J-BHI Special Issue on "Equitable AI in Critical Care"

Infrastructure is urgently needed for AI in healthcare and, specifically, critical care. Existing critical care datasets and infrastructures lack demographic, geographic, and biomedical diversity or the high-resolution waveform data critical to unlocking and optimizing phenotyping, prediction, and clinical decision making. This special issue addresses the ethical, legal, social, regulatory, biomedical, and teaming science challenges relevant for acquiring data at the requisite scale, developing models that balance precision and bias, and implementing artificial intelligence equitably in real-world clinical contexts. Special issue papers will detail approaches to ensure that methods for artificial intelligence in critical care are patient-focused, ensuring autonomy, privacy, accountability, clinical benefit, and equity, while promoting a new generation of clinicians and scientists equipped to responsibly leverage and integrate advances in AI. The issue will feature perspectives from a diverse range of disciplines including clinical research, law, ethics, health services, team science, biomedical science, engineering, and publication professionals.

This special issue will fill the gap in providing a forum for discussion of crucial ethical and implementation challenges and solutions in addressing national and international priorities. This special issue calls for cutting-edge research and scholarship on recent advances in the field of biomedical and health informatics where information and communication technologies intersect with health, healthcare, life sciences, law, and ethics.

Topics of interest include, but are not limited to, the following:
- Equitable AI in critical care
- Explainable AI
- AI integration
- Ethics in AI
- Algorithmic fairness
- AI data-sharing and data-protection approaches
- Challenges and opportunities of AI in neurocritical care
- Approaches to informed consent
- Regulatory dimensions of AI in critical care, including software as medical device (SaMD)
- Neuroethics of AI in neurocritical care
- Real-world data
- Ethical, legal, and social implications of AI in critical care
- Demographic, geographic, organizational, and data diversity
- Security, trust, and privacy issues for equitable AI
- Theories and conceptualizations about equity and AI in critical care

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Guest editors strongly encourage submission of a summary (3-6 sentence summary of the topic and/or work) by January 31, 2023, to ensure proposed papers fit the issue's theme. In addition, if duplicate concepts are identified, the guest editors may link authors together to develop a collaborative paper. Manuscript submissions will be received through April 30, 2023. Authors who do not submit a summary may still submit a manuscript for consideration for inclusion in the special issue.

Key Dates

Deadline for Submission: 30 Apr, 2023
First Reviews Due: 30 Jun, 2023
Revised Manuscript Due: 31 Aug, 2023
Final Decision: 30 Sep, 2023