

Four Principles of Biomedical Ethics (Beauchamp & Childress)

Ethical Framework Applied to Medical AI Systems



Beneficence

Providing benefits to patients and pursuing the best outcomes

Improving AI diagnostic accuracy, maximizing treatment effectiveness



Non-maleficence

Do no harm to patients ("First, do no harm")

Minimizing misdiagnosis, safety verification, preventing side effects



Autonomy

Respecting patient self-determination and providing information

Transparent AI explanations, ensuring choice, informed consent process



Justice

Fair access to treatment and resource allocation

Unbiased diagnosis, equal access, ensuring equity

⚠ In actual medical practice, balance among these principles is necessary