Professional Ethical Guidance for the use of Artificial Intelligence in Healthcare (PEG-AI)

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Developing professional ethical guidance for healthcare AI use (PEG-AI): an attitudinal survey pilot

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Journal indexing and metrics

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Artificial intelligence in clinical decision-making: Rethinking liability

Helen Smith and Kit Fotheringham View all authors and affiliations

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Abstract

This article theorises, within the context of the law of England and Wales, the potential outcomes in negligence claims against clinicians and software development companies (SDCs) by patients injured due to AI system (AIS) use with human clinical supervision. Currently, a clinician will likely shoulder liability via a negligence claim for allowing defects in an AIS's outputs to reach patients. We question if this is 'fair, just and reasonable' to clinical users: we argue that a duty of care to patients ought to be recognised on the part of SDCs as well as clinicians. As an alternative to negligence claims, we propose 'risk pooling' which utilises insurance. Here, a fairer construct of shared responsibility for AIS use could be created between the clinician and the SDC; thus, allowing a rapid mechanism of compensation to injured patients via insurance.

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Research Article

Artificial Intelligence for Clinical Decision-Making: Gross Negligence Manslaughter and Corporate Manslaughter

Helen Smith

Published online: 22 Oct 2024

Cite this article https://doi.org/10.1080/20502877.2024.2416862 Check for updates

Abstract

This paper discusses the risk of gross negligence manslaughter (GNM) and corporate manslaughter charges (CM) when clinicians use an artificially intelligent system's (AIS's) outputs in their practice. I identify the elements of these offenses within the context of the law of England and Wales and explore how they could be applied in a potential scenario where a patient's death has followed AIS use by a clinician. The risk of a conviction due to making an AIS-augmented workplace mistake highlights the non-trivial nature of AIS adoption in healthcare, and that the consequences of its use must be considered by all interested parties prior to AIS adoption.

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AI · NHS

FORTUNE

UK health service AI tool generated a set of false diagnoses for one patient that led to him being wrongly invited to a diabetes screening appointment

BY **BEATRICE NOLAN**
TECH REPORTER

July 20, 2025 at 9:41 AM EDT

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Full Article Figures

Abstract

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Clinical ethics

Clinicians and AI use: where is the professional guidance?

Helen Smith [1], John Downer [2], Jonathan Ives [1]

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Abstract

With the introduction of artificial intelligence (AI) to healthcare, there is also a need for professional guidance to support its use. New (2022) reports from National Health Service AI Lab & Health Education England focus on healthcare workers' understanding and confidence in AI clinical decision support systems (AI-CDDSs), and are concerned with developing trust in, and the trustworthiness of these systems. While they offer guidance to aid developers and purchasers of such systems, they offer little specific guidance for the clinical users who will be required to use them in patient care.

This paper argues that clinical, professional and reputational safety will be risked if this deficit of professional guidance for clinical users of AI-CDDSs is not redressed. We argue it is not enough to develop training for clinical users without first establishing professional guidance regarding the rights and expectations of clinical users.

We conclude with a call to action for clinical regulators: to unite to draft guidance for users of AI-CDDS that helps manage clinical, professional and reputational risks. We further suggest that this exercise offers an opportunity to address fundamental issues in the use of AI-CDDSs; regarding, for example, the fair burden of responsibility for outcomes.

Journal of Medical Ethics

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Core position: *healthcare professionals need unified evidence-based professional ethical guidance to be able to safely use AI in healthcare for patient benefit.*

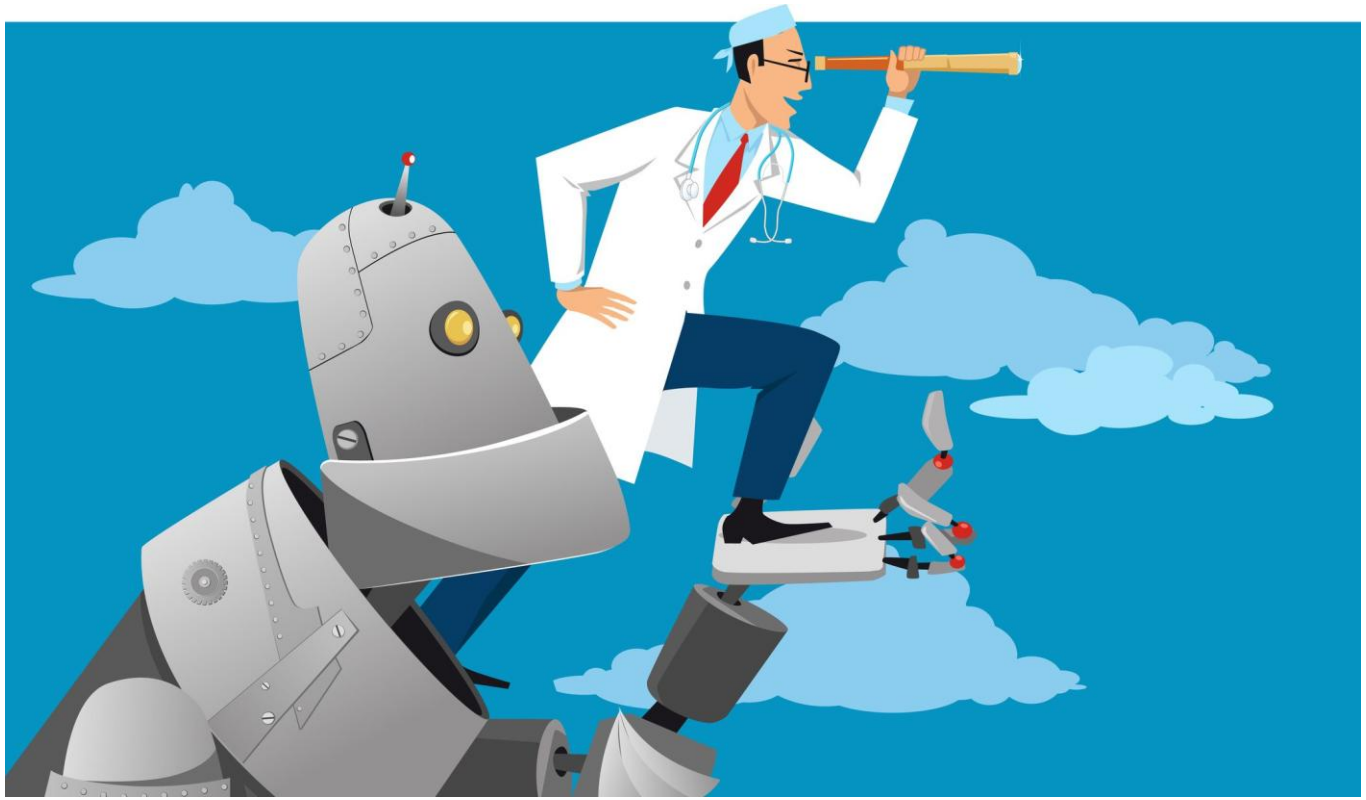

Image credit: https://pharmaphorum.com/views-and-analysis/pharma-companies-need-upgrade-intelligence-ai

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Department for Science, Innovation & Technology

Centre for Data Ethics and Innovation

Cabinet Office

Office for Artificial Intelligence

Guidance

Ethics, Transparency and Accountability Framework for Automated Decision-Making

Updated 29 November 2023

GOV·UK

Home > Find data ethics guidance, standards and frameworks

A buyer's guide to AI in health and care

This guide sets out important questions you need to consider to make well-informed decisions about buying AI products.

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In the first 3 years of this plan, we will invest in AI infrastructure. We will develop and implement an NHS AI strategic roadmap, that will enable clear ethical and governance frameworks for AI. As part of our ambition for all NHS staff to be AI trained, we will roll out new AI upskilling programmes for the workforce (see chapter 7). Starting in 2027, we will roll out validated AI diagnostic tools and deploy AI administrative tools NHS-wide, including AI-scribes.

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- The Society of Radiographers (2021) AI working group's guidance for clinical imaging and therapeutic radiography professionals
- The Department of Health and Social Care's guidance for digital and data-driven health technologies
- World Health Organisation's (2021) Ethics and governance of artificial intelligence for health
- And UNESCO's Recommendation on the Ethics of Artificial Intelligence

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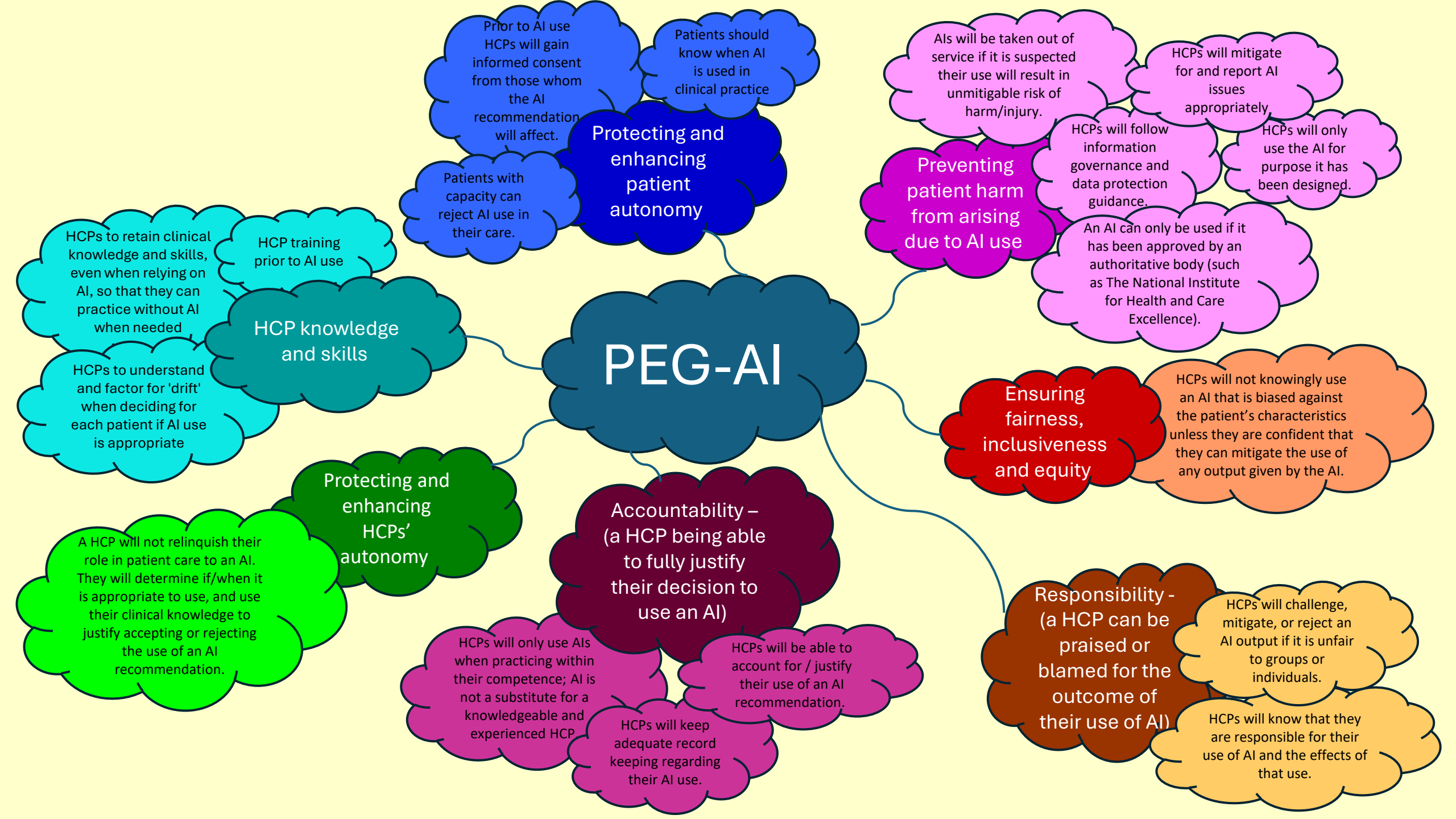
PEG-AI
Protecting and enhancing patient autonomy
Prior to AI use HCPs will gain informed consent from those whom the AI recommendation will affect.
Patients should know when AI is used in clinical practice
Patients with capacity can reject AI use in their care.
Preventing patient harm from arising due to AI use
AIs will be taken out of service if it is suspected their use will result in unmitigable risk of harm/injury.
HCPs will mitigate for and report AI issues appropriately
HCPs will follow information governance and data protection guidance.
HCPs will only use the AI for purpose it has been designed.
An AI can only be used if it has been approved by an authoritative body (such as The National Institute for Health and Care Excellence).
HCP knowledge and skills
HCP training prior to AI use
HCPs to retain clinical knowledge and skills, even when relying on AI, so that they can practice without AI when needed
HCPs to understand and factor for 'drift' when deciding for each patient if AI use is appropriate
Ensuring fairness, inclusiveness and equity
HCPs will not knowingly use an AI that is biased against the patient's characteristics unless they are confident that they can mitigate the use of any output given by the AI.
Protecting and enhancing HCPs' autonomy
A HCP will not relinquish their role in patient care to an AI. They will determine if/when it is appropriate to use, and use their clinical knowledge to justify accepting or rejecting the use of an AI recommendation.
Accountability – (a HCP being able to fully justify their decision to use an AI)
HCPs will only use AIs when practicing within their competence; AI is not a substitute for a knowledgeable and experienced HCP.
HCPs will be able to account for / justify their use of an AI recommendation.
HCPs will keep adequate record keeping regarding their AI use.
Responsibility - (a HCP can be praised or blamed for the outcome of their use of AI)
HCPs will challenge, mitigate, or reject an AI output if it is unfair to groups or individuals.
HCPs will know that they are responsible for their use of AI and the effects of that use.

Where next?

- **Scoping review**: Examine a larger number of AI ethics frameworks to build more comprehensively from the literature on the pilot's guidance.

- **Second survey**: Combine results from the first survey and the scoping review to further refine the guidance and run another attitudinal survey.

- **Interviews/workshop, Delphi rounds:** Can we achieve 'consensus' – i.e. that most people agree with the guidance recommendations that the above process has generated?

- **AI risk observatory:** Invite healthcare registrants and interested persons to report issues that they've had with AI being used in their care.

What research/evidence do you need to be able to develop guidance for healthcare professionals to practice safely and equitably with AI?

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