Kansas Advisory Committee on Trauma Meeting

Kansas Medical Society
623 SW 10th Avenue
Topeka, Kansas
May 2, 2018
10:00 am – 3:00 pm

Committee Members Present	**Representing**
Dr. Paul Harrison, Chair	KS Medical Society
Dr. Craig Concannon	KS Medical Society
Ron Marshall	KS Hospital Assn
Tina Pendergraft	KS Hospital Assn
Darlene Whitlock	KS Nurses Assn
Janet Kemmerer	KS Nurses Assn
Larry Salmans	KS EMT Assn
Pat Lucke	SEKRTC Representative
Cathy Heikes	SWKRTC Representative
Kris Hill	SCKTR Representative
Dr. Jake Breeding	NCKRTC Representative
Dr. Michael Machen	NWKRTC Representative
Dr. Kim Molik	KS ACS COT
Wendy O'Hare	Director, KS Trauma Program

Committee members not present	
Dr. Dennis Allen, Vice Chair	KS Board of EMS
Dr. William Sachs	NEKRTC Representative
Dr. Michael McClintick	KS Assn of Osteopathic Medicine
James Higgins	KS EMS Assn
Dennis Mauk	EMS Administrators
John Hultgren	EMS Administrators
Carol Perry	KS Hospital Assn
Senator Vicki Schmidt	Chairperson, Public Health & Welfare Committee
Senator Laura Kelly	Ranking Minority Member, Public Health & Welfare Committee
Representative Daniel Hawkins	Chairperson, Health & Human Services Committee
Representative	Ranking Minority Member, Health & Human Services Committee

Guests

Dan Hudson	TUKHS
Dr. Justin Green	TUKHS
Carinda Trowbridge	Providence Medical Center
Dan Thimmesch	KDHE, CFO
Lana Martin	CMH
Kenna Young	LMH
Meghan Landwehr	WMC
Lois Towster	Overland Park Regional Medical Ctr
Tracy McDonald	University of Kansas Medical Center
Farah Ahmed	KDHE
Nathan Cunningham	Miami County Medical Center
Teresa Taylor	Stormont Vail
David Seastrom	Children's Mercy Hospital
Olivia Desmarais	University of Kansas Medical Center
Joe House	KBEMS
Randi Koehn	WMC
Dr. Osama Ismael	Miami County Medical Center
Lori Haskett	KDHE
Danielle Sass	KS Trauma Program
Melinda Marlar	KS Trauma Program

Call to Order **Dr. Paul Harrison, Chair**

Dr. Harrison, Chair of the ACT, called the meeting to order at 10:05 A.M.

Approval of Minutes **Dr. Paul Harrison, Chair**

Minutes from the February 7, 2018 meeting were distributed in advance of the meeting. Motion was made to change the minutes to include Dennis Mauk and John Hultgren as absentee Committee Members. Motion to 2nd by Joe House. Minutes approved as corrected.

Introductions

Wendy O'Hare introduced herself as the new Kansas Trauma Program Director. She extended the regrets of Kendra Baldridge, who served as the Interim KTP Director, being unavailable for the day's meeting. She introduced Dan Thimmesch, KDHE's CFO, who would conduct a discussion of the Kansas Trauma Budget.

Trauma Program Update **Wendy O'Hare, KS Trauma Program Director**

Wendy facilitated the following discussion:

- The Regional Trauma Coordinator position is being reviewed with an updated position description in the works. As soon as it is ready the position will be posted.

- Since the last ACT meeting, two Level IV Trauma Center site surveys have been completed: Mitchell County Hospital Health System and Sabetha Community Hospital.
- Last year, two facilities were given a one-year designation, which will expire this month and Wendy is working closely with those facilities to correct their deficiencies, which will allow them to be extended the remaining two years. Those facilities are Holton Community Hospital and Clara Barton Hospital.
- Scheduling of the on-site survey for Girard Medical Center is in the works.
- An application and a new PRQ from Russel Regional Hospital has been received and we are working with that facility to schedule an on-site survey.
- We are reviewing our regulations and have found several regulations that need to be revised. If the ACT is wanting to move forward with certain changes, the regulations will need to be revised.
- Regional Trauma Symposiums have been held in four of the regions, with two regions left. At the Symposiums, we are putting out sign-in sheets for Stop the Bleed instructors to create a database of those instructors in Kansas.
- EMSC – Tracy Cleary was not able to attend today as she is at a Grantee meeting. There are some great projects she has instituted that have been well-received. She created weight conversion cards for EMS and emergency departments and has taken them to the EMSC All Grantee Meeting. Attendees and EMSC coordinators across the country are thrilled with the conversion cards. She also created a pediatric scenario book with help from Lisa Baldwin Batemen and Shelby Durler. They worked tirelessly to create it, print it, and she has taken them with her to the Grantee Meeting. The books are the result of a recent survey that suggested there was not a lot of training happening as far as pediatrics was concerned. The scenario book was her idea and it will go out to all EMS services with the hope it will assist in the training of EMS personnel for pediatric concerns. The books are in the process of being printed and will be available soon. A pediatric readiness survey to the ED's will be launched before the July deadline.
- The proposed contract with Digital Innovations is being reviewed with the hope of having it sent forward for approval in the next couple of weeks. The following are the main components of the contract:
  - A 5-year contract
  - A 2% increase the first year
  - No increase for years 2-3
  - A 1% increase for years 4-5
- Dr. Harrison asked if the increases included the fees for the EMS linkage that was still in the works. Danielle Sass replied that the "build" for the linkage had previously been paid for, with any additional fees for maintenance, and other items of that ilk. If the "build" doesn't work to specifications, and modifications are required, additional fees might be assessed. The proposed contract does not contain any additional changes to the EMS linkage "build".
- There was much discussion from various members on the relevance of switching to another vendor, perhaps, Image Trend. The following comments were made:
  - Dan Thimmesch replied that there was a reluctance to change vendors. A previous RFP had been prepared, but had not been sent. The reluctance to go with a different provider stemmed from the fact that everyone using the current tool would have to retrain to a different system, causing a lot of disruption on the part of everyone involved in the Registry. Previous experience with the vendor had proven unsuccessful in re-negotiating rates.
  - Dr. Harrison commented that he hadn't looked at the market lately, but there were only a handful of vendors who provided the type of product that would be comparable. Darlene Whitlock mentioned that at one time, Image Trend had been discussed as a vendor. Joe said that Image Trend was what KBEMS used, but that Image Trend might be at the $150,000 mark, also, if they were to offer a comparable product. Tracy McDonald was asked if she had any

experience with other registries. Tracy said that in Missouri, which made the switch from Digital Innovations to Image Trend, there were a lot of problems. She felt it may have been lack of maturity for the trauma product, as they had a long history of an EMS product, but had not developed the trauma side of the product when they sold it to the state of Missouri. Most of the larger trauma centers in Missouri stayed with Digital Innovations and a "data bridge" was created to submit into the Image Trend product. She did know of several other states who went with Image Trend; some liked it, others thought it was a disaster. If the state switched to a different platform, the burden would be on those individual trauma centers that wanted to stay with Digital Innovations and who would then need to pay for the conversion to continue to submit data. Dr. Harrison responded that there wasn't a strong reason yet to jump to another product.

Trauma Budget Update

- Dan Thimmesch gave a report on the Kansas Trauma budget. He commented that the budget had been looked at seriously the last couple of years. A spreadsheet with the history of the funding and expenditures was available for review.
  - Starting in 2014, the legislature appropriated state general funding, approximately $240,000 per year which happened in 2014 and 2015. The program also gets 2.23% of district court sheriff's sales of reclaimed property. The other major source of funding is seatbelt fines, which is another 2.23% of fines, penalties, and forfeitures. Seatbelt fines are on the decline, which is a good thing, but significantly impacts the budget. In 2016, the legislature was looking for cuts and the program's state general funding was lapsed. KDHE was told that it would be a one-year lapse, but it has never been replaced. Essentially, the program has been living on the balance that was in the fund, about $1.2-1.5 million. From the expense standpoint, there are basically three main expenses: salaries, the trauma registry, and the regional trauma council funding. There's also an administrative fee that gets added on, called an indirect fee, which basically covers the office of the secretary, legal, HR, IT, fiscal, communications, etc. As the expenses go down, the indirect fee that gets assessed - which is an overhead charge - also goes down. There is enough money in the fund to get through FY 2019, while in year 2020, the funding is projected to run out. The plan is to add a request for enhancement to the already approved 2019 budget for SGF funding that would carry forward for fiscal year 2020 and 2021. The budget was discussed and included the following information:
    - Seatbelt fines and the distribution of proceeds from those fines, with Darlene providing information from KDOT;
    - The program needs to be looking at the trauma center designation fees that are charged – which would involve changing the regulations – as the program is losing money on the site reviews, since facilities are charged $250 in fees but roughly $1,200 is being expended;
    - There was a reduction in staff of an administrative FTE in July of 2017;
    - Travel expenses have been reduced by the staff making smart decisions concerning their travel expenses;
    - "Aid to local" is $120,000. The six regions receive $20,000 a year with the intent to reduce that by 10% in FY 2019 which will net the program $12,000. The amount paid to each regional trauma council will go from $20,000 to $18,000; The program has moved the Regional Councils to FY funding, therefore, some regions were pre-paid $20,000 for a year, then paid an extra six months to get them to the end of the FY 2018.

- "Indirect Cost Allocation" - The fund balance at the start of FY 2017 was $969,000. At the end of FY 2018 that balance is roughly $730,000. At the end of the FY 2019, the fund balance will be roughly $365,000, which carries the program into FY 2020.

- A question arose concerning what other states' trauma programs were doing to get funding. Darlene commented that she and Ron had just attended a meeting in Tucson and discovered that in some states, funding mostly revolved around vehicle registration, which is more fixed than tickets would be. Some states were charging very large fees for rural hospitals to become trauma centers, while others weren't charging anything.
- Dr. Harrison believes that both Senators on the Committee would have some knowledge of the facts of the budget as well as the discussion of the Level IV site surveys as the topics had arisen several times when they attended the ACT meetings.
- Dr. Green suggested that the group develop and articulate the value-added component that becoming a level IV center would bring to the facility and surrounding areas. Dr. Concannon opinioned that if the Committee started breaking out what rural hospitals were functioning well over others, the battle would be lost, with no funding being given. Information needs to be shown on a statewide basis, how Level IVs are working and on how the trauma system has worked statewide. These salient points need to be brought to the attention of the legislature and every community in the state to show what the program has done for the state of Kansas.
- Dr. Harrison agreed that this information was all relevant and that working committees needed to be formed to accumulate the data and disseminate it, as well as becoming part of the Statewide Trauma Plan. The first project needs to include program data and information generated from the registry and KDHE that would be provided to the legislature when funding is asked for. The second project would be encouraging more Level IVs if they are needed, based on the information gleaned from studies and assessments.
- Dr. Harrison asked Wendy to work with Danielle to put together a presentation of what the trauma program means to the state, so there would be something to work from. Dr. Harrison then asked Kris Hill to put a group together to look at how Level IV site surveys could be completed at a lower cost. Dr. Green is assigned to help come up with a presentation on what the Level IVs can mean to the facility and the community.

<u>Trauma Registry Update</u> **Danielle Sass, Epidemiologist**
Kansas Trauma Program

Danielle Sass presented information from the Policy Group meeting held at the beginning of the year, which involved taking an intense look at the benchmark reports and how the facilities are doing from those reports. Since 2011, there has been improvement shown in some areas, but a lot of areas have remained stagnant. An in-depth examination of the data shown, included such subjects as:

- Patient transfers and Critical transfers showed 76% of failures happened in the areas of diagnostics, CT's imaging reports, MRI, radiology, and ultrasound. Questions concerning these numbers included: what is the communication back and forth between the transferring hospital and the initial hospital? Is the initial hospital being told that this imaging is or isn't necessary? Or is this a unique situation that needs to be done before contacting a receiving facility?
- There is over 53% of information missing from the registry regarding initial blood pressure, GCS scoring, ED decision making for the transport call, etc.
- The majority took over an hour before the decision was made to call EMS for a critical transfer. It was expected that most of these instances would occur at night, however they were in the afternoon and evening. Would having an indicator where variables were added in about decision-making to get clearer information be relevant?

- A consensus opinioned that it was asking quite a bit of any hospital to get a person out in an hour. Danielle responded that if there needed to be a modification of the benchmark, a discussion and a decision needed to be made by the ACT. Currently, the benchmarks are based on recommendations of the ACS and are what the ACT adopted.
- Driller can be used by any facility to look at cases, that have fallen out on the benchmark, allowing the facility to study the cause for their Performance Improvements.
- It is possible that a benchmark report could be prepared for basic patients and one for more intense injuries/illnesses if the standard everyone is being measured by is not a true measurement.
- For TBIs, Salina has now been included as an acceptable location. Accounting for the addition of Salina, less than 10 cases failed which were from Level IV and non-designated facilities.
- Chest tubes brings up another area where a decision-making variable could be added in. Do the patients need a chest tube before transfer? Does the receiving facility want them to have a chest tube? These components are not currently included in the registry.
- Discussion ensued on the fall height being more of a guesstimate, while treatment of patient should be issue with Dr. Harrison commenting that the fall height came out of the CDC guidelines for triage in 2011. There is no data to separate the height of a fall and the associated injury.
- A question was asked concerning who were the attendees of the Policy Group. Danielle explained that the group had been opened to everybody and was made up of surgeons, physicians, clinicians, injury prevention specialists and registry data personnel. Dr. Harrison said the Policy Group had been active for a long time and was a sub-committee of the ACT.
- Danielle asked that the ACT consider adding the following fields to the registry: Fall Height, Abuse Fields, Reason for Late Referral, Chest Tube Not Placed – Reason; TXA - Pre-Hospital or Hospital.
- Dr. Harrison made the motion to adopt the last four, excepting out fall heights. The motion was seconded. All in favor – yes. Opposed- none. Dr. Harrison explained that the reason he pulled fall heights out of the list was that it was very subjective and if reproduceable data was the goal, everyone need to be using the same tool, the same definition. The fall height entry needs to go back to the Policy Group to try to convince us of its usefulness.
- Comments were made that the newly adopted fields were already in the registry. Danielle explained that they were not in the web registry but were in the local registries, which was the reason the realignment project was being explored, to make both registry's end values the same. Danielle said that she was required to have the Policy Group's and ACT's agreement to do the upgrades.

<u>ACS Update</u> **Dr. Kim Molik, Kansas ACS COT**

The COT team met in Texas earlier in the year.

- There were a few changes - certain codes and trauma procedure codes changed, which are available by taking an updated coding course from ACS.
- In terms of rural trauma, information about Kansas was provided to the chief for the needs-based assessment of Level III and Level IV centers in Region 7.
- Injury prevention was a hot topic.
- Firearm safety is another hot topic, with Dr. Green participating on that committee. Dr. Green commented that the College was trying to develop productive dialogue in the community and trying to help doctors and community work through increasing gun violence, despite the emotionally charged sides of both arguments. Usually the ACS tries to align itself very strongly with the AAP, which has a very strong paper on gun violence. It will be interesting to see if the ACS follows the AAP that strongly.
    - Some of the issues of gun safety looked at are: mental health capability, background checks, promoting gun violence conflict resolution, and gun ownership.
- Hospital based safety programs are extremely controversial and will be discussed in more detail at the fall meeting.
- Geriatric care and palliative care, were also discussed, with more best-practices on both to be rolled out.
- Best practice guidelines for imaging of trauma patients have been completed and are awaiting approval from the executive board of ACS.

- Disaster Management drill service is being offered for those facilities that would like to design a disaster drill but didn't know where to start.
- There are numerous, significant CME changes, but it is geared more towards Level I and Level II facilities.
- Wesley is offering an updated ATLS instructor update course with Dr. Green's help.
- The College is trying to get more Level III participation in the COT and are actively recruiting.

<u>Stop the Bleed</u> **Wendy O'Hare on behalf of Dr. Don Fishman**

Wendy reported that Dr. Fishman was out of town, but wanted this item on the agenda. He asks if the ACT would be supportive of the regions pooling their money for the Stop the Bleed kits and tourniquets for individual communities, which could be purchased with increased buying power of the kits as they would be purchased as a "lot" and then distributed to the regions. This question had been brought up at the Symposiums and it's been an acceptable idea. Dr. Harrison asked if anyone had investigated where the price break would be. Wendy replied that no studies had been completed and it really depended on where you purchased the kits. It was stated that North American Rescue sold the kits in lots of 150 and a discounted price of $27 per kit could be purchased. Wendy will send out an email to all regional executive committees to determine if all wish to participate.

<u>Statewide Trauma Plan</u> **Wendy O'Hare, KS Trauma Program Director**

Statewide Trauma Plan is a 45-page document that has been around for well over a year. As a small group, the plan may not be able to be entirely accomplished. Attainable goals need to be firmly established and the program is looking to the ACT for guidance. The plan that is currently in use is from 2001, while the plan we need to review was never adopted. Darlene came up with a dashboard that we can utilize to determine what the goals of the ACT should be. There are a couple people willing to serve on a sub-committee who volunteered during the last meeting: Kris Hill, Darlene Whitlock and Kathy Heikes. The plan needs to cover the specifications of the system, which would be an extensive document, but from that, goals and objectives are needed for what the ACT wanted to accomplish in the next year. While an email was sent to all members of the ACT requesting them to bring to this meeting at least three goals that they wanted to work on as a committee, there were very few responses. Dr. Harrison said that he had two minor edits to the document, skill should become skull and the other edit brings up the question of the State Surgeon. A definition of that term needs to be determined and stated in the Plan. Wendy commented that the State Surgeon designation had been a regulatory term and would need further discussion. The items in the equipment list is another example of what can't be altered without regulatory confirmation. Anything that would change the membership of the ACT would have to go to the legislature. Several more people are needed to work on the committee to come up with the priorities to take to the ACT. Dr. Harrison said that as very few responses were received, the next step should be to send out a second mailing with a required response such as – "I have no edits" or "these are my edits:". Darlene said that one of her priorities was the assessment - was it needed or was it even necessary, and did it provide any value. Dr. Harrison opinioned that a quarterly business assessment would be less painful. Darlene said she would send out her list of priorities and dashboard to Kris and Kathy.

<u>Golden Hour of Trauma Poster</u> **Wendy O'Hare, KS Trauma Program Director**

Dr. Harrison said he had some major concerns about the poster as it currently read. Others commented that it was flawed, with a lot missing. Tracy McDonald said that originally, the poster was something from a Trauma surgeon in North Dakota. Tracy had showed it to Carman Allen, who liked it and wanted to use it. In the process of being edited, a lot of information was cut-off. Dr. Harrison said in its current form, it was not usable, it would need a lot more editing and even then, no one knew what use Carman intended for it. This item was agreed to be tabled.

<u>Regional Trauma Council Reports</u>

NEKRTC **Wendy O'Hare on behalf of Dr. William Sachs**

The symposium was held yesterday in this building. There were 54 people in attendance. Presentations on geriatric fluid resuscitation; pain management; adult pediatric burns; Rapid Fire; treatment of the Pediatric trauma patient; Kansas Trauma registry; Inclusion criteria; changes to the ATLS Level 10th edition, a level IV trauma center PI case study, and a chest compression skills station. The executive committee is interested in teaming up with other regions for the purchase of bulk tourniquets and kits. Dr. Jerke, from KU replaced Dr. Gallenburg on the executive committee as he had decided he would not seek re-election. The region also welcomed Derek Hall, who is replacing Con Olson in the EMS position; David Seastrom to his new role of representing nurses on the committee, and Lois Towster was re-elected in the hospital administrator position in a split tie between Britton Baker of Stormont. The next meeting of the committee is July 11 by conference call.

NCKRTC **Dr. Michael Machen on behalf of Dr. Jake Breeding**

The North Central Kansas Trauma symposium was held May 22 at Salina Regional Medical Center. Presentations will be given on Geriatric Trauma; the resources available at Wesley Medical Center Pediatric Hospital; and items necessary for pediatric cases. Dr. Breeding and Dr. Molik will provide a case study for provider mental health and pre-hospital TXA use. Current executive committee members whose terms are expiring include: Allen Van Driel, James Buller, Dana Rickley, Mary Gray, and Dr. Cayle Goertzen.

NWKRTC **Dr. Michael Machen**

The NW trauma symposium will be May 9 at the Buffalo Bill Cultural Center in Oakley. There are currently 653 people registered. Presentations will be on Difficulty Airways; Elder Abuse Prevention; Infant Safe Sleep, OB Trauma Management; Pediatric Trauma Patients; and the Midwest Transplant Network. Dr. Gable will do a case study on the rural trauma patient. There are vacant positions on the executive committee – a Hospital Administrator position; two EMS positions; a Physician position (myself); a Nursing position; and a Health Department position.

SCKTR **Kris Hill**

The SC trauma symposium was last week at Wesley Medical Center. There were 58 attendees. We had good presentations on: Mental Health Provider; Ebola; Treating the Geriatric Patient and the Pediatric Patient; and Recognizing Child Abuse. There was also a discussion on promoting the Stop the Bleed campaign. We welcomed Grandy Cane who is filling in the position vacated by Pam Kvas as she is retiring. Dr. David Acuna, Kaylee Hervey, and Jack Kennedy were elected to fill remaining open positions.

SEKRTC **Pat Lucke**

The SE trauma symposium was held on April 19 at The Midwest Fertilizer Agronomy Center in Chanute. There were 38 attendees. The healthcare coalition leader, Fred Renee, held a table top exercise with the scenario of a disgruntled employee who drives into a parade full of on-lookers. It was agreed during the completion of the exercise that with the limited resources available in the area, and the mass casualties that would ensue, every community would need to rely on their neighbors for help. Presentations on Pediatric Burns, a case study for the PIPs Program and Pediatric Injuries rounded out the symposium. Dr. Dunbar was elected to the executive committee to fill the position vacated by Dr. Timothy Spears. Kathi McKinney, Dr. Tim Stebbins, and Naomi Spears all agreed to continue serving on the Executive Committee. The next meeting will be June 21 by conference call.

SWKRTC **Cathy Heikes**

The SW trauma symposium was held April 11 at the Ford County Sheriff's Office in Dodge City. There were 58 attendees. Presentations included Pediatrics, the Health Care Coalition, TXA and Ketamine, Provider Mental Health, and case studies. Provider Mental Health is something that is readily overlooked and an issue that should be focused on. A lot of providers leave the system as their mental health is not a focus. The SW Region will be hosting a Stepping On class in conjunction with the Injury Prevention Program at KDHE. A date and place is currently being explored for that program. Dick Round will be replacing Stacey Michelle as the EMS Representative as he is leaving the area. Dr. McGroarty from Southwest Medical Center of Liberal is replacing Dr. Matthew Brynes who has been active for several years. Jeremy Clingenpeel, Vada Winger, Peggy Parker, and Tina Pendergraft will stay on the board for the Region. The next meeting will be in July.

Topics in Trauma **Introduction by Wendy O'Hare**

Wendy proposed that in making the ACT meetings more meaningful, attendees might find it interesting to have guest speakers at each of the meetings. Dr. Justin Green and Tracy McDonald agreed to give a presentation on "What is the Latest and Greatest in Trauma Care at KU". Presentations will be given at each of the remaining meetings for the year. If there is continued interest in those types of presentations, we will work with members and interested parties to offer presentations.

What is the Latest and Greatest in Trauma Care at KU **Dr. Justin Green and Tracy McDonald**

Dr. Green, Chief of Trauma and Critical Care and Tracy McDonald, Director of the Trauma Program and Burns offered a glimpse into some of the things that were implemented at KU in the last year that have worked well and hoped that other facilities would find them useful.

- With TBI being a significant portion of trauma patients seen at KU, 75% of them can be classified as relatively minor or mild. There is a lot of literature that suggests mild TBI patients have a BCS range of 13-15, and there is not a lot of good evidence that an admission to an ICU with neuro checks and repeat imaging checks have a significant impact on the outcome of the patient, but does have a significant impact on the cost of care. If these cases are allocated more appropriately, this is a good way to impact the bottom line for both your patient and the facility. Based on the Brain Trauma Foundation data, we developed an algorithm for admission of those folks that has worked well. We continue to QI it. For smaller facilities this is an excellent way to manage minor TBIs. If they deteriorate, you re-examine and re-scan them and if anything necessitates transferring to a higher level of care, you haven't lost anything. Dr. Green re-iterated that this process was a comfort level item for the facility to get used to. This process could become the accepted standard of care for your facility, if your resources would allow you to do that.
- Another portion of trauma patients seen are spine injuries. Some have injuries without cord injuries. KU put together a PI project with the spinal cord injury nurse, Mallory Pecardi, spearheading letting the data speak for itself. After standardizing the data, we began treating patients with spine fractures and spinal cord injuries like Trauma patients. An algorithm was developed that we have used for nearly half the year and have had no problems.
- Ultra-Sonography has been used in the trauma bay for quite some time, and since we are a training facility, with lots of residents rotating through the trauma bay taking care of patients, accomplishing the ultrasound was spotty. Bad imaging or no imaging makes it tough to determine if the patient needs to go to the operating room or needs to be resuscitated. We put in place a PI process for fast exams and started using an archiving program that allows the sonogram to be captured and uploaded into the database to be viewed in real time or retrospectively. This allows us to generate different matrixes used to track resident performance and improvement in ultra-sonography. This is something we are still working on to perfect. Next year will give us the desired data on whether this is working as it needs to.
- Lots of facilities probably have huddles or handoffs or communication powwows of some variety or another. According to the process engineering experts, the clear majority of errors, particularly in a medical setting, are not individual errors or neglect, but in communication or a lack of information. That was the case as we grew. Primary doctors have been doing huddles for a long time. Surgeons typically didn't have time for it. Now, we have huddles for the trauma surgery, ICU service, and emergency general surgery service, every morning starting at 8 am and lasts about 15 minutes. These huddles encompass a broad range of folks participating in the care of the patient. When we first started them, they went on forever, but we have pared them down to 15 minutes. This isn't the handoff the doctors give, this is the residents and the nurses, which I usually sit on to make sure of the thinking process. The same procedure is used from doctor to doctor when a handoff occurs. It's still a work in progress.
- Rounds are another big thing. We've got ICU rounds and floor rounds. ICU rounds are super complicated and lengthy and involve 15-20 people, and with everyone doing something a little bit differently, lead to problems. We have standardized our rounding process in both the ICU and the floor for trauma service. We've incorporated quality measures and things we know are part of our PI plan that are important, but sometimes forgotten. A Unit Checklist was developed for the ICU rounding

matrix that the nurse practitioner on the team fills out every day on every patient. The floor checklist is a little bit simpler, but it still has a lot of info on it. Both remind folks day to day what we're doing with the patient and charts our PI process.

Tracy McDonald

- The next project we instituted we call the stress screen as it incorporates a screen for both acute stress and post-traumatic stress. Post-traumatic stress is not a ACS requirement but it's a recommendation that this be completed on all patients. We developed an algorithm and assigned this task to someone for accountability. We screen every single patient within 48 hours to help recognize mental health issues after trauma and to encompass all the patient's needs. We developed modified factors that would then trigger us to do an overall screening if there was a need for the acute ASB stress score. Our KU acute stress trigger score is if a patient has experienced three or more of these factors: experienced flashbacks, nightmares, avoidance of the issue of their trauma, sleep disturbances, irritable, altered sense of self, angry outbursts, hypervigilant, have trouble concentrating, easily startled, or having a grief or loss issue. If three or more of the issues are presented, then whole screening is done. The team can then get together and customize what type of consult fits that patient's needs. A formulated consultation patient algorithm that says if a patient is exhibiting this, then the team is consulted. Then, based on the information, what the team could do for the patient, nursing-wise and provider-wise would be assessed and the team would be able to help those patients outside of the specialist consult. Such as remembering to resume their pre-admission psych meds; teaching breathing and relaxation techniques, all were something the patients could learn. Once that scoring was done, if the patient had a high ASDS scoring, (the literature shows greater than 56), that patient is at a really high risk for post-traumatic stress. That is recorded in the chart so the next practitioner can see that in the follow-up and discuss with the patient, that "you are really at high risk for PTS, here are the symptoms, some information, you can follow up with your family practitioner and we'll also follow up with you when you come back to your clinic visit".
- For palliative care processes, we carved out more goals of care screening to further define the goals of care for that patient and what the patient wanted. Palliative care service is a busy item and it's also a time critical thing to determine those goals of care. This was something that we could easily handle as a team in most cases and achieve it faster than most consults for palliative care.
- We participated in a research study at UHC, the University of Health Consortium on palliative care. They imbedded a palliative care nurse specialist with us for several months. She taught us how to have difficult conversations with the patient, how to recognize people who needed to be screened for palliative care, and goals of care. We documented this exchange for better communication. It pops up as its own note and is very easy to find. We looked for a tool that is really trauma specific. Ana Rosenthal had presented her algorithm at TQUIP a couple of years ago. We contacted her and received her permission to use it. It's centered on patients with Category 1 or Category 2 screening. It involves severity of injury, what is going to be disabling factors, if the patient recovers, what was their previous status, and the surprise question – would you be surprised if this patient died in the next 12 months? If the answer is no, then we start talking about goals for that patient: health care proxy, pre-existing advance directives, and assessed pain and its treatment. The written plan tells you who's responsible. Category 1 – within 72 hours develop a goal plan with a family member; discuss the serious illness guide for new residents who come in; discuss support for family and care plan options. Category 2 for people who have a really debilitating injury: advance care planning; comfort management; outline prognosis of patient; pain; bereavement support for the family; and transfer to hospice unit. Frailty screening is done for all patients 65 & older by the nurse case manager. It's helpful for the family to know how frail that patient is. All of this is documented within the notes.
- Red phones for massive transfusion were instituted. We had some problems when we identified that our FTP was delayed. After drilling down on it, we discovered there were too many steps and miscommunications in getting the order. We could always call but that didn't mean that the blood bank would get the call. We therefore installed a red, dedicated direct phone - one in the blood bank, and one in the trauma bay. The receiver is just picked up and automatically connects to the blood bank on the other end. We haven't had any problems since setting that up and it works both ways, if the blood bank wants to call us, it rings only on our end in the trauma bay.

- Pharmacists are part of the trauma bay 24/7. There is not a great amount of space in our trauma bay, but it is helpful with pediatric patients that come in. It is also helpful in other ways, such as setting up the TXA; antibiotics for open fractures, etc. The pharmacists are all familiar with those items, so it's very helpful.
- A trauma viewing area is something we just started. There are lots of students in the trauma bay and everybody wants to come in and watch. But they know they can't cross the line into the critical area, yet were standing at the line out front which caused lots of traffic in the area to try to get through. This was resolved by getting a big screen TV, putting it up not too far from trauma bay with CCTV - a live stream only, no recording. Anyone can go into that room, turn on the tv, and watch the trauma at that location. We're still trying to get people warmed to that idea. Nurses are still directing people to go down the hall to view the tv if they're not working on the trauma. When it was installed originally, there was no audio. I have a couple things to do before I can get the audio installed.
- We have a group called the ED trauma committee, which is really nurses from the SICU, nurses who respond from the ICU as well as the ED nurses. That group as well as respiratory therapy techs and radiology techs have a meeting monthly, which follows our trauma quality meeting. Anything that comes out of our trauma systems or trauma care reviews that involves their work flow in the trauma bay, is brought to them with a request to fix it. The group was asked to come up with a more structured orientation for the turnover in nursing staff. This orientation works well, and they now respond flawlessly. Before nurses can respond to a trauma in the trauma bay, they must go through TNCC and a trauma orientation workshop led by the ED trauma committee. They then are required to read a 200-page trauma manual that tells them everything they need to know, work with a mentor, and achieve a passing score on a mock scribing exercise plus pass the KU specific trauma exam, before they can work in the trauma bay. The exam is different than the TNCC exam. Their work is signed-off by their mentor.
- A dedicated research lab with a 24-hour research assistant was just opened. This is a Trial on Take6S, and we are trying for FDA approval and trauma care. Marketability will be available after validation. It's a cartridge based machine which is not as easily sensitive to being moved as the original machine. The research assistant has screened over 300 patients for the study since February.

Meeting Adjourned at 2:15.

2018 ACT Meeting Dates
August 15, 2018
November 7, 2018

Annual Statewide Trauma Symposium & Meeting
October 10, 2018 – Wesley Medical Center