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PEARLS OF LABORATORY MEDICINE

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TITLE: Ethics Education

PRESENTER: Jon J. Jonsson

Slide 1:

Hello, my name is Jon Johannes Jonsson. I am Professor and Chair of the Dept. of Biochemistry and Molecular Biology in the University of Iceland Medical School and Chief of the Dept. of Genetics and Molecular Medicine at Landspitali – National University of Iceland. I was a member and now I am a consultant on the IFCC Ethics Task Force. Welcome to this Pearl of Laboratory Medicine on "Ethics Education."

Slide 2:

In this short presentation I will discuss:

Motivation: Should we teach medical ethics to laboratorians?

Curriculum: What medical ethics should be taught?

And Learning Techniques: How should ethics be taught?

In this short presentation I will not discuss the history of biomedical ethics or specific topics in the ethics of laboratory medicine. For these topics, I direct the viewer to a Pearl by Ann Gronowski & the IFCC Ethics Task Force entitled: *Ethics in Laboratory Medicine.*

Why am I giving this talk? I am a clinical laboratorian trained in laboratory medicine, clinical biochemistry and medical genetics. I have been involved in several debates on ethical issues in laboratory medicine, mostly genetics. Ethics is an important and integral part of our profession.

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Let's first discuss the question "Should we teach medical ethics to laboratorians?" Most medical educators agree that medical professionals should receive training in ethics & that currently most do not receive enough. Laboratorians are medical professionals and may face unique

ethical dilemmas. Laboratorians are obliged to adhere to high ethical standards just as in other areas of medicine. The Academy of Clinical Laboratory Physicians & Scientists has proposed Curriculum Content for Clinical Pathology Residency Training programs. In that document, they state that residents should "*Develop an understanding of the role of ethics in medical and managerial decision making*." The requirements of the Commission on Accreditation in Clinical Chemistry (ComACC) for postdoctoral programs include a clause: *"As an administrator, a clinical chemist must be a competent manager of people, capital equipment, budgetary resources, and have a working knowledge of the ethics of medicine and science."*

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In addition, in the United States, the Accreditation Council for Graduate Medical Education states in its common program requirements that "Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. To that end, residents are expected to demonstrate the five traits shown on this slide. These requirements translate into 6 milestones that ACGME training programs are required to report twice annually for all pathology residents. Liasion Committee of Medical Education includes ethics in its standards and the Romanell Report offers useful information on curriculum in medical ethics.

In short, most educators agree that medical ethics should be taught for all medical professionals and, in some countries, residency training programs are required to document ethical behavior in residents.

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Next let's turn to the question of what medical ethics topics should be taught. In the United Kingdom, a consensus statement by teachers of medical ethics and law in UK medical schools has put forth a core curriculum of a medical curriculum. The curriculum contains a list of core topics that should be covered including:

Informed consent & refusal of treatment

The clinical relationship-truthfulness, trust and good communication

Confidentiality and good clinical practice

Medical research

Human reproduction

Genetics

Children

Mental disorders and disabilities

Life, death, dying and killing

Vulnerabilities created by the duties of doctors and medical students

Resource allocation

Rights

There has not been a similar core curriculum proposed for US medical schools, but most schools do cover some ethics content.

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In day-to-day practice, some have proposed the use of an ethics checklist to ensure that the ethical needs of patients are being taken into consideration. The checklist proposed by Sokol is shown here and has been referred to as the equivalent of the World Health Organization's surgical checklist.

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This slide lists specific ethical topics that should be considered in laboratory medicine. Topics include:

Confidentiality of medical information

Genetic Testing

- Confidentiality
- Counseling-risk/benefit, value of prognostic information
- Medically actionable results

Allocation of resources

Codes of conduct

Publishing Issue

Conflicts of interest and industry relations with laboratory

Test ordering -

- Conflicts of interest
- Informed consent
- Counseling risk/benefit, value of prognostic info

Mandatory testing & autonomy (screening programs, drugs, HIV, prisoners, pregnant patients)
Biobanking

Informed consent and Future use

Testing on fetal tissue

Medically actionable results-informing the patient & family?

Properly trained testing personnel (point of care issues)

This list is not meant to be all-inclusive, but rather as food for thought when developing a curriculum. Again, I direct the viewer to a Pearl by Ann Gronowski & the IFCC Ethics Task Force entitled: *Ethics in Laboratory Medicine.*

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There has been much discussion in the literature about exactly how ethics should be taught. Cultural transmission involves teaching the classical humanities as a part of medical education. This includes: philosophy, religion, history, law, and art. This approach is profession oriented and involves teaching professional oaths and codes of behavior. This method stresses basic values and the culture of medicine.

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The Affective developmental approach stresses the teaching of interpersonal communication, stress management, physician burnout and impairment prevention, personal growth & development and concern with community medicine. It emphasizes development of attitudes & behaviors of Compassion, Sensitivity, and Empathy towards patients & colleagues & self. This approach is very student oriented.

Slide 10:

The Cognitive developmental approach places an emphasis on the development of logical & critical thinking. It focuses on a progression of increasing levels of maturity & thinking & reasoning. This approach has been criticized for being too abstract.

The best approach is probably a blend of all three theories.

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What is the current status of ethics training for clinical laboratorians today? To obtain more information, the IFCC Ethics Task Force conducted an international survey that was recently published in Clinica Chimica Acta the international journal of IFCC.

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The aim of the study was to determine the mode and extent of teaching of ethics in training programs in clinical chemistry and laboratory medicine.

The method was an online survey of teaching in areas of ethics relevant to laboratory medicine and the subjects were directors of training programs to prepare trainees to be directors of large and medium-sized laboratories in clinical chemistry and laboratory medicine. Subjects were recruited via email to leaders of national organizations.

The group obtained responses from 80 directors in 24 countries who directed 113 programs. Forty-two percent of respondents directed postdoctoral training programs for scientists, 33% for physicians, 33% post-masters degree programs, and 29% PhD programs. Most programs (82%) were 2 years or longer in duration.

This represents a small but unknown fraction of training programs worldwide. This is a weakness of the study. ComACC-approved programs; however, had a high response rate.

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Table 1 lists countries and accrediting organizations of training programs directed by survey respondents. The countries represented all continents and 82% of the programs were accredited.

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Table 2 shows the percentage of training programs that offer or require training in various key areas that is research ethics, medical ethics, professional ethics and business ethics.

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Forty-five percent of programs offered training in any of the four categories, but only 4% in all of the categories. Likewise, only 32% required at least one category of ethics training and only 4% required all 4. Overall ethics training was less commonly offered in postdoctoral training programs.

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Table 3 shows topics and time used in programs offering training in research ethics. Main topics were covered although surprisingly only 48% of programs, offering training in research ethics taught biobanking, an important topic for clinical laboratorians. Training in research ethics was less than 10 hours in most programs.

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Table 4 lists most frequently covered topics in training programs offering training in medical ethics. These include principles of medical ethics, patient privacy, and ethical decision making.

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What plans did the respondents have for teaching ethics? The majority of programs or 54% were planning changes in ethics training including developing new modules on special subjects; establishing annual sessions and workshops on ethics; to introduce self-learning opportunities and case studies in small group teaching. Creation of a national commission was also mentioned. What would be the best new tools to teach ethics? Respondents were most interested in online resources and tools including for self-assessment.

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Training in ethics for senior trainees in clinical chemistry and laboratory medicine appears to be absent or limited in majority of training programs around the world. However, many programs plan to improve their ethics training.

Ethics training should cover core concepts and techniques and include the main topics of research, medical, professional and business ethics. The focus of ethics training, including examples and case studies, should be practical and relevant to clinical laboratorians. The curriculum should preferably be internet-based with interactive modules. Efforts to construct and implement this curriculum should be encouraged and supported by stakeholders in clinical chemistry and laboratory medicine.

Slide 20: References

Slide 21: Disclosures

Slide 22: Thank You from www.TraineeCouncil.org

Thank you for joining me on this Pearl of Laboratory Medicine on “Ethics Education.”