

THE HOSA Pulse

11th ISSUE

October 2010

In This Issue:

| | |
|---------------|------|
| Medical Admin | 2 |
| Cardiology | 3 |
| Vaccines | 4 |
| Calender | 4 |
| Fresh | 5 |
| ARUP | 6 |
| EMT | 7 |
| JDRF | 8 |
| MRC | 9,10 |

Utah Excels at Nationals

By Ahmer Afroz, Utah President

As I walked off the airplane a surge of humidity and heat engulfed me. We got our baggage and eagerly boarded the large buses waiting. As we passed under a large sign with that familiar Mickey Mouse shape the realization of where we were finally hit us. Immediately the overwhelming excitement overcame everyone. The T.V. monitors on the bus turned on and the words we were all anticipating were heard, "welcome to Walt Disney World".

As a HOSA National Leadership Conference veteran there is one thing I have learned, you can only predict one thing of the week to come, an absolutely amazing experience. Yes, the thrill of competing and trying to take your state to the top is amazing; but the lessons you take away from the experience are so much more valuable. Friendship, leadership, and humility are just a few skills that people take away from their experience at the National Leadership Conference.

Going into the National Leadership Conference everyone knows the competitors are going to be tough. The last thing people are expecting is for others to help those that they are competing against. This year's conference is an experience that I will never forget; not because of the amazing location or the spectacular opening and closing sessions, but because of the kindness that I observed another team show to their fellow competitors.;

It was ten minutes before everything for their competition was due. The room was packed full of people, all with the hopes of winning the competition. The guidelines for what was required were particular, and one group was unprepared. When standing in a room full of people who are the best of their state, everyone is secretly dreaming that their competitors will somehow be taken out of the running.

The unprepared group was missing the proper CD, a disaster everyone fears. As they told

their dilemma to the judges everyone sat quietly, until a voice from the back of the room was heard. A group from a different state came forward offering their only extra CD to the group. You could tell that majority of the people in the room were in shock, it was overly apparent by the look plastered on their faces. An opportunity for this group to increase their chances of winning presented itself, and this group didn't take it.

The offer to share something so simple as a CD may seem like a very small gesture but ask yourself, would you do the same? The compassion that these competitors showed one another is something so small but something that I will never forget. This moment changed my entire perspective on the National Leadership Conference. It was no longer about striving for excellence solely during competition but striving to become better people, better people that will one day be the future of healthcare for our nation.

We're on the Web!

See us at:

www.hosa.org for
National HOSA
information

or at

[www.schools.utah.gov/
ate/HST/hosa.org](http://www.schools.utah.gov/ate/HST/hosa.org)

Html for
Utah State HOSA
Information.

Health Career Highlight

Medical Administration

By: Bianca Velasquez, Weber/Northern Vice President

Most think that hospitals and clinics consist only of doctors, nurses, and patients. Although these personnel are important, they would have a very difficult time running the hospital without a medical administrator. Medical administrators make sure that the workplace runs efficiently and correctly. It is true that this career can be stressful and difficult at times, but it can also be very fulfilling.

Generally, Medical Administrators are in charge of the following duties: ordering supplies for a lab or office, arranging for patients to be hospitalized, scheduling meetings for the medical staff, and making patient appointments. They are also responsible for organizing files and updating databases. There are several different branches in medical administration. Some of these branches are: finance, government relations, human resources, marketing and public affairs, material management, nursing administration, and patient care services. The leader of the entire medical administrators is the CEO or CFO of the hospital or office.

The duties of the medical administrator in the hospital are important because they keep the activities in the hospital organized and running efficiently. This is partly done by setting a budget, along with other various tasks such as hiring, recruiting, and sometimes training medical staff. An administrator's job changes depending on where they work. For example, if they work in a research hospital, administrators develop programs and services for scientific research and preventive medicine. But if they work in a large hospital, there is a whole team of medical administrators for each department. Without medical administrators, a hospital would not stay up and running successfully for very long.

To be a medical administrator, you are

required to have numerous skills. One of the qualifications to be an administrator is a master's degree in health services administration, or a master's degree in business administration or public administration. Administrators interact with many people, and therefore, they would need to be social. They also spend long periods of time on the computer so they need to be talented in running computer programs. And of course, leadership skills are essential.

There are some risks involved in being a medical administrator. These include stress, carpal tunnel syndrome, and eyestrain. However, these risks are minuscule compared to the benefits they receive by pursuing this career. The salary for a medical administrator ranges from \$16,460-\$74,390 annually. Medical Administrators are able to help save lives by keeping the hospital or other healthcare business in working order. You also learn numerous skills like medical ethics, pharmacology, and transcription.

Medical administrators are one of the many important workers in a healthcare team. One of HOSA's goals is to encourage individual and group achievement. Administrators do exactly that; they work to allow the hospital to achieve its goals as a whole and they help doctors and other medical staff reach their personal goals. Another HOSA goal is to promote career opportunities in health care. Administrators support this goal by hiring employees. Medical administration is an excellent career choice; using their talent and skills to ensure each patient is treated.

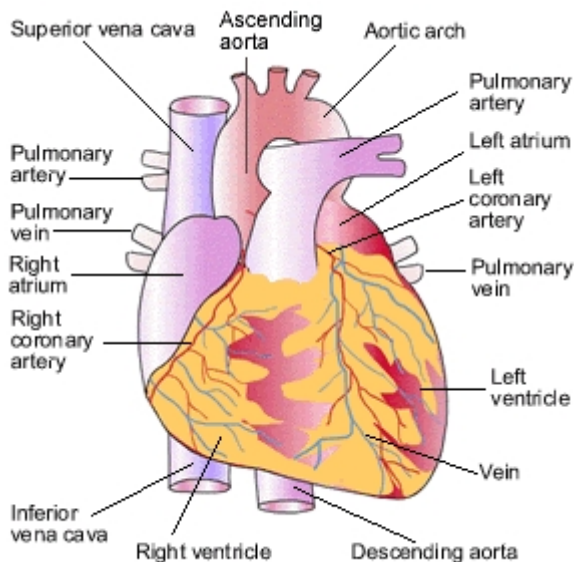


Healthcare Highlight

Cardiology

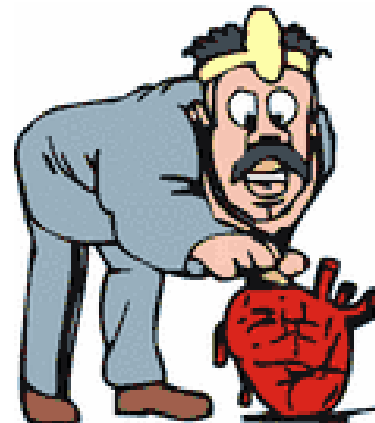
By: Raiyan Khan, Secretary

Those interested in pursuing a career in cardiology face a difficult road getting there. After enduring the grueling challenge of graduate school, cardiologists must have, at minimum, 3 years of training involving a number of months required in a cardiac catheterization laboratory, as well as experience in a clinical setting. It is also integral for cardiologists to participate in a number of catheterizations, as well as to complete an extensive residency. The physician must be willing to work hard and become an expert in a variety of areas related to the heart



On a daily basis, the heart produces the amount of energy necessary to drive a truck twenty miles. The heart also pumps 2,000 gallons of blood through 60,000 miles of blood vessels every single day¹. These are but a few of the fantastic feats the heart can accomplish. It makes sense, then, that the heart, being such an intriguing organ of the body, is the object of study for individuals.

Cardiology is the study of the heart - specifically disorders pertaining to the body's most important pump. Cardiologists deal with patients ailing from a number of serious heart diseases - such as congenital heart defects, blockages, etc. For those that are interested in medicine and want to further your knowledge, you may want to look into cardiology as a future career option. As one of these types of people bent on furthering my knowledge in this field, I career shadowed a nuclear cardiologist technician and a cardiologist. By watching and assisting patients, I learned about Nuclear Stress Tests, where radioactive substances are injected in the bloodstream to detect malfunctioning in the heart. I also had an opportunity to see a Rule out Myocardial Ischemia Outpatient Test, or a ROMIO. This is similar to a Stress Test, but differs because it is two sets of tests taken to compare the heart at times of rest and stress. I also saw a bubble test, where bubbles are injected into the bloodstream to detect if there are holes in the heart. Watching a heart ultrasound, I learned about cardio-anatomy, the anatomy of the heart. Finally, I was able to witness a cardiologist inject a catheter into a patient's internal jugular vein to prepare them for surgery. This was perhaps the most engaging experience, because I was allowed to stand less than a foot away from the operation. Consequently, I was very in tune with each delicate maneuver performed by the cardiologist, and I was able to fully appreciate the magnitude of skill associated with being a cardiologist. My experiences gave me a newfound respect for this area of the medical field, and the work necessary to reach this level of mastery.



Don't Wait... Vaccinate!

By: Felix Deiss, Salt Lake/Tooele Vice President

Every year, the United States of America prepares for flu season. The season is unpredictable, having previously caused between 3000 and 49,000 deaths a year. Since influenza can be so severe, the Center for Disease Control (CDC) recommends that everyone over 6 months of age be vaccinated. However, the flu season is unpredictable in another important way; influenza viruses are constantly mutating and experts must choose which strains to create vaccinations for.

Influenza vaccinations are manufactured by first creating a hybrid virus by mixing the target strain of the virus with a weaker, lab-grown strain that will grow easily in chicken eggs. After this is done, the virus can be quickly and easily grown in chicken eggs; this weakened virus is diluted and serves as a vaccination. After extensive testing, the vaccine can be mass produced and sent across the country to protect people during the influenza season.

However, the vaccination will only protect a person against the strain of

influenza it was grown from or from closely related strains. So, prior to flu season, the CDC uses surveillance based forecasts to determine which strains are likely to be the most prevalent. Last year, when the H1N1 virus emerged, experts were concerned because the distributed flu vaccine did not protect against that particular strain of influenza. This year, however, the flu vaccination protects against the H1N1 swine flu, and H3N2 virus, and an influenza B virus. Even once a person is vaccinated; it is possible to get influenza from a strain of influenza not included in the vaccination.

The risks of influenza vaccination are minimal; some people may have serious allergic reactions. Other people, only one in a million, may develop Guillain-Barre syndrome, which is a usually temporary autoimmune disorder. It is important to recognize that the risk of complications from an influenza vaccine is slight, and that influenza is highly contagious, common, uncomfortable, and potentially dangerous. Please ask your doctor about getting an

influenza vaccine to protect yourself and others around you this season.



Calendar of Events

November 1-2, 2010
Fall Leadership Conference
Provo Marriott, Provo, Utah

November 7- 13, 2010
HOSA Week

November 16, 2010
New Advisor Meeting – Competitive Events
3:30 – 5:00 pm
USOE South Board Room

February 1, 2011
Competitive Events Chair Dinner
3:30 – 5:00 pm
USOE Board Rooms

February 8, 2011
New Advisor Meeting
3:30 – 5:00 pm
USOE South Board Room

March 17-18, 2011
State Leadership Conference and Competition
Davis Conference Center in Layton, Utah

April 26, 2011
National Travel Meeting for Advisors
3:30 – 5:00 pm
USOE Board Rooms

June 20/21-26 2011
National Leadership Conference
Anaheim, California

Utah HOSA – A “FRESH” New Look at Health Care

By: Brendan Abbott, Utah County Vice President

Utah HOSA is continuing their theme of A “FRESH” New Look at Health Care for the 2010-2011 year. “FRESH” is an acronym which stands for the following:

F – Fitness, Friends, Fun
R – Resumes and Recognition
E – Events and Excellence
S – Service, Stewardship, and Scholarship
H – Health and HOSA

Last year, the major focus was on fitness. We are in an epidemic of weight gain in the United States. According to the Centers for Disease Control (CDC), 34% of adults of overweight or obese. In the state of Utah, that number is about 24%. In fact, the CDC reports that for the health goals for Americans as listed in Healthy People 2010, not one state was able to reduce their obesity rate below 15%.

Utah HOSA encouraged its members to get active and physically fit. The HOSA 100 program was introduced and chapters were encouraged to participate in activities that promoted healthy lifestyles. There were several chapters who hosted fitness runs and exercised together. Some chapters had cooking classes to learn how to make nutritious meals – and, yes, you can hide zucchini, apple sauce, and beans in brownies! At the State Leadership Conference, we had our first 5K Fitness Run. We had over 200 participants who ran!

Utah HOSA will continue to promote fitness and healthy lifestyles. We also encourage students to become involved with the nation’s “Let’s Move” Campaign sponsored by the First Lady, Michelle Obama. She states, “The threat of childhood obesity to the health of our children and the health of our nation has never been greater. For the first time in

our history, the United States is raising a generation of children who may live sicker, shorter lives than their parents.” She continues, “The *Let’s Move!* campaign, started by First Lady Michelle Obama, has an ambitious national goal of solving the challenge of childhood obesity within a generation so that children born today will reach adulthood at a healthy weight. *Let’s Move!* will combat the epidemic of childhood obesity through a comprehensive approach that will engage every sector impacting the health of children and will provide schools, families and communities simple tools to help kids be more active, eat better, and get healthy.” (www.letsmove.gov). We encourage you to go to the website to learn more about this program and how HOSA chapters can get involved.

President O’Bama is also encouraging the Active Lifestyle Program to help students to make a commitment to staying active and sticking to the program. They are encouraging 60 minutes of daily activity (at least 5 days a week). Because your hard work shouldn’t go unrecognized, you can also earn awards. You can earn the Presidential Active Lifestyle Award (PALA) by performing regular activity beyond your daily activity goal of (30 minutes a day for adults/60 minutes a day for youths under 18) at least 5 days per week, for a total of 6 weeks. As an alternative you can count your daily activity steps using a pedometer. You can find out more about the Active Lifestyle Award by logging onto http://www.presidentschallenge.us/the_challenge/active_lifestyle.aspx. We hope that members will participate in a fitness program and then report back to us on their successes!

Utah State HOSA will be promoting other items discussed in the “FRESH” philosophy including resumes, recognition, service, and stewardship at the upcoming Fall Leadership Conference. We will have workshop sessions for job seeking skills, public speaking, the art of leadership, project management, how to work with people, and how to serve with a heart. All of these skills help members to become successful health care professionals! We look forward to your

participation.





ARUP Blood Services and Utah HOSA groups provide more than 1800 blood products so far this school year for children, cancer, and trauma patients from all over the state.

At the Utah State HOSA Annual meeting in November, ARUP Blood Services and HOSA announced the continued partnership. That partnership involved the HOSA students taking the reins of many high school drives and educating students and the community about how blood donations impact lives.

At the HOSA meeting, Lauren Ward Larsen from Boulder, Colorado spoke of her personal experience of how blood donations literally saved her life after doctors had given up all other hope. The keynote address was touching to everyone who heard Lauren speak. As part of the kickoff of the new partnership, ARUP Blood Services also announced three different strategies to help the HOSA chapters and the local, critical-care blood supply necessary here in Utah. ARUP is the sole blood provider to University of Utah Hospital, Huntsman Cancer Hospital, Primary Children's Medical Center and Shriners Hospital for Children. There are 43 hospitals in Utah but these four use 25% of the transfused blood in the state.

For the current school year, ARUP Blood Services will sponsor a competition with two contest periods. The first contest period runs from September through December and the second contest period is runs from January through June. The winning chapter of each contest period, which is based on the most participating donors per HOSA member, will receive a \$500 award from ARUP Blood Services.

It was also announced that ARUP Blood Services would sponsor two of the state competitions during the March conference. The winning competitors in the Community Awareness competition and Health

Education competition that involves education and awareness of becoming a life long blood donor will receive a \$1000 scholarship.

Last year, from September to February there were 22 chapters that sponsored blood drives. Several of those high school chapters are holding two drives during this school year. More than 1400 students, teachers, and staff members have presented to donate and more than 900 units have been collected.

"Because blood units can be separated in to different blood products, more than 1800 blood products have been provided to the four hospitals we serve," said ARUP Blood Services Community Relations Representative Lance Bandley. "Some high schools have really done an amazing job such as Alta High School which had 101 units in a day and Lone Peak High School had just under 100 units collected in a day."

"If we could get every high school to join with us to help patients from all over the state we would never fall short on our blood supply," said Bandley. "But right now we only have blood drives with about 30 high schools in the state despite the fact that there are around 100 high schools in the state."

If your school is interested in holding a drive with ARUP Blood Services please contact Patsy Barnes at (801) 583-2787 extension 2408 or by e-mail at patsy.barnes@aruplab.com. ARUP Blood Services needs 75 to 100 donors a day to meet the demand of the hospitals they serve.

ARUP Blood Services, a division of ARUP Laboratories which is an enterprise of the University of Utah and the Department of Pathology, is proud to be the sole blood provider to University of Utah Hospital, Huntsman Cancer Hospital, Primary Children's Medical Center and Shriners Hospital for Children. For more information about ARUP Blood Services, visit us at www.utahblood.org.

Health Career Highlight

Emergency Medical Technician

By: Kaylor Carter, Davis County Vice President

Emergency medical technicians (EMTs) are those individuals who wear medical uniforms and respond to emergency calls. They are responsible for providing whatever medical treatment that an individual might need before they actually make it to the hospital. If you are looking for an occupation with some excitement, you won't be disappointed if you become an EMT.

There are two levels of EMT. EMT-Basic is the entry level of EMS. The procedures and skills allowed at this level are generally non-invasive such as bleeding control, positive pressure ventilation with a bag valve mask, oropharyngeal airway, nasopharyngeal airway, supplemental oxygen administration, and splinting (including full spinal immobilization). Splinting a femur fracture may involve use of a traction splint, which will reduce the fracture. Some medications (for example, epinephrine for anaphylactic shock (severe allergic reaction) administered through an autoinjection device such as an EpiPen) can only be administered or "assisted" to a patient with a prior prescription. Training requirements and treatment protocols vary from area to area.

EMT-Intermediate is a level of training that will typically allow several more invasive procedures than are allowed at the basic level, including IV therapy, the use of multi-lumen airway devices (even endotracheal intubation in some states), for enhanced assessment skills.

Some states will let the Intermediate EMTs have a wider scope of practice, such as cardiac monitoring and the administration of additional pharmaceutical interventions, as well as additional training time.

Each state within the United States has their own requirements for an EMT certificate. If you are interested in becoming an EMT you need to check to find out what the requirements for your state are. In any case, every EMT must



When you are finally on the job you will quickly become acquainted with the daily life of an EMT. Once you are dispatched to the scene of a medical emergency you will be required to assess their situation to determine their medical needs. Once you have the patient stable you will transport him via the ambulance to the nearest hospital. You will then report your observations to the emergency room nurse and provide additional treatment if necessary.

meet minimum requirements that are set by the National Highway Traffic Safety Administration. You will at least need to be 18 years of age, able to lift and carry heavy loads and have good eyesight. Most of your training will take place at a community college or technical school. You might even find a local program that can be completed directly online. These classes will include instruction for certain emergency situations. Bleeding, fractures, cardiac arrest, childbirth and airway obstruction are examples of the types of medical conditions you will need to know how to treat. You will also be taught how to assess a patient's condition, to perform CPR correctly, how to keep the patient's airway open, how to immobilize the neck to prevent any sort of spine injury and more. You will also learn how to use the emergency equipment that is usually found in an ambulance.

Once you have completed your training program you will then be required to take a written test. If you pass the test you will then become an official EMT and can proudly sport your men's scrubs. With your new certification you should be ready to face many challenges along the way. However, with these challenges also comes the joy and satisfaction of helping others in need. You will probably work closely with the local police and fire departments. You could even work for the fire department and be an EMT at the same time.



dedicated to finding a cure

National HOSA Service Project Juvenile Diabetes Research Foundation

By: Angie Abbott, Service Vice President

From the JDRF Website:

My husband and I spent the first few days after the diagnosis at the hospital with Emma. The three of us were plunged into an intense course in biochemistry, physiology, and nutrition. Emma fought tears as she asked the diabetes educator, "Will I die? Will I be able to have children?"

One Year Later

by Shelley Lowenstein,
mother of Emma, 15

My diagnosis was a shock to everyone considering that there was absolutely no history of type 1 diabetes in my family at all. For a year prior to the diagnosis I constantly felt sick.

Action Cures Hopelessness

by Erin Rabideau, 17

The circumstances of my son's diagnosis were dramatic and terrifying. With blood sugars in the 1100's and severe dehydration, my child began his diabetic life in the ICU with visits from family pastors preparing us for his death.

Ten Years and Counting

by Sandra Silvestri,
mother of Joey, 28

The first person I told was my best friend, Jenny. I called Jenny on the phone and gave her the news. Of course, she was concerned.

Type 1 Diabetes and Your Friends

by Allison Blass, 17

In June 2010, the Voting Delegates to the National Leadership Conference selected the Juvenile Diabetes Research Foundation as the new service project. The Juvenile Diabetes Research Foundation (JDRF) is the leader of Type I Diabetes research in the world.

Diabetes (diabetes mellitus) refers to the disorders which occur when the blood has trouble regulating its blood sugar or blood glucose. The major hormone involved in regulating blood glucose levels is insulin. Insulin helps to facilitate the movement of glucose out of the blood and into the body cells where it can be used to produce energy, store carbohydrates in the liver and in the muscles, and convert excess glucose to fat. In diabetes, the production or the use of insulin is impaired allowing the blood glucose levels to rise, possibly causing damage to the body's organs.

The two major forms of diabetes are Type 1 and Type 2. Type 2 Diabetes occurs when the body cells become resistant to the effects of insulin. This is typically found in sedentary people who are overweight. Type 1 Diabetes occurs when the body's immune system attacks and destroys the cells in the pancreas which produce insulin – the beta cells. There is no definitive cause of Type I but may involve environment, genetic, and autoimmune problems. People with Type I must take insulin to live. They must give themselves multiple injections throughout the day

or have insulin delivered to their bodies through an insulin pump. They also must regulate what they eat and their activity levels throughout the day to avoid hypoglycemia (too low of blood glucose) or hyperglycemia (too high of blood glucose).

Type I Diabetes is generally diagnosed in young adults, adolescents, and children. The warning signs include extreme thirst, frequent urination, drowsiness, feeling hungry all of the time, sudden weight loss, fruity/sweet breath, difficulty breathing, and possibly coma. Laboratory tests will reveal a high blood sugar and sugar in the urine. The person would be admitted to the hospital until the blood sugar can be regulated. It is extremely important that the person regulate his or her sugar levels to avoid damage to the blood vessels which can then result in blindness, heart failure, kidney failure, and disease of the nerves. As HOSA members, we look forward to being able to educate the public on the signs and symptoms of diabetes and encouraging them to seek early treatment and adherence to the treatment plan to reduce the risk of complications. We can help the NDRF advocate for additional research into the causes and treatment possibilities for diabetes. The NDRF hopes that an artificial pancreas may be future for treating Type I diabetes. We can talk to our Congressman to legislate for additional diabetes research funding. We can participate in the walks and rides. The JDRF even encourages

chapters to create their own fundraising activities such as bowl-a-thons or movie nights! I have spoken to the regional director, Laura Weston, and she is excited to build the Utah HOSA-NDRF partnership. Together, we can indeed reduce the impact of Type I diabetes.



Utah County Medical Reserve Corps (UCMRC) HOSA/MRC Partnership Guidelines 2010/1011

- HOSA members can fill out an MRC application
- HOSA members can attend/participate in our quarterly meetings
- HOSA members can participate in a limited capacity in our yearly exercises
- HOSA members will not be deployed to an actual emergency scene with the MRC until they are 18

| Sept | Oct | Nov | Dec | Jan | Feb | March | April | May |
|------------------------------|-----|--------|---------------|-------------------------|-------------------|-------------------------|----------|-----------|
| Personal Safety/ orientation | ICS | Triage | Winter Storms | Psychological first aid | Earthquake Safety | Disaster Communications | Exercise | Table Top |

Amy Cornell-Titcomb
 UCMRC Coordinator
 Utah County Health Department, Suite 2600
 151 South University Avenue
 Provo, Utah 84601
acornelltitcomb@gmail.com
 801-851-7085
 801-722-4825 (cell)

