee on trauma
Meeting minutes
Stormont-Vail Regional Medical Center
Board Room -2nd Floor
Topeka, Kansas
May 13, 2009

Present: Dr. Scott Sellers, Dr. James Longabaugh, Darlene Whitlock, Senator Vicki Schmidt, Debra Pile, Dr. Pamela Steinle, Dennis Mauk, Leslie Lacy, Kris Hill, Cathy Heikes, Dr. Paul Harrison, Kim Nutting, Terry Seik, Dan Leong

Absent: Chris Way, Pam Kemp, Representative Geraldine Flaharty, Senator David Haley, Representative Brenda Landwehr, Kerry McCue, Robert Prewitt, Dr. Craig Concannon, Saad Ehtsham, Dr. Dennis Allin

Guests: Scott Harrison, Liz Carlton, James Pou, Mick McCallum, Carolyn Middendorf, Dick Morrissey, Dr. Jason Eberhart-Phillips, Dr. Christopher Bandy, Rod Pace, Dr. Chris Kennedy

Dr. Paul Harrison called the meeting to order at 10:20am. February's ACT meeting minutes were approved as written.

Introduction of new members:

Dr. Paul Harrison

Senator Vicki Schmidt was introduced as a new member on the ACT serving as vice-chair of the senate public health and welfare.

Introduction KDHE Director of Health:

Richard Morrissey

Richard Morrissey introduced Dr. Jason Eberhart-Phillips as the new Director of Health for KDHE. In the introduction, Mr. Morrissey described Dr. Eberhart-Phillips' diverse background which includes a Bachelors in Journalism, Masters in Divinity, and an MD from the University of California. Dr. Eberhart-Phillips said that he is excited to be a new "Kansan" and a part of KDHE.

Legislative update:

Richard Morrissey

Mr. Morrissey updated the ACT on the legislative activities related to public health. The Primary Seat Belt bill did not pass. The Graduated Drivers Licensing passed and was signed by the Governor. The sunset provision on lead prevention program was lifted. When the original lead bill was first passed there was concern from landlords and realtors that it would negatively impact the market; so a sunset was implemented. Due to increasing technology, a statutory change was made reflecting the immunity for lay rescuers.

Four child care related bills were introduced this legislative session. The committee chose to work only one of the bills which passed out of the house but did not pass the senate.

A change was made in the isolation and quarantine statutes, ensuring due process procedures for individuals affected by legalized quarantine. The new statutes also addressed the need for only one physician as a court advisor.

Rosanne asked Mr. Morrissey to expound on HB 2139. Mr. Morrissey explained the bill, would have eliminated court docket fees used to support the trauma program and KDOT traffic records was a product of misunderstanding. The committee thought the trauma budget was over 150 million when the trauma program receives approximately .5 million. When the error was recognized, the author chose not to have the bill worked. Mr. Morrissey stated this would not have happened had constituents not contacted their legislators to let them know. Dr. Harrison said he was very pleased to see the broad support for the trauma program. The trauma fee fund was not affected by the budget cuts this year. However, the program must prepare for next year's fiscal challenges. Darlene Whitlock suggested individuals start taking a more proactive role in educating people and legislators on importance of how these fee fund dollars are used. It is important to stress that the funds used for trauma are used in prevention, which can avert further expenses.

Program update:

Rosanne Rutkowski

Rosanne started the program update by naming the following members whose terms are expiring this July: Dr. Craig Concannon, Kris Hill, Terry Siek, and Pam Kemp. If they wish to continue serving on the ACT, they must ask their organizations to submit a nomination for them. Rosanne provided information on the National Foundation for Trauma Care, Rural Trauma Medical Director Course ([click here to view handout](#)), which is targeted for the level three and four facilities. It was suggested that Kansas develop a similar course and asked that anyone interested in serving on the planning committee to please let her know.

Rosanne presented the first edition of Impact, the program newsletter which will be released quarterly. [Click here to view the newsletter](#). She also presented a draft of the 2009 annual report. Rosanne expressed disappointment on the amount of time it has taken to get the annual report to this point.

Rosanne gave an overview of the subcommittee reports. The Hospital Designation Subcommittee, over a phone conference, discussed the development of essential criteria for Level IV designation. ([Click here to view handout](#)) Recommendations of the committee were reviewed. There was discussion as to an additional designation for those facilities with additional resources such as a surgeon. The additional qualifier would be annotated by an "A" or "B," thus producing a Level IVA or Level IVB designation. This question will go back to the committee for further discussion. Another issue that has not been addressed concerns transfer agreements. ([Click here to view handout](#)). Rosanne reviewed major components of the proposed criteria. Once general criteria have been developed, the program will need to work towards putting them in regulation format. Dr. Steinle questioned the goal behind Level IV designations. She expressed her concern that the standards would be developed around the available resources of every hospital and not something for which to strive.

Dr. Harrison said the designation of trauma centers is to assure the public they will receive proper and timely care of traumatic injuries. Trauma center designation also provides the region with the knowledge of what resources are available at each center.

The Level IV center may not be a facility for definitive care; for severely injured patients it will be a facility for stabilizing and transferring patients to definitive trauma centers. The criteria established for Level IV centers will help EMS providers know exactly what care the patient will receive at that particular facility.

Dr. Longabaugh added the trauma system should be an all inclusive system that helps bring hospitals with insufficient resources up to a yet to be defined minimum standard. An observation was made that some states with mature trauma centers do not involve all of the hospitals because those facilities cannot meet the specified criteria.

Dr. Bandy asked how far we are with the Level IV criteria. It was commented that currently the highest of standards are not employed. A present criterion is to ensure proper training for medical staff. Dr. Bandy expressed his desire to see training for trauma team leaders and the requirement for certain types of equipment.

Liz Carlton asked about blood reserves for Level IV's. Currently, Critical Access Hospitals are not required to have blood available. Discussion arose around whether Level IV centers should have blood available. If blood banking were to be a requirement there is concern a Level IV center might delay transferring a patient because they felt obligated to transfuse blood if it were available.

A question was asked about the credentialing for trauma team leaders at a Level IV facility. Trauma team leader should hold ATLS certification. Nurses should be TNCC certified. The committee discussed the type of equipment as listed in the criteria. It was decided that what was included in sets or kits did not need to be listed such items for a chest decompression set. The committee discussed the review process. Some states have a self-assessment process which is questionable, other utilize an external review team. The gold standard is to have an external review team. A compromise would be to have the first review done by an external team with future years being a self-assessment process. There was concern expressed that some physicians may have no interest in being ATLS certified and/or are too close to retirement. To alleviate this concern, the facility could focus on having more ARNP's and/or PA's trained for trauma response. It was explained that the RTTDC has a strong component on the "team" approach. Providing staff coverage while allowing hospital staff to attend a RTTDC can be challenging. Some hospitals would almost be completely unstaffed if they sent their "trauma team". Temps can be used to relieve the smaller hospital's staff for the course, but that can be expensive. It was suggested that hospitals might want to consider including EMS providers in the RTTDC. That may be difficult as many EMS providers in the rural areas are often volunteers whose focus is on getting the patient to the closest hospital.

Rosanne presented the Injury and Violence Prevention handout. ([Click here to view the Injury and Violence Prevention Handout](#)). She also provided information on grant funds available to provide the "Remembering When" curriculum. Health departments are encouraged to apply. ([Click here to view the Remembering When Conference Handout](#)). KDOT is convening an executive council for safety in an attempt to reduce mortality and morbidity on Kansas roads. Darlene, Rosanne and Sen. Schmidt will be serving on this council.

AIS 2005:

James Pou

James gave a presentation on AIS 2005. James is a representative for Digital Innovations and is the account manager for Kansas. Sen. Schmidt asked who will pay for the licensure. KDHE is currently planning to pay for the license as part of their renewal contract. Sen. Schmidt. asked how current is the AIS 2005 model. James replied that AIS 2005 is the most current version of the coder. The adoption of 2005 has been slow because of issues with software and politics. James reported some states are concerned about how AIS 2005 will affect their funding because those facilities are dependent on the severity scores for reimbursement. Liz asked from a level 1 stand point, has the AAAM made any recommendations on mapping from AIS 90 to 2005. James explained there are instructions with the software that address those concerns. However, not all the codes can be mapped because AIS 2005 has some different codes from AIS 90. Liz asked if the state has made any plans concerning training for AIS 2005, particularly relating to the cost for the AAAM training. Will the state absorb the cost or will the hospitals? The AAAM AIS 2005 course is a two day course. Liz suggested that the state could partner with MTS for funding purposes. James was asked how many states have switched to AIS 2005. James answered three providences in Canada, Pennsylvania, Washington, and Iowa have or are preparing to move to AIS 2005. James said, in his opinion, AIS 2005 will give more accurate information on the traumas the state experiences. James discussed a military study that compared AIS 2005 with the current coding model and found 2005 as a better model in accurately describing the severity of injury for patients. Liz asked if AIS 2005 is compatible with ICD 10. ICD 10 is scheduled for full implementation in three years. In order for a smooth transition, the software must change in two years, and AIS 2005 is fully compatible with ICD 10. DI has already incorporated ICD 10 for Canada and New Zealand; so they have an idea of what will be needed. Liz stated the main point for the ACT is to know when each member's respective hospital is switching over, because AIS 90 does not work with ICD 10. James said the text to coding module will be ready to put into effect for the web users at the end of the coding session.

The ACT moved to implement AIS 2005 on January 1, 2010. Dan Leong suggested informing all the reimbursement people at the member's respective hospitals about the change to AIS 2005 and how this change might affect their daily operations.

EMS Medical Directors Training:

Dr. James Longabaugh

The first medical directors' conference is set for June 17. The agenda has been set and will include discussion on topics covering both legal and medical issues. The online medical directors' course has received a number of registrations, but due to unknown reasons few have finished the course.

Air Medical Safety:

Rod Pace

Rod Pace gave a presentation on KanAAMs. ([Click here to view Rod's presentation](#)). The trauma program and Rod have been talking for years about how they could work together. Does there need to be a centralized dispatch for the Air medical transport? The BIS assessment outlined a central dispatch for all types of transport. Rod explained that air medical is a limited resource at times due to weather and maintenance restrictions.

Rod talked about the helicopter early launch protocol which KanAAMs produced. Darlene Whitlock asked if the NHTSA assessment included coordination for air medical services. Robert Waller said it talked about a coordinated response in transporting to the appropriate facility. Cathy Heikes said in the western part of the state there are no helicopters, only fixed wing and as a state committee, we must take that into consideration. Dr. Longabaugh asked if there is direct involvement from for-profit organizations who often in the interest of revenue call another service which may or may not be the closest provider to the patient. Rod discussed problems with competition and getting to patients by using fastest means possible (whether that means contacting the competition or keeping it within your system). Rod said KanAAMs supports utilizing the service agency that is closest to the patient. Dr. Longabaugh asked if a tracking system is available to monitor when a service is currently in operation and whether there is another service closer. Such a tracking system does not exist in Kansas. Rod talked about how some states use guidelines to track which helicopter service was used. Rod said Oklahoma has a good set of guidelines and he will share it with Rosanne. Rod discussed the problem of “helicopter shopping,” when hospitals contact several helicopter services after the hospital has been turned down by a service due to weather. Rod concluded his presentation by stating that KanAAM would like to work with the ACT in addressing air medical issues.

Lunch:

KHA report:

Dan Leong

KHA has expanded an emergency technical advisory group to work with EMS and trauma on preparedness issues. Dan discussed the national trends in no-diversion policies and how those policies are affecting hospitals. Kansas City is studying Boston and St. Louis in developing a no-diversion policy. KHA was working with representatives from hospitals and worker’s comp. insurance on utilization of trauma activation codes and reimbursement rates. The reimbursement rates are as follows: \$3000 for level 1, \$2500 for level 2, and \$1000 for level 3.

Dan and Dr. Bandy have been working on a transfer agreement template all hospitals can utilize. Les Lacy recommended a template that Hays Medical Center utilizes with their network hospitals. Dan suggested that once an agreement has been made on the transfer agreement template, they should have someone from the legal community review it. Discussion arose over the transfer agreement model. Concern was expressed that transfer agreements might not be effective. It was agreed that transfer agreements should be a useful tool used to improve the patient transfer process.

Dan presented the EMResource Report. ([Click here to view the EMResource Report](#))

NIH Pediatric:

Dr. Chris Kennedy

Dr. Kennedy, ED physician from Children’s Mercy discussed an NIH grant application they are currently working on regarding pediatric trauma care. ([Click here to see the presentation](#)). The goal of their grant is to improve community based pediatric trauma assessment and skill performance in Kansas & Neb. Dr. Bandy asked if the group was doing this in Missouri. They are currently not holding the program in Missouri, however, they have held sessions in Kansas City. Darlene reported that EMSC has plans to

perform pediatric disaster care. Dr. Kennedy asked if this grant application was a concept that would be supported by the ACT and if so, could they count on a letter of support. The ACT supports trauma education and would be interested in providing support to the grant once finalized. Robert and Darlene said they will talk with EMSC about funding.

Trauma Registry Update:

Dee Vernberg

Dee discussed the recommendations from the KTR subcommittee. ([Click here to see her presentation](#)) ([Click here to see the handout for the proposed changes](#)). The following are the indicators as discussed:

Transfer Flow - The intent of transfer flow is to see if the patient was transferred in a timely manner. However, some have questioned this indicator's use in determining whether patients were transferred for definitive care. James Pou said some states use "transferred for higher level care" to determine if the patient was transferred for definitive care. Dr. Bandy explained these are benchmarks should be used as filters. Dee said that the issue is in how definitive care is defined. For designated trauma centers a large number of patients end up being included as an outlier when patients are transferred after the acute care phase for "definitive care" at a VA or other health care facility. Dr. Harrison asked if the level 1 center should not just investigate each case indicated in the benchmark report. Dr. Bandy pointed out that only one or two facilities have issues with this filter. A change in this element to suit those facilities will cause the majority of submitting facilities to change how they enter data. James said the Level I or II facilities can filter out these outliers on their own using their own comprehensive data set. The ACT recommended not to make any changes to the indicator description. (see handout).

Unstable Transfer – Dr. Harrison first responded to the proposed change by stating if "transferred out" is changed to two hours; a majority of facilities will not be challenged to work towards transferring patients within one hour although we recognize how difficult the one hour may be in select circumstances. Sometimes the bar needs to be set high to get the desired performance. Dr. Bandy said 99% of the hospitals will not be able to achieve this standard. Dr. Harrison said keep the one hour standard and accept the fact there may be a high number of fallouts. This information can then be utilized to justify providing resources where needed to support an effective and efficient trauma system. It was pointed out that recording the moment in time when the decision was made to transfer a patient can be nebulous. It was suggested to clarify the indicator by capturing the time of the call requesting transfer and not necessarily the time when the patient was transferred. This is a proposed new variable by the KTRS—see handout. The ACT decided to leave the indicator at one hour. and add another variable that captures the time when the facility calls requesting transfer of a patient.

Airway – Approved as written, no changes

Head Injury – Approved as written, no changes

Chest tube – Approved as written, no changes

On time – Dr. Brandy explained this variable is too subjective because each leveled center has a different time standard depending on the level designation. Facilities that are not trauma centers do not have a time standard. Because some facilities lack a trauma surgeon, the indicator should specify that the trauma team leader response is timely.

James Pou suggested sending the call and arrived times so the actual value can be analyzed. Another suggestion asked to send only the response time of the physician. It was also suggested to change leader or physician to primary responder, which would cover the available resources for all submitting facilities. It was decided to add this issue to the next KTR policy meeting for further review. This indicator will not be deleted; however, it will be revisited. James Pou proposed creating a difference between how the web and local registries collect this field, which would address the lack of a time standard for the non-designated facilities.

Open Fracture – Discussion abounded over the time standard stipulated in the indicator. The current standard has been used since the late 1800's, therefore, obsolete. The next discussion arose over washing of long bong injury. It was explained that this particular indicator should measure when the patient was given antibiotics and not necessarily when the injury was washed out. The timely administration of the correct antibiotic is critical. Darlene said her orthopedic physicians think this benchmark is accepted practice and believes other orthopedic physicians feel the same, therefore is a useful indicator. Dennis Mauk said the committee would send a mix message if it decided to collect something that is not meaningful. Changing the collection to reflect the use of antibiotics would be a big change in the data collection. Discussion circulated on who would review the information. The registrars would not know which antibiotic is appropriate; so the collection of this data could be susceptible to frequent erroneous entries. The registrars should not be responsible for reviewing this indicator. This benchmark will go back to the KTR policy subcommittee for further review. However, for the time being, it will be deleted.

Dislocation – Accepted as written, no changes

Non operative management of low grade spleen injuries – Keep as written in the current benchmark report. The query will be changed to reflect an AIS of less than or equal to 3.

Hypovolemic – ACT approved the proposed change as recommended by policy group to exclude patients who are transferred within one hour.

Documentation – There was much discussion over procedures, times, and location of procedures. This benchmark will go back to the KTR policy subcommittee for review.

New indicators

Undertriage – The indicator should state adult patients. Cases will fall out if they are not transferred within the indicated time. It was put forward that the GCS <8 stipulation could be taken out because those cases should be sent to at least a level II trauma center for neurology. As discussed there are times when a patient may be impaired due to drugs or alcohol and have a GCS <8. Medical providers have to use their judgment in those cases. ACT decided to keep the GCS<8 stipulation for now.

Overtraige - The indicator should state within 24 hours, instead of “1 day,” for clarity. Discussion arose over how this data would be analyzed. The state does not have a linkage mechanism for patients in the trauma system; so the state would not be able to track and identify the offending facilities. A proposal was brought forward designing this indicator for Level 1 and 2 trauma centers. The centers would analyze the data and then contact the appropriate facilities as needed. The effectiveness of this approach was questioned by pointing out the inevitable political problems that would arise. A regional committee should be charged with reviewing cases and contacting offending hospitals in

order to establish a sense of equality. The ACT decided this indicator needed more review and discussion before implementation.

New variable

Mode of transport at discharge – This variable will only look at patients transferred to acute care facilities. The ACT recommended implementing this variable.

Board of EMS Report:

Robert Waller

The board has had several set-backs with legislative initiatives. The new EMS operational regulations were not passed, but they will be looked at again next year. Robert believes this sets the board back a year. There are currently 25 services using the prehospital data collection system. The KBEMS has purchased the hospital bridge EMS software and it has been implemented with those services who utilize the image trend prehospital data collection system. The KBEMS is taking a phased in approach to implementing the EMS electronic system and they expect to have all services up and running in two years. They are trying to incorporate a function into the bridge software that will send an email to a hospital when a run sheet is completed. They are also developing a plan to establish hospitals on the bridge as new EMS services are connected to the network. The PCR (patient care report) is the larger issue. Robert said we need to specify its purpose. Is it used for care or statistics? Most facilities want the run sheet when the patient is delivered to the facility. The current regulation mandates that EMS provide a PCR to the hospital within 24 hours. The problem encompasses both EMS and hospitals. Robert called for clarification on the type of training needed along with all the logistics involved in getting the PCR's to hospitals electronically. Robert declared the technology is available and ready, however, some challenges need addressed. James Pou said the technology exists that can automatically send PCR's to hospitals as soon as the EMS enters the data. This technology is utilized in other areas of the country. James reported that the state of North Carolina has separate vendors for EMS and trauma and they have been able to collaborate in developing an interface between the two systems. Robert reported that it was his impression that Image Trend and DI's technology did not work together. Robert addressed the question of how many individuals at a given facility will need passwords and ID's. Robert said the issue of individual passwords and IDs is a facility issue. The facility can choose to have a password for everyone or a general password and ID. Discussion arose over the timely manner for run sheets and when and how hospitals can get the run sheet from the database. Robert was asked when he expects the entire KEMIS process will be complete. Robert said he really cannot answer that question until all the services are up and running on the system. Robert continued to say that KEMIS is like a baby that needs nourishing and time to develop. Before the committee places expectations on the system, they must allow it to develop, as they allowed the trauma registry to develop. James explained that DI can and does provide an interface and adaptors to link with Image Trend's database. Robert said he needs an official letter from DI documenting that an interface can be developed.

**Regional Trauma Council Reports:
Northeast**

Dr. James Langabaugh

The Northeast has awarded funding to the Health Innovations Network of Kansas for TNCC. The deadline for PHTLS has been extended to May 15th. The Northeast is also providing scholarships for EMS medical director workshop scheduled on June 17th. Darlene Whitlock is on the planning committee for the Older Adult Fall Symposium on June 24th in Salina. The Northeast committee members have been participating in outreach programs by conducting teen driving awareness presentations around the region. The Northeast annual general meeting was held April 27th. Dr. Moncure was elected as the Vice-Chair Person. Dr. Longabaugh was elected as Chair Person.

North Central

Dr. Pamela Steinle

The North Central executive committee has been busy reviewing new applications for trauma education funding. A TNCC class was held in April, which was hosted by Mitchell County. The North Central region is also providing scholarships for the EMS Medical Director workshop on June 17th. Emma Doherty will be the North Central attendee for the Older Adult Fall Symposium planning committee. The North Central annual general membership meeting will be held on May 20th at the Salina Regional Health Center. Senator Janis Lee and Salina Fire and EMS are on the agenda. An EMD banquet was held in Beloit on February 17th, which was well attended. The North Central executive committee has scholarships available for emergency medical dispatch training for communication specialists in the region.

Northwest

Jeanette Shipley

Jeanette gave provided the update in the absence of Kim Nutting who had to leave early. The Northwest awarded PHTLS funding to Sheridan County EMS and TNCC funding to both Cheyenne County Hospital and Rush County Hospital. The RTTDC application deadline has been extended to June 30th. Hays Medical Center has an ATLS class scheduled in October. Carol Groen and Cheryl Goetz are both on the Older Adult Fall Prevention planning committee. The Northwest annual general membership meeting was held on May 6th. Dan Leong and Dave Sterbenz presented at the meeting. Three new members were elected into the executive committee at the meeting: Pam Tweedy, Kris Ochs, and Marcia Zillinger.

South Central

Kris Hill

The South Central executive committee will award trauma education funding at the June 25th executive meeting. The South Central will also look into granting scholarships for the EMS Medical Director workshop. The South Central committee conducted a teen driving awareness this spring to help mitigate the high number of motor vehicle crashes seen each year. The committee invited all the schools in the South Central region, with six schools participating. The program consisted of a pre- and post assessment. The school with the highest rate of students using their seat belts and the school rated as the most improved in using seat belts was awarded a laptop. Shelia Rupp is on the Older Adult Prevention Symposium planning Committee. The South Central annual general membership meeting was held on April 9th and was well attended. Four new members were elected into the executive committee: Nancy Zimmerman, Grant Helferich, Bob Hickman, and Dr. Tyson Blatchford.

Southeast**Chris Way**

Jeanette Shipley gave the update in Chris Way's absence. Labette Health held an RTTDC on April 14th. The Southeast committee will review and award funding for the trauma education application at the June 11th meeting. Susan McDaniel is on the Older Adult Fall Prevention Symposium planning committee. A special meeting has been scheduled for June 11th to approve the regional trauma plan updates. The Southeast annual general membership meeting will be held on September 3rd. Dr. Robert Dodson and Jim Murray are on the meeting agenda.

Southwest**Cathy Heikes**

The Southwest executive committee will review applications for trauma education funding during the June 17th meeting. The region has awarded two ATLS scholarships to Lane County and Kearny County. The Southwest has been participating in ITV trauma education, which has gone very well. The ITV trauma education series is scheduled the second Tuesday of every month for one hour (12pm-1pm). Both EMS and Nursing CEU's are offered for the ITV presentations. Jerry Jo Deckert will attend the Older Adult Fall Symposium planning committee. The Southwest annual general membership meeting will be held on June 17th at the Lee Richardson Zoo in Garden City. Bill Young and Senator Tim Huelskamp are on the meeting agenda.

Meeting Adjourn at 3:20pm

COURSE DESCRIPTION

Medical leadership skills needed in all trauma centers, including Level III & IV are best gained by sharing the experiences of others. This course is for current and aspiring Trauma Medical Directors who want to learn how to improve operations in their trauma center and exert control over their trauma surgical practices. The Faculty will focus on rural trauma care, deliver core principles for the leadership and business skills needed to succeed in our turbulent healthcare climate. Participants will act as adjunct faculty and enjoy a collaborative, participative and case-based learning environment. Each participant will leave with readily employable tactics to improve efficiency, fiscal performance and clinical management in their program.

The teaching modality features brief presentations of core principles followed by case discussions. Practical, immediately usable solutions to common problems experienced by all directors of Level III & IV trauma centers will be the outcome of this course. In addition, a compendium of currently used trauma protocols, standardized forms, and institutional policies from participating faculty will be available to participants at the completion of the course.

Audience

This course is intended for current or aspiring trauma center medical directors, trauma program managers and administration. Teaching methods will include didactic, slide presentations, case review and discussion.

Course Inclusion

NFTC retains rights to all course materials and intellectual property. The course is provided at a fixed cost to NFTC System Members only and includes:

- Course Brochure, Syllabi, Name Badges, Course Certificates, Registration and Evaluation Sheets
- Instructor Travel Expenses, Per Diem and Honorarium

Objectives

At the conclusion of this activity the participant should be able to

- Define the structure of a trauma service within a full service hospital
- Develop reasonable and achievable short-term and long-term goals for the trauma center
- Articulate an adequate plan for a designation/ verification visit
- Use the feedback from the designation/ verification process to improve the trauma center
- Provide examples for preparing staff and physicians for surveyors questions
- Develop a process that will allow the institution-specific guidelines to build buy-in of all trauma team members
- Define the importance and structure of a process improvement plan for the trauma program
- Design and implement an effective institution specific plan for their own trauma center
- Offer two cases where trauma PI demonstrated the strength of the trauma service
- Describe three essential criteria that the site surveyor will review in the PI program
- Provide 3 ways of maximizing clinical revenue within the rules of reimbursement
- Identify ways to improve documentation of clinical activities to enhance revenue
- Demonstrate effective communication and relations with specialists who are members of the trauma call roster

Rural Trauma Medical Director Course Agenda

First Day

- 10:00 Introduction to Rural Trauma Director Course: Concepts
10:20 EMS and ED Protocols and Practice Guidelines: Building Consensus and Buy-In
11:10 Building Your Trauma Administrative Team: Hospital CEO Expectations of the Trauma Medical Director
11:50 **Lunch**
1:00 Trauma Practice Management Billing: Structure & Strategies
2:30 **Break**
2:50 PI Overview: Using your Trauma Registry Data for Designation, Peer Review, PI and Management
4:00 What Makes a Great Trauma Director: Role Transition and Responsibilities
5:00 **Adjourn**

Second Day

- 8:00 Attaining and Maintaining Your Designation/Verification: Common Problems
9:00 Trauma Finance 101: How to Position Your Trauma Center for Economic Stability; & Surgeon Coverage and Call Panels: Creating Solutions
10:30 **Break**
10:45 Legislating Trauma Funding (Trust Funds, Auto No-fault, Other Sources)
11:30 Thrive in the Trauma Leader Role
12:00 Questions & Answers, Feedback, Take-home Lessons
12:30 **Adjourn**

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Description of Essential Criteria for Level IV Trauma Designation:

The following criteria are required for Designation as a Level IV Trauma Center:

- 1) Trauma team activation plan
- 2) Trauma team leader must be on call and available within 30 minutes and should have experience in resuscitation and care of trauma patients. The trauma team leader must be one of the following:
 - a. A physician who is current in advanced trauma life support
 - b. A physician assistant, whose supervising physician, has delegated to the physician assistant the authority to provide care to trauma patients and is current in advanced trauma life support.
 - c. A nurse practitioner whose scope of practice entails the care of trauma patients and is current in advanced trauma life support.
 - d. A registered nurse who is current in TNCC.
- 3) The following documents must be available:
 - a. A copy of the team leader call schedule
 - b. A copy of the team leader credentials. Team leader coverage shall be provided by a health care provider certified in advanced life support no less than 95% of the time.
- 4) Transfer / communication agreements
- 5) Equipment for resuscitation and life support of all ages must include:
 - a. Airway control and ventilation equipment, including laryngoscopes and endotracheal tubes of all sizes, including pediatrics, bag mask resuscitator, pocket masks and oxygen.
 - b. Pulse oximetry
 - c. End tidal Co2
 - d. Suction devices
 - e. Electrocardiograph, oscilloscope, and defibrillator
 - f. Standard intravenous fluids and administration devices, including large bore intravenous catheters
 - g. Sterile surgical sets for airway control, cricothyrotomy, vascular access and chest decompression
 - h. Gastric decompression
 - i. Drugs necessary for emergency care
 - j. Communication with emergency medical services vehicles
 - k. Spinal stabilization equipment
 - l. Thermal control equipment for patients
 - m. Pediatric Emergency tape

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- 6) Quality improvement programs to include:
 - a. Focused audit of selected filters
 - b. Trauma registry data reported at least quarterly to state database
 - c. Focused audit of all trauma deaths
 - d. Morbidity and mortality review to include case presentation with members of the health care team to improve trauma patient care.
 - e. All trauma team activations managed by a physician assistant or advanced nurse practitioner shall be reviewed by a supervisory physician within a week.

- 7) Trauma transfer protocol to include:
 - a. Triage decision scheme
 - b. Trauma transport plan
 - c. Immediate telephone contact with regional trauma center

DRAFT

**Advisory Committee on Trauma
Hospital Designation Subcommittee
Conference Call
Minutes of April 7, 2009 meeting**

Committee Members Present: Dr. Craig Concannon, Dr. Kris Canfield, Dr. Pam Steinle, Dr. Michael Machen, Dr. Paul Harrison, Les Lacy, Ron Bender, Dan Leong

Excused absence: Dr. James Longabaugh

Call to Order:

The meeting was called to order by Rosanne Rutkowski with brief review of the committee's task and review of the concept paper that was developed in 2005. The basic concept of the Level IV trauma facility is to stabilize and transfer as appropriate.

Dr. Canfield discussed the feasibility of Level IV (a) and Level IV (b) facilities to distinguish between those that have surgical capacity and those that do not.

In sparsely populated areas of the state where trauma resources are limited, the role of the rural hospital is critical to the care of the injured patient.

Review of Level IV trauma center criteria:

Trauma Team Activation:

The committee reviewed the proposed Level IV criteria. It was recommended that nurse with trauma nurse core course be added as a possible team leader.

Transfer Agreements:

There was considerable discussion regarding transfer agreements. Ron Bender and Dr. Steinle both felt that transfer agreements serve little purpose and suggested something more practical be developed. Les Lacy recommended a document similar to what Hays Medical Center has developed with their network hospitals. As rural facilities often transfer to more than one facility depending upon what the needs are of the patient, how many transfer agreements would be practical? It was suggested that facilities have transfer agreements with those facilities in which they send 80% or more of their patients. Another option might be to require no more than 5 transfer agreements. Since the purpose of transfer agreements is to increase communication between transferring and receiving facilities it was suggested that the transfer agreements be more directed towards communication standards. It was recommended that the hospital association help develop a template for transfer/communication standards that might serve as a "blanket transfer agreement". One purpose of the transfer agreements is to help facilitate discussions between facilities regarding specific patient care for quality improvement. Rosanne will follow up with Hays Medical Center to obtain a copy of their hospital network agreement. The committee agreed to revisit the issue after more information had been gathered.

DRAFT

Equipment:

The committee discussed the possible need to be more specific for certain items such as drugs and equipment for stabilization and thermal control. It was recommended that the list as provided should be adequate. It was recommended that Broselow be changed to be less brand specific.

Quality improvement:

Ron Bender recommended that M & M reviews should include the prehospital group. It was recommended that (d) be changed to include health care team. The committee discussed feasibility of all trauma codes being reviewed with 48 hours. The committee felt that reviews could be completed within a week. It was also suggested that "trauma codes" be clarified.

Trauma Transfer Protocols:

It was recommended that the call schedule be moved to section #2.

Other Discussion:

The question was asked about those times when ED coverage is provided by physicians that may not be current in ATLS certification. Does this mean that a facility could not be certified as a Level IV facility or would lose their certification? The ACS makes provisions for those times that a hospital needs to go on diversion. Currently a designated trauma hospital can not be on diversion more than 5% of the time. The committee discussed a similar concept for ATLS physician coverage. It was recommended ED coverage by a non- ATLS certified physician should not exceed 5% of the time.

Recommendations:

The recommended changes will be made and the draft will be presented at the next ACT meeting on May 13th. The committee will reconvene to discuss the transfer agreements. The next step is to review process for Level IV designation.

Committee adjourned at 1:00pm.

Transfer Agreement Example

This agreement is made and entered into by and between YOUR FACILITY NAME, CITY, STATE, a nonprofit corporation (hereinafter called "YOUR FACILITY") and RECEIVING FACILITY NAME, CITY, STATE, a nonprofit corporation, (hereinafter called "RECEIVING FACILITY"):

WHEREAS, both YOUR FACILITY and RECEIVING FACILITY desire, by both means of this Agreement, to assist physicians and the parties hereto in the treatment of trauma patients (e.g., burn, traumatic brain injuries, spinal cord injuries, pediatrics); and whereas the parties specifically wish to facilitate: (a) the timely transfer of patients and information necessary or useful in the care and treatment of trauma patients transferred, (b) the continuity of the care and treatment appropriate to the needs of trauma patients, and (c) the utilization of knowledge and other resources of both facilities in a coordinated and cooperative manner to improve the professional health care of trauma patients.

IT IS, THEREFORE, AGREED by and between the parties as follows:

1. PATIENT TRANSFER: The need for transfer of a patient from YOUR FACILITY to RECEIVING FACILITY shall be determined and recommended by the patient's attending physician in such physician's own medical judgment. When a transfer is recommended as medically appropriate, a trauma patient at YOUR FACILITY shall be transferred and admitted to RECEIVING FACILITY as promptly as possible under the circumstances, provided that beds and other appropriate resources are available. Acceptance of the patient by RECEIVING FACILITY will be made pursuant to admission policies and procedures of RECEIVING FACILITY.
2. YOUR FACILITY agrees that it shall:
 - a. Notify RECEIVING FACILITY as far in advance as possible of transfer of a trauma patient.
 - b. Transfer to RECEIVING FACILITY the personal effects, including money and valuables and information relating to same.
 - c. Make every effort within its resources to stabilize the patient to avoid all immediate threats to life and limbs. If stabilization is not possible, YOUR FACILITY shall either establish that the transfer is the result of an informed written request of the patient or his or her surrogate or shall have obtained a written certification from a physician or other qualified medical person in consultation with a physician that the medical benefits expected from the transfer outweigh the increased risk of transfer.
 - d. Affect the transfer to RECEIVING FACILITY through qualified personnel and appropriate transportation equipment, including the use of necessary and medically appropriate life support measures.
3. YOUR FACILITY agrees to transmit with each patient at the time of transfer, or in the case of emergency, as promptly as possible thereafter, pertinent medical information and records necessary to continue the patient's treatment and to provide identifying and other information.
4. RECEIVING FACILITY agrees to state where the patient is to be delivered and agrees to provide information about the type of resources it has available.

5. Bills incurred with respect to services preformed by either party to the Agreement shall be collected by the party rendering such services directly from the patient, third party, and neither party shall have any liability to the other for such charges.
6. This agreement shall be effective from the date of execution and shall continue in effect indefinitely. Either party may terminate this agreement on thirty (30) days notice in writing to the other party. If either party shall have its license to operate revoked by the state, this Agreement shall terminate on the date such revocation becomes effective.
7. Each party to the Agreement shall be responsible for its own acts and omissions and those of their employees and contractors and shall not be responsible for the acts and omissions of the other institutions.
8. Nothing in this Agreement shall be construed as limiting the right of either to affiliate or contract with any hospital or nursing home on either a limited or general basis while this agreement is in effect.
9. Neither party shall use the name of the other in any promotional or advertising material unless review and written approval of the intended use shall first be obtained from the party whose name is to be used.
10. This agreement shall be governed by the laws of the State of ^{Kansas} ~~Minnesota~~. Both parties agree to comply with the Emergency Medical Treatment and Active Labor Act of 1986, and the Health Insurance Portability and Accountability Act of 1996 and the rules now and hereafter promulgated thereunder.
11. This Agreement may be modified or amended from time to time by mutual agreement of the parties, and any such modification or amendment shall be attached to and become part of the Agreement.

YOUR FACILITY

SIGNED BY:

DATE:

CEO; trauma medical director

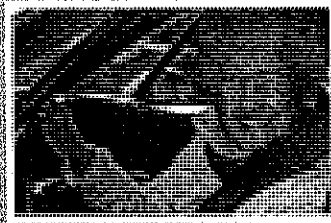
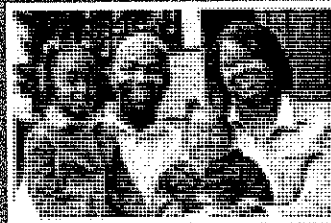
RECEIVING FACILITY

SIGNED BY:

DATE:

CEO; trauma medical director

Injury & Violence Prevention are Essential to U.S. Health Reform



INJURIES ARE A PUBLIC HEALTH PROBLEM

Preventable injuries exact a heavy burden on Americans through premature deaths and disabilities, pain and suffering, health care costs, rehabilitation costs, disruption of quality of life for families, and disruption of productivity for employers.

Efforts to reform the United States health system must address injuries and violence to help ensure the public's health and safety, as well as reduce long-term health care costs.

Injuries and violence are significant public health and safety problems. They are:

- The leading causes of death of Americans ages one through 44.^{1,2}
- The most common cause of premature deaths before age 65, accounting for 30% of years of potential life lost;¹
- The cause of nearly one-third of all emergency department visits (29 million visits);³ and
- Major causes of hospitalization, disability, and medical care costs for all age groups.

Injuries cause unintentional or intentional damage to the body due to environmental and behavioral factors such as motor vehicle crashes, falls, sports injuries, occupational injuries, poisonings/drug overdoses, burns, drownings, gunshot wounds, suicides and suicide attempts, assaults, and homicides.^{4,5}

THE COST OF INJURIES

In 2000, Americans suffered injuries resulting in over \$117 billion in medical costs and an estimated \$289 billion in productivity losses.⁶ Long-term disabilities from fall-related hip fractures and brain, spinal cord, and burn injuries frequently result in high costs for continued, long-term care.

For persons age 65 and older, injuries – especially fractures – make up a substantial proportion of Medicare expenditures. As the U.S.

population continues to age, this problem will create an even greater burden on the Medicare system. Unfortunately, however, investments in preventing injuries and violence are not nearly commensurate with the extent of the problem.

INJURIES AND CHRONIC DISEASE ARE LINKED

There is great concern about the rising epidemic of childhood obesity. Interventions aimed at increasing physical activity and improving childhood nutrition are also an ideal opportunity to emphasize the importance of safety. The National Safe Routes to School program not only encourages families to walk or bike to school, but also assesses the safety of the environment surrounding the school to prevent pedestrian and bicyclist injuries. In addition, school policies requiring the use of bicycle helmets compliment the positive health effects of increased physical activity without creating undue risk for injury.

Research has highlighted the long-term effects of injuries, particularly child maltreatment, on overall health. Approximately one in seven children between the ages of two and 17 in the United States are victims of abuse and neglect. These children are at increased risk of chronic diseases due to the effects of extreme stress on the nervous and immune systems. This can lead to increased risk for heart, lung, and liver disease in adulthood, as well as unhealthy behaviors including risky sexual behavior, smoking, illicit drug use and alcohol abuse.

There are other linkages between injury and chronic disease later in life. Older adults with osteoporosis are more likely to break a bone after suffering even a minor fall. According to a 2004 report of the Surgeon General there are more than 1.5 million osteoporotic-related fractures each year, and this rate is expected to double or triple by the year 2020.⁷ Nevertheless, community-based exercise programs have proven to be effective in reducing the risk of falls among adults over age 65.



PREVENTION IS EFFECTIVE AND SAVES MONEY

When evidence-based prevention strategies are implemented, the estimated return on investment is substantial. For instance, home visitation programs have been demonstrated to be particularly effective in reducing child abuse and injury, and provide a cost savings of nearly \$2.88 to \$5.70 per dollar spent.⁸ Other proven cost-effective injury prevention strategies include booster seats for children, bicycle and motorcycle helmets, smoke alarms, and the enforcement of laws associated with preventing drunk driving, maintaining curfews for teen drivers, and wearing seat belts (Figure 1).

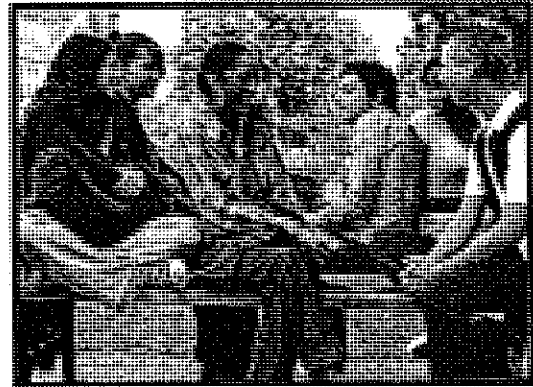
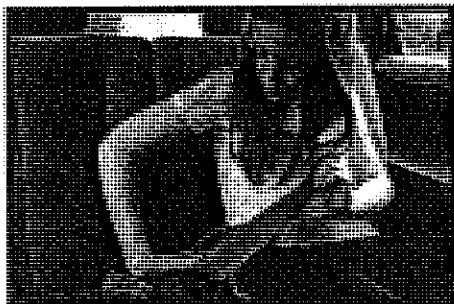


Figure 1. Cost-Effective Injury Prevention Strategies

Intervention	Cost per Unit	Return on Investment*
Child Car Seat	\$46/seat	\$1,900
Booster Seat	\$31/seat	\$2,200
Child Bicycle Helmet	\$11/helmet	\$570
Motorcycle Helmets	\$240/helmet	\$4,300
Helmet Laws	\$1,400	\$4,300
Sobriety Checkpoints	\$9,600/checkpoint	\$73,000
Midnight Curfew & Provisional Licensing for Teen Drivers	\$74/driver	\$600
Zero Tolerance for Drivers < 21 years	\$34/driver	\$850
Upgrade Secondary Belt Law to Primary	\$300/new user	\$5,400
Enhanced Belt Law Enforcement	\$280/new user	\$5,400
Smoke Alarm Purchases	\$33/smoke alarm	\$940
Smoke Alarm Laws	\$36/user	\$940
Fall Prevention for High-Risk Elderly	\$1,250/person	\$10,800

* Return on investment is defined as the amount injury prevention interventions saved by preventing injuries, including medical costs, other resource costs (police, fire services, property damages, etc.), work loss, and quality of life costs. These benefits are calculated in 2004 dollars.



THE LEADERSHIP ROLE OF STATE PUBLIC HEALTH

State public health departments bring significant leadership to reduce injuries and injury-related health care costs by:

- **Informing the development of public policies through data and evaluation.** Examples of successful policy changes include graduated drivers licensing, institution of speed limits and seat belt laws, passage and enforcement of building codes to prevent burns from hot water, and smoke and carbon monoxide detector laws;
- **Designing, implementing, and evaluating injury and violence prevention programs in cooperation with other agencies and organizations.** One example is the successful relationship that has been developed between firefighters, churches, and other organizations in installing smoke alarms and providing fire safety education in high-risk communities;
- **Collaborating with partners in health care and the community.** State programs develop partnerships with a variety of organizations and individuals, including chronic disease prevention and acute care professionals, experts working in transportation and law enforcement, and home environment planners. These diverse and effective partnerships help to provide focus and direction, coordinate and find common ground in the development of programs, and make the best use of limited resources;
- **Collecting and analyzing injury and violence data from a variety of sources to identify high-risk groups and geographic locations.** These efforts ensure that resources are efficiently directed; and
- **Providing technical support and training to injury prevention partners.**



INJURY PREVENTION AND HEALTH REFORM

Investments in prevention and public health can result in significant improvements in health status by helping to reduce premature deaths in children and younger adults, disabilities, and costs. Eight in ten Americans say that it is important for the United States to invest in new ways to prevent injuries.⁷

We encourage Congress and President Obama's Administration to adopt comprehensive health reform proposals that include the prevention of injuries and violence while controlling costs by:

1. Accelerating the Diffusion of Proven, Cost-Effective Interventions

Many proven, cost-effective injury prevention programs and policies are already in use in various states. These interventions should be consistently implemented throughout the nation immediately.

2. Integrating Injury and Violence Prevention Efforts

- Work with primary care providers and acute care hospitals to improve the documentation of the causes and locations of injuries.
- Establish injury prevention tools for health care providers to work with patients at "teachable moments."
- Promote collaborative relationships between clinicians, community groups, and public health professionals (e.g., professionals in injury prevention, behavioral health, etc).
- Foster program collaboration to prevent injuries in persons who have chronic diseases, including heightened falls prevention efforts to assist persons with osteoarthritis, visual impairment, and neurological problems; suicide prevention programs for individuals with mental health issues; and motor vehicle and burn injury prevention for those with dementia.
- Work with transportation planners to develop policies to promote wider diversity in available transportation options and encourage walking and bicycling to promote exercise to reduce obesity (e.g., Safe Routes to School).

3. Ensuring Investments in and the Standardization of Electronic Information Technology Systems

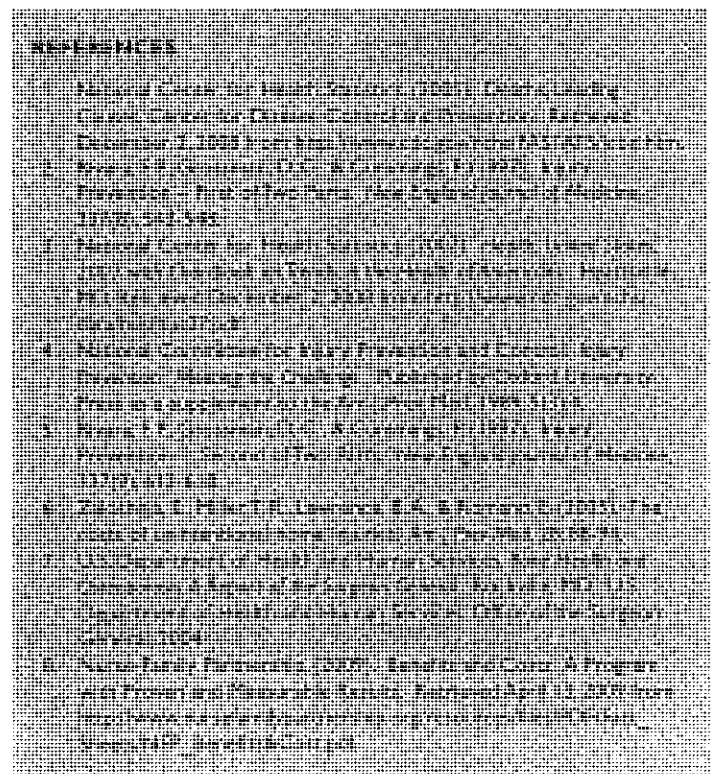
- Involve injury surveillance experts as partners in the development of standardized health and medical care information technology systems, including the electronic medical record (EMR).
- Establish a minimum set of standardized injury data elements for medical records.
- Include sufficient information for designating injury causes within electronic medical records.
- Train health care professionals to document key injury circumstance data.
- Require all health care providers to submit data on their services to local, state, and national health data repositories so that service demand can be better understood.

4. Ensuring Investments in Funding Streams for Existing Injury and Violence Prevention Programs and for Research and Development of New, Evidence-Based Injury Prevention Interventions

- Explore insurance coverage to subsidize the purchase of child car safety seats.
- Investigate opportunities to link safety products to the sale and distribution of sports equipment (e.g., helmets with bicycles and ski equipment, arm and knee pads with inline skates, etc).
- Fund after-school programs to give adolescents a safe place to socialize and interact with their peers.
- Support research institutions and community organizations that develop and pilot new prevention approaches when proven ones are not available.

Preventable injuries represent a serious burden in the United States. However, the causes of injuries are grounded in the places where we live, work, travel, and play – our homes, workplaces, schools, recreational venues, and transportation systems. As such, initiatives to prevent injuries must be designed by people and organizations within our communities. These parties must be continually involved in the health reform process to ensure the development of healthy environments that promote safety and prevent injuries.

Concerted efforts to reform the health care system in our nation must address injuries and violence in order to improve health, increase public safety, and reduce health care costs.



Rosanne Rutkowski

From: Lori Haskett
Sent: Thursday, May 07, 2009 11:51 AM
To: Rosanne Rutkowski
Cc: Marilee Brown
Subject: RE: Kansas Team application?

REMEMBERING WHEN CONFERENCE

Remembering When™
A Fire and Fall Prevention Program for Older Adults
Conference
November 15–17, 2009
Hyatt Regency, Boston, MA

Reaching Older Adults through Home Visits

NFPA is committed to helping communities reduce fire and fall injuries and deaths among older adults. Since 1999, communities throughout North America have implemented the Remembering When program, reaching thousands of older adults.

For the third year, NFPA will select representatives from up to 40 communities to attend the Remembering When Conference, which will emphasize reaching older adults through home visits, to ensure that the program reaches the most vulnerable of older adults. We are asking fire departments to partner with an agency whose main outreach to older adults is through home visits. Such agencies may include visiting nurse associations, home health care agencies, church outreach groups, and other organizations.

[Download an application](#) (PDF, 27 KB). Applications must be received by August 3, 2009.

Here's what we're looking for from local communities:

- A partnership to support the implementation of Remembering When at the local level.
- A two-person team that includes the fire department and an agency serving older adults in the community through home visits, such as visiting nurses associations, home health care agencies, places of worship, or other groups. The partner agency must already have a home visit mechanism in place since it will conduct the home visits. After training in Boston, the fire department will train home visitors on the Remembering When program.
- Partners must have the authority, commitment, and ability to oversee local implementation of the Remembering When program.

Here's what you'll receive:

Each Remembering When Conference Award is valued at more than \$4,000 and includes:

- A training workshop in Boston on November 15 through 17, 2009 for each two-member

team. NFPA will cover the expense of travel, hotel, and group meals for each team. Attendance at all sessions is mandatory. All events and meals are funded for invited attendees only.

- One Remembering When: Fire and Falls Prevention program curriculum for each team member.
- One hundred "How to Prevent Fires" brochures for distribution to older adults.
- One hundred "How to Prevent Falls" brochures for distribution to older adults.

Team Requirements

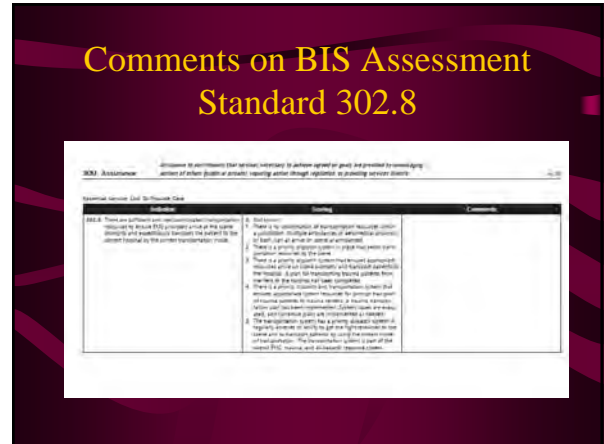
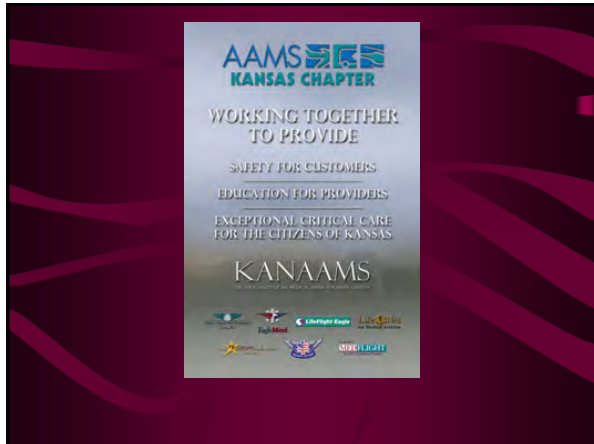
After the conference, each team will take what it's learned back to its community. Specifically, each team will do the following:

- The fire department will conduct a minimum of five group presentations.
- The fire department will conduct at least two train-the-trainer sessions for the partner agency home visitors.
- The home visitor agency will conduct at least 25 home visits.
- The home visitor agency will integrate agreed-upon materials from the Remembering When program into its home visits.
- Each team will submit a final report to NFPA, including a summary of how the agency integrated Remembering When materials into its home visits to all older adults served.

Official Rules

- Download an application (PDF, 27 KB). Applications must be typed, single-sided, and double-spaced. Submit one copy of the application no later than the close of business on August 3, 2009. The judges' decision is final and NFPA reserves the right not to grant all 40 awards.
- Applications submitted become the property of NFPA and cannot be returned.
- NFPA will notify award recipients on or before September 4, 2009.
- Mail or fax your completed application to:
2009 Remembering When Award
Att: Lynne Winnett
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-9101
FAX 617-984-7222

Questions? Call or e-mail Sharon Gamache, director of High-Risk Outreach Programs, +1 617 984-7286.



BIS Standard 302.8 Comments

Mean Score = 2.25 Moved to 1

24 responses of 30 participants

“In certain areas, the correct hospital is the closest hospital”

“Priority” would mean sorting

In counties without 9-1-1, access is not a priority – by their choice.”

302.8: There are sufficient and well-coordinated transportation resources to ensure EMS providers arrive at the scene promptly and expeditiously transport the patient to the correct hospital by the correct transportation mode.

Current Score: (1)

There is no coordination of transportation resources within a jurisdiction. Multiple ambulances or aeromedical providers, or both, can all arrive on scene unannounced.

Target Score (2) Target Date: March, 2010

There is a priority dispatch system in place that sends transportation resources to the scene.

Other comparisons

302.5 - Retrospective medical oversight of the EMS system for trauma triage, communications, treatment and transport is closely coordinated with PI processes of the trauma system

Mean Score = 2.15

302.6* - System wide mandatory pre-hospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries.

Mean Score - 1.7 Assigned - 1.25

Where we fit ?

HEMS is one link of the response chain that starts with public call

Available to the trauma system 24 / 7, when requested

Serve a specialized treatment role

A willing and collaborative participant for improvement

Helicopter Early Launch Process Guidelines
RAC Air Ambulance Subcommittee

Definition: Helicopter Early Launch Process (HELFP) is the request for an air ambulance response prior to EMS arrival on scene.

1. The Helicopter Early Launch Process should be considered when EMS is greater than 20 minutes from the ill or injured patient and one of the following criteria is met:

A. Trauma Patient with apparent significant injury and with the following mechanism of condition:

1. Motor vehicle crash (significant examples: ejection, rollover, fatality, in some vehicles)
2. Pedestrian struck by a motor vehicle
3. Motorcycle or ATV crash
4. Head injury with decreased level of consciousness
5. New paralysis
6. Penetrating trauma of chest, abdomen, head or groin
7. Amputation or degloving injury
8. Logging/Felling/historical accidents
9. Drowning/Near Drowning
10. Pregnant Patient

B. Burn Patient

1. Greater than 20% body surface area burned
2. Inhalation injury (closed space – facial burns)

C. Medical Patient

I. Severe Chest Pain (all or suspected STEMI (s-T elevation myocardial infarct or life threatening heart attack))

1. Uncontrolled bleeding
2. Poisoning/overdose, especially with decreased level of consciousness
3. Respiratory distress
4. Anaphylaxis/severe allergic reaction
5. Significant mental status change
6. Continuous seizure
7. Suspected Stroke

II. An air ambulance should be considered when it will meet the Time Critical Diagnostic patient on arriving at the appropriate facility during the time window specific to the disease.

III. Local HELP policies and procedures should be established with the approval of the ground emergency medical response agencies and consistent with existing Federal Statute, Chapter 19, Emergency Services Section 190.134.

Note: These guidelines were developed by the Air Ambulance Subcommittee to be used by agencies that incorporate early launch into their protocols.

Safety in KanAAMS

Active Safety Committee
 Weatherturndown.com

“Bird’s eye” view of Kansas Landing Zones and Helipads
 Common air to air frequency algorithm
 Collaborative work with Kansas BEMS on regulations
 Helicopter Shopping concerns & education

EMResource Report 2/11/09-5/11/09

Status Type	Resource Type	Status	Total Hours
ED Status	North Central	Open	28334.1
ED Status	North Central	Closed to Ambulances	0
ED Status	North Central	Out of Service	0.23
ED Status	North Central	Closed to Trauma	0
ED Status	North Central	Air Trauma Diversion	4.76
ED Status	North Central	Caution	35.76
ED Status	North Central	Trauma Diversion	4.16
ED Status	North Central	Trauma Only	0
ED Status	North East	Open	54317.91
ED Status	North East	Closed to Ambulances	16.3
ED Status	North East	Out of Service	137.4
ED Status	North East	Closed to Trauma	0
ED Status	North East	Air Trauma Diversion	0
ED Status	North East	Caution	102.45
ED Status	North East	Trauma Diversion	0.97
ED Status	North East	Trauma Only	0
ED Status	North West	Open	39291.73
ED Status	North West	Closed to Ambulances	0
ED Status	North West	Out of Service	0
ED Status	North West	Closed to Trauma	0
ED Status	North West	Air Trauma Diversion	1.02
ED Status	North West	Caution	0.01
ED Status	North West	Trauma Diversion	0.21
ED Status	North West	Trauma Only	1.05
ED Status	South Central	Open	71806.54
ED Status	South Central	Closed to Ambulances	117.72
ED Status	South Central	Out of Service	0.02
ED Status	South Central	Closed to Trauma	0
ED Status	South Central	Air Trauma Diversion	1.05
ED Status	South Central	Caution	65.81
ED Status	South Central	Trauma Diversion	18.83
ED Status	South Central	Trauma Only	29.06
ED Status	South East	Open	30511.88
ED Status	South East	Closed to Ambulances	0.01
ED Status	South East	Out of Service	35.39
ED Status	South East	Closed to Trauma	0
ED Status	South East	Air Trauma Diversion	0
ED Status	South East	Caution	12.46
ED Status	South East	Trauma Diversion	2.27
ED Status	South East	Trauma Only	0
ED Status	South West	Open	39288.22
ED Status	South West	Closed to Ambulances	0
ED Status	South West	Out of Service	0.03
ED Status	South West	Closed to Trauma	0
ED Status	South West	Air Trauma Diversion	0
ED Status	South West	Caution	5.77
ED Status	South West	Trauma Diversion	0
ED Status	South West	Trauma Only	0

KC Hospitals (MO included)

Aggregate Status Summary

Status Type	Resource Type	Status	Total Hours
Diversion Status	Hospital ED	Open	67823.83
Diversion Status	Hospital ED	Trauma Diversion	942.06
Diversion Status	Hospital ED	Closed To Ambulance	1099.67
Diversion Status	Hospital ED	Out of Service	24.98
Diversion Status	Hospital ED	Forced Open	6.98
Diversion Status	Hospital ED	TRAUMA ONLY	641.85

The Problem?

- " Doesn't it make you worried that doctors call it practicing medicine?"
George Carlin

Improving Pediatric Trauma Care: A Comprehensive Simulation-Based Program NIH proposal

Fast facts



- Trauma leading cause of death for children
- 78% are cared for in community hospitals
- Little pediatric trauma education provided.

More Facts-Children's Mercy



- Level 1 pediatric trauma center
- 25 years of experience with trauma training
- Resident peds trauma course
- Trauma database of pediatric care



What has changed...



- CEPR- Mobile pediatric High fidelity simulation.
- Hands on experiential learning and team training.
- New relationship with Kansas AHEC program.

Goal of program

- To improve community based pediatric trauma assessment and skill performance across disciplines and practice settings in Kansas and Nebraska.

Program Plan-4 phases

- Phase 1= Field assessment
- Phase 2= Education
- Phase 3= In situ practice/assessment
- Phase 4= Evaluation/follow up

Phase 1-Field assessment



- Not a one size fits all model
- Focus groups to understand barriers and opportunities
- Preparedness assessment

Phase 2-Education

- Base line assessment of knowledge, skills, and attitudes.
- Small group problems to solve delivered on dvd or online follow by educational module.
- Include evidence-based trauma course

Phase 3-In Situ assessment

- Includes on site simulated scenarios with video debriefing.
- If challenges identified then remediation or repetition until team members are satisfied.

Phase 4-Outcome Measures

- Define and validate pediatric specific trauma care performance assessment tools.
- Examine trauma data for improvements in care.

We need your help

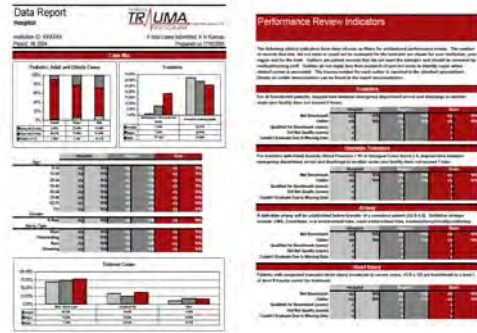
- Is this a program that as a council you could endorse?
- Do you have suggestions to improve implementation?
- Does this fit with the goals of the state of Kansas?
- Other input or concerns?

Kansas Data Report



Recommendations from the KTR subcommittee

Our Vision - Healthy Kansas living in safe and sustainable environments



Our Vision - Healthy Kansas living in safe and sustainable environments



Transfer Flow

- For all transferred patients, elapsed time between emergency department arrival and discharge to another acute care facility does not exceed 6 hours.
- Issues:
 - This indicator captures too many cases that are not transfers to acute care facility for definitive care.
 - Data element (discharge to acute care facility) in Collector does not adequately measure discharge to acute care facility for definitive care.
- Proposed solutions:

Our Vision - Healthy Kansas living in safe and sustainable environments



Transfer Flow

- Proposed Solutions
 - Modify the option “other acute care facility” in the variable (field), “discharge to” to include an option for discharge to acute care facility for definitive care

Our Vision - Healthy Kansas living in safe and sustainable environments



Transfer Flow Discharge to

- | | |
|--|---|
| <p><u>Options currently available</u></p> <ul style="list-style-type: none"> • Dead on arrival • Death in ED • Death in Hospital • Home • Home with health care • Mental Health Facility • Other Acute Care Facility • Skilled Nursing Facility • Jail or Prison • Nursing Home • Rehabilitation Center • Speciality Hospital • Against Medical Advice • Other • Non-medical transfer • Hospice • ? Unknown | <p><u>Recommended changes</u></p> <ul style="list-style-type: none"> • Other Acute Care Facility for definitive care • Other Acute Care Facility for non-definitive care • Other Acute Care Facility – unknown whether for definitive care or not. |
|--|---|

Our Vision - Healthy Kansas living in safe and sustainable environments



Unstable Transfers

- For transfers with Initial Systolic Blood Pressure < 90 or Glasgow Coma Scale ≤ 8, elapsed time between emergency department arrival and discharge to another acute care facility does not exceed 1 hour.
- Proposed change: change 1 hour to 2 hours
 - For transfers with Initial Systolic Blood Pressure < 90 or GCS < 8, elapsed time between emergency department arrival and discharge to another acute care facility does not exceed 2 hours.

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Airway

- A definitive airway will be established before transfer of a comatose patient (GCS \leq 8). Definitive airways include: LMA, Combitube, oral endotracheal tube, nasal endotracheal tube, tracheostomy/cricothyroidotomy.
- No proposed change

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Head Injury

- Patients with suspected traumatic brain injury (moderate to severe coma, GCS \leq 12) are transferred to a level I or level II trauma center for treatment.
- No proposed change

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Chest Tube

- Patients with pneumothorax (or hemopneumothorax) receive a chest tube before transfer to another acute care facility.
- No proposed change

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On time

- Trauma surgeon response time is timely.
- Proposed change
 - Delete indicator due to subjective nature of variable

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Open Fractures

- Open fractures undergo debridement within 8 hours of ED arrival. Excludes patients who were discharged or who died within 8 hours of ED arrival.
- Proposed changes:
 - Change ED arrival to time of injury
 - Modify debridement to include irrigation
 - Change all open fractures to only long bone fractures – femur, tibia, fibula, humerus, radius, and ulna
 - Change 8 hours to 6 hours

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Open Fractures Recommended change

- Open long bone fractures undergo irrigation within 6 hours from the time of injury. Excludes patients who died within 6 hours of ED arrival.

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Dislocation

- Patients with hip, knee, shoulder, elbow or ankle dislocation receive reduction within 6 hours of ED arrival. Excludes patients who died or were discharged within 6 hours of ED arrival.
- No proposed change

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Non-operative Management of Low-Grade Spleen Injuries

- Patients with low-grade splenic laceration, AIS ≤ 3 , do not undergo splenectomy.
- Proposed change: (Include only AIS 1 or 2 severity)
- Patients with low-grade splenic laceration, AIS 1 or 2, do not undergo splenectomy.

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Hypovolemic

- Patients with a penetrating abdominal injury and SBP ≤ 90 mmHG undergo laparotomy within 60 minutes of ED arrival.
- Proposed change
 - Exclude patients who are transferred within 1 hour

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Documentation

- The following clinical measures will be documented in the EMS record.
 - Injury Date & Time
- The following clinical measures will be documented in the ED.
 - Glasgow Coma Scale
 - ED Arrival Date & Time
 - Injury Date & Time
 - Respiratory Rate
 - Systolic Blood Pressure
 - Heart Rate
 - Temperature
 - Procedure Start Time (for any benchmark procedure)
 - Discharge Date and Time

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Documentation

- Benchmark procedures
 - definitive airway
 - chest tube
 - Irrigation or debridement of fracture
 - reduction of dislocation
 - splenectomy
 - laparotomy

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Proposed New Indicator

- **Undertriage**
 - Patients with initial ED systolic blood pressure <90 or GCS ≤ 8 are transferred to a Level I or Level II trauma center.
- **Overtriage**
 - Patients transferred to a Level I or Level II trauma center from an acute care facility are not discharged within 1 days of ED arrival.

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Proposed New variable

- Mode of transport at discharge
 - Issue:
 - Hospitals can not collect information about inter-facility transport from their hospital with core or comprehensive data
 - Proposed: 5 new fields to be activated if patient transferred to another acute care hospital

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Proposed New variables

- Discharge transport mode
 - Ground Ambulance
 - Helicopter Ambulance
 - Fixed-wing ambulance
 - Private/public vehicle
 - Police
 - Other
- Date transport called
- Time transport called
- Date transport arrived at hospital
- Time transport arrived at hospital

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Recommendations from the Kansas Trauma Registry Subcommittee April, 2009

AIS 2005

Proposed recommendation: The trauma registry currently is using AIS 98 to describe injuries and to code injury severity. Begin using AIS 2005 beginning on January 1, 2010.

Data Report Indicators

Purpose of Indicators

1. Tool for comparing a hospital's performance on several standard trauma care indicators with the region and state.
2. Outliers are patient records that do not meet the indicator. These outliers are identified on the confidential data report so that the hospital can review the cases. They do not imply less than standard of care.

Since these indicators are filters, there will be some false positives. The intent is to develop indicators that capture potential issues without having too many cases that do not warrant review.

1. Transfer Flow

For all transferred patients, elapsed time between emergency department arrival and discharge to another acute care facility does not exceed 6 hours.

Issues:

- 1) This indicator captures too many cases that are not transfers to acute care facility for *definitive care*.
- 2) Data element (discharge to acute care facility) in Collector does not adequately measure discharge to acute care facility for definitive care.

Recommended changes:

- 1) Modify the option "other acute care facility" in the variable (field), *discharge to*.

Discharge to	
Options currently available	Recommended changes to options
01. Dead on arrival 02. Death in ED 03. Death in Hospital 04. Home 05. Home with health care 06. Mental Health Facility 07. Other Acute Care Facility 08. Skilled Nursing Facility 09. Jail or Prison 10. Nursing Home 11. Rehabilitation Center 12. Specialty Hospital 13. Against Medical Advice 14. Other 15. Non-medical transfer 20. Hospice ? Unknown	01. Dead on arrival 02. Death in ED 03. Death in Hospital 04. Home 05. Home with health care 06. Mental Health Facility 07. Other Acute Care Facility for definitive care 08. Skilled Nursing Facility 09. Jail or Prison 10. Nursing Home 11. Rehabilitation Center 12. Specialty Hospital 13. Against Medical Advice 14. Other 15. Non-medical transfer 20. Hospice 21. Other Acute Care Facility for non-definitive care 22. Other Acute Care Facility – unknown whether for definitive care or not. ? Unknown

2. Unstable transfers

For transfers with Initial Systolic Blood Pressure < 90 or Glasgow Coma Scale ≤ 8, elapsed time between emergency department arrival and discharge to another acute care facility does not exceed 1 hour.

Recommended changes: (change 1 hour to 2 hours)

For transfers with Initial Systolic Blood Pressure < 90, elapsed time between emergency department arrival and discharge to another acute care facility does not exceed 2 hours.

3. Airway

A definitive airway will be established before transfer of a comatose patient (GCS ≤ 8). Definitive airways include: LMA, Combitube, oral endotracheal tube, nasal endotracheal tube, tracheostomy/cricothyroidotomy.

No proposed change

4. **Head Injury**

Patients with suspected traumatic brain injury (moderate to severe coma, GCS \leq 12) are transferred to a level I or level II trauma center for treatment.

No proposed change

5. **Chest tube**

Patients with pneumothorax (or hemopneumothorax) receive a chest tube before transfer to another acute care facility.

No proposed change

6. **On time**

Trauma surgeon response time is timely.

Proposed recommendation

Delete this indicator due to the subjective nature of the variable.

7. **Open fractures**

Open fractures undergo debridement within 8 hours of ED arrival. Excludes patients who were discharged or who died within 8 hours of ED arrival.

Recommended changes: 1) ED arrival to time of injury, 2) change debridement to irrigation, 3) change all open fractures to only long bone fractures – femur, tibia, fibula, humerus, radius, ulna; 4) 8 hours to 6 hours

Open long bone fractures undergo irrigation within 6 hours from the time of injury. Excludes patients who died within 6 hours of ED arrival.

8. **Dislocation**

Patients with hip, knee, shoulder, elbow or ankle dislocation receive reduction within 6 hours of ED arrival. Excludes patients who died or were discharged within 6 hours of ED arrival.

No proposed change

9. **Non-Operative Management of Low-Grade Spleen Injuries.**

Patients with low-grade splenic laceration, AIS \leq 3, do not undergo splenectomy.

Edit description to include only AIS 1 or 2 severity to match current query.

10. Hypovolemic

Patients with a penetrating abdominal injury and SBP \leq 90 mmHG undergo laparotomy within 60 minutes of ED arrival.

Recommended changes: Exclude patients who are transferred within 1 hour.

Patients with a penetrating abdominal injury and SBP \leq 90 mmHG undergo laparotomy within 60 minutes of ED arrival. Exclude patients who are transferred within 1 hour.

11. Documentation

The following measure will be documented in EMS record.

Injury Date & Time

The following clinical measures will be documented in the ED.

- Glasgow Coma Scale
- ED Arrival Date & Time
- Respiratory Rate
- Systolic Blood Pressure
- Heart Rate
- Temperature
- Procedure Start Time (for any procedure)
- Discharge Date and Time

Recommended changes:

Procedure Start Time (for any benchmark procedure: definitive airway, chest tube, irrigation of fracture, reduction of dislocation, splenectomy, laparotomy).

Recommended New Indicator for hospitals that are not a Level I or Level II trauma center

1. **Undertriage:** Patients with initial ED systolic blood pressure $<$ 90 or GCS \leq 8 are transferred to a Level I or Level II trauma center.

Recommended New Indicator for hospitals that are a Level I or Level II trauma center

1. **Overtriage:** Patients transferred to a Level I or Level II trauma center from another acute care hospital are not discharged within 1 day of ED arrival.

**Mode of Transportation at Discharge
(Recommended as a New Variable or field)**

Mode of transport at discharge.

The recommendation was to add five new core variables so that the state and hospitals can describe inter-facility transport from their hospital.

The following five fields or variables would be activated if a patient is transferred to another acute care facility:

- 1) Discharge transport mode
 - a. Ground Ambulance
 - b. Helicopter Ambulance
 - c. Fixed-wing ambulance
 - d. Private/public vehicle
 - e. Police
 - f. Other
- 2) Date transport called
- 3) Time transport called
- 4) Date transport arrived at hospital
- 5) Time transport arrived at hospital