Arizona Department of Health Services

PULSE

Arizona's Bureau of Emergency Medical Services and Trauma System Newsletter

Bureau of EMS & Trauma System
Arizona Department of Health Services

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Governor Napolitano Signs Executive Order

Earlier this month, the Governor signed an Executive Order instructing ADHS to increase the number of trauma centers throughout the state, particularly in rural areas. A trauma center can be designated as Level I through Level IV depending on the resources and capabilities it can provide for severely injured patients.

"We know that treating trauma patients within the first hour of an accident greatly increases the chance of survival". "Every time we can increase access to trauma care, we are improving the likely outcome for a patient," said ADHS Acting Director January Contreras. Keeping patients in hospitals closer to their home helps the recovery process and can ultimately reduce healthcare costs.

A 2007 assessment of Arizona's trauma system by the American College of Surgeons Trauma System Consultation emphasized the importance of bringing more rural hospitals into the trauma system.

"We are hopeful that other health care institutions will follow suit and take the actions necessary to become designated as trauma centers at varying levels," said Vicki Conditt, manager of the state's Trauma System. "We are educating a number of hospitals in the state and working with them to become designated trauma centers."

Making Data Work for You

The Bureau of EMS and Trauma System has a number of individuals with specialized knowledge and skills in collecting and analyzing important prehospital and hospital data. In an effort to be more efficient we have shifted these staff members into a single team whose job is to ensure we collect, store, protect, analyze and report the information back to those that worked so hard to collect it in the first place. Providing non-punitive benchmark information to assist you in making informed decisions is the goal. Joel Bunis has been named Section Chief of the new Data and QA Section. His excellent team includes:

- Vatsal Chikani—Biostatistician
- Lani Clark—Cardiovascular Manager
- Krista Anheluk—Trauma and EMS Specialist
- Anita Ray Ng—Trauma Registry Manager
- David Harden—EMS Registry Manager

Please join me in welcoming these folks into this new team and send Joel your ideas for what type of reporting you would like to see!

SHARE To Send Out Continuous Compression CPR Training Kits to Arizona Schools

The Bureau's Save Hearts in Arizona Registry and Education (SHARE) Program has launched a campaign to teach Continuous Chest Compression-CPR (CCC-CPR) to 6th through 12th graders and their families throughout the state. In 2005, Arizona governor Janet Napolitano declared sudden cardiac arrest a public health crisis. Survival from sudden cardiac arrest can be tripled if bystanders perform effective CPR. "Your Hands. Their Heart." kits are being mailed at the end of September to approximately 1800 schools. The kits, targeting middle- and high-school students, contain a short training video as well as a PocketCPR® device for practicing chest compressions. SHARE's goal is to train 100,000 citizens in CCC-CPR.

SHARE
Save Hearts in Arizona Registry & Education

In addition to encouraging CCC-CPR training in Arizona schools, SHARE has partnered with several fire departments to promote free CCC-CPR classes throughout the state. If your department would like to offer these training classes in your community, contact Paula Brazil, SHARE Program Coordinator, brazilp@azdhs.gov, 602-364-0580. For more information, log on to www.azshare.gov.

Trauma Center and Prehospital Data Relationship

Did you know that each trauma center in the state of Arizona is mandated to report specific information to the Arizona State Trauma Registry? The trauma centers rely upon the EMS Run Report as the source of some of the required data. You can help your local trauma center remain in the good graces of the Bureau by ensuring that you drop off your patient encounter form (even if it is not yet complete) before you return to in-service status. Make sure you send a final copy to the emergency department so that it will be included in the patient's medical record. Here is a sample of some of the EMS data elements required in the trauma center data report:

- Incident onset date and time
- Incident location address
- Mechanism of injury
- Lap belt and shoulder belt use
- Date and time arriving at scene
- Date and time of patient contact
- Bike or motorcycle helmet use
- Air bag deployment
- Transport mode on way to hospital

The Premier EMS Agency Program

This unique and voluntary program has been developed in partnership with EMS agencies throughout Arizona. It allows your agency to be a part of the advancement of EMS and Trauma services in the region, state and nation. Each Premier EMS Agency will be recognized by the Bureau of EMS and Trauma System as a leader in their community. Participation will enable services to develop:

- Evidence based quality assurance programs
- Evidence based protocols
- Data and tools to assist in obtaining grant funding
- Information to better allocate resources

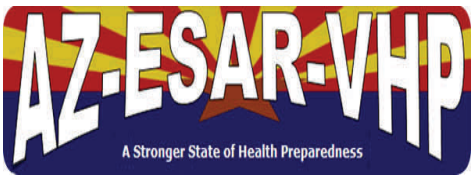
To facilitate this voluntary data collection and quality assurance process, the Bureau of EMS & Trauma System has designed a confidential, electronic prehospital database. Each agency will be able to access their own data and blinded, aggregate benchmark data from other participants. Services may enter data through a secure file transfer process. Each participant will receive regular reports from the Bureau providing specific service level data and useful benchmarking data. To learn more about the Premier EMS Agency Program contact either David Harden (david.harden@azdhs.gov) or Joel Bunis (Joel.Bunis@azdhs.gov).

Your Expertise/Knowledge Is Needed

ADHS is seeking health care professionals who are willing to volunteer in the event of a large-scale public health or medical emergency. To have an effective emergency response plan and system in Arizona, the region and nation must be able to quickly identify and contact volunteer health professionals who have the specific skills and competencies needed to care for people who are injured or ill.

The Arizona Emergency System for the Advanced Registration of Volunteer Health Professionals (AZ-ESAR-VHP) is a secure, Web-based system used to register, qualify and credential Arizona health care professionals before a major public health or medical emergency. AZ-ESAR-VHP is administered by ADHS/Bureau of Public Health Emergency Preparedness (BPHEP) and provided through EMCredential.

Registration with AZ-ESAR-VHP is done online and takes under 30 minutes. Step-by-step registration instructions are available. Registrants should have vaccination reports, contact and personal information, and records on licenses, certifications and competencies readily available. Information about liability protection is available on the Website.



Ambulance Off-load Times

Recently the Bureau offered to begin collecting an important time interval that until recent years was never considered important. For a variety of reasons, it is not uncommon for patients seeking care in emergency departments around the state to experience extended wait times. Patients arriving at emergency departments by ambulance are not immune to having to wait for service – and this can have an impact on patient care as well as ambulance and first responder availability.

A number of ambulance companies from around the state voluntarily contributed ambulance off-load time interval data, the first report is below. Thanks to those services that contributed the data – we appreciate the time and effort that you put into this project. If you think this is useful information for the Bureau to continue reporting let us know!

Ambulance Offload Time Report: January – June, 2008							
Region	0-15 min		16-30 min		> 30 min		Total
	#	%	#	%	#	%	
Western	5,016	86.3%	604	10.4%	194	3.3%	5,814
Southeastern	13,915	43%	10,092	31%	8,353	26%	32,360
Northern	1,398	93.1%	82	5.5%	21	1.4%	1,501
Central	50,097	82%	8,710	14%	2,368	4%	61,175
State	70,426	70%	19,488	19%	10,936	11%	100,850

Quality Assurance Ideas

We frequently get questions from around the state about what hospitals and agencies should consider as part of their quality assurance programs. While this will always be left up to the agency, below are some common process and outcome measures that other hospitals and EMS agencies are measuring. Don't hesitate to contact the Data and QA Section at the Bureau for some assistance if needed.

Trauma Centers

- **Comparison of Hospital Discharge Database and Trauma Registry Patient Volumes**: On a semi-annual basis each trauma center should run a comparative analysis of trauma patient volumes between its trauma registry and HDD to identify, analyze and benchmark discrepancies between the two data sets. It is not uncommon that a facility will retrospectively identify a cohort of trauma patients that for one reason or another were not identified in the trauma registry or attributed to the trauma service. Careful analysis can identify important process operational changes within the facility that can have a big impact on the provision and documentation of trauma care.

Base Hospitals

- **Quality Assurance Loop Closure Time Interval**: Base hospitals are the most common platform for ensuring that EMS issues (positive and negative) are evaluated, communicated and resolved. Each base hospital should develop a QA typology characterizing the common types of QA activities they encounter. Then, each base hospital should record the time intervals required for the EMS agency to complete and report back on each QA action item. On a quarterly or semi-annual basis the base hospital could provide each agency with a timeframe report that describes each interval along with blinded, aggregate time intervals for the other agencies utilizing the services of that base hospital. Remember – the goal is not to punish, but to provide useful data and a target for quality improvement.

First Response Agencies and Ambulance Services

- **Emergency Scene Time Interval**: An evaluation of your on-scene time intervals is useful information as you work to enhance your operations with partner agencies to decrease the time a unit is out of service, and ensure rapid transport of injured or ill patients. With today's emphasis on rapid identification and transport of stroke, trauma and myocardial infarction patients this is a key performance measure that all systems should review.

Golden Hour

As the State continues to develop a comprehensive trauma system, first response agencies and ambulance services play an important role. One standard used to evaluate a trauma system is the "Golden Hour". As you can see from the table below, we need to do a better job of documenting the time of injury and the time of arrival at the trauma center. We understand that this information is not always available, but joint efforts of the prehospital and trauma center communities will have a great impact on our effort to understand how we can better care for the citizens of our state.

County of Injury	Golden Hour								Total Trauma Patients
	Missing		Arrived to TC within 1 hour		Arrived to TC after 1 hour		Did not receive care at TC		
	N	%	N	%	N	%	N	%	N
APACHE	112	75.2	1	0.7	35	23.5	1	0.7	149
COCHISE	156	43.6	24	6.7	157	43.9	21	5.9	358
COCONINO	183	17.8	306	29.7	311	30.2	229	22.3	1,029
GILA	141	33.6	36	8.6	243	57.9	0	0	420
GRAHAM	40	40.4	6	6.1	53	53.5	0	0	99
GREENLEE	14	38.9	2	5.6	20	55.6	0	0	36
LA PAZ	35	40.7	9	10.5	40	46.5	2	2.3	86
MARICOPA	2,044	18.4	7,040	63.4	2,026	18.2	1	0.0	11,111
MOHAVE	14	66.7	5	23.8	1	4.8	1	4.8	21
NAVAJO	233	56.0	7	1.7	162	38.9	14	3.4	416
PIMA	600	15.6	1,549	40.3	1,692	44.1	0	0	3,841
PINAL	230	23.2	291	29.4	469	47.4	0	0	990
SANTA CRUZ	45	32.1	15	10.7	80	57.1	0	0	140
YAVAPAI	113	22.8	100	20.2	181	36.6	101	20.4	495
YUMA	91	6.5	4	0.3	9	0.6	1,301	92.6	1,405
MISSING	1,155	39.4	469	16.0	745	25.4	565	19.3	2,934
OTHER	89	18.1	2	0.4	11	2.2	390	79.3	492
Arizona State	5,295	22.0	9,866	41.1	6,235	26.0	2,626	10.9	24,022

For information about important meetings held at the Arizona Department of Health Services visit our Website at:
www.azdhs.gov/bems/schedule.htm