Cardiopulmonary resuscitation

Not for all terminally ill patients

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As the costs of health care increase, communities have indicated that only effective treatments should be offered. The list of diagnostic procedures and therapeutic interventions the health system can deliver is large. Most patients are offered only a small selection from that list, and physicians do not normally ask patients for permission to avoid investigations or treatments that, in the physician's opinion, will not be useful. Thus, most physicians would not ask patients with superficial lacerations to the scalp whether they want a skull x-ray examination.

Cardiopulmonary resuscitation (CPR) is an exception. Physicians sometimes offer patients the opportunity to have CPR performed even when there is no reason to believe that it will be beneficial.

Cardiopulmonary resuscitation attempts to revive patients after the heart has stopped beating or after the lungs have stopped breathing. As a matter of course, many institutions insist that patients consider, in advance, whether CPR should be used. In those institutions, CPR is always started unless the patient has specifically agreed that, in the event of cardiac or respiratory arrest, CPR is not to be used.

Permission to withhold CPR is often requested even if hospital staff believe that CPR would not benefit a patient. Patients who are terminally ill from cancer or irreversible respiratory failure are sometimes asked to decline CPR. The question is phrased in a variety of ways: "In the event that your heart stops, should we try to restart it?" or "In our opinion resuscitation would not be useful, but should we try to restart your heart if it stops beating?" or "Would you like us to do everything possible to keep you alive?"

The way the question is phrased influences the reply.

Raising the question of CPR where it is known that CPR will be futile (in the sense of a treatment that has a low probability of success or that cannot be followed by meaningful life) can make patients and relatives doubt how serious the physician will be in other areas of diagnosis and treatment.
Raising the question of futile therapy also produces a mixed message, which can “be corrosive of autonomous choice.” Asking patients for permission to withhold CPR could also be a way for physicians to avoid taking responsibility for a serious clinical decision.

Most treatments are offered only if physicians believe that the treatment would be useful. Interventions that are either unnecessary or futile are not offered, and patients are not put in the position of having to decline these treatments formally. We believe, for several reasons, that CPR should not be treated as a special case. If CPR is not clinically indicated, it should not be offered to patients. We agree with the judge in the American case of In the Matter of Shirley Dinnerstein, who stated that the appropriateness of CPR is a question “peculiarly within the competence of the medical profession.” We argue that the decision to withhold CPR is ultimately clinical, independent of institutional policy or patient preference. Certainly this is the case once resuscitation measures have been started, because a physician always decides when it is futile and when CPR should cease.

Our position differs from that taken by the Canadian Medical Association’s Statement on Terminal Illness, which implies that every patient should be consulted before a DNR order is written. We believe that patients should not have the opportunity to request or obtain futile treatment. If clinical information shows that CPR will be futile, then it should be neither offered nor administered. The corollary of this is that patients do not need to be asked whether they are willing to forgo futile treatment. Clearly it is important to learn when CPR and other treatments are futile.

This paper summarizes clinical and legal issues related to obtaining consent to withhold CPR. This is an issue of particular relevance to family physicians, who often find themselves in the position of advising patients or consultants regarding CPR.

**Canadian practice**

No legislation in Canada deals specifically with the issue of “whether and how to establish limits on demands for treatment.” Patients may request useless services, but physicians are not necessarily required to deliver those services. Information about when medical interventions are indicated can help determine whether a physician should ask for patient consent to avoid a particular procedure like CPR.

Medical intervention is warranted if it can increase life expectancy, improve function, or increase comfort. Sometimes achieving one of these goals affects the other goals. Thus, a treatment might improve patient comfort or function but reduce overall life expectancy. An example would be treating cancer pain with narcotic medication or treating the smothering feeling of dyspnea with morphine or other narcotics, which also decrease the urge to breathe. Other treatments might reduce comfort and function but improve overall life expectancy. For example, an above-knee amputation because of a bone tumour might dramatically improve life expectancy, but immediately reduce comfort and function.

Cardiopulmonary resuscitation, if successful, prolongs life, but perhaps at the cost of increased suffering associated with severe postresuscitation pain and discomfort. A patient with terminal malignancy and painful incurable bone metastases could have an increased life-span from successful CPR, but the longer life could be seriously marred by severe and sometimes intolerable pain. Some patients do not have the knowledge and experience that would allow them to predict the extent of discomfort following treatment or evaluate properly the possibility of suffering.

Normally, physicians who offer treatment are offering patients a choice between alternatives the physician believes will benefit them. With CPR, the situation is different. Hospitals and physicians are often placed in the
awkward position of requesting permission for a treatment that is not indicated, and could in fact be futile.

In institutions that insist on patient permission to avoid CPR, the patient can misinterpret the physician’s offer of CPR as meaning that the physician truly believes that CPR will be a worthwhile procedure. Many patients still believe that any treatment offered by physicians is likely to improve patient welfare. Patients are forced into a predicament when a physician asks patients and relatives whether they wish CPR while stating that CPR is not likely to be worthwhile. The dilemma for the patient becomes, “Can I trust my physician’s judgment? Why is my physician offering this treatment if it is not worthwhile? If physicians believe CPR is unwarranted, will they do everything in their power to preserve my life by other means?”

Why do many institutions offer CPR even when they believe that CPR is unjustified? One reason is a belief that this is a legal requirement. The second is the belief that it is an ethical requirement.

**Legal issues**

**Consent to treatment.** The law is reasonably clear on the issue of consent to treatment; subject to certain exceptions, which are not relevant here, a patient must consent before treatment can be administered. If treatment is given without consent, battery has occurred. If the patient consents to the treatment, but on the basis of incomplete information, the physician might be found to have been negligent.

However, the essence of the debate around unilateral DNR orders is not whether the patient must consent to treatment, but whether the patient must consent not to be treated, and the law is less clear on this issue.

**American case law.** As noted earlier, no Canadian legislation deals specifically with limits on demands for treatment. Furthermore, there are no reported Canadian cases where patients or family have requested a court to order a physician to provide treatment that the physician believed was futile for the patient. We can only speculate, based on more general principles of law, as to the possible outcome if a legal challenge were made to a physician’s decision to enter a DNR order. However, according to one author, a court would be unlikely to require a physician to provide care that, in the physician’s clinical judgement, would not benefit the patient.

Although there are no relevant Canadian cases, three American cases are of interest here: *Payne v Marion General Hospital*, *In re Wangel*, and *In the matter of Shirley Dinnerein*. Two of these cases deal specifically with DNR orders; in the third, the conflict arose because the hospital wished to disengage a patient from a respirator against the wishes of her husband.

In *Payne*, Mr. Payne entered hospital with a “variety of maladies, including malnutrition, uremia, and hypertensive cardiovascular disease...”. After several days, his condition worsened. At the request of Payne’s sister, a DNR order was entered on his chart despite the fact that, according to one court, “Payne was conscious, alert, and able to communicate” with the nurses until moments before his death.

When Payne’s physician later sued the estate for his fees, Payne’s estate claimed that the physician had committed malpractice by issuing the DNR order. The physician was successful at trial and the matter was appealed. The appeal court noted that this was the first time that a court had considered the liability of a physician for entering a DNR order. The court held that the trial court had not properly addressed itself to the issues of whether Payne was terminally ill and incompetent at the time the order was entered, and suggested that, if Payne was competent at the time the order was issued, the physician had a duty to obtain Payne’s consent rather than his sister’s before issuing the order. However, the court did not address the question, “Must
The Dinnerstein case arose because of an earlier decision in which the court was asked to determine whether to use chemotherapy for a 67-year-old patient with leukemia. The court determined that it was not necessary to proceed with chemotherapy, as the patient was in a persistent vegetative state and the family did not wish to continue life-sustaining treatment. In Dinnerstein, the court distinguished this earlier decision because it dealt with a terminally ill patient who would not have been eligible for a DNR order under the circumstances. The case did not require the court’s approval because the family had a strong support system and the patient was under the care of a qualified physician.

Possible legal challenges. An important consideration in this case is the possibility of legal challenges. The physician’s decision to withhold treatment may be challenged on the grounds of negligence, and the family may seek compensation for the patient’s suffering. Additionally, there may be legal challenges to the court’s decision to approve the DNR order, as it is a delicate matter to involve patients in decisions that may affect their autonomy. Overall, Dinnerstein highlights the importance of balancing the interests of the patient, family, and medical professionals in making decisions about life-sustaining treatment.
to note that one American author contends that the main reason that physicians do not write "do not resuscitate" orders, even when CPR would be medically futile, is fear of being sued; however, the author concludes that "there is substantial [American] case law supporting the proposition that there is no liability for entering a DNR order in those circumstances."\textsuperscript{13}

What would have to be established under Canadian law to show that a physician had been negligent? As in other types of negligence cases, the patient would have to show that the physician owed a duty of care, that that duty was breached, and that the breach caused the harm complained of.

If the physician is treating the patient, the duty of care will be established. The real issues in any medical malpractice suit are whether the physician used reasonable care and, if not, whether it was the lack of reasonable care that harmed the patient.

The required standard of care, as stated by the Supreme Court of Canada, is that physicians "must possess and use that reasonable degree of learning and skill ordinarily possessed by practitioners in similar communities in similar cases."\textsuperscript{14} The Court also held that "an error of judgment, as distinguished from an act of unskillfulness, carelessness or lack of knowledge does not make the [physician] liable."\textsuperscript{15}

Thus, in a case involving a unilateral DNR order, the first issue would be whether the physician's decision to withhold CPR, when compared with the care that other physicians would have given in similar circumstances, fell so far below the accepted standard of care that the physician displayed not just an error in judgment but actual "unskillfulness, carelessness or lack of knowledge." While a court can impose liability even if the accepted medical practice was followed, a court would be unlikely to find a physician negligent if the physician had followed accepted medical practice.\textsuperscript{7}

Furthermore, even if accepted medical practice was not followed, a physician might be protected by the "respected minority" principle. According to this principle developed in medical malpractice cases, a physician will not be found negligent so long as he or she followed an established body of professional opinion, even where this opinion occupies a minority position within the profession.\textsuperscript{17}

In a malpractice suit, the plaintiff also has to show that it was the physician's failure to provide reasonable care that caused the injuries complained of. Thus, in a case involving a DNR order, the plaintiff would have to show that, had CPR been administered, the patient probably would not have died.

Therefore, so long as the physician's assessment that attempting resuscitation for this patient would be futile reflects the accepted practice or at least the views of a respected minority, the physician would not be found to have been negligent in the care of the patient. Second, even if it were found that most other physicians would have administered CPR, but that even with CPR the patient would have died anyway, the physician still would not be found liable.

Ethical implications of futile treatment

Defining futility. Originally CPR was designed to save life among people with sudden, unexpected death from cardiac or respiratory arrest, drug reactions, or drowning.\textsuperscript{16} Today, in many hospitals, CPR is performed regardless of the cause of the arrest, and many hospitals require that CPR be performed unless the patient agrees that CPR can be withheld. However, according to the American Medical Association,\textsuperscript{17} CPR may be withheld if, in the judgment of the treating physician, an attempt to resuscitate the patient would be futile.

The American Medical Association position on CPR would be difficult to support if physicians were unable to predict the likelihood of death. However, studies of outcomes
following CPR indicate that patient characteristics can predict which patients will be discharged from hospital following CPR.

While recognizing that the term “futility” does not have a fixed definition in the context of health care, and that there is substantial debate in the literature as to the appropriate definition, we do not consider it necessary for the purposes of this article to enter into that controversy. Instead, we will simply use the term to mean treatments that have a low probability of success or that cannot be followed by meaningful life.  

**Predicting outcome.** We argue that there does not appear to be a legal requirement that CPR be offered or attempted in all cases, even if it would be futile. We also suggest that there is no ethical duty requiring physicians to provide futile treatments or interventions. Therefore, the issue becomes: Can physicians predict futility? That is, can physicians predict, with reasonable accuracy, which patients are likely to benefit from CPR and which will not?

In one study, no patients with metastatic cancer, sepsis, pneumonia, or acute stroke accompanied by neurologic deficit survived until discharge from hospital. Conditions associated with low survival rates are malignant disease, neurologic disease, renal failure, respiratory failure, sepsis, and multiple organ failure.  

For patients whose cardiac arrest is not caused by simple cardiac conditions, the likelihood of success and return to function is low.

A meta-analysis of several studies that examined the use of CPR showed the following success rates for CPR:

- malignancy 0 to 3.5%,
- neurologic disease 0 to 6.7%,
- renal failure 0 to 10%,
- respiratory disease 0 to 7%, and
- sepsis 0 to 7%.

At Camp Hill Medical Centre for the year ending March 31, 1993, patients with a DNR order were 68 times more likely to have an arrest compared with patients who did not have a DNR order written. In fact, the death rate for patients without DNR orders was less than 1% (115 of 12,437 patients died who did not have DNR orders while 261 of 428 patients died who did have DNR orders). Physicians are able to predict which patients are likely to die and are writing DNR orders to avoid the trauma and discomfort of resuscitation when patients have little chance of surviving.

The purpose of all health care is to improve function, comfort, and life expectancy. For terminally ill patients, successful CPR could produce a small increment in life-span at the price of severe discomfort, pain, and suffering.

Cardiopulmonary resuscitation is associated with high complication rates, including pneumonia (46%), congestive heart failure (49%), gastrointestinal hemorrhage (40%), seizures (30%), cerebrovascular accidents (8%), sepsis (6%), acute renal failure (6%), and adult respiratory distress syndrome (5%).

In any event, for noncardiac patients, CPR does not treat the underlying cause of death. Patients with AIDS, renal failure, malignancy, or other terminal conditions will be revived with the same illness that originally caused collapse, and death will occur shortly afterward.

**Conclusion**

We argue that there is no ethical or legal obligation to obtain patient consent to withhold CPR, where it appears that attempting CPR for that particular patient would be futile.

Successful health care increases patient function, comfort, or life expectancy. Making decisions about treatment is complicated because there are trade-offs among the various goals of treatment. Cardiopulmonary resuscitation for terminally ill patients with conditions such as cirrhosis or metastatic cancer does not treat the underlying cause of death, and death is likely to
occur shortly after a successful resuscitation. Physicians can predict which patients will not have meaningful recovery, and it is unfair to offer useless treatments and false hope to those patients. Consequently it is ethically proper not to offer CPR to patients who will not benefit from the treatment. Furthermore, it is unlikely that a court would make a finding of negligence against a physician who failed to get consent to withhold CPR, if CPR was not in fact medically indicated.

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