

Case 12: Pacemaker

The pacemaker has become a critical medical device extending the life of millions of cardiac patients. Implanted in the chest of the patient, it provides an electrical signal that paces the heartbeat, compensating for failures in the patient's neurological system.

Currently, pacemakers are powered by batteries. The average life of a pacemaker battery is approximately five to fifteen years. Technology permits monitoring the battery and estimating when the pacemaker has less than ninety days of battery life remaining. This permits the scheduling of an operation to replace the pacing mechanism before the patient is in crisis. The operation is fairly simple and involves relatively little risk.

Martha and Mike are Aunt Jean's niece and nephew and her only living relatives. They have a loving relationship. Aunt Jean has an estate of several million dollars, having been a successful business owner who said she wanted to live to one hundred. Her estate plan provides that all of her assets are to be split equally between Martha and Mike. Aunt Jean is now ninety-five, having had a pacemaker implanted when she was ninety. At that time, she still lived independently and managed her own affairs. In the last two years, however, her physical and mental health have declined dramatically. She can no longer manage her personal affairs, including her medications. About eighteen months ago, she moved into an assisted living facility. She is pleasant to everyone, but sometimes fails to recognize Martha. Physically, she is incontinent. She can, with effort, walk with a walker.

Aunt Jean's cardiologist has determined that her pacemaker needs to be replaced.

Some years ago, Aunt Jean signed a healthcare power of attorney designating Martha and Mike as her advocates in the event she would be unable to make decisions for herself. As per the terms of the document, Aunt Jean's physicians have determined that she is unable to participate in determining the course of her health care.

Aunt Jean's medical team has asked Mike and Martha how to proceed. The surgery is regarded as relatively low risk and replacement should allow the new pacemaker to operate for another five or more years. Without the surgery, the pacemaker will cease operation in about seventy-five to ninety days, with the result that Aunt Jean would likely die within days. Her death would be very peaceful.

Study questions:

1. What should Martha and Mike tell Aunt Jean's medical team? Would the answer be different if she had said she never wanted to live to one hundred? What if she had never indicated a preference either way?
2. Suppose Aunt Jean had severe dementia, such that she no longer recognized Martha and Mike; could not participate in coherent conversation; and spent her days slumped over her wheelchair. How would that change the moral dimensions of the decision?
3. Suppose instead that Aunt Jean has arrived at this point without a pacemaker, but now needs one. The operation is relatively simple and is performed under local anaesthetic. Should Martha and Mike consent to the surgery?

Optional background reading:

1. <http://newoldage.blogs.nytimes.com/2014/01/29/a-decision-deferred-turnin...>
2. <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodi...>
3. http://newoldage.blogs.nytimes.com/2012/06/07/a-heart-quandary/?_r=0

Author: William L. Ball is a retired automotive executive who spent most his career in public policy. In retirement, he consults on issues regarding [connected vehicle technology](#). He serves on the board of a large, non-profit provider of aging services in Michigan. He volunteers as a mediator with the [Dispute Resolution Center \(DRC\)](#) in Ann Arbor and has participated on DRC's team for the [A2Ethics Big Ethical Question Slam](#). He holds a BChemE and J.D. from the University of Minnesota and an MBA from Stanford University.