Hans-Henrik Bülow Charles L. Sprung Konrad Reinhart Shirish Prayag Bin Du Apostolos Armaganidis Fekri Abroug Mitchell M. Levy

The world's major religions' points of view on end-of-life decisions in the intensive care unit

Received: 3 September 2007 Accepted: 13 November 2007 Published online: 19 December 2007

© Springer-Verlag 2007

H.-H. Bülow (☒) Holbak Hospital, Department of Anaesthesiology and Intensive Care, Smedelundsgade 60, 4300 Holbak, Denmark

e-mail: hhbulow@dadlnet.dk

C. L. Sprung Hadassah Hebrew University Medical

Center, Department of Anaesthesiology and Critical Care Medicine, Jerusalem, Israel

K. Reinhart

Friedrich Schiller University, Department of Anaesthesia and Intensive Care, Jena, Germany

S. Prayag Shree Medical Foundation, Critical Care Center, Pune India

B. Du Peking Union Medical College Hospital, Medical Intensive Care Unit, Beijing, China A. Armaganidis Attikon University Hospital, Athens Medical School, Second Department of Critical Care, Athens, Greece

F. Abroug CHU Monastir, Réanimation Polyvalente, Monastir, Tunisia

M. M. Levy Rhode Island Hospital, Critical Care Services, Providence RI, USA

Abstract Objective: Recent research has shown that the religious affiliation of both physicians and patients markedly influences end-of-life decisions in the intensive care unit in the Western world. The world's major religions' standings on withholding and withdrawing of therapy, on hastening of the death process when providing pain relief (double effect) and on euthanasia are described. This review also discusses whether nutrition should be provided to patients in a permanent vegetative state, and the issues of brain death

and organ donation. Design: The review is based on literature research and a description of the legislature in countries where religious rulings do influence secular law. Results: Not all religions have distinct rulings on all the above-mentioned issues, but it is pointed out that all religions will probably have to develop rulings on these questions. The importance of patient autonomy in the Western (Christian) world is not necessarily an issue among other ethnic and religious groups, and guidelines are presented with methods to uncover and deal with different ethnic and religious views. Conclusion: Many religious groupings are now spread world-wide (most notably Muslims), and with increasing globalization it is important that health-care systems take into account the religious beliefs of a wide variety of ethnic and religious groups when contemplating end-of-life decisions.

Keywords Ethics · Religion · Intensive care · End of life · Brain death · Palliation

Introduction

End-of-life treatment choices are increasing in intensive care units (ICUs) around the world [1–3] with 16–90% of all deaths preceded by some kind of limitation of life-sustaining therapy [2–5], and patients and physicians

with different religious, cultural and ethical backgrounds adopt different approaches, even within the same religion [4, 6–10].

Many parts of the world are no longer homogeneous religious and cultural entities. Within the next 50 years, the majority of Americans will be of non-European

descent [11], since Latinos represent nearly 13% of the US population, surpassing African-Americans as the nation's largest racial/ethnic group [12], and in Canada the 2000 census counted 500,000 Muslims, 500,000 Hindus and Sikhs and 1 million Chinese [9, 13, 14]. Islam is *the* example of a world-wide religion: only 18% of the 1.1 billion Muslims live in the Arab countries [15]. Indonesia has 213 million Muslims, constituting 88 % of its citizens [16], followed by India with 138 million (12.4% of the population) [17]. China has 20 million (1.5% of the population) [16], and there were 15 million Muslims in Europe in 1999 [15]. In the UK, 3% (2 million) of the entire population is now of Islamic origin [18, 19].

Consequently, in the future both health-care systems and individuals will have to cope with and understand the religious attitudes and beliefs of patients and physicians from other ethnic and religious groups. This review presents the rules and viewpoints of the world's major religions regarding end-of-life decisions in ICUs: withholding and withdrawing of life-sustaining therapy, alleviation of pain, brain death, and whether to provide artificial nutrition to patients in a persistent vegetative state (Table 1). Not all religions specifically address all these issues, so the review cannot be fully comprehensive.

Christian perspective

An exhaustive account of the Christian view on end-of-life decisions is almost impossible because the term Christian encompasses many different groups, from Mormons and Jehovah's Witnesses to Lutherans, Roman Catholics, and Orthodox Christians.

Roman Catholic perspective

Pope John Paul II expressed the church's official attitude in 1995 in his "Evangelium Vitae" [20], which later was

summarized in a shorter form in "Catechismus Catholicae Ecclesiae" [21]. In short, the Catholic Church allows withholding and withdrawing of futile therapy if it is burdensome, dangerous, extraordinary or disproportionate to the expected outcome. In 1980 a "Declaration on Euthanasia" allowed alleviation of pain in the dying, even with shortening of life as a non-intended side effect (the double effect), though pain at the end of life may have the special meaning of participating in Christ's suffering on the cross [20]. Active euthanasia is never allowed, and palliative care is to be offered [20–22].

Despite allowing withdrawal of futile therapy, shortly before his death Pope John Paul II took a firm stand against withdrawing artificial nutrition from patients in a persistent vegetative state – a statement that has provoked much controversy [23–24].

Protestant perspective

Most Protestants are comfortable with the present wide array of life-sustaining therapies, but if there is little hope of recovery, most will understand and accept the with-holding or withdrawal of therapy [10]. One example of the diversity within Protestantism is the question of euthanasia. The Evangelical Lutheran church in Germany has developed advance directives for end-of-life choices but rejects active euthanasia [25], whereas theologians in the reformed tradition, e.g. in the Netherlands, defend active euthanasia.

Orthodox perspective (Greek Orthodox Church)

The Greek Orthodox Church considers death not as a biological event but as a mystery with a sacred, spiritual character and as a great blessing [26]. The church has no position on end-of-life decisions, since the task of Christians is to pray and not to decide about life and death. In

Table 1 The various religions' views on end-of-life decisions

	Withhold	Withdraw	Withdraw artificial nutrition	Organ donation	Double effect a	Euthanasia
Catholics	Yes	Yes	No	Yes	Yes	No
Protestants	Yes	Yes	Yes	Yes	Yes	Some
Greek Orthodox	No	No	No	Yes	No^b	No
Muslims	Yes	Yes	No	Most	Yes	No
Orthodox Jews	Yes	No	No	Yes ^c	Yes	No
Buddhists	Yes	Yes	Yes	No ^c	Yes	No
Hindus and Sikhs	Yes	Yes	?	Yes	?	Some
Taoism	Most	Most	?	?	?	?
Confucianism	No	No	?	?	?	No

^aDouble effect: alleviation of pain is allowed, even if it *unintentionally* hastens death; ^bAlleviation of pain is allowed, if it will in no way lead to the patient's death; ^cThere are conflicting views within this religion.

accordance the Greek Orthodox Church rejects every death resulting from human decisions as being an insult to God, and condemns as unethical every medical act that does not contribute to the prolongation of life. The bioethics committee of the Church of Greece has stated: "There is always the possibility of an erroneous medical appraisal or of an unforeseen outcome of the disease, or even a miracle" [27]. Therefore, as a principle the withholding and withdrawing of therapy is not allowed, and should a fully conscious patient request an omission of treatment (that might save him), it is the moral obligation of the physician to try to persuade him to consent to that treatment. Alleviation of pain is allowed if medication is given in doses that are not certain to lead to death. Withholding or withdrawing of artificial nutrition is not allowed even if there is no prospect of recovery [27].

The word "euthanasia" comes from the Greek for "good death", and the Greek Orthodox Church defines good death as "a peaceful death with dignity and without pain". On the contrary, the current international meaning of "active euthanasia" is perceived rather as "mercy killing" and is under no circumstances allowed.

Artificial support is justifiable only when it offers the prospect of continued life. Therefore, termination of ventilator therapy in a brain-dead person is allowed [26]. Organ transplantation is permitted if the donor or his family have agreed knowingly and voluntarily [27]. This contrasts with the Greek law, where "non-refusal" of the relatives is interpreted as consent of the donor.

Jewish perspective

There are three broad Jewish denominations: reform, conservative and orthodox, with orthodox Jews being the most religious.

The Jewish legal system or *Halacha*, developed from the Bible (Tanach), Talmud and rabbinic responsa, differentiates between active and passive actions and between withholding and withdrawing life-sustaining therapies [28–31]. Halacha does not allow the hastening of death even in the terminally ill [28, 30, 31], but there is no obligation to actively prolong the pain and suffering of a dying patient or to lengthen such a patient's life [28, 29]. Therefore, *Halacha* allows the withholding of a life-prolonging treatment, provided that it pertains to the dying process, but forbids the withdrawing of life-sustaining therapy, if it is a continuous form of treatment [28–31]. Active euthanasia or physician-assisted suicide is prohibited even if the patient has requested it [28-30]. A new Israeli law strikes a balance between the sanctity of life and the principle of autonomy [28]. The law forbids the withdrawing of a continuous life-sustaining therapy but allows withholding further treatment if it is an intermittent life-sustaining treatment—and if this action is in accordance with the clear wish of the patient [28]. This is

based on the assumption that each unit of treatment is an independent and new decision, hence it is permissible to withhold it. This includes withholding any life-prolonging activities such as intubation, ventilation and surgery, and also chemotherapy or dialysis, even after initiation, because such action is viewed as omitting the next treatment rather than committing an act of withdrawal.

Respirator therapy is a continuous form of treatment, and its withdrawal is forbidden because this act will shorten life. Such a decision, however, may cause unwanted and prolonged suffering. Therefore, the law and *Halacha* allow the changing of the ventilator from a continuous form to an intermittent form of treatment by connecting the respirator to a timer [28, 31]. Such an action changes the respirator, from a conceptual point of view, into an intermittent therapy. The end result, the death of the patient according to his/her wishes, thereby becomes morally acceptable because the aim is achieved by omission rather than commission. This innovative, practical solution is also helpful to health-care providers who have psychological problems fulfilling the wishes of the patient.

Food and fluids are regarded as basic needs and not treatment. Withholding food and fluids from a dying patient (or patients with other disorders) is unrelated to the dying process and therefore is prohibited and regarded as a form of euthanasia [28]. This mostly concerns incompetent patients, who make up the majority of intensive care patients [32]. Nevertheless, if the dying patient is competent and refuses treatment, including food and fluids, he/she should be encouraged to change his/her mind regarding food and fluids, but should not be forced against his/her wishes [28]. The situation changes, however, when the patient approaches the final days of life, when food and even fluids may cause suffering and complications. In such an event, it is permissible to withhold food and fluids if it is known that this was the patient's wish.

Based on the moral requirement to alleviate pain and suffering, the law and *Halacha* require providing palliative care to the patient and to his/her family. Treatments include palliative therapy that might unintentionally shorten life, based on the principle of double effect [28].

The classical Jewish definition of death is when spontaneous respiration ceases [33]. Halachic authorities permit harvesting of vital organs from a brain-dead person, if a strict set of medical criteria are met to verify absolute and irreversible cessation of respiration (strict brain-death criteria) [33]. Some Halachic authorities, however, also require the cessation of heart action [33], and many ultraorthodox Jews do not accept brain criteria and insist on the cessation of cardiac activity.

Islamic perspective

Islamic bioethics is an extension of Shariah (Islamic law) based on the Qur'an (the holy book of all Muslims) and

the Sunna (Islamic law based on the Prophet Muhammad's words and acts) [9]. For Muslims, everything possible must be done to prevent premature death. Not at any cost, however, and life-sustaining treatments can be withheld or withdrawn in terminally ill Muslim patients when the physicians are certain about the inevitability of death, and that treatment in no way will improve the condition or quality of life [34, 35]. The intention must never be to hasten death, only to abstain from overzealous treatment. This is based on the Islamic principle "la darar wa la dirar" (no harm and no harassment). Basic nutrition, however, should not be discontinued [34, 36], because such a withdrawal would in effect starve the patient to death—a crime according to the Islamic faith. The decision to withdraw futile treatment is seen as allowing death to take its natural course. However, it should be a collective decision taken on the basis of informed consent, following a consultation with the patient's family, and involving all those involved in providing health care, including the attending physician (three for the case of withdrawing life support for brain death, for example). This also applies to patients in a persistent vegetative state [34].

Most, but not all, Islamic countries now accept brain death, after which intensive care equipment can be withdrawn. This decision came as a result of the Third International Conference of Islamic Jurists in 1986 [10, 29], and the Fourth Session of Council of the Islamic Jurisprudence Academy in 1988 allowed (under certain conditions) the retrieval of organs from brainstem-dead patients [34]. Regarding pain, the Qur'an states that "Allah does not tax any soul beyond that which he can bear" and pain and suffering is not a punishment but rather a "kaffarah" (expiation) for one's sins. But relieving pain or providing a sedative drug with the aim of pain relief is still allowed even if death is hastened (double effect), provided death was definitely not the intention of the physician [35, 36].

The Qur'an also emphasizes that "it is the sole prerogative of Allah to bestow life and to cause death", and therefore euthanasia is never allowed [34, 35].

The two major branches of Islamic faith, the Shia and the Sunni, may differ somewhat in interpretations, methodology and authoritative systems, but not fundamentally in bioethical rulings. It should be noted, though, that most Islamic communities will defer to the opinion of their own recognized religious scholars because the Islamic faith is not monolithic but rather a diversity of views exist [9].

Hindu and Sikh perspective

Intensive care is at the moment almost exclusively available in the metropolis areas of India, with little debate on the legal and ethical problems that arise in the ICU setting [37]. Since the Hindu religion does not have a single central authority to enforce compliance with

Hinduism [38], diverse interpretations, opinions and actions are possible.

The Hindu and Sikh religions differ profoundly, but share a duty-based rather than rights-based approach to ethical decision making, and both Hindus and Sikhs believe in *karma*, a causal law where all acts and human thoughts have consequences: good *karma* leads to a good rebirth, bad karma to a bad rebirth [13, 39]. The religion copes with death by its denial—death is merely the passage to a new life, but untimely death is seriously mourned [38]. The way you die is important. A good death is signified by old age, having said one's goodbyes and all duties having been settled. Bad death is violent, premature, in the wrong place (not at home or at the river Ganges) and signified by vomit, faeces, urine and an unpleasant expression [39]. Death in an ICU seems to be fall into the category of a bad death.

A do-not-resuscitate order is usually accepted or desired because death should be peaceful, and artificially or mechanically sustained life is of little value [38], but little is taught in Indian medical schools on palliative care and management of death [37].

Organ transplants are in one text listed as "being well received when available" [38].

Euthanasia is illegal in India, based on the Indian Penal Code from the days of British rule in 1860 [37], but there is a longstanding tradition of suicide in certain carefully defined circumstances—exemplified by the rule that a terminally ill person may hasten death—as a spiritual purification, to promote detachment and to ensure no signs of bad death (faeces, vomit or urine) [39].

Confucian and Taoist perspective

Bioethics does not formally exist within traditional Chinese culture. The predominant religion in the elderly Chinese population is Buddhism/Taoism [40]. In contrast, almost 60% of the younger generation claim to have no religion [41], because Confucianism is not generally considered a religion by most Chinese people. The moral perspective is influenced primarily by Confucianism but also by Taoism and Buddhism [14]. Consequently, with this mixture of different religions and philosophies in one population, very diverse opinions and dilemmas can be encountered.

According to Confucian teaching, death is good if one has fulfilled one's moral duties in life, and resistance to accept terminal illness or insisting on futile treatment may reflect the patient's perception of unfinished business [14].

Taoism is divided into philosophical and religious Taoism. In philosophical Taoism acceptance is the only appropriate response when facing death, and artificial measures contradict the natural events. In religious Taoism death may lead to an afterlife of endless torture in hell—so a Taoist may cling to any means of extending life important to inquire about the specific attitudes held by to postpone that possibility [14].

In Chinese culture as a whole, the topic of death is generally a taboo, which prohibits the physicians from discussing death in much detail with the patient or the patient's family. The maintenance of hope is considered very important in the care of the dying, as hope prevents suffering by avoiding despair. Face-to-face interviews with 40 Chinese seniors 65 years of age or older showed that all respondents rejected advance directives [42].

The Chinese are more likely to prefer family-centred decision making than other racial or ethnic groups [43]. For example, do-not-resuscitate orders in dying Chinese cancer patients were seldom signed by the patient personally [44]. Moreover, even if a Chinese patient is resigned to death, the children may strongly advocate therapy, even when futile, because filial piety can only be shown when a parent is alive—and accepting impending death is held equivalent to removing the opportunity to show piety [14]. Some Chinese patients may think differently. A study in Taiwan showed that cancer patients strongly claimed the right to be informed about their disease before their family was informed [45].

Euthanasia is illegal in Hong Kong [46], and on mainland China euthanasia is a topic that medicine and the law carefully avoid discussing. The first reported case of euthanasia in China caused great debate when the Supreme Court pronounced the accused physician innocent of a crime.

Brain death has been extensively discussed in medicine, and diagnostic criteria have been issued by the Ministry of Health. Most physicians, however, do not believe that brain death will be approved by the government or legislative authorities. We have not found any definite religious rulings on brain death or organ transplantations within Taoism and Confucianism.

Buddhist perspective

As with Hinduism, there is no central Buddhist authority to pronounce on doctrine and ethics [12, 47]. Buddhism is a flexible and moderate religion, and in practice, local customs will often be more important in the relationship between physician and patient than Buddhist doctrine [47].

Now that Buddhism has migrated into Western culture, many of the more "traditional" Buddhist attitudes towards death and dying have evolved and become modernized. This is seen, for instance, in the attitude amongst Western Buddhists toward organ donation. Organ donation is now deemed acceptable for Buddhists who have decided, during their lifetime, to donate an organ or organs [48]. Classically, Buddhism takes on the aspects of the culture in which it is adopted. Therefore, attitudes towards illness and death may be different among Tibetan, Indian, Thai, Japanese, and Western Buddhists. Hence, it is extremely

a Buddhist patient and family who come from a particular culture. Certain attitudes, however, are shared by most Buddhists.

Basically, there is no mandate or moral obligation to preserve life at all costs in Buddhism—this would be a denial of human mortality. That is the primary point to make. There are no specific Buddhist teachings on patients in a persistent vegetative state, but keeping the patient alive artificially, e.g. by artificial nutrition, is not mandatory in Buddhism. Alleviation of pain, and the principle of double effect, is accepted, but Buddhists believe it is important to meet death with mental clarity. Therefore some may abstain from analgesia or sedation. Euthanasia or mercy killing is not acceptable [49]. Terminal care should be available and Buddhism supports the hospice movement [47].

Discussion

"Modern medical technology has produced unprecedented forms of death or conditions of painful survival incompatible with life, leading to new dilemmas and bringing forth unanswered questions" [27]. This statement by the bioethics committee of the Church of Greece highlights what many religious leaders during the last 25 years have faced. They have had to contemplate and agree on epoch-making decisions concerning end-of-life choices. Statements have been issued by the Pope, Islamic international conferences have been held, the Jewish legal system has issued rulings on ventilator therapy so that cessation of therapy becomes legally possible within the framework of Jewish religious law, and Western Buddhists accept organ donation. So far, critical care medicine has essentially been a discipline of Western medicine because it demands a highly developed medical system [46]. Consequently, Far Eastern religions have not had the same need to develop distinct attitudes on withholding or withdrawing care in the ICU setting, but it is more than likely that Far Eastern religions will also have to adjust or express their religious rulings on these issues during the 21st century.

However, not only the general rulings of the various churches are important. In a study of actual behaviour in the clinical setting, it has recently been documented that physicians' religious beliefs have a major impact on their ICU decisions [8]. Withholding, withdrawing and median time from ICU admission to first limitation of therapy varied by religious affiliation [8]. It is noteworthy, however, that although religion plays an important part in decision-making, regional differences among physicians of the same religion have also been documented, and these differences are most probably due to acculturation [8, 50–53].

Religious beliefs can easily lead to clashes and discussions between patients and their families and among medical professionals, but physicians can help to prevent these conflicts by becoming knowledgeable and respecting their patients' faiths and beliefs. It is not enough, however, to look at religious issues, because for many laws and public policies on end-of-life decisions, it is difficult to ascertain what stems from the religious stance, the secular law [54], or the cultural background.

This is most evident in the question of patient autonomy. One of the main themes of the Protestant Reformation was that earthly authorities are not infallible. This emphasis on personal freedom contributed to articulating and promoting the concept of autonomy, which today is so widely accepted in Western countries that it is no longer considered a unique feature of Protestant (religious) bioethics [10]. In contrast to the view on patient autonomy found in most western European countries is Greece, where 96% of adherents to the Greek Orthodox Church believe that communication is important in the final stage of a disease, but only 23% agree that the patient should be informed of the prognosis [55]. This must be due to culture, because no such a statement has been issued by the Orthodox Church.

Also, it should be noted that in many Asian cultures patient autonomy is an agenda based not on culture, but on religious principles or thinking [13, 14, 56]. In the Confucian concept of relational personhood, it is the family or community who should be given the information, coordinate the patient's care [14] and protect the patient from the burden of knowledge [46]. Likewise, in the Hindu ethos death is a concern not only for the dying person, but also for those close to him, and it is the physician's task not to inform the patient of imminent death, but to nurture the will to live [38]. This is probably the reason that limitations of therapy only precede 22–50% of all ICU deaths in India and physicians are generally reluctant to discuss sensitive issues with patients and relatives [37].

Even when there is a clear-cut statement from church leaders, it may be difficult to incorporate the religious perspectives into modern medical decision making. The Catholic Church states that withholding or withdrawing of "extraordinary" therapy is allowed, but the development in medical science raises the question: what is extraordinary? [23, 57, 58] Mechanical ventilation could be ordinary at one stage of an illness, yet extraordinary at a later stage of the same illness [57]. Also, even clear-cut statements are not necessarily accepted culturally. According to Islamic law one is allowed to abstain from overzealous treatment, but in Lebanon and Oman withdrawing of treatment [58] and do-not-resuscitate orders [36] are less

frequent than in Western Europe—and in both papers this is mainly explained by cultural differences.

Strict ethnic and religious background is not the only factor that must be taken into account when dealing with end-of-life decisions. Recent immigrants will generally adhere rather strictly to the rules of the religion and culture of their place of origin [13, 14], whereas second- or thirdgeneration immigrants will often have acculturated to the dominant bioethics of their new country [53]. In addition, it must be recognized that when facing death, many individuals tend to fall back on their traditional cultural or religious background [46, 59]. On the other hand, people who classify themselves as belonging to a religion do not necessarily attend their church or follow any of the religion's rulings.

How to cope with religious issues

Most physicians do not know their patients' religious affiliation [4], and authors have used strong words to characterize the consequences if religion and culture is not acknowledged: "it can lead to a complete break-down in communication" [14]; "it can turn this situation into a nightmare" [59].

Physicians are therefore well advised to establish their patients' religious affiliations early on [54], perhaps to involve the clergy of the patient's religion [9, 10, 60], and to follow the checklist proposed by Klessig (Table 2) [59].

This review will hopefully improve physicians' knowledge of the end-of-life perspectives of the various religions to which their patients may be affiliated, secondary to the globalization of the medical community. In that context, the statement of the ethics committee at Stanford University is important: "The key to resolving ethical problems lies in clarifying the patient's interests" [61].

Table 2 Checklist to establish religious beliefs, cultural affiliation and family background when end-of-life decisions are necessary (from [59])

What do they think of the sanctity of life?

What is their definition of death?

What is their religious background, and how active are they presently?

What do they believe are the causal agents in illness, and how do these relate to the dying process?

What is the patient's social support system?

Who makes decisions about matters of importance in the family?

References

- Koch KA, Rodeffer HD, Wears RL (1994) Changing patterns of terminal care management in an intensive care unit. Crit Care Med 22:233–243
- Prendergast TJ, Luce JM (1997) Increasing incidence of withholding and withdrawal of life support from the critically ill. Am J Respir Crit Care Med 155:15–20
- McLean RF, Tarshis J, Mazer D, Szalai JP (2000) Death in two Canadian intensive care units: Institutional difference and changes over time. Crit Care Med 28:100–103
- Sprung CL, Cohen SL, Sjøkvist P, Baras M, Bülow HH, Hovilehto S, Ledoux D, Lippert A, Maia P, Phelan D, Schobersberger W, Wennberg E, Woodcock T and The Ethicus Study Group (2003) End of life decisions in European intensive care units – the Ethicus Study. JAMA 290:790–797
- Kapadia F, Singh M, Divatia J, Vaidyanathan P, Udwadia FE, Raisinghaney SJ, Limaye HS, Karnad DR (2005) Limitation and withdrawal of intensive therapy at the end of life: practices in intensive care units in Mumbai, India. Crit Care Med 33:1436–1437
- Vincent JL (1999) Forgoing life support in western European intensive care units: the results of an ethical questionnaire. Crit Care Med 27:1626–1633
- 7. Christakis NA, Asch DA (1995) Physician characteristics associated with decisions to withdraw life support. Am J Public Health 85:367–372
- Sprung CL, Maia P, Bülow HH, Ricou B, Armaginidis A, Baras M, Wennberg E, Reinhart K, Cohen SL, Fries DR, Nakos G, Thijs LG and The Ethicus Study Group (2007) The impact of religion on end-of-life decisions in European intensive care units. Intensive Care Med 33:1732–1739
- Daar SA, Khitamy BA (2001) Bioethics for clinicians. 21. Islamic bioethics. Can Med Assoc J 164:60–63
- Pauls M, Hutchinson RC (2002) Bioethics for clinicians: Protestant bioethics. Can Med Assoc J 166:339–344
- 11. Hedayat KM, Pirzadeh R (2001) Issues in Islamic bioethics: a primer for the paediatrician. Pediatrics 108:965–971
- Blewett LA, Smoida SA, Fuentes C, Zuehlke EU (2003) Health care needs of the growing Latino population in rural America. J Rural Health 19:33–41
- Coward H, Sidhu T (2000) Bioethics for clinicians: Hinduism and Sikhism. Can Med Assoc J 163:1167–1170
- Bowman KW, Hui EC (2000) Bioethics for clinicians: Chinese bioethics. Can Med Assoc J 163:1481–1485

- Rasool GH (2000) The crescent and Islam: healing, nursing and the spiritual dimension. Some considerations towards an understanding of the Islamic perspectives on caring. J Adv Nurs 32:1476–1484
- (No author listed) (2006) Annual Report on International Religious Freedom. Bureau of Democracy, Human Rights and Labour Washington, DC.
- 17. www.censusindia.net/religiondata
- 18. Gatrad AR, Sheikh A (2001) Medical ethics and Islam: principles and practice. Arch Dis Child 84:72–75
- Plougsgaard H (2007) Young Muslims and the terror debate. Jyllandsposten, Aarhus, Denmark 3 January, p 14
- 20. Pope John Paul II (1995) Evangelium Vitae, 25 March, www.vatican.va
- Pope John Paul II (1997) Catechismus Catholicae Ecclesiae Sections 2278 and 2279, Libreria Editrice Vaticana. ISBN 88–209-2428–5
- (No author listed) (2000) Pontificia Academia pro vita: the dignity of the dying person. In: Libreria Editrice Vaticana (paperback) pp 480
- 23. Shannon TA (2006) Nutrition and hydration: an analysis of the recent Papal statement in the light of the Roman Catholic bioethical tradition. Christ Bioeth 12:29–41
- 24. Clark P (2006) Tube feedings and persistent vegetative state patients: ordinary or extraordinary means. Christ Bioeth 12:43–64
- May AT (2003) Physician assisted suicide, euthanasia, and Christian bioethics: moral controversy in Germany. Christ Bioeth 9:273–283
- Hatzinikolaou N (2003) Prolonging life or hindering death? An orthodox perspective on death, dying and euthanasia. Christ Bioeth 9:187–201
- 27. The Holy Synod of the Church of Greece, Bioethics Committee (2000) Press release, 17 August. Basic positions on the ethics of transplantation and euthanasia. www.bioethics.org.gr
- Steinberg A, Sprung CL (2006) The dying patient: new Israeli legislation. Intensive Care Med 32:1234–1237
- Bleich JD (1981) Euthanasia. In: Bleich JD (ed). Judaism and healing. Halachic perspectives. Ktav, New York, pp134–135
- Rosner F, Tendler MD (1980) Euthanasia. In: Rosner F, Tendler MD (eds). Practical medical Halacha. Feldheim. Jerusalem, p 56
- 31. Ravitsky V (2005) Timers on ventilators. BMJ 330:415–417

- 32. Cohen S, Sprung CL, Sjokvist P, Lippert A, Ricou B, Hovilehto S, Maia P, Reinhart K, Werdan K, Bülow HH, Woodcock T (2005) Communication of end of life decisions in European intensive care units – the Ethicus Study. Intensive Care Med 31:1215–1221
- 33. Steinberg A (2003) Encyclopedia of Jewish medical ethics, Feldheim, Jerusalem, pp 695–711
- 34. Ebrahim AFH (2000) The living will (Wasiyat Al-Hayy): a study of its legality in the light of Islamic jurisprudence. Med Law 19:147–160
- 35. Sachedina A (2005) End-of-life: the Islamic view. Lancet 366:774–779
- 36. da Costa DE, Ghazal H, Khusaiby SA, Gatrad AR (2002) Do not resuscitate orders in a neonatal ICU in a Muslim community. Arch Dis Child Fetal Neonatal Ed 86:F115–F119
- 37. Mani RK (2006) End-of-life care in India. Intensive Care Med 32:1066–1068
- 38. Desai PN (1988) Medical ethics in India. J Med Phil 13:231–255
- 39. Firth S (2005) End-of-life: a Hindu view. Lancet 366:682–686
- 40. Low JA, Ng WC, Yap KB, Chan KM (2000) End-of-life issues – preferences and choices of a group of elderly Chinese subjects attending a day care centre in Singapore. Ann Acad Med Singapore 29:50–56
- 41. Lee JCY, Chen PP, Yeo JKS, So HY (2003) Hong Kong Chinese teachers' attitudes towards life-sustaining treatment in the dying patients. Hong Kong Med J 9:186–191
- 42. Bowman KW, Singer PA (2001) Chinese seniors' perspectives on end-of-life decisions. Soc Sci Med 53:455–464
- 43. Kwak J, Haley WE (2005) Current research findings on end-of-life decision making among racially or ethnically diverse groups. Gerontologist 45:634–641
- 44. Liu JM, Lin WC, Chen YM, Wu HW, Yao NS, Chen LT, Whang-Peng J (1999) The status of the do-not-resuscitate order in Chinese clinical trial patients in a cancer centre. J Med Ethics 25:309–314
- 45. Tang ST, Liu TW, Lai MS, Liu LN, Chen CH, Koong SL (2006) Congruence of knowledge, experiences, and preferences for disclosure of diagnosis and prognosis between terminallyill cancer patients and their family caregivers in Taiwan. Cancer Invest 24:360–366
- Ip M, Gilligan T, Koenig B, Raffin TA (1998) Ethical decision making in critical care in Hong Kong. Crit Care Med 26:447–451

- 47. Keown D (2005) End-of-life: the Buddhist view. Lancet 366:952–955
- 48. Shambhala Buddhist paper on end of life care. www.shambhala.org
- Ratanakul P (1988) Bioethics in Thailand: the struggle for Buddhist solutions. J Med Philos 13:301–312
- Eidelman LA, Jakobson DJ, Pizov R, Geber D, Leibovitz L, Sprung CL (1998) Foregoing life-sustaining treatment in an Israeli ICU. Intensive Care Med 24:162–166
- Christakis NA, Asch DA (1995) Physician characteristics associated with decisions to withdraw life support. Am J Public Health 85:367–372
- 52. The Society of Critical Care Medicine Ethics Committee (1992) Attitudes of critical care medicine professionals concerning forgoing life-sustaining treatments. Crit Care Med 20:320–326

- Matsumura S, Bito S, Liu H, Kahn K, Fukuhara S, Kagawa-Singer ML (2002) Acculturation of attitudes toward end-of-life care. J Gen Intern Med 17:531–539
- 54. Engelhardt HT, Iltis AS (2005) Endof-life: the traditional Christian view. Lancet 366:1045–1049
- 55. Mystakidou K, Parpa E, Tsilika E, Katsouda E, Vlahos L (2005) The evolution of euthanasia and its perceptions in Greek culture and civilization. Perspect Biol Med 48:95–104
- Brotzman GL, Butler DJ (1991)
 Cross-cultural issues in the disclosure of a terminal diagnosis. J Fam Pract 32:426–427
- 57. Markwell H (2005) End-of-life: a Catholic view. Lancet 366:1132–1135

- 58. Yazigi A, Riachi M, Dabbar G (2005) Withholding and withdrawal of lifesustaining treatment in a Lebanese intensive care unit. Intensive Care Med 31:562–567
- Klessig J (1992) Cross-cultural medicine. The effect of values and culture on life support decisions. West J Med 157:316–322
- Grodin MA (1993) Religious advance directives: the convergence of law, religion, medicine and public health. Am J Pub Health 83:899–903
- 61. Ruark JE, Raffin TA (1988) Initiating and withdrawing life support. N Engl J Med 318:25–30