Center for Bioethics & Health Law

Medical Ethics 2020
Ethical Challenges of Emerging and Established Medical Technologies

Friday, March 20, 2020 | 8:30 am – 4:30 pm | Breakfast @ 8:00
Scaife Hall – 11th Floor Conference Center
University of Pittsburgh

Ira R. Messer Lecture:
Frankenswine and the Suffering Un-dead:
A Bioethical Look at Restoring Function in Post-mortem Pig Brains
Stephen R. Latham, JD, PhD
Director of the Interdisciplinary Center for Bioethics
Yale University

Plenary Lecture:
Ethics and Artificial Intelligence in Medicine: Beyond the Hype
Alex John London, PhD
Clara L. West Professor of Ethics and Philosophy
Director of the Center for Ethics and Policy
Carnegie Mellon University

Keynote Lecture:
Dilemmas and Disparities:
Dialysis Decision-making Among Seriously Ill Patients with Kidney Disease
Nwamaka D. Eneanya, MD, MPH
Assistant Professor of Medicine and Epidemiology
University of Pennsylvania

CONFERENCE ABSTRACT AND OBJECTIVES

Medical Ethics 2020 will explore ethical challenges presented by emerging medical technologies that promise to revolutionize patient care, medical research, and the prevention or course of many acute and chronic conditions. Some of these technologies challenge privacy, peace of mind, and the pocketbooks of families and societies. They may challenge established ways of caregiving and communicating. Medical Ethics 2020 will also reexamine unresolved ethical issues associated with well-established medical technologies whose use often presents trade-offs between longevity and quality of life, as well as difficult decisions that involve weighing risks, costs, hopes, and personal values.

At both the social, healthcare system-wide level and the level of individual patients' decision making and clinical care, implementation of available technologies may seem inevitable. Yet the personal, social, legal, and ethical implications of their use can and should be evaluated. Resistance to the so-called technological imperative—'if it can be done, it should be done'—may not involve rejection of a technology, but instead its judicious, carefully evaluated adoption. Ethical use of technology may involve helping individuals make informed decisions about it, decisions that may sometimes involve saying 'no' to technology as traditionally conceived, and turning instead to a different type of *techne*, to skills, techniques, and processes of care less directly mediated by machines, or less translatable into algorithms or amenable quantification.

This conference affords participants an opportunity to learn about recent technological developments and to discuss their potential benefits and risks, and ways to mitigate those risks, including what role government regulation should play. A goal of the conference is to enable participants to make informed choices about employing technological interventions at the individual level and to respond responsibly to technologies being implemented within healthcare systems and society.

Following the conference, participants should be able to:

1. Elucidate the social costs and benefits of implementing systems-based and/or predictive medical technologies (e.g., electronic health record, machine learning, precision medicine, predictive analytics);
2. Discuss values-related risks and benefits of commencing medical technological interventions for individual patients (e.g., dialysis, ventilator support), and the challenges of stopping or forgoing their use; and
3. Compare ethical challenges associated with established and emerging technologies, preventive strategies, and therapeutic modalities for acute and chronic conditions (e.g., cancer, sickle cell disease, renal failure, depression.

The 29th Annual Medical Ethics Conference

Providing attendees with an opportunity to learn from national and local experts about pressing medical ethics issues, the Center's annual Medical Ethics Conference features morning plenary lectures and afternoon concurrent sessions. It is designed for clinicians and researchers, health policy analysts, lawyers, clergy, clinical ethicists, bioethicists, disability studies scholars, patient and disability rights advocates, community members, and students of the health and social sciences and the humanities.

Medical Ethics 2020 is Co-Sponsored by the Ira R. Messer Fund of the Pittsburgh Foundation; the Center for Ethics & Policy, Carnegie Mellon University; and the University of Pittsburgh Consortium Ethics Program of the Center for Bioethics & Health Law, Master of Arts in Bioethics Program, and School of Medicine Center for Continuing Education in the Health Sciences.

CONFERENCE SCHEDULE

8:00 – 8:30 am	**Registration** and **Continental Breakfast**
8:30 – 8:40 am	**Welcome** and **Introduction** Lisa S. Parker, PhD* Dickie, McCamey & Chilcote Professor of Bioethics Director, Center for Bioethics & Health Law University of Pittsburgh
8:40 – 9:45 am **Ira R. Messer Lecture**	***Frankenswine and the Suffering Un-dead:*** ***A Bioethical Look at Restoring Function in Post-mortem Pig Brains*** Stephen R. Latham, JD, PhD Director of the Interdisciplinary Center for Bioethics Yale University
Abstract: Last spring a laboratory at Yale made headlines by showing that it was able to reverse anoxic damage to, and restore cellular and metabolic function in, pig brains that were 4 hours post-mortem. The study showed that brains are much more robust to anoxia than had previously been imagined; but it also raised the very real possibility that ex-vivo brains—"brains in a vat"—could regain consciousness (though none have, so far). This talk will summarize the research, comment on its relevance for human brain-death standards, and discuss the ethical issues the research raises and the efforts of an NIH-funded ethics committee charged with addressing those issues with regard to future research.	
9:45 – 10:50 am **Plenary Lecture**	***Ethics and Artificial Intelligence in Medicine: Beyond the Hype*** Alex John London, PhD* Clara L. West Professor of Ethics and Philosophy Director of the Center for Ethics and Policy Carnegie Mellon University
Abstract: This talk begins with a brief overview of some ways in which current artificial intelligence systems in health care differ from prior expert systems. One key difference is that older expert systems relied heavily on the domain knowledge of experts whereas many current AI systems make decisions by building complex models from large amounts of data. These models may not make use of domain knowledge of experts and it may not be possible to directly inspect these models in order to evaluate their plausibility. These systems have thus been referred to as "black boxes." If clinicians cannot explain the model that an AI system uses to arrive at a diagnosis or a treatment recommendation, then is the use of such a black box system consistent with the fiduciary duties of clinicians? The talk will discuss the relative importance of being able to explain *how* a system works and being able to demonstrate in practice *that* it works. It will also consider why such systems may be more reliable at making diagnostic decisions than decisions involving treatment or other interventions.	
10:50 – 11:00 am	**Break**
11:00 – 12:15 pm **Keynote Lecture**	***Dilemmas and Disparities:*** ***Dialysis Decision-making Among Seriously Ill Patients with Kidney Disease*** Nwamaka D. Eneanya, MD, MPH Assistant Professor of Medicine and Epidemiology University of Pennsylvania
Abstract: The proportion of older and frail patients with advanced kidney disease continues to increase in the United States. For many, dialysis remains the most common form of treatment. However, evolving evidence suggests that medical management without dialysis may maximize survival, quality of life, and	

end-of-life care for this patient population. To date, the majority of US institutions do not offer this type of treatment, and payment incentive models largely favor dialysis initiation. Furthermore, there are also racial and ethnic disparities in the types of care received. A new executive order will soon mandate either home-based dialysis or kidney transplantation for the majority of patients with advanced kidney disease. However, the ethics of policy versus patient driven choice are complex. This lecture will discuss the challenges of delivering equitable patient-centered care for seriously ill patients with kidney disease in the context of current nephrology clinical infrastructures.

12:15 – 1:00 PM	**Lunch on your own**
1:00 – 2:00 pm	**Concurrent sessions #1 – 3**
Session #1	***Electronic Health Records: Ethical Perspectives from Primary Care*** Jonathan Arnold, MD, MSE, MS Adjunct Assistant Professor of Medicine University of Pittsburgh

Abstract: The electronic health record (EHR) has become ubiquitous in the delivery of health care in the US. The EHR presents a number of ethical considerations ranging from its influence on the clinician-patient relationship to its informational demands to satisfy its multiple purposes. In this presentation and discussion, we will explore the experience of the EHR from the perspective of primary care, both through a postphenomenological analysis and from semi-structured physician interviews.

Session #2	***Personalized Medicine in Cancer Care: Benefits, Burdens, and Ethical Implications*** Marci Lee Nilsen, PhD, RN** Assistant Professor Department of Acute and Tertiary Care, School of Nursing Department of Otolaryngology, School of Medicine University of Pittsburgh

Abstract: Immunotherapy, including immunological checkpoint inhibitors, has opened a new chapter in cancer treatment. This talk will review the current strategies and immunotherapeutic agents used in the treatment of cancer. With increased utilization of these novel agents, it is essential to understand the side effects profiles and survival outcomes of these agents, while also acknowledging their complicated ethical implications. The talk will also consider how to establish and maintain patient-centered care in the age of personalized medicine.

Session #3	***Prediction and Prudence: Ethical Issues in Predicting Surgical Outcomes to Inform Decision Making*** Daniel E. Hall, MD, MDiv, MHSc, FACS* Associate Professor of Surgery, Anesthesia and Perioperative Medicine University of Pittsburgh

Abstract: With the rise of advanced "machine learning" algorithms, determining the right and good thing to do in clinical care might appear to be merely a math problem: identify the right inputs, the proper algorithm, and a sufficiently high c-statistic, and the right and good thing to do will be magically revealed. Dr. Hall will explore philosophical reasons why precise prediction cannot replace prudent moral judgment. And within these limits, he will describe practical strategies for leveraging prediction to improve shared clinical decisions.

2:00 – 2:10 pm	**Break**
2:10 – 3:10 pm	**Concurrent sessions #4 – 6**
Session #4	***Social Media, Privacy, and Suicide Prevention***

Jamie Zelazny, PhD, MPH, RN**
Assistant Professor of Nursing and Psychiatry
School of Nursing, Health and Community Systems

Abstract: Suicide is the second leading cause of death in the US among young people age 10-24 and is consistently among the top 10 causes of death worldwide. Mental health clinicians rely heavily on patients' self-report in assessing suicidal risk, but patients may not always be forthcoming in describing their level of suicidal ideation. The pervasiveness of social media offers large amounts of data readily available for analysis by machine learning algorithms for the identification of suicidal risk. While this offers exciting new possibilities for objective measures of preventive intervention, it also raises critical issues about privacy. If invasion of privacy allows detection of risk and intervention, ought it be done?

Session #5 ***Hematopoietic Stem Cell Transplant (HSCT) in Sickle Cell Disease: Patients' and Providers' Ethical Concerns***

Laura M. De Castro, MD, MHSc
Associate Professor of Medicine
Department of Medicine, Division of Hematology and Oncology
University of Pittsburgh

Abstract: Currently Hematopoietic Stem Cell transplant (HSCT) is considered the best curative approach to sickle cell disease (SCD), a congenital, genetically transmitted and chronic blood characterized by both acute and chronic pain and resulting in single and multiple organ damage and in permanent physical and cognitive dysfunctions that impact patients' quality of life and psychosocial functioning. But due to the morbidity and mortality during and after the transplant, this curative procedure is mainly offered to patients with multiple complications and high risk disease.

Clinical and ethical questions remain about subject eligibility and timing of an offer of HSCT, in terms of both disease severity and psychosocial factors. Also, who is the best donor? Is it acceptable to use preimplantation genetic diagnosis to conceive an HLA-identical sibling? How should the morbidity risks associated with the current different transplant options be evaluated? Does undergoing a HSCT have the potential to exchange one chronic disease for another? Why is insurance coverage different than for patients with, for example, malignancies? These challenges and concerns will be discussed from an ethical perspective.

Session #6 ***The Clinical Ethics Implications of Care Robots***

Valarie Blake, JD, MA**
Associate Professor of Law
West Virginia University

Abstract: Care robots are already assisting the elderly in some nursing homes around the globe and could be in widespread use in patient care sooner than many anticipate. These robots will pose significant risk to privacy, autonomy, and confidentiality, three patient interests integral to preserving trust in the medical system. This presentation explores the implications of care robots for clinical ethics and how clinical ethicists can begin to prepare for care robot use in their own institutions.

3:10 – 3:15 pm **Transition to next session**

3:15 – 4:15 pm **Concurrent sessions #7 – 9**

Session #7 ***The Future Imperfect: Machine Learning and Ethical Issues in the Prediction of Violence***

Jack Rozel, MD, MSL**
Associate Professor of Psychiatry and Adjunct Professor of Law
University of Pittsburgh

Abstract: Targeted violence and mass shootings are a complex problem in both the colloquial and scientific sense of the term. Behavioral health and law enforcement professionals are eager to find improved solutions to identify and stop these attacks—and the people at risk of committing such acts—before tragedies occur. Machine learning and advanced computational systems may provide some opportunities but may also create or amplify some ethical risks. This talk will explore the theory, science, opportunities, and risks of such approaches.

Session #8	***The Perils and Promise of the "Right to Try" Unproven Medical Treatments*** Greer Donley, JD** Assistant Professor of Law University of Pittsburgh

Abstract: This talk will explore the "right to try" movement, which fought for terminally ill patients to have access to unproven medical treatments. It will describe the legal and ethical battles that eventually led to the passage of the *Right to Try Act* in 2018, and conclude with examination of the effects of the 2018 law.

Session #9	***Ethical Challenges of Genomic Technologies and Genetic Information in Clinical Care*** Michael J. Deem, PhD Assistant Professor School of Nursing and Center for Healthcare Ethics Duquesne University

Abstract: The increasing use of genomic technologies in clinical contexts raises a number of ethical questions and practical challenges for clinicians. This presentation will provide an overview of the main ethical issues and practical challenges that arise from the use of genomic technologies in clinical contexts, including the challenges that the complexity of genetic information presents for acquiring informed consent for sequencing, communication and genetic literacy among the general public, primary care clinicians, and genomic researchers, and the potential impact of genomic results on patient candidacy for future medical interventions.

4:20 pm	**Wrap up** and **Evaluation** Lisa S. Parker, PhD* Dickie, McCamey & Chilcote Professor of Bioethics Director, Center for Bioethics & Health Law University of Pittsburgh
4:30 pm	**Conference Adjournment**

COURSE DIRECTOR

*Lisa S. Parker, PhD, Dickie, McCamey & Chilcote Professor of Bioethics and Director of the Center for Bioethics & Health Law

CONFERENCE PLANNING COMMITTEE

**Greer Donley, JD, Assistant Professor of Law, University of Pittsburgh
Philip E. Empey, PharmD, PhD, Associate Professor of Pharmacy and Therapeutics, University of Pittsburgh

*Emily Herrington, PhD, Science, Ethics, and Society Initiative Program Coordinator, University of Pittsburgh
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**Jennifer Seaman, PhD, RN, Assistant Professor of Acute & Tertiary Care, School of Nursing, University of Pittsburgh
**Gaetan Sgro, MD, Clinical Assistant Professor of Medicine, University of Pittsburgh

*Center for Bioethics & Health Law faculty or staff member
**Center for Bioethics & Health Law affiliated faculty member

CONTINUING EDUCATION CREDIT

In support of improving patient care, the University of Pittsburgh is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME) and the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician (CME)

The University of Pittsburgh designates this live activity for a maximum of 6.75 *AMA PRA Category 1 Credits™.* Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nursing (CNE)

The maximum number of hours awarded for this Continuing Nursing Education activity is 6.75 contact hours.

Pharmacy (CPE)

This knowledge-based activity provides 6.75 contact hours of continuing pharmacy education credit.

Social Work

As a Jointly Accredited Organization, University of Pittsburgh is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. University of Pittsburgh maintains responsibility for this course. Social workers completing this course receive 6.75 continuing education credits.

Other Healthcare Professionals

Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity.

This program has been approved by the **Pennsylvania Continuing Legal Education Board** for 6.0 hours of substantive credit, available to those who have registered and paid the $120 fee for processing CLE credit for this event.

The University of Pittsburgh is an affirmative action, equal opportunity institution. Participation by all individuals is encouraged. Advance notification of any special needs will help us provide better service. Contact bioethics@pitt.edu.