

The First IRPA North American Workshop on the Ethical Dimensions of Radiological Protection was held in Baltimore, Maryland on July 17-18, 2014, immediately following the 59th Annual Meeting of the Health Physics Society. Speakers included R. Czarwinski (IRPA), J. Lochard (ICRP), R. Toohey (IRPA), C. Kurihawa (NIRS), R. Vetter (Mayo Clinic), R. Johnson (RSCI), E. Bailey (AAHP), and T. Kosako (U. Tokyo). The discussions focused on the ethics of radiation protection in medicine and in public communications.

The primary issues in medical applications of radiation are considerations of worker dose to the practitioner vs. patient care, risk communication to both workers and patients, and stakeholder engagement in medicine. Most people in the interventional radiology suite are not highly exposed, but those who are exposed can be highly exposed. Can worker exposure limits ever be deliberately exceeded? Yes, if tissue reaction limits are not exceeded, the stochastic limit could be raised, but only if the worker (i.e., the interventional radiologist) signs an informed consent document. Could that also apply to others in the suite, such as nurses, technologists, and anesthesiologists? That is not so clear, as they could be under “coercion,” i.e., trying to keep their jobs to agree to a raised exposure limit.

Should we change the risk equation from risk of mortality to risk of injury? It turns out that hospital employees have a low mortality risk but a high injury risk. Can this exception through informed consent be applied to other occupations, e.g. industrial radiography? Could evacuation be voluntary in an emergency situation? What about early return to an evacuated area?

There has been no discussion in developing the RP system of differences between medical practice and other occupations; because of consideration of patient benefit and risk vs. practitioner benefit and risk, we need to revisit the situation. The medical ethic of patient care will always take precedence over the ethic of worker RP.

In public communications, the RP expert is not the decider, but rather helps deciders to make informed decisions. Communications start with the prevailing current circumstances and reality of the situation. The objectives of a communications effort cannot include building trust, because that can only be built over a long period; trusting does not necessarily include agreeing with us. However, the communications effort helps to develop trust, and if poorly done, can destroy trust. Communications must assist people to make decisions; it is much more than just risk communication focused on data. One aim is to enhance the RP culture that focuses on safety; risk communications is only a part of the whole. We have put too much focus on the risk; we need to increase focus on protection methods, self-help, and empowerment. We must provide actionable information.

The public is anyone who is not an RP specialist. We must target communications to the target group and tailor messages to the audience’s level of wealth, education, etc. The ethical principles of dignity and autonomy generate the public’s “right-to-know”; communications should provide the public the skills to apply RP principles to self- and community protection. Communicating probabilities usually doesn’t help, especially very small probabilities; in fact, risk acceptance is usually independent of the probability. In Japan people want to know the risk probability of 10-20 mSv exposures; RP experts may say the risks are too small to be of concern, but people do not understand.