Critical care physicians and other health care providers have to base their recommendations on scientific data to limit treatment in case of medical futility [59]. In addition; these recommendations must always be communicated to the patient and/or their families. If the patient is in an institution that has developed futility polices, the health care provider must recognize that this only constitutes a vehicle for reinforcing the decision-making between the health professionals and the patients [60].

Health care providers may forego life-support for patients that are unable to make decisions; and lack surrogates. In these instances, they should always follow the best interest standard in order to avoid litigation.

Practical Issues

Who Makes The Decisions?

Thirty years ago physicians and patients believed that the decision to withhold or withdraw life support should be made by the physicians without participation of the patient or the patient’s family. Using this method, clinicians forgot the most important principle of the end-of-life issues, the autonomy of the patient [61]. Any team that makes the decisions regarding life-support withdrawal must include not only physicians but also nurses and ethicists. A patient must have clear information about his/her condition and to know the plan of the therapy that is going to be used. The physician must assure and document in the chart that is understood by the patient and family members and must answer all related questions [62].

The patient, on the other hand, is obligated to understand the proposed treatment and alternative interventions. The physician must ask the patient to repeat in his or her own words what the physician has explained, including the consequences and risks of accepting the suggested treatment.

Keywords: Life-support, Ethics, Mechanical ventilation, Withholding life-support
If a patient is unable to participate in health care decisions a decision maker should be identified. However, patients do not lose their autonomy when they become incompetent [63]. The legal system mandate that the medical team and decision maker for the patient attempt to reconstruct the patient’s judgment. In this case decisions often have to be taken by the doctor and a surrogate usually a member of the patient’s family [64].

**Religion and Religious Issues**

Religious doctrine gives a framework for understanding the human experience of death and dying for patients, family members, and health care professionals. Spirituality and religion should be associated with a decreased fear of death and greater acceptance of it [65]. The objective of quality comfortable death is achieved by meeting a patient’s needs and by paying attention to the social, psychological, and the spiritual and religious dimensions of care (Table 2) [66, 67].

**Catholicism**

The Catholic religion believes that every human life has intrinsic value and dignity, provided as a gift from God, but Catholics are also active guardians of their body [70]. Life has to be respected because it is sacred [71]. Bodily life is not an absolute good to be maintained at all costs. One is, therefore, not forced to continue treatment if it is only going to prolong dying. Treatment of pain is reinforced, mostly in the case of terminal illness. The end-of-life is a time to reconciliation and forgiveness [72].

**Islam**

Muslims have specific duties owed to their Creator and fellow human beings [73,74] One of their beliefs is that all healing comes from God, so they have the obligation to search out medical care and right to receive appropriate medical treatment [75]. Physicians have clear obligations with respect to duty to heal [76].

### Table 2. The Four Ethical Principles Dealing with Terminally-Ill Patients

<table>
<thead>
<tr>
<th>Principle</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficence</td>
<td>The determination to give benefits and equilibrate benefits against right</td>
</tr>
<tr>
<td>Non-maleficence</td>
<td>The determination to eliminate the causation of injury</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Respect the decision-making capacity of people</td>
</tr>
<tr>
<td>Justice</td>
<td>Determination of fairness in the impartation of benefits and risks</td>
</tr>
</tbody>
</table>

The religion and culture of the patient, family, and the clinician, among other factors, brings up the question as to what is to be considered right or wrong, acceptable or undesirable in end-of-life issues. Different religions have approaches to end-of-life that may require better understanding by the health care provider. Some examples of religious beliefs are presented.

**Judaism**

Within Judaism, the physician and the patient have obligations regarding the duty to heal. The patient has to force him/her-self to look for and follow medical advice [68]. In this religion, avoiding suffering is a very important factor. The process of dying must be respected when it is imminent and irreversible [69]. Beneficence and non-maleficence are major goals in this perspective. Beneficence meaning the obligation to provide benefits, and non-maleficence meaning the obligation to avoid harm, but the primary goal is to make sure that maximum resources are provided to the individual patient.

Islam acknowledges that death is an inevitable phase of the life of a human being; medical management should not be given if it only prolongs the final stage of a terminal illness as opposed to treating a superimposed, life-threatening condition [77]. According to this religion, human beings should also be guardians of their bodies, which are believed to be a gift from God. Autonomy is highly recognized in by Muslims, and there is an obligation to feed and hydrate dying patients.

The three religions have much in common, including strong ethical principles as beneficence and non-maleficence. In the Catholic religion the patient decides what is going to be done at the end, whereas in Islam and Judaism, autonomy is secondary to the patient’s health and welfare as judged by a duopoly of experts-clinician and cleric.

Within Judaism, patients are free to pick their physician and rabbi. When a rabbinical judgment is requested, no second opinion is tolerated, but both the rabbi and the physician can be consulted at any time. In Catholicism, although the priest’s opinion has significant authority, it...
is patients who have the ultimate right and obligation to make choices [78].

According to Islam, the local religious leader is called to facilitate interpretation of religious rulings at the level of the individual patient.

Humans of different religious beliefs make different judgments and choices about whether to live under such terminal circumstances. There are those who would like to maintain standard treatment, those who would like to have terminal sedation, and those who will seek withdrawal from life-support systems and death by gradual starvation and dehydration.

**Physician’s own opinion about withholding and withdrawing life-support. How much do we really want to be done?**

Health care providers who work with end-life issues may have different opinion for choices for themselves. We have previously described the attitudes of health care providers toward resuscitation for themselves in a variety of settings [79-81].

In all these studies, the most important factor in the decision to withdraw life-support included the likelihood of surviving the current episode and the likelihood of long-term survival.

In one study we found that the respondents were very confident of their choices only 29.7% of the time, and that physicians were very confident more frequently than nurses or house staff [82]. We also found in another survey that most of the physicians didn’t want cardiopulmonary resuscitation (CPR) to be performed on themselves, and would want life-sustaining therapy withdrawn if the prognosis for survival was poor. We assumed that longer clinical experience was associated with less desire for resuscitative efforts.

The responses and opinions from nurses, medical students and physicians regarding CPR, reflected that attending physicians opted for a shorter resuscitation effort than nurses or medical students, and nurses and medical students identified themselves as less than a full code status [46].

**Stages of Death and Psychological Issues of Dying**

These are usually steps that patients and their families go through in the dying process. Health care providers must appreciate and understand these stages, as they may interfere in end-of-life discussion. For most patients there is initially denial of imminent death because they are unable to admit to themselves that they might die and they will suffer the loss that death represents. This is usually followed by anger, in which the pain of loss is projected onto others. In a more advanced stage of understanding death, bargaining represents a last effort at overcoming death. This is followed by depression when the full impact of imminent death strikes them; the final stage is acceptance when the grieving comes with the fact of death and the patient makes preparation for it.

**Forgoing Life-Support**

There are special considerations in forgoing life, dying when a certain therapy is doomed to fail, and life-sustaining interventions are to be withheld. When the patient is dying, and interventions are only going to prolong the dying process, and suffering, a decision to withhold therapy must ensue. When a patient has cognitive impairment, if the treatment causes complications, or when the patient has end-stage-organ failure, it should be carefully decided whether to initiate any new intervention, as these are not likely to improve the patient’s well-being. In general, when the risks exceed the benefits of any new treatment, life-sustaining therapy should be withdrawn or withheld.

When several treatments are used simultaneously, forgoing of treatment can be done in a priority order. For example, health care professionals and patients or surrogates may elect to forego dialysis, further diagnostic evaluators, and discontinue vasopressors. This can be followed by removal or discontinuation of hemodynamic monitoring, and antibiotic treatment. In most instances the last supportive measures to be removed are artificial feedings and mechanical ventilation [83]. Certain methods to withdraw ventilator-support have been proposed. The first method is prolonged terminal weaning, which allows titration of drugs to control dyspnea and maintains an airway for suctioning, but this can make the dying process longer and may mislead the family into thinking that survival is still an objective of the treatment. Another method is extubation. By using this method, the patient is free of unwanted technology, and usually this process does not prolong the dying process. This kind of method may cause noisy breathing, and agonal breaths as signs of discomfort. Therefore, it is a very important to provide adequate analgesia and sedation to avoid pain or suffering. A rapid terminal weaning process may be used. It maintains an airway for suctioning, and is also less likely to prolong the dying process.

Sometimes while ventilator withdrawal is taking place, the patient can manifest distress. In these cases the recommended treatment is a bolus dose of 5 to 10 mg of morphine, followed by a continuous morphine infusion. When patients are withdrawing from dialysis, artificial nutrition or hydration they can undergo severe distress,
or related symptoms. These should be treated for the patient’s comfort (Figure 2) [84].

We recommend that after all these life-sustaining measures are discontinued, the patient be transferred to a general floor. If transferred, the patient has to have all the care he or she requires to ensure comfort. In some institutions a palliative care or hospice inpatient unit can provide care to the patient under these circumstances [85].

It the patient cannot be transferred out of the ICU, nurses and physicians should continue to care for the patient. It has been estimated that most patients die within the first 24 hours of withdrawing life sustaining measures.

When a patient stays in the ICU, The patient should be provided with privacy, with closed doors and curtains, and the family should have access to see the patient at any time. In many institutions it is permitted that the family bring music, clothes, religious icons, food and pets to the patient, and also to encourage religious and other family rituals at the bedside before and after death [86].

Every dying patient should receive a dignified and comfort death, with the administration of the appropriate sedation, and always following the patient’s wishes.

Conclusions

Withholding and withdrawing life-support have become common practices in the intensive care units of Western countries. This represents an important challenge to physicians, because it implies very delicate issues that should be managed carefully.

Healthcare providers and physicians should al-

FIGURE 2: METHODS USED IN FORGOING LIFE-SUPPORT AND MANAGING DISCOMFORT.
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