The use of medical technology to prolong life

The Use of Medical Technology to Prolong LifeTeam DSantana Allen, Stephanie Beres, Rasonia Herring, Stephanie SeilerHCS 578June 20, 2011Lenora SmithThe Use of Medical Technology to Prolong LifeAs technology continues to change and improve health care, advances in health care pose a threat to end-of-life care. Continued advances in technology assist individuals at end-of-life to live longer with life support systems. Examples of these systems include ventilators, pacemakers, dialysis machines, and feeding tubes.

With all of the advances in technology, many family members may not know when to say ??? enough is enough??? and to let the patient die peacefully. Health care providers face a similar dilemma with the inability to say ??? we have done all we can do.??? Many questions surround the advances in technology and end-of-life care and need to be answered. The combination of technology and end-of-life care brings with it a differing of opinions in health care.

Many health care providers assert that all efforts be made to keep a patient alive, but the opposition considers this type of care futile. This debate continues in health care with no clear-cut answer available. The material provided in this paper covers the questions to the supporting and opposing sides of end-of-life care and give insight to both sides. This ongoing debate affects the patient, family members and health care staff caring for the patient. The Proponent ArgumentHow does one ignore advanced directives or a patient??™s autonomy when the decisions is to forego treatment Opposition would have everyone believe that health care providers should not ignore the advanced directives or a patient??™s autonomy. Our

contention is that people ignore advanced directives or patient autonomy because doing so determines a chance exists that the disease or disorder is treatable. An example involves a nursing-home resident who??™s code status was do not recusitate according to his living will.

The patient was taken to the hospital with a gastrointestinal bleed. The patient told the physicians his wishes for his code status, to be a full code if his condition was treatable (Lawrence & Brauner, 2009). So, if there is a chance for recovery, health care providers should proceed with treatment. Is it ethical to use intensive care beds for a patient with no hope of survival, which leads to delay in placement for a patient with higher probability for positive outcomes Opposition would have everyone believe that it is unethical. However, our contention is that this could be yes or no answer. We would say it is ethical to use intensive care beds for patients with no hope of survival because the patient is still a patient until the patient takes the last breath, even though the patient is dying.

For the answer no, a person could view it as unethical because the patient who has no hope of survival is limiting the care for patients with a chance of survival. Is prolonging life in the best interest of the patient or the decision maker Opposition would have everyone believe it is the best interest for the decision maker. Our contention is that prolonging life in some cases would be in the best interest of the patient if it will help to ease pain and suffering as a result of the dying process. Cases exist in which the decision maker decides to prolong life because of an inability to cope with the greiving process. Often decision makers think that health care providers should

exhaust all treatment options before withdrawing life sustaining support for the patient.

Oftentimes, health care providers become emotionally attached to patients and make decisions based on emotion and not best practice. Does providing futile care changes the integrity of the health care professionals Opposition would have everyone believe it does change the integrity. However, our contention is no. Using tehcnology to prolong life does not affect integrity because practitioners have taken an oath to provide excellent care to their patients. By providing futile care, physicians help to ease patient pain before death.

Because the use of technology to prolong life provides false hope is it ethical to deceive the decision maker Opposition would have everyone believe it is unethical. However, our contention is on the contrary. When a health care professional uses technology to prolong life and gives the decision maker false hope, it is because he has not explained that the outcome could not be as they would expect it to be.

It is ethical when the physician explains to the decision maker that it is only to prolong the patient??™s life for a while and there is still a chance the patient will not recover from the illness. If we cause further pain and suffering at the end of life how are we providing dignity at the end of life Opposition would have everyone believe if we cause further pain and suffering at the end life we are not providing dignity. However, our contention is that using advanced technology to prolong the dying process does maintatain the dignity of the patient. By providing an opportunity to

prolong the patient??™s life there is a chance the patient may encounter physical injuries; we still are providing a chance for their lives to be prolonged. Is futile care giving quality care Opposition would have everyone believe that it is not providing quality care. However, our contention is that this is not true. Quality care means a high degree of excellence when caring for others. Futile care is a belief for negativity.

Futile care indicated there is no hope or encouragement for survival. Futile care is similar to a hospice. To provide quality care, physicians should not result to futile care but give patients the options to live longer and healthier with advanced technology. How cost effective is futile care Opposition would have everyone believe that the cost is extremely high. When discussing futile care and cost, our contention is that there is no cost-effective method to maintain a patient??™s care. Depending on the situation and how long the patient will be in need of the care, it can run a family anywhere from $100, 00 to $1million and so on.

What is the impact on nursing staff caring for the patient receiving futile care Opposition would have everyone believe it is stressful. Our contention is that “ Medical futility, defined as life-sustaining care that is highly unlikely to result in meaningful survival, has become a topic of increased attention??? (Ferrell, 2006, p. 922).

Anytime a nurse is caring for a patient he or she believes is receiving futile care the impact can be tremendous on the health care staff (Ferrell, 2006). In a case example in the article nurses described the futile care given to patient as torturous, violence, and cruelty (Ferrell, 2006). Continuing to

provide care to a patient without any benefit will cause moral distress on the nursing staff. Who are the decision makers involved in end-of-life care for an individual Opposition would have everyone believe that it is the patient.

However, our contention is that concerning end of life decisions, the patient??™s wishes should take precedence over others. Respecting the patient??™s wishes should be the first plan of care; however, if the patient is incompetent, the family members become the primary decision makers. Does the increasing availability of life-sustaining technologies increase the delivery of futile care Opposition would have everyone believe that life-sustaining technologies have not increased futile care.

Our contention is no, not exactly. Improved and increased medical technology has turned medical mysteries from impossible to possible. Medical technology creates the opportunity to improve quality of life; there is no guarantee or promise to prolong life. Considering the scarcity of health care resources, why should a commodity be allocated for futile care Opposition would have everyone believe that commodity should not be allocated for futile care.

However, it is our contention that the allocation of resources should address the greatest need. Futile care or life prolonging services stress the already taxed health care system and diverts monies that could benefit a greater good (Koch, 2011). According to Koch, the cost of care should not have a basis in compassion, nor should it be a consideration of affordability, but should have foundation on necessity and ability of the facility to provide such services (2011). The only aspect that should be a consideration is quality of

life. If the patient has no improvement or expectancy of quality of life the allocation of resources should be withheld and used more appropriately. Why should health care providers attempt aggressive treatments in cases in which there is a poor prognosis Opposition would have everyone believe that health care providers should not attempt aggressive treatments in patients with a poor prognosis.

Our contention is that aggressive treatment for medical cases in which the physician has assessed and evaluated the patient and diagnosed the medical condition grave and irreversible uses valuable resources, inflicts undue stress and possible harm, and provides a level of hope for the family where none exists (Koch, 2011). Aggressive treatment should be for patients who have some expectation of recovery with a quality of life described as valuable and functional. Some patients, after undergoing aggressive treatments, have little to no quality of life. The cost of the aggressive treatment becomes a mental and financial burden on the family or state. How does one ethically differentiate between futile care between a family can afford to pay for futile treatments and a family that cannot Our contention is that there is no ethical way to differentiate between the wealthy verus poor families. People who seek futile care have minimal chance of recovery and their quality of life is poor; most physicians state this. The use of advanced technology and futile care should be a health care choice everyone, but there are other funding options for the people who cannot afford it. Some medical facilities help patients with limited available funds.

How does one rationalize the ethics of quality, access, and cost when addressing futile care However, our contention is that this question is a slippery slope. No good rationale exists when considering to spend money on advanced technology and medication when the patient has minimal chance to recover. Access to advance technology is available to patients who can afford it; however, patients who receive funding from organizations have to wait to receive treatment. According to Luce (1997), futile care indicates that the patient cannot benefit from treatment and the acute disorder is not reversible. Care is futile because the patient will not survive the hospital stay or the quality of the patient??™s life following discharge will be poor. The Opponent ArgumentGoals for Prolonging LifeThe provision of care considered futile describes the events that surround heroic efforts to save or prolong life in the midst of a poor prognosis or terminal condition.

Futile care describes situations in which physicians exhauste all care options to provide care deemed hopeless and without merit, usually to appease the wishes of the family. The only measurable goal for prolonging life rests in providing the family opportunity to begin the grieving process and come to terms with the diagnosis and prognosis of the patient. Denial of Prolonged Life Versus End-of-Life CareLiving in a time of technological advances and medical breakthroughs, physicians who prolong life in the face of poor prognosis does not equate this care with denial of recovery. The proponents consider this denial of care. The disease process or the experienced trauma determines the life expectancy of the patient, not the physician. Health care professionals provide care using all available resources, thereby giving the patient every possible chance to live or recover.

After reaching that point in care, recovery depends upon patient condition alone. Heroics and life-sustaining interventions only serve to prolong the inevitable. Spiritual and Theological ArgumentsSome proponents for futile care stand on spiritual arguments believing that the miraculous remains possible. One study cites the rationale behind delaying or refusing hospice or palliative care in terminal cases or situations in which the prognosis remains poor rests on the patient or family belief that ultimately his or her higher power, not the physician, which determines the quality and quantity of life (Johnson, Elbert-Avila, & Tulsky, 2005). Unexplainable recoveries or improvement in condition tend to be the exceptional event. Attributing the remarkable turnaround to divine intervention, the patient??™s will to live, or a mere anomaly marks the event as just that, unexplainable.

Using the same argument from this study, patients with strong religious affiliations or belief systems also stand on the same premise that prohibits or disallows removal from life support systems because of the spiritual beliefs. The patients and families believe the higher power also sustains them on artificial support and believe limiting life-sustaining interventions equates a form of suicide (Johnson, Elbert-Avila, & Tulsky, 2005). Discoveries in medicine and technology still require years of testing and approval through the federal government.

Even if physicians or researchers find a cure to a particular disease process, the chances for the use of that treatment for patients awaiting help suggests that the testing process outlives the ill patient. Life Support DecisionsThroughout the years technology provides a variety of life-sustaining therapies. The proponents argue the chance for error when a

situation arises, and the individual can no longer make a competent decision. They question the right or appropriateness of the individual deemed the decision maker. “ As our ability to provide LST [life sustaining therapy] has evolved, so has the complexity of decision making at the end-of-life” (Choong, et al.

, 2010, p. 241). When incapable patients leave no expression of their wishes at end-of-life situations, appointed decision makers make decisions on their behalf as their “ best interest” (Choong, et al., 2010). Many times the family and physicians will congregate on what is in the “ best interest” of the patient; however, there are times when the family and physicians disagree and the courts of law become involved. End-of-life decision making presents a difficult situation for anyone, especially in the midst of disagreement. Technology for Prolonging LifeLife Support The discussion to prolong life using life support centers on the method of life support.

Mechanical ventilation via intubation describes one method of life support. Other methods include feeding tubes and nutritional support through parenteral nutrition. The method of support depends upon the disease process and prognosis. Where the prognosis remains poor, any advantage to prolong life diminishes with the disease process.

Life support should be the avenue to sustain life where viability remains a distinct possibility.” The increasing availability of life-sustaining technologies (mechanical ventilation, cardiac pacemaker, dialysis, etc) have meant that medical science can delay death” (Mohammed & Peter, 2009, p. 292).

Patients have an array of treatment modalities and oftentimes the families and patient “ want everything done” to assist in keeping the patient alive. When there is no benefit to the patient, families, and health care providers must decide when futile care ceases. The concept of medical futility requires better understanding (Mohammed & Peter, 2009). At this point futility can be understood in multiple and often conflicting ways (Mohammed & Peter, 2009).

??? Ultimately it could be possible to explore alternative ways to death and dying that result in less suffering and cost to both patients and the health care system” (Mohammed & Peter, 2009, p. 301). Although stem cell research has brought about the benefits of using stem cells, numerous ethical dilemmas continue with the use of stem cells. Despite the major benefits stem cells have shown, ethical debates linger over this topic. Numerous heated debates involving the harvesting of human embryonic stem cells exist (Siegel, 2008).

Harvesting of human embryonic stem cells involves the destruction of a human embryo (Siegel, 2008). Ethical dilemmas continue to shadow over stem cell research; however, the benefits may outweigh the negatives when viewing the entire concept of stem cell research. As stem cell research trials continue investigators, regulators, and the public will meet numerous challenges (Magnus, 2010). Stem cell research has various loose ends and ethical dilemmas attached to it; however, stem cell research does give hope for different disease processes in health care for the future. Modern Medicine ??“ Advantage or DisadvantageAs health care, and the technology associated with health continue to change and grow many questions and

concerns surround new health care technology. In today??™s world of health care technology, keeping an individual alive for a longer period is available; however, it may not be the best decision for the patient. Technology in health care that assists to keep an individual alive includes ventilators, pacemakers, and dialysis machines, to name a few. The continuing advances in modern medicine have the capability to lead to a disadvantageous quality of life for the patient.

In these situations it becomes difficult to say when enough is enough. Using advanced technology to prolong life poses new health concerns. Patients are at risk for hospital acquired conditions such as pressure ulcers. Pressure ulcers are painful for patients, and the care associated with dressing changes often become unbearable.

Pressure ulcers can become irreversible because of contributing factors like diet and activity. Ventilator acquired pneumonia is another health concern that the use of advanced technology poses. Both conditions can lead to sepsis and make the dying process uncomfortable. Physicians take the Hippocratic Oath to do no harm; it is not ethical to place a patient at risk for harmful hospital acquired conditions related to the use of medical technology to prolong life (Pope & Waldman, 2007). Testing Modern MedicineTesting modern medicine on human beings comes with controversy. Both supporting and opposing sides exist for testing modern medicine on human beings. For any type of experimental trial, individuals participating in the trial must sign consent and understand all parts of the trial. Experimental treatments come with no guarantee of success.

The experimental treatment runs risk of harm to the patient. This becomes an ethical dilemma for health care providers. With experimental trials, good or bad outcomes may occur; both the patient and physician must be willing to take the risk of a negative outcome. ConclusionProlonging life is a controversial issue and everyone will not see eye to eye.

With modern developments in medical technology, people can live healthier lives with new vaccines to prevent and cure diseases, treat heart attacks and other chronic illness, along with other medical mysteries. The decision to prolong life and receive treatment is the responsibility of the patient or the advocate. Ethics play a critical role in medical treatment, so all health care providers should respect their wishes and provide them excellent medical advice. So the debate continues, when should technology prolong life and when does it merely prolong dying ReferencesAiken, T.

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