ETHICAL ASPECTS OF RADIOLOGICAL PROTECTION

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Four core ethical values that underpin the current system of radiological protection are presented. Procedural ethical value for the practical implementation of core ethical values are also described.

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Despite a long recognition that radiological protection is not only a matter of science, but also morality and wisdom, International Commission on Radiological Protection publications have rarely addressed the ethical foundations of the system of radiological protection explicitly. Despite that, nowadays four core ethical values may be identified that underpin the current system of radiological protection: beneficence/non-maleficence, prudence, justice, and dignity.

Beneficence means promoting or doing good, and non-maleficence means avoiding causation of harm. By developing recommendations seeking to protect people against the harmful effects of radiation, the Commission undoubtedly contributes to serving the best interest of individuals and indirectly the quality of social life. This is achieved in practice by ensuring that deterministic effects are avoided and stochastic effects are reduced as far as it is achievable in the prevailing circumstances. Non-maleficence is closely related to prevention, which aims to limit risk by eliminating or reducing the likelihood of hazards, and thus promote well-being.

Prudence is the ability to make informed and carefully considered choices without the full knowledge of the scope and consequences of actions. It is also the ability to choose and act on what is in our power to do and not to do. The system of radiological protection is based on solid scientific evidence, however, there are remaining uncertainties that necessitate value judgments. Decision-making requires prudence as a central value. However, prudence should not be taken to be synonymous with caution, conservatism or never taking risks. It describes the way in which decisions are made and not solely the outcome of those decisions.

Justice is usually defined as fairness in the distribution of advantages and disadvantages among groups of people (distributive justice), fairness in compensation for losses (restorative justice), and fairness in the rules and procedures in the processes of decision-making (procedural justice). The system of radiological protection aims to ensure that the distribution of exposures in the society meets the two principles of social justice. First, the principle of equity in the situations reflects the personal circumstances in which individuals are involved. Secondly, the principle of equal rights guarantees equal treatment in the course of subsequent possible treatment for all exposed people (with priority to those who received higher doses of radiation).

Dignity is an attribute of the human condition: the idea that something is due to a person because she/he is human. Personal autonomy is a corollary of human dignity. This is the idea that individuals can act freely (i.e. to make uncoerced and informed decisions). Respect for human dignity was first specifically promoted in radiological protection with regard to the principle of "informed consent" in biomedical research, which is the idea that a person has "the right to accept the risk voluntarily" and "an equal right to refuse to accept". The system of radiological protection thus actively respects dignity and promotion of the autonomy of people facing radioactivity in their daily lives.

For the practical implementation of its recommendations, the Commission sets out a number of requirements relating to the procedural and organizational aspects of radiological protection.

Accountability can be defined as the procedural ethical value that people who are in charge of decision-making must answer for their actions to all those who are likely to be affected by these actions. In terms of governance this means the obligation of individuals or organizations to report on their activities, to accept responsibility, and to be ready to account for the consequences if necessary. Transparency concerns the fairness of the process through which information is intentionally shared between individuals and/or organizations. The value of inclusiveness is usually referred to using the phrase stakeholder participation, which is the way the value is operationalized. Stakeholder participation, also referred to as stakeholder involvement or engagement, means "involving all relevant parties in the decision-making processes related to radiological protection".

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