Pre-ARM briefing
AI and assistive technologies
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This briefing:
– outlines the potential impact of AI and assistive technologies on doctors and patients in the UK
– identifies some of the key issues members may wish to consider in developing motions for the 2020 ARM

Background
It is essential that new technologies and information systems introduced into the health service are subject to medical scrutiny. This will ensure they improve patient outcomes, help to reduce health inequalities, reduce workload, protect patient data and improve the working lives of doctors and other healthcare staff.

Rapidly evolving innovations including AI (artificial intelligence), and the speed with which governments and the NHS are making policy announcements and commissioning decisions, necessitate a strong BMA voice in national debates on the pace and scale of implementation.

To begin to articulate the BMA’s position on this multi-layered policy area there has been a series of engagement activities with our members over 2019. Last year, the BMA published ‘Technology, infrastructure and data supporting NHS staff’ setting out doctors’ views for IT in the NHS. Additionally, the BMA held a series of events to brainstorm the key issues and hear from external experts working in the field. Representatives from UK council, national councils and UK branch of practice committees attended these sessions.

The impact of AI and new technologies on the working lives of doctors and patient outcomes
AI has enormous potential for improving healthcare. Benefits could include speeding up and taking over many processes that involve repetitive work, large amounts of data and the need to identify patterns within them. If controlled in their scope, AI could prove to be extremely valuable for easing work pressures, reducing health inequalities and enhancing clinical outcomes.

However, it is important to acknowledge that there are also risks to consider. The control and success of the development of new technologies such as AI in medicine is currently one of the most difficult things to predict. For example, instead of easing work pressures, AI and new technologies could add to clinical workload, exacerbate health inequalities and have no distinct effect on clinical outcomes for patients.

Ethical concerns associated with the use of AI remain at the centre of the debate. These include potential risks to patient safety, quality of care, practitioner accountability, social justice, fairness, bias, transparency, data security and trust. Consequently, the BMA needs to consider how the development and deployment of any new healthcare technology is safe and ethically sound.

1 The World Medical Association General Assembly adopted the following in April 2019 – ‘A more appropriate term for healthcare is “artificial intelligence”, an alternative conceptualisation that more accurately reflects the purpose of such systems because they are intended to coexist with human decision-making’.
Uptake and adoption in the NHS
The speed and scale at which technological innovations are adopted within the NHS has historically been limited. Barriers include issues around cost and budget silos resulting in parts of the system being unwilling to invest. Innovation is often viewed as a luxury rather than a routine part of operational management, and suppliers often find that the routes to market are unclear (Nuffield Trust, 2017). Recent investment in AI and digital transformation, however, indicates that uptake will likely increase rapidly in the coming years. It is therefore imperative that the existing and future medical workforce be adequately trained and educated in the application of AI and other new technologies if they are to be successful in improving healthcare and workload.

For innovation to flourish, IT infrastructure in the NHS must equally be a priority. Functioning interoperable systems are essential for safe care, improving patient outcomes and reducing clinician workload.

Further information
The BMA's report ‘Technology, infrastructure and data supporting NHS staff’ sets out doctors’ views of IT and innovation in the NHS. For a detailed briefing note, please contact workforce-and-innovation@bma.org.uk.

Key issues to consider
This briefing is intended to inform debate at the BMA's 2020 Annual Representative Meeting. In submitting motions to the ARM, the representative body may wish to make proposals that aim to:

– Ensure that ethical considerations are factored into the development and deployment of any new technologies
– Ensure that new technologies adopted by the NHS improve the working lives of doctors and patient outcomes
– Ensure that medical education and training incorporates the use of new technology, including AI
– Help doctors prepare for the digital future
– Address the barriers that exist with regards to uptake and adoption of innovation in the NHS
– Ensure technology that reduces health inequalities is prioritised
– Ensure that new technologies used or proposed for introduction in the NHS undergo an equalities impact assessment in order to identify risks of bias, avoid or minimise it