



Informing Progress - Shaping the Future



AI in Healthcare

Event Summary

(18 June 2024)

This note offers a summary of the recent FOIL event exploring issues surrounding the implementation of artificial intelligence in healthcare and the legal implications from both a UK and US perspective.

The event was chaired by **Balraj Sihota** (Principal Associate at Weightmans LLP) and split into two sections- a technical and legal panel:

Technical panel: this panel explored the technology presently available in healthcare and its future development/deployment in the short to long term. **Dr Hatim Abdulhussein** offered an NHS clinical perspective on AI; **Dr Gerald Lip** addressed the use of AI across radiology and **Dr Jamie Chow** offered an AI vendor perspective.

Dr Abdulhussein is Chief Executive Officer for Health Innovation Kent Surrey Sussex and was recently with NHS England/Health Education England as the national clinical lead AI and Digital Workforce for over 3 years. Dr Lip is the Clinical Director for breast screening in the Northeast of Scotland and the Chief Investigator in the mammography artificial intelligence project in the Industrial Centre for Artificial Intelligence and Digital Diagnostics in Scotland. Last week, he was appointed as an AI partnerships advisor with the Royal College of Radiologists. Dr Jaime Chow is the clinical lead for an AI company called Blackford analysis. The Blackford Platform hosts a portfolio of AI products, harmonises those algorithms and allows effective and effortless implementation to an end user. Jaime has experience of the US market and recently spoke at the American College of Clinical Engineering about the implementation of emerging AI tools.

The panel explored the following questions:

1. What does AI do that clinicians cannot do? Why is there a need to engage with these products?

AI technology offers the opportunity for automation and scalability. In simple operational tasks (e.g., patient consult transcription) AI saves valuable clinician time. It also offers a solution to the problem of resourcing. Patient demand for services exceeds the supply of human professionals needed to meet that need. For example, there is expected to be a 40% shortage of radiologists in the NHS within next 5 years.

2. What are the promising areas of medicine that will benefit from AI?

The primary areas for development at present involve narrow point solutions and diagnosis (radiology, pathology and cardiology are the key growth areas). Some of the findings from AI systems cannot be explained by clinicians.

There is considerable scope for automated reporting, especially of normalcy findings. Diagnostic results currently require human oversight before reporting back to patients.

3. What is the present rate of AI implementation and what are the barriers to entry? Are there any differentials between the US and UK and if so, why?

The US operates different reimbursement mechanisms; and is less bureaucratic and has faster rates of AI adoption but more variability. Most of the UK demand is from the NHS and is done with a clearer strategic vision.

In the short term, AI use typically leads to a short-term spike in healthcare costs – due to greater identification of morbidity but then the costs typically level out.

Barriers to AI entry include national regulation; liability risks and fears; validation of training data; absence of clear strategies and the need for adequate post market surveillance.

4. How big a problem is bias and adequate data sets? How big or specific does a data set have to be to be effective? Do you observe confidentiality as a barrier to ensure adequate data sets? Is there a need to continually stress test an AI product to ensure it remains effective?

Bias is a real issue depending on the training model and the patient demographics. There needs to be alignment. We should not forget that there has always been cognitive bias at play with human professionals. There are no clear standards about how to monitor the validity of datasets over time.

5. Is there anything to be concerned about in the distinction of weak AI and strong AI/deep learning, i.e. where the AI is essentially a black box. Will clinicians be more sceptical of self-learning algorithms?

There is a lot of push back coming from GPs who are worried about exploitation of patient data. There needs to be honest and open conversations.

6. How invasive will this technology become? Will clinicians become data interpreters in 20 years? What is the future role of the clinician? Is there a concern over the deskilling of doctors?

Yes - clinicians will become translators of medical assessments. We must avoid the rhetoric of replacement and think about collaboration or augmentation of human medical skills.

Legal panel: this session covered the potential medico-legal implications arising from the implementation of AI in healthcare. The presenters were **Robert Kellar KC** and **Kyle Jorstad**. Rob Kellar KC is a practising silk at 1 Crown Office Row chambers. Rob is an interested reader and blogger in the AI healthcare space. Kyle Jorstad joined the Office of General Counsel representing the University of Pennsylvania and Penn Medicine as a Health Law fellow. Kyle's paper from 2020 titled: *Intersection of artificial intelligence and medicine: tort liability in the technological age* offers an excellent inside track on the issues at play. It was noted that in the US, state law and federal law impacts upon the consistency of judicial decision making in this sphere.

The panel explored the following questions:

1. How will AI impact upon the choice of defendants?

The obvious targets for litigation include doctors, health care providers and manufacturers/suppliers of healthcare technologies. There will no doubt be both shotgun and targeted approaches to litigation.

2. What impact will AI have on the imposition of duties of care in tort law?

The panel contrasted claims that emphasised the product liability (where FDA approved) vs human agency angles. We should anticipate developments based on enterprise risk and non-delegable duties.

3. What impact will AI have on the standard of care expected?

Will we get to a point where it will be unreasonable not to use AI? We are not at that tipping point yet and AI remains expensive. We are likely to see the evolution of non-delegable duties in this arena. However, we are no longer focussing on human fallibility. Will this raise the bar in terms of patient expectations?

4. How will AI impact on the conduct of litigation (and healthcare) generally?

We are likely to see impacts upon disclosure around datasets, algorithms and AI learning, new type of AI experts and IP issues.

5. What about regulation?

There was a discussion about the EU Artificial Intelligence Act 2024 and its approach to classifying technology. Medical AI technologies are likely to fall into the higher risk category and require monitored release into the market.

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