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THERAC-25 Ethics paper

In this scenario and most others, testing should be considered the upmost priority before releasing a program, if not for the sake of the patient, then for the sake of the company and its reputation. It is hard to know how much testing should be done before releasing equipment, especially since there is no guarantee that any error would occur before it is released. But as stated in the Bible, “‘Everything is permissible’ – but not everything is beneficial. ‘Everything is permissible’ – but not everything is constructive. Nobody should seek his own good, but the good of others” (1 Corinthians 10: 23-24). Professionals should work ethically and responsibly, and do more than just the bare minimum, especially if you know that it could jeopardize someone’s life or reputation. Do not do what is only beneficial to you. So, in this case, do not release potentially fatal equipment at the expense of others for your own profit. You should test more than you would originally think too. Ultimately, it depends on the situation but the more risk and the more weight of the situation (aka when dealing with people’s lives) the more testing you should do until you’ve minimized the risk of error to as small as possible.

Testing should be done by both the programmer and the company. While testing the equipment as a whole is not the programmer’s financial responsibility, the programmer has an ethical obligation to test their own code to ensure that the company is getting what they paid for which is presumably a functioning program that can be implemented into the equipment. “When you build a new house, make a parapet around your roof so that you may not bring the guilt of bloodshed on your house if someone falls from the roof” (Deuteronomy 22:8). Ultimately all liability is held with the company, as it is their responsibility to ensure perfect functionality and accuracy before the product is released. The company should “hold paramount the safety, health,

and welfare of the public, to strive to comply with ethical design and sustainable development practices, to protect the privacy of others, and to disclose promptly factors that might endanger the public or the environment” (IEEE Code of Ethics)

It would be understandable to have two versions available for those that may not have the means to afford the more expensive version. If they were to make two versions available, with the less expensive version having a lower success rate and a higher fatality rate, then I believe that they should make all possibilities, probabilities, percentages, and statistics made known to the patient in full detail before consent is given and the procedure is done. “Honesty is an essential component of trustworthiness. A computing professional should be transparent and provide full disclosure of all pertinent system capabilities, limitations, and potential problems to the appropriate parties” (ACM Code of Ethics). No matter what option is presented or what choice the patient makes, the patient’s safety and outcome after treatment should be held at a high regard and considered extensively before the procedure.

Whether I would choose to use the machine would be based on the possibilities and statistics that were presented to me. If my chances of surviving were even close to 50%, I probably wouldn’t take it because my view on life would make it hard for me to do a coin toss on my life. Overall, the determining factor would be how greatly the disease has affected my life, what quality of life I would have without the treatment and what my quality of life would be estimated to be if I did receive the treatment. So overall, it depends on my situation at that time.

I do believe that they should do a certification process for software engineers in order to keep them accountable and reliable and to help reduce the amount of loop holes that allow them to prioritize profit over people’s safety. “Computing professionals are in a position of trust, and therefore have a special responsibility to provide objective, credible evaluations and testimony to

employers, employees, clients, users, and the public. Computing professionals should strive to be perceptive, thorough, and objective when evaluating, recommending, and presenting system descriptions and alternatives” (ACM Code of Ethics). Because of the trust and responsibilities that are given to these professionals we should have measures in place to ensure quality work.

Works Cited

“ACM Code of Ethics and Professional Conduct.” *Association for Computing Machinery*,

www.acm.org/code-of-ethics.

“IEEE Code of Ethics.” *IEEE Advancing Technology for Humanity*,

<https://www.ieee.org/about/corporate/governance/p7-8.html>

The Bible. Authorized King James Version, Oxford UP, 1998.