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IN THIS ISSUE

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Plenty of ethical questions arise before patients reach the hospital

EMS providers find ethical dilemmas in the field

Medical ethics issues arise before some patients ever reach a hospital or emergency room, as paramedics, emergency medical technicians (EMTs), and the physicians who serve as medical directors for emergency medical services (EMS) grapple with resuscitation, triage, and consent issues.

"I responded to [Hurricane] Katrina, and that was the largest peacetime triage in history," says **Bernard Heilicser,** DO, MS, FACEP, an emergency physician and ethics chair at Ingalls Hospital in Harvey, IL, and medical director of the South Cook County (IL) EMS system. "I triaged 150 patients in an hour, and of those, 32 were in fluid overload due to not being able to get dialysis. We had only two or three dialysis spots — which patients get them?

"EMS makes those decisions, on a smaller scale, all the time," he continues. "Who is going to get the heavy meds and who isn't? We had a situation where there was a police chase and the guy slams into a police car that was blocking the road. The cop gets an open femur fracture, and the [fleeing suspect] hit the windshield with his head. Who gets the helicopter? It's the one who's sickest, but is that always the most ethical decision?"

Paramedics and EMTs, operating under the direction of standing orders directed by physicians, are performing more and more sophisticated procedures in the field — in the case of paramedics, invasive procedures that not many years ago were not performed outside a hospital. Depending on who you ask, this increased sophistication has either generated more ethical issues or reduced them.

"In terms of triaging, we can do more in the field. At the paramedic level, they can intubate, do pericardial centesis, do more invasive procedures," says Heilicser. "If they can do more, and now there's a mass casualty event, they have to face the question of, 'Do I take the time to resuscitate this one critically injured person, or do I let him go and treat 10 others in the time and with the limited resources I have?' With increased sophistication come more ques-

tions of what can they do."

But knowledge is power, says **Jerry Johnston,** BA, EMT-P, EMS director for the Henry County (Iowa) Health System and president of the National Association of Emergency Medical Technicians (NAEMT).

"With increased sophistication comes increased training and didactic knowledge and clinical knowledge, and the medical director guides the process," Johnston suggests. "So the more sophisticated systems probably deal with fewer ethical questions than others with fewer resources."

But the issue of triage — doing the greatest good for the greatest number — can go against the grain of EMS providers, he admits, because their instinct and training is to treat the worst-injured first.

"It's an ongoing, evolving process, to hone triage skills," Johnston adds. "In an event like a plane crash, with 150 to 200 people spread over an area, if a person has an injury that is incompatible with life, you pass them over. I know there have been rescuers who have had post-traumatic stress disorder and other issues from having to make those decisions."

Terminating resuscitation a controversial issue

Before Sept. 11, 2001, Heilicser says prehospital ethics "was a hot topic. I was giving ethics lectures to anyone who would listen."

In the years since the terrorist attacks that changed how Americans and American public safety think about homeland security, Heilicser says he's asked more often to talk about EMS response to weapons of mass destruction and other terror threats.

But issues like prehospital DNR orders and when to terminate resuscitation in the field remain hot-button topics.

Terminating resuscitative efforts has been much debated recently among EMS systems in the United States, with many establishing set rules for initiating resuscitation and transport to the emergency room with lights and sirens running. Public safety is one concern; primarily, however, EMS leaders say the decision to set limits is based on the reality of survival of people who go into cardiac arrest outside the hospital.

Most patients do not survive out-of-hospital cardiac arrest, so a 2005 study reported in *Prehospital Emergency Care*[1] reviewed data for 501 adults who experienced nonhypothermic cardiac arrest and were transported to two urban emergency departments.

Of those 501, 87% died in the emergency room, 10% died in the hospital, and 2% survived to discharge.

"The preponderance of evidence is that if you don't resuscitate within a certain time, then resuscitation is futile — we know this," says Johnston.

"But at what point do you say, 'No more?' When do you say, 'We're going to stop, we're not going to transport this person just so the physician can declare them dead at the hospital?'"

Johnston recalls that when he started working in EMS in the late 1970s, everyone received full-out resuscitative efforts, regardless of the likelihood of success.

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"We did CPR for hours and hours and hours, with the hope that you could eventually produce a heartbeat. And with very rare exceptions, usually only with hypothermia in cold-water drownings, that never happened," he says.

Decades of experience like this, Johnston says, has led some systems to establish protocols for not transferring patients and limiting resuscitative efforts.

"They say that in specific situations, we are not going to transfer; we will try for 20 minutes, and then after that we aren't going to transport," he says.

Informing families, bystanders

Johnston and Heilicser say the trend to establish clearer guidelines for when to initiate and terminate prehospital resuscitation leads to another issue — paramedics and EMTs who must tell family and bystanders that they are not going to continue efforts.

"That turns the EMT or paramedic into a family provider, grief counselor, and social worker for the family," he says. "It's not an easy decision, and if you're going to make that decision then the personnel in the system need to undergo more training in those areas than they normally have."

Making a difficult ethical decision even harder, Johnston asserts, is the unrealistic expectations many laypeople have about what prehospital medicine can accomplish.

"The public expectation is that EMS comes, and everyone is saved," he says. "Television fuels that perception, but the very best EMS systems only save one-third or so of people in cardiac arrest, in terms of them leaving the hospital in the state they were in prior to the event. And I think that's the approach we should take — sure, we can resuscitate them and get them into the ICU, but we need to look at how many are leaving the hospital in a state similar to what they were in prior to the event, and it's not very many."

Heilicser says that public perception is why EMTs and paramedics start CPR on cardiac arrest victims in cases that they know are futile.

"A lot of times it's futile and it's done just for show [for the benefit of family members], which we all know," he adds.

Johnston says that in his role as NAEMT president he has talked to systems that are successfully establishing tighter protocols for out-of-hospital resuscitation and transport, and what makes them successful is the additional training the systems provide their EMTs and paramedics.

"They are getting their people additional training in grief counseling, really trying to explain what's going on," he relates. "They are training people how to say, 'We're doing all we can, but it really doesn't look very good,' and then dealing with the after-effects, and that's not something we have ever really done as an industry."

DNRs a two-edged sword

Prehospital DNR orders, the out-of-hospital version of DNRs that instruct physicians that someone does not want extraordinary measures taken to resuscitate or extend life, provide guidance and add to the ethical pull felt by EMS personnel, Heilicser says.

"DNRs were the biggest issue for a while — understanding advance directives in the field," he explains. "A lot of times [EMS personnel] get there and there's a contradiction — the patient looks workable but there's an advance directive that says not to. Or the reverse: The patient is someone who it's futile to try, but there's no DNR."

Paramedics, he says, "face some gut-wrenching cases — the 90-year-old ladies about to code in a nursing home, with no advance directive. It's very difficult to crack the ribs in people you feel pretty certain are futile, and paramedics are torn by that. The antithesis is the patient they would like to resuscitate, but have an advance directive telling them not to."

Heilicser says here, too, education is key.

"There are high-profile cases involving DNRs and advance directives, like the Terri Schiavo

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case, but how many people are actually getting DNRs, living wills, and powers of attorney for health care?" he asks. "Those are issues not covered that intensely in EMS training, and sometimes when they call in to the hospital, the nurse or doctor they talk with might not be all that familiar, either."

Other issues concern EMS and doctors

The Emergency Medical Treatment and Active Labor Act (EMTALA), enacted to protect against patients being denied emergency medical care, is routinely being violated by emergency departments that are at such crisis levels that they are on bypass status day after day, forcing ambulances to travel to other, possibly more distant, hospitals.

"I'll go in tonight, and we'll be on bypass, with 10 people waiting around the desk — not waiting to be seen, but waiting at the desk [to check in]," Heilicser says. "People aren't paying attention to the Institute of Medicine [report] saying we're at the breaking point. Isn't it an EMTALA violation when a patient wants to come to your hospital, but you have to turn them away?"

The Institute of Medicine (IOM), in its 2006 report, *Emergency Medical Services at the Crossroads*,[2] points out what emergency room personnel and EMS providers have long known — more and more people are using 911 as their gateway to health care.

Also, the IOM noted that there is substantial variation nationwide in how medical oversight and review of EMS systems are conducted. In some systems, physicians with little or no training and experience in out-of-hospital medical care provide EMS direction, and there currently is no emergency medicine subspecialty of EMS. The IOM report concludes with a recommendation that the American Board of Emergency Medicine create a subspecialty certification in EMS for physicians who provide medical direction to prehospital providers.

Documenting consent, refusal

EMS leaders say one important piece of business that frequently gets lost in the urgency of an emergency call is proper documentation of informed consent and informed refusal.

"How do you truly get an informed refusal?" asks Heilicser. "It's estimated that 20% of paramedic calls end up in refusal, but are paramedics truly telling the risks of this decision, or is it that the paramedics are in a hurry to get going to the next call?"

Besides being good medicine to ensure a patient knows the risks of refusing care, a true informed refusal can make a big professional and financial difference later.

"I don't think they fully appreciate how, down the road, that little bit of documentation could preserve a lot of grief if they end up in court," adds Heilicser. "And sometimes you see them letting a family member sign off on the refusal, but are they really determining if that family member

Strategies for Avoiding EMS Control Liability

When providing medical control, devote appropriate attention to cases involving emergency medical services. Patients in the field deserve no less attention than those actually in the ED.

- Demand adequate patient reports from EMS personnel in the field. Repeat crucial information over the radio or telephone to minimize the likelihood of misinterpretation. Ask questions if the report seems unclear or incomplete.
- Ensure the competence of EMS personnel under your control through appropriate training, testing, and supervision.
- Acquaint yourself with the EMS personnel to whom you will provide medical direction. Learn their strengths and weaknesses. Familiarize yourself with the EMS system, its capabilities, and limitations. Remember that EMTs and paramedics often must provide emergency care under less-than-optimal conditions.
- Require appropriate documentation.
- Familiarize yourself with the EMS statutes and regulations of the jurisdiction in which you will provide medical control. Pay particular attention to EMS treatment protocols, so as not to recommend treatment that falls outside the scope of practice of the EMTs or paramedics.
- Adhere at all times to the relevant standard of care.
- Remember that your actions as a provider of medical control might create civil liability not only for you, but also for the EMS system, the hospital in which you practice, and the EMS personnel. ■

Source: What is physician/nurse liability for directing activities of EMTs? *ED Legal Letter* 2001; 12:61-72.

is the appropriate surrogate?"

Medical directors for EMS should make efforts to address ethical issues and point out potential ethical conflicts before they arise in the field and force emergency personnel and the doctors they are on the phone with to "shoot from the hip," Heilicser suggests.

"Deal with them now and think about them now, so then when they occur, you have the knowledge and you know how to do the right things because you've addressed them in an academic environment beforehand," he continues. "Teach the doctors, nurses, and paramedics these things in a principled, focused manner, emphasizing the basic principles of ethics — beneficence, nonmalfeasance, justice, and autonomy — and they will be prepared, rather than finding themselves wondering, 'How will I deal with this?'"

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When should you deactivate implanted cardiac devices?

Look to patient autonomy standards

Are internal defibrillators and pacemakers biofixtures, like artificial hearts, that should not be deactivated when a patient is dying? Or are they like any other external device — for example, supplemental oxygen — that are protective of life but employed at the discretion of the user?

A survey of hospices in the Denver area shows that the issue of deactivating defibrillators and pacemakers arises often, and physicians vary widely in how comfortable they are with deactivating the devices. Doctors perceive a lack of adequate information, the survey reports.

James Kirkpatrick, MD, an echocardiologist at the Hospital of the University of Pennsylvania and an associate of the Center for Bioethics at Penn, says there is a lack of national guidelines that would help physicians — and patients — make decisions about implanted devices when the end of life approaches.

"On a national level, there hasn't been enough discussion about this," says Kirkpatrick. "The traditional agencies [American College of Cardiology, American Heart Association, Heart Rhythm Society, etc.] haven't come forward and addressed this issue. But many practitioners are very uncomfortable with turning them off."

But many patients themselves are anxious for their doctors to agree to turn off the devices when they are actively dying, so as not to artificially prolong their lives. This creates a dilemma for their physicians.

And more and more physicians are going to find themselves facing this question, as the number of patients with implantable devices skyrockets. Kirkpatrick says current data indicate that 3 million patients qualify for implantable devices, and 400,000 more come into qualification each year.

"So we're talking about a huge population, and before, there hadn't been much discussion about what to do with them at death," he points out. "Now we have all these patients [with devices] who get sick from cardiac disease or who are just getting older and getting other diseases that are going to be terminal, so we need more discussion on what to do with them."

Discuss devices early with patients

The survey of hospices in Denver, published in 2005[1], indicates that while the question of whether to deactivate internal cardiac devices arises often and there is clinical and ethical support for deactivating them, the decision to do so is accompanied by "high feelings and inadequate information."

The author of the study, **Jennifer Ballantine,** MA, writes that if a competent patient perceives that the device is interfering with a peaceful death and prolonging suffering, keeping the device going may constitute an "intolerable burden." Relieving that burden, she adds, could be ample justification to deactivate the device.

Ballantine asserts that while the literature is "scant" on the subject of withdrawing or deactivating low-burden support technologies, such as defibrillators and pacemakers, there is no suggestion in the published papers that deactivating the devices might legally or ethically

constitute physician-assisted suicide or euthanasia, even in patients completely dependent on the devices.

What needs to happen, Ballantine proposes, is that physicians and patients need to talk about implanted devices upon admission to hospice, or in other discussions about any end-of-life issues, particularly when the topic of extraordinary measures arises.

"Decisions made in advance can provide clear guidance for family and care team members," writes Ballantine.

Nathan Goldstein, MD, an assistant professor at Brookdale Department of Geriatrics and Adult Development, Mount Sinai Medical Center, NY, asked about physician-patient discussions regarding deactivating defibrillators at Yale-New Haven (CT) Hospital in 2004, and found that the issue came up in only 27 out of 100 terminally ill patients (all of whom had defibrillators) at the hospital — sometimes, not until after the devices had delivered shocks that were painful to the patients, distressing to family members who witnessed them, or both. Among patients who had DNRs, the discussion still only took place 45% of the time.[2]

Part of the problem, Kirkpatrick says, is that electrophysiologists "are not trained to think about end-of-life care and hospice, and hospice physicians are not trained to think about the intricacies of defibrillator management."

"Cardiologists are somewhere in the middle," he adds.

One way to get clinicians thinking along the same lines, he says, would be to establish end-of-life and ethics education initiatives for electrophysiologists and cardiologists, and for primary care and hospice physicians on defibrillator management at the end of life.

Talking with patients about the benefits and drawbacks of disabling internal devices at the end of life not only allows the physician to fully inform the patient, but also may shed light on the patient's reasons for wanting the device disabled.

"You have to look at why someone would be interested in turning it off," says Kirkpatrick. "In the traditional sense, most people who make that decision have a terminal illness and don't want to continue life unnecessarily. So [for them] it makes sense to turn it off, because they're thinking that if they die from an abnormal heart rhythm, that is not such a bad way to die."

Avoid unnecessary suffering

While most patients who undergo CPR or a shock from an implanted defibrillator are unconscious when it happens, sometimes patients are awake and aware of the shock, which they describe as being like a kick in the chest by a horse.

"Undergoing CPR and defibrillation is traumatic, and getting shocked multiple times while in hospice [as the heart rhythm falters] can be extremely distressing and painful," Kirkpatrick says. "So there is an ethical issue involved — to relieve suffering. And when people have multiple conditions, they can be predisposed to unnecessary suffering."

The action of a pacemaker, however, is less disturbing to the end-of-life scenario in most cases, Kirkpatrick adds.

"If you continue pacing, in most cases that won't forestall death, because by the time a patient gets to the end of life, there's a metabolic milieu that will probably prevent the pacemaker from capturing [the rhythm]," he explains. "So I wouldn't necessarily turn [a pacemaker] off in most cases, and that seems to be the consensus."

Until national guidelines evolve, Ballantine suggests using accepted ethics guidelines for discontinuing life-sustaining treatment when discussing deactivation of devices in competent patients. These guiding points include:

- The patient's request is rational and consistent;
- The physician understands the patient's condition, and the patient understands his or her options;
- Any conditions that might distort the

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patient's judgment should be identified and addressed;

- A clear plan should be set up; and
- A second opinion and/or ethics consult should be sought.

Should devices be recycled?

Reuse of internal defibrillators and pacemakers in humans is currently illegal in the United States (though pacemaker reuse in animals, usually dogs and horses, is common). But Kirkpatrick is among physician-ethicists who think the subject is ripe for discussion.

"After death, we found in surveying morticians in the Chicago area, most devices get thrown away if they are removed," he relates. "If they are still in the body, they get buried." (Implanted devices are removed before cremation.)

"We found that morticians really don't know what they are supposed to do with them. The device companies want them back, and the reason for that is they can do bench testing on the pulse generation to determine the error rate."

The official position of the Heart Rhythm Society is that the devices should be returned, but Kirkpatrick says pacemakers are finding new use via transplants in other countries.

"A missionary doctor can take them overseas and transplant them into patients who otherwise wouldn't get them," he explains. "Defibrillators probably are less useful, but pacemakers can be very important [to such patients]. When you consider someone in South America with Chagas disease [parasitic disease that can lead to cardiomyopathy, altered heart rhythm, and cardiac arrest], who is a laborer who can't work and support his family, a pacemaker would not only be lifesaving for the patient, but for the family as well."

There are still questions, though, about how to sterilize used devices adequately, as well as the reliability of recycled pacemakers and how to follow up with patients who don't have ready access to care.

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Controversial treatments: Where does religion fit?

Some let own beliefs guide handling of treatments

Most physicians polled for a recent study say they feel an obligation to present all options to patients seeking legal but controversial procedures that the physicians object to, but more than one-quarter say they would not feel compelled to refer the patient to a doctor who did not object to the objectionable procedure.

But while 86% of doctors say they would feel obligated to disclose all options to patients about controversial treatments (terminal sedation, abortion, or birth control for teens) and 71% said they would feel obligated to refer patients to other physicians who don't object to the procedures, the authors of the study say the number who disagree or are undecided is not insignificant.

"If physicians' ideas translate into their practices, then 14% of patients — more than 40 million Americans — may be cared for by physicians who do not believe they are obligated to disclose information about medically available treatments they consider objectionable," writes lead author **Farr Curlin**, MD. "In addition, 29% of patients — or nearly 100 million Americans — may be cared for by physicians who do not believe they have an obligation to refer the patient to another provider for such treatments."

Curlin and his colleagues at the University of Chicago reported their findings in February 2007 in the *New England Journal of Medicine.* The study reflects the opinions of 1,144 physicians across all specialties.

Regardless of whether the physician feels obligated to refer the patient to another doctor for a procedure the treating physician objects to, 63% say it is ethically acceptable for them to tell the patient why they object.

Curlin, assistant professor of medicine and a member of the MacLean Center for Clinical Medical Ethics at the University of Chicago, says his group's survey data point to a basic dilemma confronting physicians and patients.

"Because patients and physicians come from many different moral traditions, religious and secular, they will sometimes disagree about whether a particular medical intervention is morally permissible," Curlin says.

Objections linked to gender, personal beliefs

Curlin and his colleagues report that doctors' objections to performing the controversial practices, referring to other physicians for the procedures, or telling patients about their objections were closely associated with the physicians' gender, religious characteristics, and whether they personally objected to one or more controversial clinical practices.

Physicians who are male, more religious, and who personally objected to controversial practices were more likely to believe it is acceptable for doctors to tell patients about their objections, and less likely to believe physicians must present all options to patients and refer them to a clinician who does not object to the requested procedures.

"This study suggests that those most likely to be asked to act against their consciences are the ones most likely to say physicians should not have to do so," Curlin says.

The evidence raises basic philosophical questions, according to the study's co-author, **John Lantos,** MD, professor of pediatrics and medicine and associate director of the MacLean Center for Clinical Medical Ethics. "Is there room within the profession for radically different approaches to care based on moral or religious opinions?

"Should doctors leave their personal religious beliefs at the door, or are those beliefs such a central element of personal identity that the very notion of leaving them at the door is incomprehensible?"

Lantos says colleagues' reactions to the study results drew mixed reactions, with most taking a middle ground, believing that doctors have a right to follow their consciences, but that patients also have the right to legal, medically approved treatment."

This "straddling the fence" middle ground puts the burden on patients, Curlin suggests.

"Patients should know that physicians are divided on this issue," he says. If patients talk with their physicians about controversial treatments ahead of time and detect areas of moral disagreement, he adds, they should try to work out an approach that is acceptable to both physician and patient before a crisis occurs. ■

SOURCES/RESOURCE

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Harp provides therapy at end of life for patients,

Music calms agitation, regulates breathing

At the end of life, there often comes a point when there's nothing more, clinically, that can be done. That's when the music starts for some patients.

"There is therapeutic value in music when someone is actively dying," according to **Donalyn Gross,** PhD, LCSW, CMP, a Longmeadow, MA, social worker and thanatologist who provides therapeutic harp music to dying patients.

Gross has been a counselor to the dying and their families for three decades, but a few years ago she heard a therapeutic harpist playing at the bedside of a patient.

"I knew that's what I wanted to do," she says. A lifelong musician, Gross became a certified music practitioner through the Music for Healing and Transition Program in Hillsdale, NY (www.mhtp.org). As the acceptance of music therapy in health care gains acceptance, industry-wide protocols are being developed for training and certification of music therapists.

Jewish Geriatric Services, a Springfield, MA, nursing facility, received a grant in late 2006 to provide music to the terminally ill in their last hours of life. When a patient is actively dying, Gross is paged and family members are offered her services.

Often, they are the primary recipients of Gross's therapy. She plays for about 45 minutes on a portable harp designed to be easily moved and used in confined spaces.

"I would say a majority of patients aren't aware I'm there," says Gross. But as she plays — usually unrecognizable melodies in low tones —

the patient's breathing regulates and slows, and agitation wanes.

"A big part of it is for the families. Sometimes they just need a break and they know someone is there to calm [the patient]," she says. "Sometimes they stay, and the music soothes them. It just makes the atmosphere very peaceful and comfortable."

The results of a study conducted by researchers at the University of Utah Center on Aging, published in 2006 in the *American Journal of Hospice and Palliative Medicine*,[1] indicate that harp vigils at the bedside of dying patients could have a positive influence on both the agitation and wakefulness of the patients. The reasons for this, researchers speculate, could be that hearing is the sensory ability that usually functions until the end of life, and that music "can influence the heart and brain on a physiological and psychological level simultaneously."

Harp music seems particularly effective, the Utah researchers found, a point agreed to by Gross and associations that promote music for end of life. Maybe because harp music is associated subconsciously with angels and death, Gross suggests; however, while harps are the most common, music therapists have reported similarly positive effects with other instruments.

"The important thing is, when you play music for the dying, you don't want to play recognizable music, because you don't want to bring that person back," Gross explains. "You play in low tones, in certain rhythms, and you try to match the patient's breathing, to calm them down."

If Gross receives a page she can't answer, hospice staff can play a CD she recorded of some of her music; other good substitutes are new age music (no lyrics) or recordings of nature sounds (waterfalls, rainforest, ocean sounds).

"We have had other [nursing home] residents wheel up to the door and listen while I'm playing for someone who is dying," she recounts. "It is very relaxing and reduces stress. A couple of hospitals, I've heard, have harps in the operating room."

(Editor's note: For more information on therapeutic music, contact Donalyn Gross at (413) 733-8592 or visit www.goodendings.net.)

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Stanford gets on the stage to generate ethics debate

Brain transplantation, genetic manipulation topics

Genetic manipulation and a transplant that would test medical ethics at all levels are being examined at Stanford University, but the drama is playing out not in the operating theater, but on stage.

The Medical School of Stanford and the National Center for New Plays at Stanford, both in Palo Alto, CA, have collaborated on two plays that address ethical and moral concerns surrounding advancements in medicine.

According to **Philip Pizzo,** MD, academic dean at the medical school, using drama to explore the topics of questionable genetic manipulation and brain transplantation is a fairly natural step.

"It is not surprising that there is a strong association between medicine and the humanities that is often depicted in literature, art, and theater," says Pizzo. "The boundaries of medicine rise from their fundamental underpinnings in basic science and extend to the ethereal limits of humanity and spirituality."

David Goldman, director of the National Center for New Plays at Stanford, says that medical procedures or treatments that have not quite arrived yet make excellent material for the stage.

"They are at the forefront of religious and scientific and political debate," says Goldman. "Reinventing Eden" and "Echoes of Another Man" center around the effects that the novel procedures have on the people involved.

"There are several ethics groups connected with Stanford, and since the genetic manipulation play deals with major ethics issues, I think this is very much a joint exposure for medicine and theater," Goldman says. And since genetics is a hot topic at Stanford, the initial production generated some lively discussion, he adds.

"What has interested me is the divide between scientific thinking and non-scientific thinking," says Goldman. "In this case, the first-born boy [in the play] was retarded. The dad, a highly respected genetics researcher, convinces his wife to allow him to put his research breakthrough to work on the next pregnancy so as to avoid the retardation likelihood, but when the 'normal' brother finds out that he was the result of this

intervention, he is enraged."'

Goldman says the scientists in the audience thought the boy should have been grateful.

"'Why is he so angry?' were the questions," he explains. "The community audience had the opposite reaction — 'How could he not be angry at this betrayal?'"

Early readings of the second play, about the effects a brain transplant has on the lives of the organ recipient, his family, and that of the donor generated questions among the audience about the effects religious beliefs have on the brain and body.

The intersection of medical science and drama has been successful enough that Goldman and his colleagues at the medical school hope to continue the project.

"I've just heard of an AIDS intervention play that raises significant ethical issues, but I haven't read it yet," he explains. "

Mia McCullough, author of "Echoes of Another Man," the play about brain transplantation, says she knows firsthand that the possibilities for medical ethics-based plays are boundless.

"During the development of the play, a lot of people said to me, '[Brain transplantation] is ridiculous, it's not possible,'" she explains. "To me, it doesn't matter if it's impossible. When I started working on this play, cloning was not yet a reality. But here we are, and I no longer believe in 'impossible.'

"It's made me think we should call science fiction 'science not-yet-happened' instead."

(For more information on the collaboration between the Stanford University School of Medicine and the National Center for New Plays, e-mail David Goldman at davidg1@stanford.edu.) ■

PA acts to sort out who makes end-of-life decisions

Law ends sometimes-contentious "family committees"

Pennsylvania physicians are hoping a new law will eliminate deathbed feuds among family members at odds over who may make end-of-life decisions for patients who aren't capable of speaking for themselves.

According to **Christopher Hughes**, MD, an intensive care specialist in Pittsburgh and a member of the Pennsylvania Medical Society's board of trustees, the new law sets out a hierarchy of family members who, in the absence of a living will or health care agent, are given priority when it comes to making end-of-life choices. Prior to the new law, which went into effect in January, when a dying patient had no living will or legal health care agent, was incompetent, and in an end-stage condition, the physician would gather family members together to discuss whether the patient would want certain types of resuscitative measures or artificial breathing or nutrition.

This led to conflicts among family members who could not agree.

"The new law clearly defines a chain of command within a patient's family," Hughes explains. "For most families, there's not a problem, but you do occasionally have situations in which there are strong disagreements among family members about what our patient — their loved one — would want."

Under the new law, the patient's spouse generally is first in line among family members to be given the responsibility of end-of-life care decision making through the new law. An adult child is next in line, followed by a parent, an adult brother or sister, and finally an adult grandchild. In situations where these family members do not exist, an adult with knowledge of the patient's preferences and values would make the decisions.

"The new law handles most situations for legal purposes," Hughes says. "However, it doesn't handle hard feelings between family members."

Pennsylvania physicians are urging patients, even with the new law, to create living wills and designate health care agents, and to give copies of those documents to their physicians.

Medical and legal experts suggest physicians talk about end-of-life directives with their patients. Physicians should be familiar with their states' laws on patient rights and advance directives, and talk with patients about end-of-life situations they may encounter and what choices they would want made.

Conversations about end-of-life directives should be documented in the patient's chart to serve as a guideline for physicians and family in the event he or she does not create a living will or advance directive. ■

CE/CME answers

13. B; 14. B; 15. D; 16. A.

NEWS BRIEFS

Off-label antipsychotics: Where's the proof?

Some doctors are prescribing the off-label use of antipsychotic medications approved to treat schizophrenia and bipolar disorder without strong evidence that they are effective when prescribed instead for dementia, depression, and other psychiatric disorders, according to a government analysis. The Department of Health & Human Services' Agency for Healthcare Research and Quality (AHRQ) reviewed so-called "atypical antipsychotics" for their effectiveness and potential for serious side effects when used off-label.

The review examined antipsychotics, including Abilify, Zyprexa, Seroquel, Risperdal, and Geodon, which are approved to treat schizophrenia and bipolar disorder. Off-label prescribing of these drugs for sleep problems, depression, post-traumatic stress disorder, dementia, obsessive-compulsive disorder, and Tourette's syndrome is not supported by scientific evidence, the researchers found. On the contrary, they found "strong evidence" that atypical antipsychotics can increase risk of stroke, tremors, weight gain, sedation, and gastrointestinal complaints. The report on AHRQ's findings can be found at www.effectivehealthcare.ahrq.gov. ■

Pediatricians struggle with error disclosure

Almost 100% of pediatricians in a recent survey said serious medical errors should be disclosed to patient's families, with almost all saying making that admission to parents would be difficult. Most pediatricians support both reporting medical errors to hospitals and disclosing them to patients' families, but say they believe formal error-reporting systems are inadequate, according to results published in the February issue of *Archives of Pediatrics & Adolescent Medicine* (2007;161:179-185).

The survey attempted to shed light on why, with physicians encouraged to openly communicate errors to improve patient safety, many errors still remain unreported to hospitals and patients. The authors speculate reasons may include a medical culture of autonomy and individual accountability, the threat of legal action, and fear

CME instructions

Physicians participate in this continuing medical education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue. Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge.

To clarify confusion surrounding any questions answered incorrectly, please consult the source material. After completing this activity, you must complete the evaluation form provided at the end of each semester and return it in the reply envelope provided to receive a credit letter. When your evaluation is received, a credit letter will be mailed to you. ■

CME objectives

After reading each issue of *Medical Ethics Advisor*, you will be able to do the following:

- discuss new information about hospital-based approaches to bioethical issues and developments in the regulatory arena that apply to the hospital ethics committee;
- stay abreast of developments in bioethics and their implications on patient care, risk management, and liability;
- learn how bioethical issues specifically affect physicians, patients, and patients' families. ■

COMING IN FUTURE MONTHS

- Medi-spas: Good medicine?
- Texas mandate of human papillomavirs vaccine
- New York hospital to transplant uterus
- How secure are electronic medical records?

of damage to professional reputation.

The survey asked slightly more than 550 pediatricians and pediatric residents about their experiences and attitudes toward disclosure. Most reported they had been involved in at least one error: 39% a serious error, 72% a minor error, and 61% a near miss. Slightly more than 90% said they use a formal error-reporting system; three-quarters said they informally report by telling supervisors, senior staff, or colleagues. Only slightly more than one-third had ever disclosed a serious error with a patient's family. ■

CME Questions

13. Regarding the oversight of emergency medical services by physicians, the Institute of Medicine report "Emergency Medical Services at the Crossroads" recommends:
A. EMS become a gateway for access to medical services.
B. The American Board of Emergency Medicine create a subspecialty certification in EMS for physicians who provide medical direction to prehospital providers.
C. No standardization is needed for EMS oversight.
D. All of the above.

14. The discussion of whether to deactivate an implanted cardiac device (defibrillator or pacemaker) need only be initiated if the patient is facing death due to a cardiac-related ailment.
A. True
B. False

15. Which of the following statements is true about reuse of implanted defibrillators and pacemakers?
A. Pacemakers, but not defibrillators, may be reused in humans in the United States.
B. Neither device is of use to patients overseas, due to regulatory prohibitions.
C. All concerns regarding sterilization of used devices have been resolved.
D. Pacemakers are reused in the United States in animals.

16. A University of Utah Center on Aging study indicates that harp vigils at the bedside of dying patients could have a positive influence on both the agitation and wakefulness of the patients.
A. True
B. False

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