aid in the development of interventions to treat and prevent the metabolic injuries in the brains of patients with Lesch–Nyhan disease.

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CARDIOPULMONARY RESUSCITATION ON TELEVISION

Exaggerations and Accusations

ONE of the most popular shows on television this year is *ER,* a Chicago-based drama that depicts the professional and personal lives of medical students, residents, and attending physicians working in the emergency department of an inner-city public hospital. *ER,* of which I am coproducer, and other current medical programs on television, including *Chicago Hope* and *Rescue 911,* are dramatized, not documentary, accounts of doctors' and patients' lives. In its depiction of a busy trauma center, *ER* presents exciting cases of cardiopulmonary resuscitation (CPR), including thoracotomies and defibrillations, often performed in young victims of violence. *Chicago Hope* details the perpetually hectic lives of surgeons, whereas *Rescue 911* focuses on amazing, often miraculous rescues based on true incidents throughout the country. Consequently, as Diem et al. point out in this issue of the *Journal,*[1] these television programs do not accurately reflect the use of CPR in the United States, where it is most often performed in elderly patients with underlying cardiac disease.

Diem et al. note that *ER, Rescue 911,* and *Chicago Hope* overrepresent cardiac events requiring resuscitation in children, adolescents, and young adults; underrepresent the primary type of cardiac failure (cardiac arrests in the elderly); and overrepresent the success of CPR. This is an important misrepresentation of reality, they assert, because most patients, ranging from 70 to 92 percent in the studies they cite, learn about CPR from television and overestimate their own chances of survival after resuscitation.[2-4]

The critical question raised by Diem et al. is whether viewers, particularly elderly persons, have an unrealistic view of CPR because of what they see on television. Certainly, television affects viewers' knowledge, but it is difficult to determine exactly how the depiction of CPR on television influences beliefs and attitudes. Counting instances of resuscitation and their outcomes on television programs is one way to gauge how often CPR is presented and how often it is portrayed as successful. But counting events does not tell the entire story.

Diem et al. group together three different medical dramas and pool the number of resuscitations portrayed on these programs. The result is a very skewed picture of the kinds of events depicted on each show. *Rescue 911,* by its very nature, depicts daring rescues (it is not, after all, called *Death 911*), so one would expect all instances of CPR to have good, even miraculous, outcomes, which is indeed the case. Many of the resuscitations shown on *ER* involve cases of acute trauma, which is not surprising, since the stories take place at an urban trauma center.

More important, however, Diem et al. fail to look at the circumstances surrounding individual instances of CPR. One episode of *ER,* for example, portrayed an elderly husband and wife deciding together to issue a do-not-resuscitate order after the woman had received a diagnosis of respiratory failure and faced the prospect of intubation.

Diem et al. also criticize the three shows for failing to depict disability after CPR, but they do not note that the results of CPR have on occasion been discussed. One episode of *ER* concerned the resuscitation of a child who had hypothermia after nearly drowning. The doctors obtained an electroencephalogram and discussed the possibility that the child might have sustained neurologic damage before being resuscitated. In another episode of *ER,* an elderly man was resuscitated before physicians and nurses discovered a do-not-resuscitate order in the chart from his last admission. By focusing on events and outcomes, without considering the

context and details of each resuscitation, Diem et al. overlook the attention paid to serious discussions of the ramifications of CPR.

Diem et al. suggest that because of the high rates of survival after CPR on these television shows, patients and their families may have overly optimistic expectations of CPR. This criticism would have some merit if people indeed had unrealistic expectations of CPR after viewing these programs, and writers would have to bear this problem in mind when writing medical stories.

How are these stories written? On *ER,* six writers, including a practicing emergency physician and me (until recently a fourth-year student at Harvard Medical School), collaborate in planning the "arcs" — or continuing stories — of the seven principal characters. We draw on medical stories (many inspired by my own experience or by incidents related by doctors and nurses throughout the country) to illustrate the characters' struggles with ethical issues or personal problems. For example, when Carter, a fourth-year medical student, inadvertently injures a patient while performing a thoracentesis, his first reaction is fear that he will not be selected for the residency of his choice rather than concern about the patient's well-being. We decided to use this story because it shows how a medical student can lose sight of the primary goal of patient care in a competitive environment.

We try to make the medical care shown in each episode credible and accurate, without sacrificing the story's dramatic impact. We believe we would be doing a disservice to our audience if the material were incorrect. We are well aware, as Diem et al. point out, that our show may be an important source of medical information for millions of viewers. With two medically trained writers working on the show, we have built-in checks for accuracy. The scriptwriter consults with us, and we provide suggestions for the medical dialogue, along with an outline of the procedures involved in a particular case. Once the script has been completed, we meet with a technical advisor trained in both emergency medicine and internal medicine and resolve any disagreements about therapy or diagnoses — just as in real life. Should we treat the patient with a second- or third-generation cephalosporin? Can we forgo a computed tomographic scan of the head in an episode about a patient who fell down the stairs and hit her head?

We often say that writing for *ER* is like taking care of real patients without ever leaving the computer keyboard. We think through all the steps in treating a patient and then dramatize that scenario. It is in the dramatization that we take some license with reality. Procedures are performed more quickly than in a real emergency room, but the laboratory and diagnostic tests, as well as the treatment plan, reflect what is considered to be a good standard of care.

Dramatization is at the heart of the questions Diem et al. raise about the medical shows in their study. On *ER,* we often present cases of trauma, in which CPR is required, because of the dramatic impact. These episodes are fast-paced and visually exciting. If we were to reenact a minute-by-minute account of actual events in the emergency department, we would not have 35 million viewers each week. Real life in an emergency room is often quiet, even boring; a television drama cannot be. Nevertheless, Diem et al. are right to point out that writers must be cognizant of the effect dramatizations can have on viewers, particularly those who glean much of their medical information from television. We have no evidence, however, that watching these programs directly affects viewers' personal choices about CPR.

Perhaps the most important aspect of the study by Diem et al. is their recommendation that physicians inquire about and discuss patients' perceptions of CPR. In a 1984 study, Bedell and Delbanco found that physicians were unlikely to discuss CPR with their patients, even if they believed that their patients should participate in decision making on this issue.[5] Ten years later, Morrison et al. noted that physicians were still reluctant to discuss advance directives with their patients, despite studies suggesting that patients prefer these discussions to be initiated by the physician.[6] That a majority of patients learn about CPR from television suggests that physicians are not providing their patients with the information necessary to make critical decisions. Instead of blaming television for failing to portray CPR accurately, particularly since in-depth discussions of CPR have taken place on *ER,* physicians need to make a concerted effort to discuss this difficult topic openly with all their patients.

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SPECIAL ARTICLE

CARDIOPULMONARY RESUSCITATION ON TELEVISION

Miracles and Misinformation

SUSAN J. DIEM, M.D., M.P.H., JOHN D. LANTOS, M.D., AND JAMES A. TULSKY, M.D.

Abstract *Background.* Responsible, shared decision making on the part of physicians and patients about the potential use of cardiopulmonary resuscitation (CPR) requires patients who are educated about the procedure's risks and benefits. Television is an important source of information about CPR for patients. We analyzed how three popular television programs depict CPR.

Methods. We watched all the episodes of the television programs *ER* and *Chicago Hope* during the 1994–1995 viewing season and 50 consecutive episodes of *Rescue 911* broadcast over a three-month period in 1995. We identified all occurrences of CPR in each episode and recorded the causes of cardiac arrest, the identifiable demographic characteristics of the patients, the underlying illnesses, and the outcomes.

Results. There were 60 occurrences of CPR in the 97 television episodes — 31 on *ER,* 11 on *Chicago Hope,* and 18 on *Rescue 911.* In the majority of cases, cardiac arrest was caused by trauma; only 28 percent were due to primary cardiac causes. Sixty-five percent of the cardiac arrests occurred in children, teenagers, or young adults. Seventy-five percent of the patients survived the immediate arrest, and 67 percent appeared to have survived to hospital discharge.

Conclusions. The survival rates in our study are significantly higher than the most optimistic survival rates in the medical literature, and the portrayal of CPR on television may lead the viewing public to have an unrealistic impression of CPR and its chances for success. Physicians discussing the use of CPR with patients and families should be aware of the images of CPR depicted on television and the misperceptions these images may foster. (N Engl J Med 1996;334:1578-82.)

IN critical care units and hospital wards across the country, patients and physicians struggle with decisions about whether or not to undertake cardiopulmonary resuscitation (CPR) and other potentially life-sustaining treatment. Often, these decisions are not made on a sound basis. Doctors are frequently unaware of their patients' wishes concerning treatment.[1] Even when physicians are aware, they may find the patients' requests problematic. Ideally, decisions about the prospective use of CPR should be made jointly by the patients and physicians,[2] but for patients to participate in medical decisions, they must be informed about the risks and benefits of a procedure and must incorporate this knowledge into the choices they make.

Patients learn about CPR from many sources, including physicians, family and friends, personal experience, and CPR courses. In a number of studies, however, patients report that they obtain much of their information from the media. For example, Schonwetter et al. found that 92 percent of patients over 62 years of age reported obtaining information about CPR from television, 82 percent from newspapers, and 72 percent from books.[3] In another study, 70 percent of the patients over 74 years of age reported obtaining information about CPR from television.[4] Furthermore, patients often overestimate their likelihood of survival after CPR,[3,5] and this misinformation may lead them to choose to undergo resuscitation in situations in which survival is extremely unlikely.[3,5]

Since television is an important source of information about CPR for patients, we analyzed how three popular medical programs depict CPR. We wanted to see how patients undergoing CPR on television compared with such patients in the real world, and to compare the survival rates after CPR on television with the survival rates reported in the medical literature.

METHODS

Study Design

We viewed all the episodes of the television programs *ER* and *Chicago Hope* during the 1994–1995 viewing season and 50 consecutive episodes of *Rescue 911* broadcast over a three-month period in 1995. The first two programs are fictional dramas set in hospitals; *Rescue 911* shows dramatic reenactments of actual rescues by emergency services throughout the country.

We identified all the occurrences of CPR in each episode. CPR was defined as any situation in which chest compressions were performed on a patient, a patient was said to be having "an arrest," or an unconscious patient was defibrillated for ventricular fibrillation or ventricular tachycardia. We included only instances of arrhythmia identified verbally by one of the characters or clearly observed on a cardiac monitor.

For each occurrence of CPR, we recorded the following information: the patient's sex and age, the patient's location at the time of cardiac arrest (in or out of a hospital), whether the arrest was witnessed, whether CPR was performed by a bystander, the immediate cause of the arrest, and any known underlying illnesses of the patient. We noted the use of chest compressions, rescue breathing, defibrillation, and open cardiac massage during the resuscitation. We recorded whether the patient survived the arrest, whether he or she survived to discharge from the hospital, and the long-term outcome. In addition, if physicians on the programs offered estimates of a patient's chance of survival after CPR, we noted those estimates.

We also documented all deaths that occurred on the programs, re-

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gardless of whether the patient received CPR, and we noted the patient's age and sex, the patient's location at the time of death, and the cause of death. We recorded whether CPR was attempted and whether the death was seen in the program or only referred to by other characters.

To validate our coding methods, two investigators, both board-certified internists, reviewed the first 10 episodes in our series (4 of *Rescue 911,* 3 of *ER,* and 3 of *Chicago Hope*). Each observer was blinded to the other's findings. Since the observers agreed perfectly on their identification of occurrences of CPR, their identification of survivors of CPR, and their estimates of the patients' ages, only one observer rated all subsequent episodes.

Statistical Analysis

Short-term success of CPR is usually defined as the return of the patient's blood pressure and pulse for one hour. Long-term success denotes survival until discharge from the hospital. Rates of short-term survival vary depending on the patient's age, the cause of arrest, coexisting illnesses, the cardiac rhythm at the time of the arrest, and the geographic location. A short-term success rate of 40 percent is the upper limit reported in the literature.[6-19] Reported rates of long-term survival vary from 2 percent to 30 percent for cardiac arrests taking place outside a hospital and from 6.5 percent to 15 percent for arrests inside a hospital.[6-19]

We compared the rates of long-term and short-term success for the occurrences of CPR seen in the television programs with the respective rates derived from all relevant studies in the medical literature. To calculate the sample size necessary for the study to have an 80 percent power of detecting a 20 percent difference between the survival rates seen on television and those in the literature (with an alpha level of 0.05 in a two-sided t-test), we used the highest reported long-term survival rate in the literature, 30 percent. Under these assumptions we needed a sample of at least 43 observed instances of cardiac arrest.

Rates of survival were calculated for each television series separately and for all three combined. The survival rates for all episodes combined were compared with the estimates from the literature of 40 percent for short-term survival and 30 percent for long-term survival, using the z statistic for the normal approximation to the binomial distribution.

Results

The Epidemiology of Cardiac Arrest

We viewed a total of 97 episodes (25 of *ER,* 22 of *Chicago Hope,* and 50 of *Rescue 911*) and observed 60 occurrences of CPR. The majority of cardiac arrests were caused by trauma, such as gunshot wounds, motor vehicle accidents, and near-drowning (Table 1). Only 28 percent were due to cardiac causes, such as myocardial infarction or a primary arrhythmia. Many were due to unusual causes, such as lightning, hypothermia, eclampsia, and pericarditis due to lupus erythematosus. Sixty-five percent of the cardiac arrests occurred in children, teenagers, or young adults (Table 2). Male patients accounted for 44 (73 percent) of the cases; 36 cases (60 percent) occurred outside the hospital. Only seven patients were depicted as having underlying illnesses; these included heart disease, dementia, brain damage, lupus erythematosus, and diabetes.

Survival after CPR

Of the 60 patients who underwent CPR, 46 (77 percent) survived the immediate cardiac arrest (Table 3). The rate of short-term survival was highest on *Rescue 911* (100 percent, a rate that is not surprising in a series that, by intention, presents successful rescues). *ER* portrayed a rate of short-term survival of 65 percent, and *Chicago Hope* a rate of 64 percent.

Table 1. Causes of Cardiac Arrests in Three Television Series.

Cause	No. of Cases
Near-drowning	9
Motor vehicle accident	5
Gunshot wound	8
Stab wound	1
Other trauma	7
Arrhythmia	7
Myocardial infarction	6
Other cardiac cause	3
Sepsis	2
Lightning	2
Electric shock	1
Hypothermia	1
Inhalation of cleaning agent and butane	1
Ruptured abdominal aortic aneurysm	1
Congenital heart disease	1
Diabetic ketoacidosis	1
Pericarditis due to lupus erythematosus	1
Eclampsia	1
Drug overdose	1
Cocaine toxicity	1

Of the 60 patients, 22 (37 percent) clearly survived until discharge from the hospital. Of the 46 patients who were successfully resuscitated by CPR, 6 died soon thereafter. For the remaining 18 — all on *ER* — no information was provided about survival until discharge. This series focuses on patients in the emergency department and generally does not provide further follow-up on outcomes. In most cases, however, long-term survival was implied by the fact that the patients survived the arrest in response to which CPR was given and the *ER* staff members considered their work successful.

Survival rates for CPR on these television programs were significantly higher than the highest rates reported in the literature. For short-term survival, the rate of success on television was 75 percent, as compared with 40 percent in the literature ($P<0.001$), and for long-term survival (assuming that the patients on *ER* about whom no explicit information was given survived to discharge), the rate of success was 67 percent (40 patients survived) as compared with 30 percent ($P<0.001$).

Only one survivor of CPR on television, a 16-year-old boy who had inhaled a cleaning agent and butane, incurred any obvious disability. He recovered from his cardiac arrest, completed high school, and became a motivational speaker warning about the dangers of drug abuse. He was shown walking normally with his family, but spoke with a moderate dysarthria in his public appearances. In the real world, disability after cardiac arrest is much more common.[20]

The Portrayal of Death

On the 97 television episodes, 37 patients died. There were 24 deaths on *ER,* 12 on *Chicago Hope,* and 1 on *Res-*

cue 911. The last was a young man in a motor vehicle accident whose family gave permission for organ donation. Of the deaths, 2 were of children, 6 of teenagers, 13 of young adults, 10 of middle-aged adults, and 6 of elderly persons. Twenty-seven of the deaths were of men or boys (73 percent), and 10 were of women or girls (27 percent). Fourteen deaths were due to trauma, seven to heart disease, three to cancer, two to the acquired immunodeficiency syndrome, and four to unknown causes; the remainder were due to miscellaneous causes such as eclampsia, sepsis, drug overdose, aortic dissection, and suicide.

CPR was shown for 18 of the 37 patients who eventually died. In only eight of the situations in which patients died was there a portrayal of discussions about CPR or any reference to do-not-resuscitate orders.

Table 3. Survival after CPR in Three Television Series.

Series	No. of Episodes	No. of Occurrences of CPR	Short-Term Survival after CPR	Survival to Discharge after CPR	Short-Term Survival, Death in Hospital	Short-Term Survival without Follow-up
			number of patients (percent)			
Chicago Hope	22	11	7 (64)	4 (36)	3 (27)	0
ER	25	31	21 (68)	NA*	3 (10)	18 (58)
Rescue 911	50	18	18 (100)	18 (100)	0	0
Total	97	60	46 (77)	22 (37)	6 (10)	18 (30)

*Not applicable. *ER* deals only with events in the emergency department.

The Focus on Miracles

On *Rescue 911,* the term "miracle" was used to describe the patient's survival in 10 of 18 instances (56 percent). The use of the term was supported by the comments of physicians who were involved in the care of the actual patient. In the 10 episodes, the real physicians described their initial extreme pessimism about their patients' chances for a meaningful recovery. After all the patients went on to lead normal lives, family members and health care providers called the recoveries miraculous.

In one episode, a young man was struck by lightning outside his home and initially received CPR from his wife. The paramedic who cared for the patient at the scene said, "It didn't look good. . . . He was in a rhythm called asystole, otherwise known as flatline. We felt the patient would probably not survive." After 30 minutes of asystole, with vigorous advanced cardiac life support, the patient regained a normal sinus rhythm. He was transported to a local emergency department. There, the emergency physician remembered, "His EEG suggested that he was not likely to make any useful recovery." After the patient was placed on ventilatory support, his wife said, "I would go in and hold him, touch him. I was always talking to him. I never gave up hope. . . . They were talking about, if he lived, he had a 1 percent chance of being a functional human being."

Five weeks later, the patient was released from the hospital and went on to a complete recovery. Reflecting on the case, his physician said, "The most amazing thing to me about J.'s recovery is that we were wrong. We had given up hope. His wife did not. She saw us through the extra week, and that made a difference. I think there's no question that if she had lost hope, there might have been a different outcome." The patient's wife herself was even more emphatic. She said, "It truly is a miracle that he is alive."

In the episode about the 16-year-old boy who had cardiac arrest after inhaling a cleaning agent and butane, computed tomography after resuscitation revealed cerebral edema. The boy's physician remembered that "my hopes were going down by the minute." The physician asked the family to consider organ donation if the boy were to die. The patient's mother remembered that "the doctor gave us no hope at all. . . . They were saying that if he came out of it at all, he might be a vegetable." After 17 days in a coma, the young man began to recover. After rehabilitation he completed high school and was described as "85 percent back to normal." The physician commented, "I've never seen anyone in as bad a shape as he was make it. That's a miracle."

Table 2. Age Groups of Patients Undergoing CPR in Three Television Series.

Series	Child	Teenager	Young Adult	Middle-Aged Adult	Elderly Person	Total
			number of cases (percent)			
Chicago Hope	2	2	1	5	1	11
ER	5	7	9	7	3	31
Rescue 911	9	1	3	3	2	18
Total	16 (27)	10 (17)	13 (22)	15 (25)	6 (10)	60

Discussion

Patients participate in decisions about their care today as never before. As the physician–patient relationship has evolved into a collaborative one, patients are expected to digest and evaluate complex information, often at a time of great emotional stress. This is particularly true with respect to decisions about the end of life.

Patients have few sources from which to learn about illness and death. Acute illness — and, in particular, terminal illness — is for many people no longer part of everyday life. Therefore, images in the media strongly shape the public's beliefs about medicine, illness, and death.[21] The portrayal of CPR and death on three popular television programs is misleading in a number of ways.

First, these three television programs give a mislead-

ing impression about the kind of people most commonly given CPR. On television, children, teenagers, and young adults accounted for 65 percent of the patients given CPR. Of the total number of deaths on the programs, 83 percent were of nonelderly patients. In fact, cardiac arrest is much more common in the elderly than in children or young adults.

Second, cardiac arrest on television was often due to acute injury, the result of gunshot wounds, motor vehicle accidents, or near-drowning; only 28 percent of the patients had primary cardiac arrests. In real life, 75 to 95 percent of arrests result from underlying cardiac disease.[8,10,19]

Third, CPR succeeded more frequently on television than in the real world as reflected in the medical literature. On all three shows combined, 75 percent of the patients were alive immediately after their cardiac arrests, and 67 percent appeared to survive in the long term. On *Rescue 911,* which focuses on the successes of emergency services, the survival rate after CPR was 100 percent. Of the patients on *ER,* 65 percent survived the initial arrest; three of these patients died before discharge from the hospital. On *Chicago Hope,* 64 percent of the patients given CPR initially survived cardiac arrest, and 36 percent survived to discharge.

Comparing these survival rates with those in the medical literature is problematic, since the patients seen on television differ dramatically from those described in the literature with respect to age, underlying illness, and the cause of cardiac arrest. Nevertheless, we would argue that the survival rates in the medical literature are the figures that ought to be given the most weight by patients and families making decisions about the use of CPR.

Rates of long-term survival after cardiac arrest as reported in the medical literature vary from 2 percent to 30 percent for arrests outside a hospital, and from 6.5 percent to 15 percent for arrests that take place inside a hospital.[6-19] For average elderly patients, the rate of long-term survival after cardiac arrest outside a hospital is probably no better than 5 percent. For arrests due to trauma, the reported survival rates vary from 0 to 30 percent.[22-25] Clearly, the rates on television are significantly higher than even the most favorable data reported in the literature.

Finally, on television, the outcome of CPR was generally portrayed as either full recovery or death. The only case of disability was in the young man who had moderate dysarthria after his inhalation of butane and a cleaning agent. If CPR were a benign, risk-free procedure that offered a good hope of long-term survival in the face of otherwise certain death, few people would ever choose to have medical personnel withhold resuscitation. But controversy surrounds the use of CPR precisely because the procedure can lead to prolonged suffering, severe neurologic damage, or an undignified death.[26] In 97 episodes of these medical dramas and reenactments, such outcomes were never portrayed. CPR on television is given primarily to people suffering from acute illness or injury; the possible outcomes are dichotomized into full recovery or immediate death. By avoiding the portrayal of the full range of possible outcomes of CPR, these programs skirt the complicated ethical issues that physicians, patients, and families need to consider.

In a subtle way, the misrepresentation of CPR on television shows undermines trust in data and fosters trust in miracles. In the stories retold on *Rescue 911,* physicians often predict poor outcomes for patients, while family members voice their hope and, in the end, their joy in the "miracle" of their loved ones' recovery. We acknowledge that this drama produces good television, as evidenced by the large viewing audiences. However, these exceptional cases may encourage the public to disregard the advice of physicians and hope that such a miracle will occur for them as well. Faith is central to our ability to maintain hope in difficult situations and often is an important adjunct to the therapy physicians offer. Belief in miracles, however, can lead to decisions that harm patients. The portrayal of miracles as relatively common events can undermine trust in doctors and data.

Misrepresentations of CPR on television may lead patients to generalize their impressions to CPR in real life. For example, an 85-year-old woman with metastatic breast cancer may believe that CPR can work as well in her situation as it does for the 23-year-old trauma victim on television. Physicians discussing decisions about the end of life with patients and families should be aware that the public has many sources of information about CPR, some of them misleading. To help patients and families make informed decisions, doctors should encourage patients to discuss their impressions of CPR and its chances of success. We should clarify misperceptions, provide actual data on outcomes, and address specifically the differences between CPR as seen on television and CPR as it is experienced by real patients.

There are limitations to our study. First, we looked at only three television programs. We chose these programs because they enjoy enormous popularity and focus on medicine, but the occasional portrayals of CPR elsewhere may be more realistic. Second, this analysis rests on the assumption that the public does not distinguish fact from fiction. Unfortunately, however, an important part of the attraction of these television programs is their realism.[27] In many respects, these programs accurately portray the medical environment. People want to go behind the scenes to see true stories of medicine, and modern television works hard to satisfy this curiosity. Because these shows appear realistic in many respects, the line between fact and fiction is blurred.

What should our response be? Given the media's extraordinary influence, we could hope that the producers of television programs might recognize a civic re-

sponsibility to be more accurate. This may not happen, however. The primary goal of these television series is to entertain, a goal served by the high drama and the promise of hope all three shows offer.

Given this reality, physicians need to recognize and acknowledge the images the media present as we help patients and families make informed decisions about the use of CPR. During discussions about the use of CPR, we should inquire about our patients' perceptions of survival after CPR, specifically address the images of CPR on television, and present quantitative data about possible outcomes to our patients, when appropriate. With these efforts, physicians, patients, and families will be able to make better-informed decisions about these difficult issues.

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