Report to the Governor's Trauma Advisory Committee:

Moving Forward with Essential Trauma Education

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Arkansas Medical Society Representative to TAC





Moving Forward with Essential Trauma Education

- Conflict of Interest & Providers
- Prologue- how we got here
- May- July 2016- Transition
- Current status- August and beyond
 - Understanding the two-very different-business models
 - What courses are considered essential to reduce preventable trauma mortality and morbidity?
 - TAC input: What is the education budget? Which providers should we educate? What steps for the future?

Slides: www.arkansastraumasociety.org

Conflicts of Interest--- Let's talk...

- Small state with few health care providers interested and devoted to care of the trauma patient
 - It is natural that some of those dedicated providers will not only serve on TAC, but also:
 - help teach,
 - deliver care, and
 - provide vision and leadership for Arkansas citizens
 - TAC members also represent their constituency (AMS, ACS)

Most importantly:

- TAC members represent the citizens of Arkansas and should be advocates on their behalf,
- <u>Giving best advice</u> to elected officials (ex- Governor, Legislators) and appointed / regulatory officials (ADH)

Conflicts of Interest--- Let's talk...

- Elected officials / Regulatory officials also have conflicts---
 - Balancing the needs of citizens versus the wishes of electorate
 - Balancing old laws / regulations versus new needs /problems
 - Wishes of appointing / supervisory officials / legislators-?future employment or ?advancement
 - Other conflicts- unknown
- When you think or hear: "That doesn't make any sense...."
- This tells us that somewhere there <u>may</u> be unseen or unacknowledged conflicts of interest at play...

Conflicts of Interest- me

- Paid by UAMS and JRMC as general surgeon / consultant
- Consultant for Preventable Mortality Process- paid for chart review and meeting time
- Volunteer my time and effort on behalf of AMS and ACS
- Main interest: making sure that my family and patients don't become preventable trauma mortalities
- Main conflict: Decisions made- that are not in the best interests of my family, my patients, or our citizens





Definitions- Trauma Provider (noun)

Physicians, nurses, EMTs, and all others caring for trauma patients. *Caution*- Can suddenly become passionate about needless loss of life...











Trauma Education-

Prologue



Trauma Education April 2016

- ADH schedules special called TAC Finance Committee meeting
- \$503, 349 additional budget needed for potential hospital funding
- Senior leadership: develop budget staying within current base funding,
- No contracts that are approved or established can be funded with carry-forward funds
- ATERF- decrease of \$481,095
- Only courses referenced in Trauma Rules can be funded with base operating funds

April 2016- Preventable Mortality Study

- Q Source Preventable Trauma Mortality review of 2015-2016 trauma deaths determined that some trauma deaths were preventable
- There was <u>reduction</u> of trauma deaths from 2009-2013 study, but preventable trauma deaths continued in Arkansas
- Top preventable causes 2015:
 - delayed treatment of hemorrhage,
 - establishment of an airway,
 - errors in end destination of transport
- Many of these deaths could have been prevented if health care providers had <u>adequate education and skills</u>
- Deaths equally divided between pre-hospital and ED /ICU

Base budget funded courses planned

Base Budget			
Course Name as Listed on ATERF.org	Notes	# Courses in FY17	
Advanced Trauma Life Support (ATLS) Provider Course	2 days	10	
Advanced Trauma Life Support (ATLS) Instructor Course	1 day - Train instructors to teach ATLS courses	1	
Focused Assessment with Sonography for Trauma (FAST) Course	1 day	4	
Trauma Nurse Core Course (TNCC) Provider	2 days	10	
Trauma Nurse Core Course (TNCC) Instructor	1 day -Train instructors to teach TNCC courses	2	
Rural Trauma Team (RTTDC) Development Course	1 day	10	
Trauma Program Manager Course	1 day	2	
Trauma Registry Course	1 day	2	
Trauma Performance Improvement Course (TPIC)	1 day	2	

Carry-forward funded courses not funded

Carry Forward		
Course Name as Listed on ATERF.org	Notes	# Courses in FY17
Advanced Surgical Skills for Exposure in Trauma (ASSET)	1 day MD Course	1
Advanced Trauma Care for Nurses (ATCN)	2 days	4
Prehospital Trauma Life Support (PHTLS) Provider Course	2 days	8
Mass Casualty Incident Disaster Experience with Procedural Cadaver and High-Fidelity Simulator Lab	2 days	2
Help Desk - Experienced Trauma Coordinators and trauma program members provide assistance and answer questions submitted by trauma program members throughout the state.		1
FARMEDIC Provider Course	2 days	2
Trauma Update	2 days	1
Integrating Disaster Preparedness with Arkansas Trauma Centers and the Arkansas Trauma System	2 days	1
Wilderness Medic Course	2 days	1
Advanced Trauma Program Management		0
Critical Incident Stress Debriefing		0
International Trauma Life Support (ITLS) Pediatric Provider Course		0

Does that make sense?

Trauma Education April 2016

- TAC Finance Committee meeting voted:
 - Return money to ATERF trauma education budget line item with \$1,152,003 categorized as <u>base funding</u>
 - Produce TAC approved educational programs
 - Place \$500,000 funding for Home Health Initiative into Carry Forward Funding
- ADH agreed and sent revised budget to BOH with
 \$1,152,003 as base funding devoted to trauma education

Trauma Education April 2016

- Amount of Carry-Forward funding = \$4,508,304
- **Carry-Forward funding** used not just for trauma education programs, but other innovative programs for pilot testing
- Many of these have proved exceptionally beneficial to trauma patients. Ex- Trauma Image Repository (TIR), Arkansas Trauma Communications Center (ATCC), etc.
- Legislature removed all carry-forward funds from trauma budget
- Result: \$4 M walked out of the door of trauma system
 - No protest or
 - No ability to have input or advocacy effort from trauma experts or provider community

Does that make sense?



Trauma Education-

May - July



Trauma Education May-June 2016

- ADH cancels ATERF contract & withholds money ATERF ceases operations
- No contingency plans evident for ongoing trauma education in the Arkansas trauma system
- Dr. Richard Bentley MD FACS, chairman of the UAMS Department of Surgery and incoming President of ACS-Arkansas Chapter meets with Chapter leadership
- ACS leadership decides to have ACS-Arkansas step into "trauma education gap" and use the Arkansas Trauma Society as main educational vehicle

Who is the ACS?

ACS – Founded 1913 ACS Committee on Trauma (COT)- Founded 1922

- Trauma Systems Survey, NTDB, & TQIP programs
- Advanced Trauma Life Support (ATLS)
- Trauma Evaluation and Management (TEAM)
- Advanced Trauma Operative Management (ATOM)
- Rural Trauma Team Development Course (RTTDC)
- Disaster Management and Emergency Preparedness (DMEP)
- Advanced Surgical Skills for Exposure in Trauma (ASSET)
- Focused Assessment by Sonography for Trauma (FAST)



Who is the ACS?

American College of Surgeons- Arkansas Chapter

- ACS- Arkansas Chapter 501(c) 6 non-profit- Est. 1978
- ACS- Arkansas Chapter COT produced ATLS in Arkansas from 1980 until 2009
- Arkansas Trauma Society- 1980
 - Affiliated with / sponsored by ACS-Ark chapter
 - Society for multiple medical specialties & types of providers focused on improving trauma care in Arkansas
- Educational effort supported by the UAMS Department of Surgery



Trauma Education May-June 2016

- Plans are made to:
 - Start with a fresh chalk-board- Ask the hard questions
 - Identify any unnecessary costs that could be excluded determine what are the true costs?
 - Assess trauma education needs of Trauma System
 - Develop on-going / sustainable business plan for quality trauma education for Arkansas Trauma System
 - Utilize old ATERF resources and employees when appropriate to save money and capitalize on previous value created by state dollars

ACS Actions May-June 2016

- Scientific literature: 3 takeaways-
 - Research supports the positive effect of education to reduce complications / mortality (ATLS, ASSET, TNCC)
 - A trauma system without effective educational effort soon fails
 - Preventable Mortality review findings agreed with results from literature – same causes of preventable trauma deaths
- We compared education gap for Arkansas between "ADH approved" versus "TAC approved" list of courses
- We engaged our treating providers and partners- asked about their trauma education needs and gaps in coverage?
- Surveyed Arkansas and surrounding states for trauma education resources (capability and capacity) and course structures / cost

ACS Findings May-June 2016

Analysis:

- Many hospitals were paying for ATLS & TNCC courses themselves due to inability to get into ATERF courses
- No real plan to fund some <u>or</u> enough courses clearly essential to trauma patients
 - Courses developed by TAC, ADH, and other Arkansans for specific needs identified by TAC
 - Basic Trauma Coordinator Course, IDPAT (disaster / trauma), First Responder- Bleeding Control
 - State wide / system wide general meetings to bring new developments and treatment to State
 - Annual Trauma Update &
 - Trauma Leadership Course

Does that make sense?

ACS Findings May-June 2016

• ACS Conclusion:

- Citizens of Arkansas <u>are currently not being protected</u> due to a lack of adequately educated providers (volume of courses & types)
- Trauma education funding- Dollars <u>not spent on</u> <u>education</u> and lost to "carry-forward" will not save citizen's lives
- A lot of trauma education could bought for \$4 Million

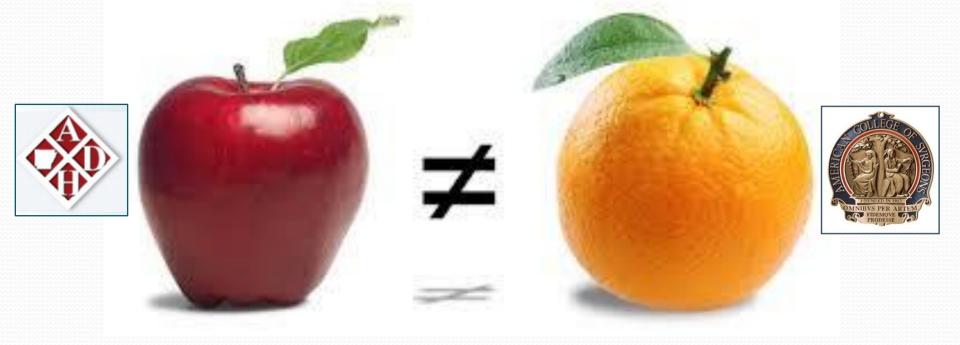


Trauma Education-

August and Beyond



Understanding Different Business Models for Trauma Education



ADH: What is the budget?

ACS: What is the need?

Previous ATERF Trauma Grants



Amounts
Determined
by ?ADH
Mechanism-Limited by
budget
process



ATERF delivers trauma courses

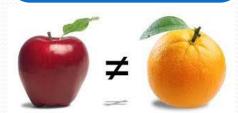
ACS-ATS
Determine
Educational
Needs &
Break-even
costs



Goal: to supply courses to meet educational need of system



ADH
Reimburses
Educational
Cost by Grants
(TC & EMS)



We subject all facts to a prefabricated set of interpretations.

We enjoy the comfort of opinion--without the discomfort of thought.

-John F. Kennedy

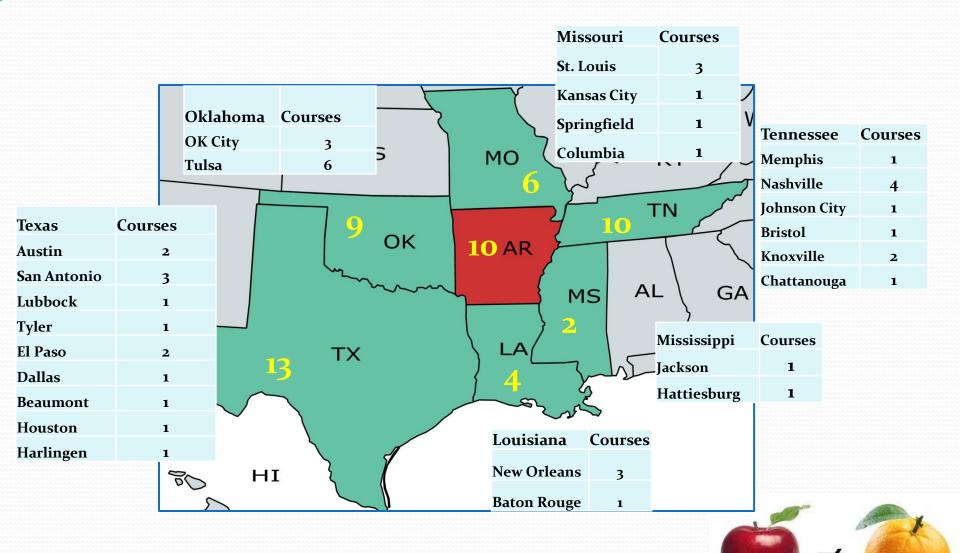
Commencement Address at Yale University. *June* 11, 1962

Facility Name – ATLS	State	Full Course
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Barnes-Jewish Hospital	Saint Louis, MO	\$675
CHRISTUS Hospital St. Elizabeth	Beaumont, TX	\$800
East Texas Medical Center	Tyler, TX	\$750
Holston Valley Medical Center	Kingsport, TN	\$800
LINRON® Bioskills Training Institute	San Antonio, TX	\$850
Mercy Hospital Springfield	Springfield, MO	\$700
Region One	Memphis, TN	\$850
Saint Louis University Hospital	Saint Louis, MO	\$675
St. Joseph Medical Center	Houston, Texas	\$790
Tulane University	New Orleans, LA	\$795
United Regional Trauma Services	Wichita Falls, TX	\$650
University of Mississippi	Mississippi	\$725
University of Tennessee Medical Center	Knoxville, Tenn	\$850
Vanderbilt Medical Center	Nashville, TN	\$800
Willmott Bristol Regional Medical Center	Bristol, TN	\$800

Understanding Different Business Models for Trauma Education

- Almost all ATLS courses are academic / trauma-center based-
- Most use academic center labor to support education mission / offset total cost
- Most schedule courses during the academic week, not weekend
- Many use residents/ junior faculty to teach
- All are taught at their academic center
- Cost of teaching is part of their trauma center outreach
- Most teach the course 1-2 times per year, thus the strain on educators is limited

ATLS Student / Student Refresher Courses



If you want to travel to receive TNCC, the ADH can help you out--

Facility - TNCC	State		Full Course	Additional Info
Cullman Regional Medical Center	Cullman, Alabama	AL	\$200	Includes textbook and IDC
Arizona ENA	Arizona	AZ	\$240	Includes textbook and IDC
Eastside Medical Center	Snellville, GA	GA	\$250	Includes textbook and IDC
Project Heartbeat	Oakland, CA	CA	\$400	Includes textbook and IDC
Kaweah Delta Medical Center	Visalia, CA	CA	\$250	Includes textbook and IDC
Independent Instructor	Augusta, GA	GA	\$250	Includes textbook and IDC
Saint Mary's Hospital	Athens, GA	GA	\$275	Includes Textbook and IDC
St. Mary's Trauma Services	Evansville, IN	IN	\$250	Includes textbook and IDC
Independent Instructor	Shreveport, LA	LA	\$250	Includes textbook and IDC
Children's Mercy Kansas City	Kansas City, MO	МО	\$300	Includes textbook and IDC
Saint Luke's Hospital	Kansas City, MO	МО	\$250	Includes Textbook and IDC
CHI Health Good Samaritan	Kearney, NE	NE	\$250	Includes textbook and IDC
Central Ohio Trauma System	Colunbus, OH	ОН	\$285	Includes textbook and IDC
Ohio Health Mansfield Hospital	Mansfield, OH	ОН	\$305 or Free for emp.	Includes textbook and IDC
Temple Health Care	Philadelphia, PA	PA	\$250 / \$300 non emp.	Includes textbook and IDC
Cookville Regional Medical Center	Cookville, TN	TN	\$225	Includes textbook and IDC
HCA Healthcare	Nashville, TN	TN	\$150	Includes textbook and IDC
Independent Instructor / Region One	Memphis, TN	TN	\$225	Includes textbook and IDC
Vanderbilt Children's Hospital	Nashville, TN	TN	\$250	Includes textbook and IDC
Vanderbilt Life Flight	Nashville, TN	TN	\$260	Includes textbook and IDC
Independent Instructor	Houston, TX	TX	\$300	Includes textbook and IDC
Independent Instructor	Fort Worth, TX	TX	\$250	Includes textbook and IDC
Titus Regional Medical Center	Mt. Pleasant, TX	TX	\$260	Includes textbook and IDC
UVA	Charlottesville, VA	VA	\$240	Includes textbook and IDC
University of Vermont Medical Center	Burlington. VT	VT	\$250	Includes textbook and IDC

What has been an acceptable price to the ADH, for education, in the past?

TRAUMA COURSES TAUGHT					2014 to 2016			
Title of Course	Year # of courses # of Students		ADH contract amount		Student Fee**	Average Amt. per person paid by ADH (Not Counting S.F.) **		
ATLS Provider	2014	7	139	\$	156,800	\$100/person	\$	1,128
	2015	9	188	\$	198,000	\$100/person	\$	1,053
	2016	8	160	\$	176,000	\$150/person	\$	1,100
		24	487	\$	530,800		\$	1,090
TNCC Provider	2014	13	203	\$	119,600	\$50/person	\$	589
	2015	15	245	\$	135,000	\$50/person	\$	551
	2016	14	232	\$	126,000	\$75/person	\$	543
		42	680	\$	380,600		\$	<mark>560</mark>
Does that make sense?								

What has been an acceptable price to the ADH, for education, in the past?

TRAUMA COURSE	ES TA	UGHT	2014 to 201	to 2016		
		_		Average Amt.		
		# of		per person	Cost Per	
Title of Course	Year	courses	Student Fee	paid by ADH	Student	Response
ATLS Provider	2014	7	\$100	\$ 1,128	\$1,228	
	2015	9	\$100	\$ 1,053	\$1,153	
	2016	8	\$150	\$ 1,100	\$1,250	
ACS / ATS	2017	10	\$1,250		\$1,250	Ö
TNCC Provider	2014	13	\$50	\$ 589	\$ 639	•••
	2015	15	\$50	\$ 551	\$ 601	
	2016	14	\$75	\$ 543	\$ 618	
ACS / ATS	2017	10	\$500		\$500	ö

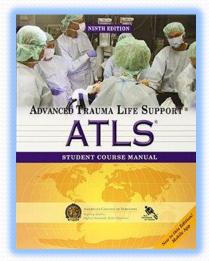
When did the ADH start comparing prices for trauma center purchases?













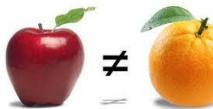
Is there a bias against trauma education?



Understanding Different Business Models for Trauma Education

- ACS-Arkansas and Arkansas Trauma Society courses operate as a stand-alone business
- Operate in a free-market no academic center subsidy
- Adhere to national standards for courses
- We don't mind competition and certainly welcome collaboration
- We staff courses with best educators / active providers
- Arkansas <u>instructors</u> & Arkansas <u>students</u> are also <u>referring</u> & <u>accepting providers</u> – they know each other





Understanding Different Business Models for Trauma Education

- Course number and type are determined by the educational needs of providers in Arkansas Trauma System
- Aim: reduce preventable trauma mortality
- Work closely with our customers (AHA, AMS, AAOS) to determine the needs they have for trauma education
- First Year Priority: Cover essential courses, refine processes, plan for modification / expansion as we learn
 - ATLS- 10, TNCC- 10, ATLS instructor- 1, TNCC instructor-2
 - Annual Trauma Update



Understanding Different Business Models for Trauma Education

- Courses are priced to cover our costs and break even:
 - Instructor & staff cost
 - ACS-Ark / ATS employees, fringe benefits
 - Website, postage, supplies, etc.
 - Just a cellphone, no office
 - Price will vary depending upon travel, size of class, equipment & supplies, etc.
 - Initial courses: ATLS- \$1250 TNCC- \$450 / \$500

Base budget funded courses planned

Base Budget		
Course Name as Listed on ATERF.org	Notes	# Courses in FY17
Advanced Trauma Life Support (ATLS) Provider Course	2 days	10
Advanced Trauma Life Support (ATLS) Instructor Course	1 day - Train instructors to teach ATLS courses	1
Focused Assessment with Sonography for Trauma (FAST) Course	1 day	4
Trauma Nurse Core Course (TNCC) Provider	2 days	10
Trauma Nurse Core Course (TNCC) Instructor	1 day -Train instructors to teach TNCC courses	2
Rural Trauma Team (RTTDC) Development Course	1 day	10
Trauma Program Manager Course	1 day	2
Trauma Registry Course	1 day	2
Trauma Performance Improvement Course (TPIC)	1 day	2

Total of 27 Weekends in year one, our instructors will be teaching courses away from their family— not counting potential RTTDC courses

Come join us.....

Arkansas Trauma Society Call Us: 501.551.9509 Arkansas Trauma Society

In Conjuction with the American College of Surgeons - Arkansas Chapter

PROVIDING TRAUMA EDUCATION

Upcoming Courses

American College of Surgeons - Arkansas Chapter

Upcoming Courses & Locations

September 24-25, 2016

University of Arkansas Medical Sciences (UAMS)

Little Rock, AR

October 8-9, 2016

University of Arkansas Medical Sciences (UAMS)

Little Rock, AR

Advanced Trauma Life Support

Program for Hospitals

October 22-23, 2016

Jefferson Regional Medical Center

Pine Bluff, AR



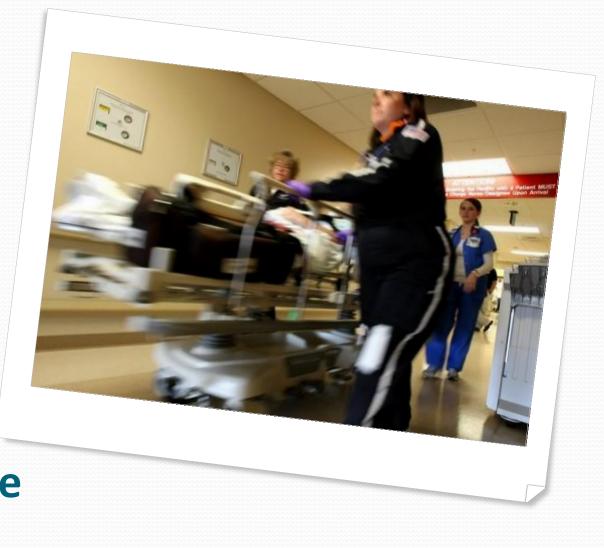
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Trauma Education-

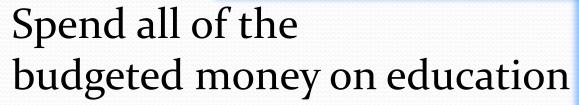
Unresolved
Areas
Needing TAC
Input
to ADH and the
Governor



Don't Rob the Trauma Piggy Bank



Do the right thing-Save Arkansas Lives





Of the \$1,152,033 in the FY2017 budget approved for trauma education- is there any advantage to the citizens of Arkansas to not spend the entire amount on trauma education by the end of FY17?

Remember-

- Top preventable causes of trauma deaths:
 - delayed treatment of hemorrhage,
 - establishment of an airway,
 - errors in end destination of transport
- Many of these deaths could have been prevented if health care providers had adequate education and skills
- FY17- Annual Trauma Update and other TAC approved courses included in revised base funding should be taught in FY 17
- If we run out of budgeted money before the end of the yearthat is not a bad thing- it is a good thing...for the patients

Base funded courses not yet approved

Carry Forward		
Course Name as Listed on ATERF.org	Notes	# Courses in FY17
Advanced Surgical Skills for Exposure in Trauma (ASSET)	1 day MD Course	1
Advanced Trauma Care for Nurses (ATCN)	2 days	4
Prehospital Trauma Life Support (PHTLS) Provider Course	2 days	8
Mass Casualty Incident Disaster Experience with Procedural Cadaver and High-Fidelity Simulator Lab	2 days	2
Help Desk - Experienced Trauma Coordinators and trauma program members provide assistance and answer questions submitted by trauma program members throughout the state.		1
FARMEDIC Provider Course	2 days	2
Trauma Update	2 days	1
Integrating Disaster Preparedness with Arkansas Trauma Centers and the Arkansas Trauma System	2 days	1
Wilderness Medic Course	2 days	1
Advanced Trauma Program Management		0
Critical Incident Stress Debriefing		0
International Trauma Life Support (ITLS) Pediatric Provider Course		0

Who should determine <u>which</u> physicians and nurses should be eligible for reimbursement for ATLS & TNCC? Trauma Centers & the TAC? or the ADH?

- Preventable mortality study and current QI review process highlighted three areas:
 - Rural EDs in Level III and IV trauma centers
 - Rural non-trauma centers
 - PACU / ICU in Level I and II centers
- TAC- using Preventable Mortality results, has already identified key areas where proper education would be a wise use of taxpayer money and save lives
- Trauma centers are responsible for identifying gaps in education, patient care, processes to reduce mortality and complications via QI process

Who should determine <u>which</u> physicians and nurses should be eligible for reimbursement for ATLS & TNCC? Trauma Centers & the TAC? or the ADH?

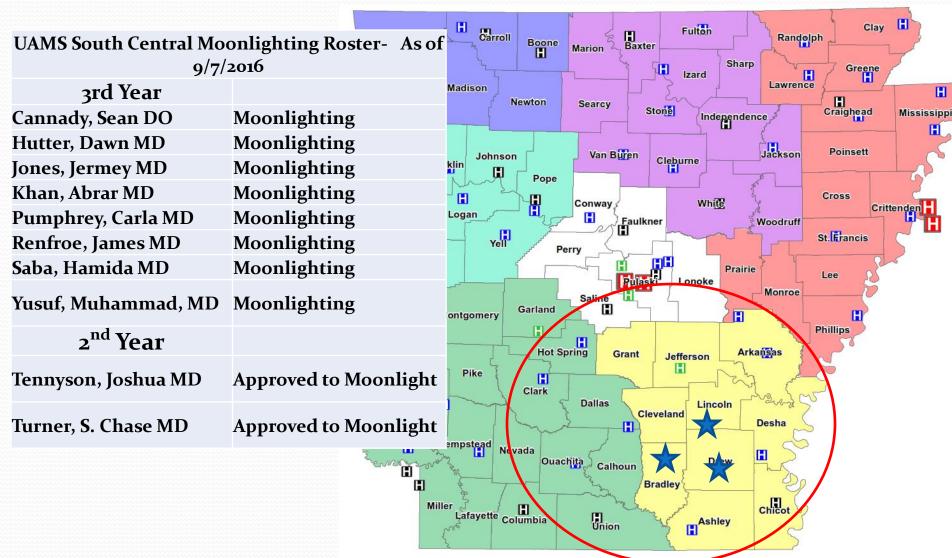
- Preventable trauma deaths don't just occur in the field or in the ED- they also occur in the hospital
- Failure to recognize and respond to hemorrhage, shock, and delayed injury account for preventable trauma deaths in Arkansans' hospitals
- Those failures primarily occurred in the PACU and ICU
- Including PACU and ICU nurses into TNCC courses makes sense for those trauma centers treating complex trauma patients (ISS 9-15+)
- Knowledge allows the nurses to rapidly identify and treat life-threatening trauma conditions- preventing death

Who should determine <u>which</u> physicians and nurses should be eligible for reimbursement for ATLS & TNCC? Trauma Centers & the TAC? or the ADH?

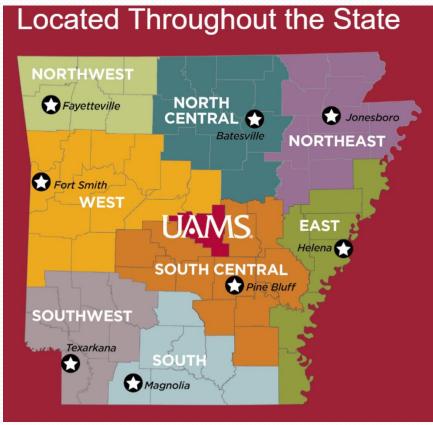
Should we train residents to save lives of trauma patients with State trauma dollars?

- Hospitals in rural areas depend upon residents to staff EDs on nights, weekends, and holidays
- Many of those slots are filled by UAMS Regional Program Residents (AHEC) and other residents from UAMS
- Trauma centers and the TAC are in the best position to know their needs and advise on how best to save lives via education (i.e. who to include in education grant)

UAMS-SC Residents Staffing EDs



UAMS Residents Staffing EDs





What about unspent funds in FY17? How can we redirect those into education and other trauma programs and not lose them to "robbing the carry-forward"?

- FY 17- \$4 Million dollars lost to trauma projects, including key educational programs
- Problem: funds encumbered for potential trauma centers and other approved projects that are not spent will be placed into "carry-forward" category
- In the past- by the time the ADH has determined that "unspent" amount, there was no time to approve and generate grants to spend the money on other purposes
- **Topic for October Retreat** plan to properly utilize unused funds for the trauma system to avoid "carry-forward"

Conclusions

- Change has occurred, and we must move on--- ACS is proud to lead and provide help
- Free-market model of education, closely working with providers, societies, and associations to determine the need for trauma education in order to save lives
- Need: let EMS, Ambulance Owners, Trauma Centers and TAC determine educational needs based upon science (Preventable Mortality Study) and QI processes
- Need: Remove emphasis on top-down budget-focused approach to funding trauma education
- **Need:** Long-term need to:
 - reassess ADH budget model,
 - properly utilize carry-forward money, and
 - Keep our focus on the trauma patient



Don't Arkansans deserve to have their trauma tax dollars spent wisely on education that will save their lives?