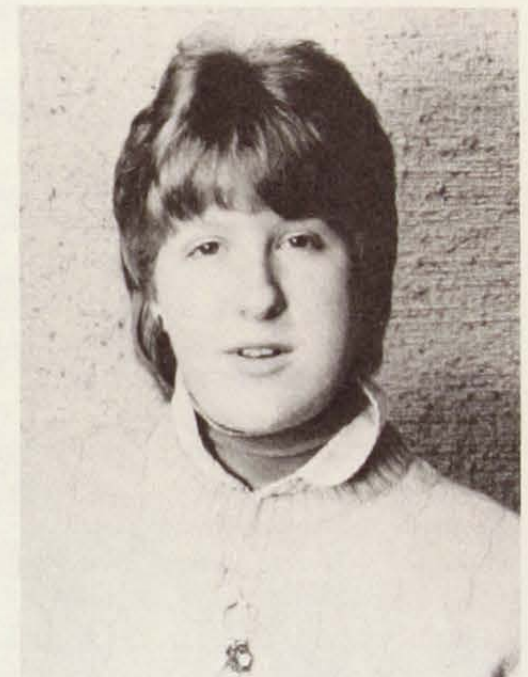
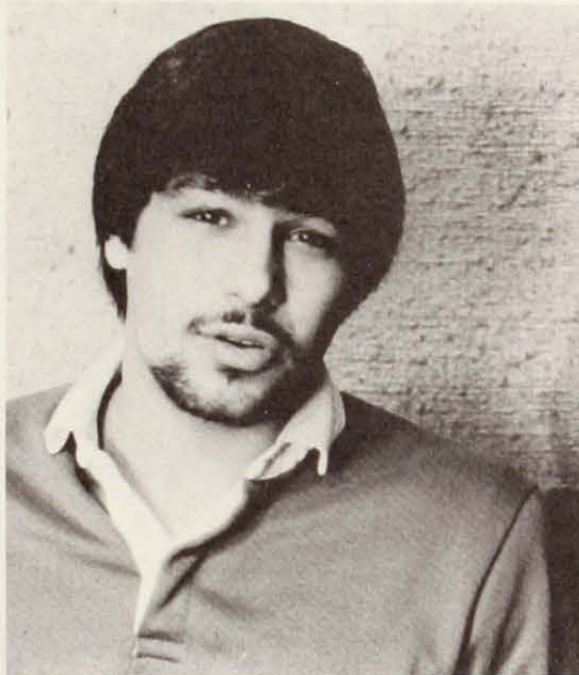




Maryland EMS NEWS

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Approximately 75 percent of teenagers involved in auto accidents have alcohol in their systems at the time of their crashes. The stories of Tom Scardina, Jr. and Debbie Frank, two teenagers who were former trauma patients, appear on pages 2 and 3.



Auto Accidents Among Teens Target of Prevention Program

Editor's Note: MIEMSS is involved in several trauma prevention programs for adolescents. In this issue, we are reporting on the newest one — Traffic Accidents and Trauma. In future issues, we will discuss other programs.

"They [the people at trauma centers] . . . see more people still in high school, or just out of high school, than any other age group. Why do they see so many of us? Because we get in twice as many serious traffic accidents as older drivers.

"They're serious for two major reasons. Most of them involve speeding and most of them involve drinking. Crashes that involve drinking or speeding, or both, are the types of crashes most likely to end up killing or hurting someone.

"The only way to protect ourselves in these kinds of crashes is to use safety belts. If we wore them, we could cut the chances of being seriously hurt by half. But not all that many of us use belts, and hardly any of the 300 of us who roll up into trauma centers have been wearing them.

"Once we get to a trauma center, they save five out of six of us. But each year, about 100 of us never get that far. We're dead in a crash before they can even call in the chopper. Think about that. Each year, more than 400 people our age are killed or hurt bad enough to wind up in a trauma center . . . not just an ordinary emergency room, but a trauma center. And that's just right here in Maryland. I don't know how big your school is, but there were just about that many in my graduating class." — Tom Scardina, '81 graduate of Severna Park High School and a former trauma patient

What has been done to reduce the incidence of car accidents in the 16- to 25-year-old age group? Educational programs have been conducted by schools and community groups.

"But current programs just haven't been effective enough," says Kenneth McPherson, PhD, director of the National Public Services Research Institute in Alex-

andria, Virginia. The institute is a private, nonprofit organization that designs educational programs on a wide variety of topics.

For that reason, Dr. McPherson has designed a new educational program for young drivers that he believes will have a measurable impact on the problem. The program, called Traffic Accidents and Trauma (TAT), was developed jointly by MIEMSS and the institute that Dr. McPherson heads. According to Dr. McPherson, the TAT program was the brainchild of William E. Clark, director of the MIEMSS field operations.

"The program will address alcohol the most, with a strong presentation on safety belts, and an appropriate but lesser emphasis on speeding," says Dr. McPherson.

The misuse of alcohol is stressed because many studies have shown that about 55 percent of the drivers killed in

(Continued on page 7)

The Tales of Two Teenagers . . .

Editor's Note: Former trauma patients Tom Scardina, Jr. and Debbie Frank agreed to tell their stories for a slide/tape presentation that is part of the trauma prevention program for high-school students discussed on page 1.

Tom Scardina, Jr.

I was in an accident on September 29th that year [1981]. I had ridden to a bar in Annapolis where some friends and I used to go every Monday night. The big attraction on Mondays was, "five bucks, all you can drink." We always tried to get our money's worth. That night, a bunch of us were playing quarters. The guy I had come with had to leave. But another friend who was playing with us offered to take me home. So rather than break up the game, I stuck around and kept on playing.

I don't remember everything about when we left; just little glimpses because I was really trashed. I remember asking my friend, "Otto, you going to be all right to drive?" He said, "I'll be all right." "You sure, man? You want me to drive?" I said. But he was sure, and that was it. We got into the car; he started driving. We weren't using the belts. I kind of just curled up in the front seat and dozed off. Otto must have dozed off also . . . right as we got to the Severn River bridge. We hit the abutment head-on . . . no brakes, no nothing. When the helicopter came, Otto was awake. He had no idea what was going on, but he was awake. They flew him away first. They had to cut me out. I didn't know it then; I was out cold.

When we got to Shock Trauma, the doctor thought I'd be the one to die. I had a ruptured spleen, liver, and colon. They thought Otto would make it. But about 23 hours after the crash, his lungs had filled up with blood and he suffocated. I didn't know about it for a couple of weeks. For two weeks, I kept saying, "Where's Otto? Where's Otto? We're going to be roommates. The chicks are going to come up and visit us." Until my dad finally said, "Tom, Otto didn't make it." I just turned away. I didn't know how to react. I just couldn't relate to it at all. I'd never known anyone really that close to me who died. And he was one of my best friends.

Overall, I was in the hospital for five and a half weeks. The first nine days, I was in critical care, where they have all the

machines and hoses hooked up to you. And I was in traction for three and a half weeks. I had a chipped bone on my left ankle and a broken right ankle and a broken femur, so I had casts on both legs. I guess the most physically painful experience in my life was when they took the pin out of my shin. But the pain wasn't the worst of it. The mental side of it, the emotional trauma . . . *that* is almost harder to deal with than the physical trauma. Unless you've been through it, you just don't realize what your whole person goes through in a serious accident.

And it's hard to imagine what the parents go through in that kind of a situation . . . seeing their child lying in the hospital bed with all those tubes running in and out . . . waiting to hear if he'll live or die, if he'll be able to walk or talk . . . being scared to death if the phone rings while they're home trying to rest, asleep. I mean, you can see your parents aging right before your eyes.



"But the pain wasn't the worst of it. The mental side of it, the emotional trauma . . . that is almost harder to deal with than the physical trauma. Unless you've been through it, you just don't realize what your whole person goes through in a serious accident."

— Tom Scardina, Jr.

By the time I went home, I had a few scars and a cast that I still had, but it was no big thing. And once I got the cast off, I was lifting weights and I started jogging and running to get my strength back. And as I started feeling more normal, I started going out more, partying more. And pretty

soon, I was drinking too much. Actually, I was drinking way too much. I was messing up in a lot of ways, doing things and treating people kind of bad. I don't want to make excuses, but I do think a lot of it was a result of the accident.

You see, it wasn't easy going back home after Otto's death. I'd run into Otto's mother and, wherever I'd see her, I'd feel bad. I mean, to her, I'm an instant reminder of her son's death. Can you imagine how that makes a person feel? And I got a lot of harsh responses from Otto's friends, especially old girl friends. They'd see me at a party drinking a beer and they'd give me dirty looks. They wouldn't talk to me as much. I mean, they acted like I was to blame for his death . . . like I didn't have any right to go out and have a beer. From their viewpoint, here I was, out partying, doing the same thing that got Otto killed. It was like I hadn't learned my lesson, and they were bitter about it.

Now I can sort of relate to that, but back then, I felt bitter toward them because of the way they felt toward me. I think that was a big part about why I was drinking more . . . because it seemed like my escape . . . a way out . . . away from Otto . . . away from the way people were treating me because of Otto. And it kept building and building. I could feel I was getting out of control, but I couldn't do anything about it.

That went on for about a year, until one day, I felt these funny chest pains, so I went in for tests and it turned out that I had an aortic aneurysm. It was a result of the accident. When I hit the bridge, the impact stretched the inner wall of my aorta so that the blood pushed it out like a balloon. So I had to have another operation to have that fixed. I didn't realize how serious the operation was until after it was done. The doctor asked me to wiggle my foot and I did a little. He turned to my parents and said, "I think he'll be able to walk again." Strangely enough, my first thought was that, "I've done it again. I've put my parents through the same thing again." Anyway, I didn't believe the doctors at first when they said the nerves in my leg would grow back. I didn't think I'd ever walk again.

I thought the whole thing was a sort of punishment for all the things I had done. I wasn't even sure I wanted to live with myself. You have a lot of time to think when you're laid up in bed for that amount of time, and a lot of those

thoughts aren't very happy ones. So I made a vow to myself . . . that I was going to be a better person . . . that I wasn't going to get out of control again. Then when I got back home, I started working real hard to get my legs back. I started with a walker and then with two canes. And when I got pretty good on them, I started to go out of the house more with my friends.

The hardest part of getting around wasn't with the two canes, though. It was the people staring. They would actually stare, and the way they would look at me, you could just hear them wondering, "What's the matter with him?" When you get that look, you just want to go up and scream at them; you know, "What's the matter, haven't you ever seen anyone with crutches before, or canes?" Of course, you can't do that. They're just curious why a young guy is puttering around like an old man. But they make you feel like some kind of freak.

It's been a little more than two years since the accident. I'm down to one cane now and I don't use it all the time. And I think that I'll be walking normally pretty soon. But the inside part of me has really changed since the accident. I think, overall, I'm probably a better person, but it's a hell of a hard way to go about improving yourself.

Debbie Frank

It happened a little before midnight on November 3, 1980. I was 15 and I wasn't driving the car; my girl friend was. She was 16. We were coming home from a party and we were both drunk. At the party, my friends didn't want me to go with her, but I insisted on going with her because I had come with her, and I had driven that road with her hundreds of times before when she was drunk. We were late and I told her to hurry up. She said she was doing close to 90. We were in a 35-mile-an-hour zone. And she just lost control of the car.

We hit a guardrail and the car flipped over and went down an embankment, and we were both thrown out of the car. It was a convertible with the top up. We weren't wearing our seat belts. We went right through the top; she went one way and I went the other. The car rolled on top of me and I was stuck to the engine block underneath the car. They only found me because my hair was sticking out from under the car. I had really long hair. If my hair would have been the length it is now, they would never have found me. But

when they found me, they rolled the car off of me. They had to give me CPR because I went into cardiac arrest. And then they flew me to Shock Trauma.

I had a closed-head concussion; I had a broken hip that they had to do surgery on; and I had burns over 50 percent of my body. To fix that, they took off the skin that was ruined by the burns and they replaced it with skin from where I hadn't been burned. My right hand was burned so bad, they had to take off my thumb and index finger. And I had real bad burns on the left side of my neck. Everything was burned except the carotid artery. The doctors hoped that my carotid would hold up, but it didn't. It blew while I was in critical care.



"The people who just knew me on and off were afraid to walk up and talk to me. . . . It was like they thought it was catching. Like if they talked to me, they would get in an accident."

—Debbie Frank

I was unconscious for six weeks after it blew. And because the left side of my neck was open, they had to take the muscle from my left breast to close up the hole in my neck to prevent an infection. And my vocal cords on the left side were burned away. My right side vocal cords weren't that bad from the crash, but because they had to leave the tubes in so long, all the while I was unconscious, it damaged those vocal cords. So later they put in the Teflon implant so I could speak, but that's why my voice is so scratchy. I was in Shock Trauma for almost two months, and then they moved me to University of Maryland Hospital. After a month there, they transferred me to Children's Hospital.

It was a very difficult four months for my whole family. My mother stayed with

me 24 hours a day while I was in the hospital, which meant that everyone else at home just had to shift for themselves. One of the hardest things for my family, especially at the beginning, was the uncertainty of everything. You see, when my artery blew, the doctors thought that it might have given me irreversible brain damage. For a couple of months, my family just didn't know what they would have to be dealing with . . . what my capabilities would be. I got out of Children's on March 3 and I went back every day for rehabilitation. . . . physical therapy, speech therapy, occupational therapy, and school. I went back there for everything.

The accident changed just about everything for me. Before the accident, I was interested in tennis very much, but I just couldn't hold a racket after the accident, so that was shot. I wanted to join the soccer team in my senior year. My mom wouldn't let me. She was afraid I'd fall and, if I fell, I might break my hip more and that, if I did, I might never walk again. I was in SGA before the accident. I mean, we had a lot of fun there, but after the accident, I just couldn't go. I couldn't go back to it because of my memory. I mean, they would tell me something that was important to remember, but I would forget — not intentionally — but I'd forget. You see, my memory doesn't work. It's getting better. Now I can remember what happened to me last week, and I can remember snatches before that, but I can't make myself remember things that I want to remember.

Before the accident, the girl who was driving and I were extremely close. We were just like sisters. We did everything together. Then, after the accident, I didn't even get a card from her. She never called. Nothing. I don't think she, or anyone in her family for that matter, knew how to handle it. But then, what could they say, you know? My good friends stuck by me. The people who just knew me on and off were afraid to walk up and talk to me. I didn't know why. It was like they thought it was catching. Like if they talked to me, they would get in an accident. But a little further on in the year, it got a little better, and people would talk to me and stuff.

The hardest thing, I guess — this is going to sound *really* dumb — but it was that no guy liked me. Before the accident, I had a boy friend. Everyone liked me. After the accident, no one did. I mean I started going back to school in September of my senior year and I didn't go on a date until May. No one asked me out for my homecoming, or my Christmas dance, or my

(Continued on page 6)

Lidocaine: What It Does, Why It Works

Lidocaine, a local anesthetic agent, has been used for approximately 20 years in the management of cardiac dysrhythmias, especially those of ventricular origin. It is used to treat ominous ventricular dysrhythmias such as premature ventricular complexes and ventricular tachycardia and fibrillation. Lidocaine affects the electrical physiology of myocardial tissue by suppressing discharge from ectopic foci in ventricular muscle.

Although replaced by bretylium as a first-line agent in the treatment of ventricular fibrillation, lidocaine still remains an important and probably the most frequently used drug in cardiopulmonary resuscitation.

As discussed last month, dysrhythmias occur in ischemic myocardium because of a disparity between the cardiac action potentials of normal and ischemic myocardial tissue. As with bretylium, lidocaine acts differently on infarcted myocardial tissue than on normal myocardial tissue. Ischemic myocardial tissue places the patient in a precarious position because the fibrillation threshold of that tissue is lowered, allowing for a much increased chance for ventricular fibrillation.

Effect on Fibrillation Threshold

The lidocaine effect on myocardial tissue results in an elevation of the fibrillation threshold that, while less than the elevation caused by bretylium, helps protect the patient from ventricular fibrillation. Indeed, even though the effects of lidocaine on the fibrillation threshold are less than that of bretylium, evidence suggests that, when bretylium and lidocaine are used together, the net elevation of the fibrillation threshold is greater than the sum of the elevations of each agent individually.

Lidocaine basically has a local anesthetic effect on the myocardium which may explain its suppression of ventricular dysrhythmias after an acute myocardial infarction. During acute ischemia, electrical current passes from normal myocardial tissue to ischemic myocardial tissue causing reexcitation of the heart (evidenced by premature ventricular complexes). Lidocaine acts on normal myocardial tissue making its cardiac action potential more uniform with the cardiac action potential of the ischemic tissue.

Indications for Use

Indications for the use of lidocaine include premature ventricular complexes occurring frequently (more than 5 per minute); closely-coupled (R-on-T phe-

nomenon), multifocal, or premature ventricular complexes occurring in short bursts of two or more or as salvos. Regardless of the strict interpretation of the indications, premature ventricular complexes in any degree of frequency are suppressed with lidocaine if they occur in a patient with ischemic heart disease. Additionally lidocaine is effective in converting ventricular tachycardia with a palpable pulse and, as often forgotten, in the treatment of ventricular fibrillation.

Prophylactic Use

Prophylactic lidocaine administration will help prevent ventricular fibrillation after conversion to a normal sinus rhythm. It may be administered post-conversion or it may be given intramuscularly by a patient under a physician's direction when that patient experiences angina and prior to transport to a hospital. In such cases, prophylactic administration of lidocaine has been proven to diminish the occurrence of life-threatening dysrhythmias in patients experiencing ischemic myocardial episodes.

Therapeutic Range

The therapeutic range in which serum lidocaine levels are targeted is 1.5 to 6.0 mcg/ml. A variety of techniques have been employed to achieve therapeutic concentrations within this range. Included in these methods are bolus injections, continuous intravenous infusions, and a combination of bolus and continuous fusion. Classically, a bolus injection of 1 mg/kg is given followed immediately by a continuous infusion of 1 to 4 mg/min (20 to 50 mcg/kg/min). Lidocaine has a short distributive half-life (8 to 10 minutes) and, although the drug is not excreted from the body, it is distributed away from the site of action (the myocardial tissue) to other tissue compartments, such as the central nervous system, muscle, and fat. The constant infusion is aimed at maintaining the serum concentration in the therapeutic range achieved by the bolus injection. Advanced cardiac life support standards dictate a maximum dose of lidocaine to be 225 mg. However, patients will tolerate a more specific total dose of 4 mg/kg/hr.

Since the therapeutic range is dictated only by the maintenance infusion of lidocaine and not by the initial dose, patients may exhibit breakthrough dysrhythmias shortly after the bolus injection, before the maintenance infusion can have its desired effect. For this reason, the recom-

mendation is to initiate therapy with two bolus injections of lidocaine along with a continuous infusion. If a continuous infusion is implemented, a patient should receive the first bolus of 1 mg/kg initially with the continuous infusion started immediately, and the second bolus of 0.5 mg/kg given 10 minutes after the initial bolus. The second bolus will ensure that the therapeutic range is maintained while the continuous infusion produces its effect.

Since constant infusion is begun with greater difficulty in a field environment, prehospital providers can administer lidocaine with intermittent boluses in place of a continuous infusion but should remember the 4 mg/kg/hr total dose. In such an instance, a patient is given a 1 mg/kg initial bolus followed by 0.5 mg/kg up to every 10 minutes for a total dose of 4 mg/kg for the first hour. Whether lidocaine is administered by bolus injection followed by continuous infusion or by multiple bolus injections, the therapeutic range will be maintained in the nontoxic range.

Toxic Reactions

Remembering that lidocaine is an anesthetic agent, one will be able to predict the expected toxic reactions to the drug. A patient whose serum lidocaine concentrations exceed the therapeutic range will experience drowsiness, sedation, mental confusion, or coma. Only at much higher serum concentrations (above 7.0 mcg/ml) will the patient experience central nervous system toxicity, such as seizures or respiratory depression.

Because lidocaine is metabolized by the liver, one can expect decreased degradation in patients with decreased liver blood flow or impaired liver function (for example, patients with severe liver trauma or patients with obvious liver disease such as alcoholic cirrhosis). One must give lower maintenance doses to such patients and monitor them more closely for evidence of toxicity.

Lidocaine remains an extremely useful pharmacologic agent in the ACLS armamentarium. Although lidocaine follows bretylium as the drug of choice in the treatment of ventricular fibrillation, lidocaine properly dosed and administered to patients having ventricular fibrillation, ventricular tachycardia, or premature ventricular contractions will produce desired therapeutic effects.

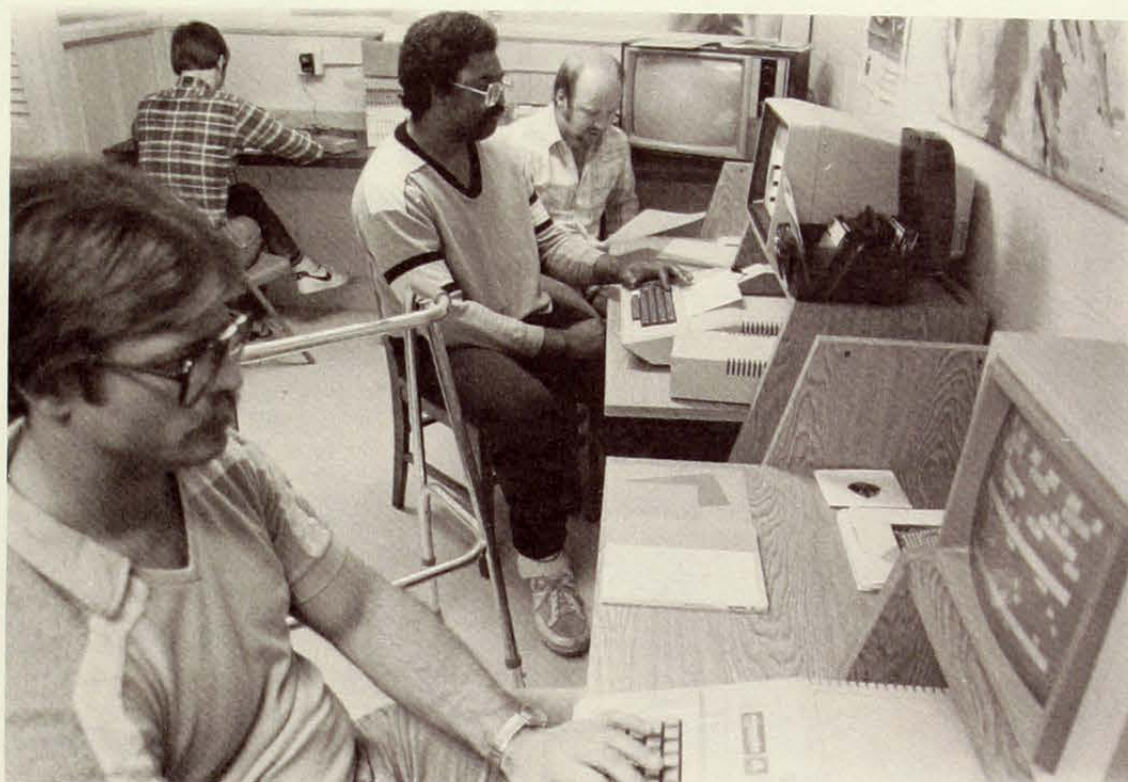
— Thomas C. Majerus, PharmD
Critical Care Medicine, MIEMSS

Cognitive Relearning Program Started

The Center for Living, a cooperative service offered by MIEMSS and the Maryland chapter of the Easter Seal Society, recently began its newest program in its continuum of postrehabilitative care for individuals with traumatic injuries. This program is called CORE — an acronym for cognitive relearning — and is designed specifically for individuals who have suffered head injury.

The concept of cognitive remediation as a form of rehabilitation developed as a response to the increasing number of individuals who are surviving severe head injuries. Through modern medical management and extensive physical rehabilitation, many head-injured patients recover with few physical impairments; however, many suffer damage to the brain and the resulting impairment of cognitive skills. Frequently for the head-injured patient, this impairment manifests itself as a decreased ability to take in information from one's environment; to understand, process, and interpret the information; and to respond to the information in a socially appropriate way.

CORE is designed to help head-injured patients regain their cognitive skills. This means the improvement of a range of skills starting with attention, concentration, and memory and progressing to higher level skills such as problem-solving and judgment-making. CORE clients also work on academics and social communications. Cognitive remediation involves training individuals



Clients in the cognitive retraining program learn to use computers at the Center for Living.

to assess more accurately information from their environment. CORE students also learn to "fine tune" their behaviors. The overall goal of CORE is that its students may return to employment or enter vocational or educational programs.

The CORE team consists of Evelyn Freeman, MS Ed, coordinator and teacher; Sheila Mehning, CCC-Sp, MSL, speech pathologist; Fran Forstenzer, CSW, social worker. This team provides individual and group instruction in auditory and verbal skills, social communications, and academic skills. Marge Epperson-SeBour, LCSW, director of the Center for Living and director of family services at MIEMSS, conducts an art therapy group. Individual counseling is also offered. In addition to traditional classroom methods of instruction, a self-directed learning approach is carried out through the use of computers.

The CORE program is accredited by the Division of Vocational Rehabilitation, Maryland State Department of Education. The 12-week program meets 5 days per week between the hours of 9 am and 2 pm. The CORE staff plans individual programs and evaluates progress at the middle and end of each session.

As part of a comprehensive therapeutic approach, counselors and therapists from other agencies that provide services to individual students are invited to participate. Individuals are re-

ferred privately or through other programs and agencies such as Division of Vocational Rehabilitation (DVR) or the Veterans Administration.

The first CORE group will soon complete its 12-week session. In March it had the opportunity to work with visiting poet, Barbara Davis. This poem reflects the frustration of head-injured individuals.

*White mouse in a maze
In a daze
Bumping into walls
Endless halls
The way out is there
But where?*

CORE hopes to offer "the way out." For information, call Evelyn Freeman or Fran Forstenzer at (301) 355-0100.

— Evelyn Freeman

Volunteers Needed For Neonatal Van

Due to the increasing number of interhospital transports utilizing the specially designed neonatal transport van, MIEMSS is asking for volunteers to help drive this van and assist with these types of transports. Candidates should be Maryland-certified EMTs and at least 21 years old and should have a valid Maryland driver's license. During a 14-hour course beginning June 30, candidates will be taught how to care for premature babies and what points to look for during their assessment. Anyone interested in participating in such a program should contact Lucille Karr (301) 528-3930, for information and applications.

Dr. Farmer Dies

T. Albert Farmer, Jr., MD, chancellor of the University of Maryland at Baltimore (UMAB) died April 9 after suffering a heart attack. Chancellor of UMAB since 1981, he was responsible for each of the campus' professional schools, graduate school, University of Maryland Medical System/Hospital, and MIEMSS. He worked closely with MIEMSS on many issues, including the governance issue and the enhancement of the EMS communications system. His loss will be felt deeply.

Disaster Plan for State Being Developed



Dr. Charles Browne, director of the Harford County Department of Emergency Services Coordination, and Scott Sylvester (MIEMSS) discuss the Commander's Guide for Mass Casualties.

The Maryland EMS Major Incident Planning Committee has been formed to develop a statewide plan for coordinating local EMS resources in response to mass casualty incidents.

Debbie Frank

(Continued from page 3)

sweetheart dance. Nothing. It just stopped. I don't know why. I could say it was, I just wasn't very attractive in a juvenile sense, and everyone in my school was still juvenile. They hadn't matured . . . none of them.

And that's, I guess, the biggest effect of the accident. It made me do a lot of growing up a lot faster than my friends. I remember, about three days before the prom, they showed a movie in school about drinking and driving, and I got so upset I had to be taken out of school. It wasn't the movie that got me so upset; it was the people who sat right behind me. I didn't know who they were. They said, "Oh well, whenever I'm drunk, I always drive *real* slow." I'm like, "How do you know. You're drunk . . . you *don't* know. You can't be sure of your driving." I drink now *very very* rarely and I don't drink to get drunk, like I did before. I don't hang out with the same crowd anymore.

"Planning is our way of keeping a mass casualty incident from becoming a true disaster," says Capt. Reggie Shephard, of the Baltimore County Fire Department and a member of the committee. "An accident causing multiple casualties is not a disaster until it gets out of control. Having a disaster plan ensures that won't happen."

This "preparation and prevention" approach to mass casualty incidents stands in stark contrast to the "endure the tragedy" approach used in some other states.

The plan will not address responses to specific types of major incidents, such as hazardous material spills or transportation-related accidents. Rather, it will be broad in scope to ensure flexibility.

The need for flexibility was demonstrated in the two mass casualty accidents that occurred in Washington, DC on January 13, 1982. During the afternoon rush hour on that snowy day, an airplane crashed into a bridge that spans two different jurisdictions, and a subway train derailed. There is no way to write a plan that would meet the needs of such a scenario.

Therefore, the disaster plan for Maryland will be flexible enough to allow local jurisdictions to tailor their respective plans so that the available EMS resources can be used most effectively and that territorial

My plans have changed, too. When I first went into high school, I wanted to be an actress. Right now, I'm a nurse's aide. I want to be a nurse, like in an emergency room, where you're always jumping. But I'm going to wait about six months until I go into nursing school. I have to go for another round of reconstructive surgery first. They're going to relocate my thumb (actually, it's where they grafted my toe and replaced the thumb they took off) and they're going to trim some of the fat around it so I can grab things better. And they're going to work on where they took the muscle from my chest, and on the scar tissue on my lower torso. So when they're through with all that, and I'm through with all the therapy, then I'll go to nursing school. I know what I want to do with my life now. I know what's important to me and I know it's not going out and getting drunk every weekend. I know I'm not going to let things get in my way and mess up my life and my plans.

risks can be addressed.

Because response capabilities vary widely throughout the state, each jurisdiction will be able to better identify what type of assistance it would need, if any, in the event of a mass casualty incident, and can take steps to improve the mutual aid agreements it has with neighboring jurisdictions.

So far, the Maryland EMS Major Incident Planning Committee has identified the items that should be addressed in the plan. They include: authority at the scene, communication links between various responders, resource mobilization, mutual aid concerns with transportation, stockpiling resources, medical control, multijurisdictional coordination, planning, training, plan review process, variance in equipment terms, health department versus EMS authority, disaster definition, central alarm concerns, radio communications equipment, protocol for declaring a state of emergency, incident management/training, flexibility, and physician response.

Committee members include: Region I — Charlotte Bock, RN (director of nursing, Garrett County Memorial Hospital); Region II — Harold Jenkins, MD (director of emergency medicine, Frederick Memorial Hospital); Region III — Capt. Shephard (Baltimore County Fire Department), William E. Clark (director of field operations, MIEMSS), Scott Sylvester (MIEMSS), and John Peabody (Maryland Emergency Management and Civil Defense Agency); Region IV — James E. Brown, Jr. (CRT, Wicomico County); Region V — Capt. Duncan Munro (Prince Georges County Fire Department) and Capt. Mary Beth Michos (EMS officer, Montgomery County).

Dinese Drake, of the Washington Area Council of Governments, also has donated a generous amount of her time to this planning effort.

Besides being involved with the Maryland EMS Major Incident Planning Committee, MIEMSS assists with disaster planning on the local level.

For example, George Pelletier, the Region III administrator for MIEMSS, and Scott Sylvester are working with Harford County EMS personnel in developing a mass casualty guide and checklist, which will be distributed to all ambulance companies in the county. MIEMSS is funding the publication of these materials and has advised other counties of their potential usefulness.

— Scott Sylvester

TAT Program Touted for Impact on Teenagers

(Continued from page 1)

crashes had blood alcohol levels of .05 percent or greater, indicating impaired function.

Furthermore, the effects of alcohol are more pronounced in teenagers than in older people. It has been shown that, compared to the average sober driver, 16- and 17-year-old males are seven times more likely to crash when driving with blood alcohol levels of only .03 percent. Older drivers face such extreme crash risks only when their blood alcohol levels reach .10 percent or higher, the level that most states use to define intoxication.

These statistics make even more alarming the finding of another study that 75 percent of the fatally injured drivers, ages 14 to 24, who were judged to be "at fault" had alcohol in their systems at the time of the crashes.

The big difference between the TAT program and similar programs that have been tried is that it "appeals to the young person's sense of responsibility," he says.

"Our program encourages teenage drivers to adopt responsible behavior regarding drinking, the use of restraints, and speeding," he adds. "This educational approach is based on several years of prior research sponsored by the U.S. Department of Transportation. It contrasts sharply with that of programs that aim at total

abstention from drinking, or that use scare tactics or preach to students."

The TAT program is implemented through existing programs, such as school classes, youth groups, and PTAs. The presentations are provided by a team of emergency personnel, school representatives, and members of the local community. A new team is formed each time the program is offered.

The program consists of a kick-off session, designed to motivate the participants to change their drinking and driving habits, and at least four follow-up educational sessions, each lasting about an hour. The sessions usually are held a day apart.

The kick-off session is handled by the emergency personnel members of the team, which can include physicians, nurses, and prehospital care providers. The highlight of this session is a slide/tape program in which two high school students, who almost lost their lives in car crashes, tell about their nightmarish recoveries. Their stories appear on pages 2 and 3.

The school and community members of the team handle the educational sessions. The community members of the team are drawn from business groups, safety councils, county executive offices, and health departments. The school members may include students, as well as administrators, counselors, and teachers.

"Using peers should strengthen the credibility of the information provided," Dr. McPherson says. He is testing this approach in a pilot study of the TAT program. The first teenagers to go through the program were 60 members of Students Helping Other People (SHOP), a volunteer group of Howard County high school students that conducts community projects.

The TAT program was very popular with these students; they gave the program an average rating of 9.97 on a 10-point scale. In addition, the program had a significant positive impact on the students' attitudes toward drinking and driving.

Dr. McPherson says this result is particularly gratifying because the group's attitudes toward the problem were highly favorable even before going through the program. "It's much harder to improve a good attitude than a poor attitude, yet the program was able to do it," he notes.

This group of student leaders will serve as instructors for the educational sessions when the TAT program is held at Howard and Glenelg high schools this spring. To date, about 750 students at three Prince Georges County high schools—Suitland, Fairmont Heights, and Frederick Douglas—have participated in the pilot TAT project, which was started in March.

—Dick Grauel

Field Provider Registry Flags Training Needs

A computer-based registry of prehospital care providers, called the Maryland Prehospital Provider Registry, has recently been implemented, according to Ron Schaefer, MIEMSS associate director of prehospital training and certification.

"The names and certification data for all prehospital care personnel in the state have been entered into the computer, and we are now inputting data for first responders," Mr. Schaefer says.

Among other data, the registry contains each provider's company affiliation, level of training, and certification date. According to Mr. Schaefer, each of the 24 political subdivisions of Maryland has been sent data pertaining to its jurisdiction in evaluating manpower and training needs. These printouts will be sent semi-annually. The computer can flag the need to organize recertification classes because it keeps tabs on the field providers at each level of training who are nearing their certification expiration dates.

Cowley Honored by Loyola



The Reverend Joseph Sellinger, SJ, president of Loyola College, presents the Andrew White Medal to R Adams Cowley, MD, director of MIEMSS. Dr. Cowley was honored for "making Maryland a safer place to live." He was one of five Marylanders who received Andrew White medals during Loyola College's 24th annual Maryland Day Celebration.

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Plans are being finalized for EMS Care '84, sponsored by MIEMSS and scheduled for June 9, at the Medical School Teaching Facility located on the University of Maryland Hospital campus. The symposium will provide state-of-the-art information on emergency care to field providers.

The symposium will begin with registration (7:30-8:30 am) followed by the first presentation — an overview of the symposium. Items of importance to all field providers will be discussed in the general sessions which will continue until noon.

In these morning sessions, topics will include critical patient assessment and scoring the Glasgow coma scale. The presentation on airway management will cover basic procedures, the esophageal obturator airway, endotracheal intubation, and nasopharyngeal intubation. This presentation will be followed by an update on the MAST (military anti-shock trousers), with a review of specific guidelines to field providers and a discussion of some of the myths currently circulating about the MAST. Following a coffee break, spinal

and extremity immobilization will be discussed. Blunt trauma and penetrating wounds are also on the morning agenda.

The afternoon session has been designed to allow field providers to attend workshops that particularly interest them. Each participant can attend three afternoon workshops.

Workshops are scheduled on cardiac care, pediatrics, burns, hazardous materials, extremity injuries, eye injuries, and hypothermia and drowning. Also to be included in the afternoon session are case reviews conducted by the regional medical directors, a helicopter safety and utilization lecture given by the Maryland State Police, and a workshop on survival skills for the EMS field provider. An update on the Medical Examiner's role in EMS and the field provider's interface with the Medical Examiner's office will be presented. Utilization of resources — the different modes for the delivery of care currently in use in Maryland — will be discussed. In this workshop, EMS providers can become more familiar with different configurations of delivery of care, including priority dispatch and tiered response.

The symposium will conclude with a general session on the future of Maryland EMS. Certificates will be given to those attending the symposium, which has been approved for continuing education credits through MIEMSS. Credits for National Registry have also been applied for.

The registration fee is \$10 and includes parking and the luncheon. For further information, contact your regional administrator.

EHS News

Three summer courses in the emergency health services (EHS) program are scheduled for June 4 - July 13 at University of Maryland Baltimore County (UMBC).

"Supervision in EHS Systems," "Emergency Equipment: Designing, Specifying, Purchasing," and "Issues in Injury Control" will be offered; each is a three-credit course.

For information, call (301) 455-3223.