Codes of Ethics and Professional Conduct: **Medical Implant Risk Analysis**

Medical implants have the potential to revolutionize healthcare, offering new possibilities for improving or maintaining patient well-being. However, the development and application of these implants raise complex ethical, legal, and professional considerations. Medical implants fall in the intersection of computing and the medical domain, each of which have ethical, legal and professional intricacies, and the merger of these domains therefore combines these intricacies. In this paper, we will examine the application of ethics codes to the case study of medical implants, exploring their impact on legal and social issues, as well as the professionalism of computing professionals involved.

The Association of Computing Machinery (ACM) provides a comprehensive code of ethics, which serves as a valuable framework for computing professionals. Relevant principles include "Avoid Harm" and "Respect Privacy" (ACM, 1992). Computing professionals must ensure the safety and security of patients using medical implants, the data collected from patients, and the implants themselves. Furthermore, they must ensure that patients' privacy and confidentiality is protected. They should prioritize the well-being of individuals and handle sensitive data responsibly.

The legal implications of medical implants encompass liability, informed consent, and data protection (Anderson, 2007). Computing professionals must comply with legal frameworks governing these areas to avoid legal repercussions and protect patients' rights. Socially, medical implants raise concerns regarding accessibility, equity, and potential disparities (Friedman et al., 2013). Professionals need to consider the societal impact, ensuring that implant technologies are accessible to diverse populations.

The BCS Code of Conduct shares common principles with the ACM code. Both emphasize professional competence, confidentiality, and avoiding harm. However, the BCS code highlights the importance of considering the public interest, legal compliance and societal implications (Johnson & Powers, 2019). Computing

professionals involved in medical implants should assess the broader consequences of their work, striving for equitable access and positive societal outcomes.

The competence and proficiency of computing professionals plays a vital role in the ethical application of medical implants. Computing professionals should possess the necessary expertise, but crucially strive to remain updated with evolving ethical, legal, and social considerations. Continuous professional development is imperitive for maintaining competence and understanding the impact of their work on patient care and society.

In conclusion, the application of ethics codes to the context of medical implants is essential to address legal, social, and professional concerns. Computing professionals must uphold ethical principles outlined by ACM and BCS, safeguarding patient safety, privacy, and equitable access. By embracing professionalism and staying informed, these professionals can contribute to responsible and ethical advancements in medical implant technology, positively impacting healthcare outcomes and societal well-being.

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