

I just lost 20 minutes in my EMR to prescribe a grape popsicle for a patient. Yes, I have to prescribe popsicles. Yes, they are in EMR. Yes, I can prescribe different routes for the popsicle (including intraocular).
 Fernando Zampieri @f_g_zampieri | 23.08.2019

“Clinical practice has been and should remain an exercise in judgment driven by the evidence that a doctor and patient have in front of them, rather than by thoughtless adherence to what a manual says”.
 The BMJ @bmj_latest | 9.10.2019

Interesting. Just spoke to a doctor specializing in sleep medicine about sleep tech, and they drew a comparison to the weight loss industry: “people spend billions on gadgets and supplements touting a quick fix, but they don’t listen to the free advice”.
 Christina Farr | @chrissyfarr | 9.10.2019

“The reason progressives often lose the argument is that they focus too much on wealth redistribution and not enough on wealth creation. We need a progressive narrative that’s not only about spending, but investing in smarter ways”. @Maz-zucatoM
 Zahra Al-Harazi | @zahrasays | 9.10.2019

Teaching is, I believe, a branch of the entertainment industry. Nobody learns when bored.
 Richard Smith | @Richard56 | 7.10.2019

Med students shd be taught to be AI bullshit detectors. They need to ask: Is this technology ripe? Is it a barrier or enabler for patients? Does it save time & energy or waste it? What will my role be in 30 years? What are the potential harms?
 Richard Lehman | @richardlehman1 | 6.10.2019

Ho appena ascoltato questo lapsus freudiano di grande attualità: “viviamo in un egosistema”.
 Luca Sofri | @lucasofri | 5.10.2019

A person who speaks 3 languages is tri-lingual. A person who speaks 2 is bi-lingual. A person who speaks 1 language is English.
 Clive Wismayer | @clivewismayer | 4.10.2019

Publishers, reviewers and other members of the scientific community must fight science’s preference for positive results — for the benefit of all.
 Matthew Westmore | matt_westmore | 4.10.2019

“Overdiagnosis is not a purposeful act; it is an unfortunate side effect of our irrational exuberance for early detection”. + “Early detection is great for the business of medicine”.--Gil Welch, the 1st author of @NEJM paper, on the epidemic of overDx
 Eric Topol | @erictopol | 3.10.2019

“Prospective evidence of the potential benefits of using #AI in medicine remains limited”. nature.com/articles/s4157...
 @NatRevClinOncol
 Nearly a year later from @NatureMedicine review, not much has changed.
 Eric Topol | @erictopol | 3.10.2019

What to expect from AI in oncology

An increasing number of studies suggest that artificial intelligence could revolutionize medicine. In oncology, we are only beginning to fully understand the practical implications.

In the past few years, the terms ‘artificial intelligence’ (AI) and ‘machine learning’ (ML) have become common in the news, several important medical advances have been made using these approaches. Some might conclude that we are witnessing a new era in medicine, although others could be concerned. What are AI and ML, and how can they affect the practice of medicine? How might the consequences be for the patients and the outcomes of patients with cancer? Summaries of findings addressing these questions have already been covered in Nature Reviews Clinical Oncology, and will be the current focus, Anne M. Jakubowski and co-authors provide an overview of studies in which AI-based approaches have been applied for diagnosis, prognosis and predicting potential therapeutic issues. In this Perspective, we focus on how machine learning and computer-aided diagnosis patterns to optimize medical imaging. Emerging results have been obtained when the analytical performance of these ML-based approaches is compared with that of expert pathologists. These results alone, however, should not be interpreted as a justification for automating the work of pathologists, but rather, as an indication that their workload could be optimized and, importantly, the waiting time for patients to receive a diagnosis can be reduced. Indeed, it is now being tested commonly used in particular, such as the review of areas identified with the disease.

Pathology is not the only area in which ML has the potential to improve the outcomes of patients with cancer. Any piece of information that can be translated into patterns, predictable outcomes and personalized medicine only a few examples, can be virtually taught to a neural network. ML-based approaches are being used in areas such as radiology and clinical trial design. Another promising use of AI would be the integration of multi-omic data from each individual in order to facilitate the administration of tailored treatments.

In this article, Jakubowski et al. acknowledge the various challenges in implementing approaches using AI in routine clinical settings. Dealing successfully with these challenges, encompasses issues in which the neural network has been addressed to the greatest extent consistent with the development of separate ML models, such as validated on a particular set of samples.

Clinicians worldwide need to have the assurance that they rely on one of these ML approaches when they encounter a similar clinical scenario to their own practice. Developers and clinicians will be key to defining high-quality standards for the use of all relevant areas of clinical knowledge.

Another challenge for the already mentioned areas is that of access to data. Essentially, individuals participating in an interaction with AI systems could have better outcomes than those seen in conventional medicine, but the challenge is to ensure that diagnosis and treatment decisions are made. Some reports believe that, similarly to other new technologies, the costs associated with using AI will only be high during an initial period and will decrease over time. This expectation is not unreasonable, considering, most medical centres will not be able to afford the initial investment of resources to introduce these tools in their practice. It is not clear that, in order to implement AI-based tools, institutions will need centralised data sharing, but also a critical mass of medical professionals trained in this new approach to medicine. Thus, widespread access to AI-based health care might not happen in the near future.

Finally, some experts are optimistic and believe that, with access to AI, clinicians will have more time to spend with their patients. Such a shift will only come about if the total duration of patient visits remains the same and it is not used to increase the staff shortage. Importantly, some patients might perceive the adoption of AI by their clinicians as a diagnostic threat — communications will be key to help them understand the different roles of the human and the machine in their care.

In summary, the practical implications of using AI in routine oncology practice are not yet completely understood. In addition to the challenges discussed, prospective evidence of the potential benefits of using AI in medicine remains limited, thus motivating the first research. The introduction of AI into routine clinical practice is a complex effort that will require multi-stakeholder engagement and, most importantly, the input of patients and their families and the cooperation of regulatory bodies.



Everyone: Help us change psychiatry’s misleading narrative: Say depression pills, not antidepressants, as they do not have specific effects for depression; say major tranquillizers, which is what anti-psychotics do - they have no specific effects for psychosis.
 Peter Götzsche | @pgtzsche1 | 1.10.2019

If Medicine wants to maintain trust, it, we, prof societies, must welcome unconflicted critical appraisal of evidence. Cheerleader panels at meetings is a blemish.
 John Mandrola | @drjohnm | 29.9.2019

“Use of language matters, and getting it right (or wrong) can promote (or prevent) an ethos of shared endeavour between clinician and patient”.
 Jordan Canning | @jordancanning | 26.09.2019

‘Multimorbidity’: an acceptable term for patients or time for a rebrand?
 “Writing Through Extreme Grief Helped Me Become Myself Again”. Catalysts for creativity buff.ly/2XWXFic
 Danielle Ofri | @daniellofri | 25.9.2019

There are real ramifications of the oversimplification of medicine. Protocols, guidelines and exams delude us into thinking there is a ‘right’ answer. Honesty about uncertainty is the key.
 Sam Finnikin | @sfinnikin | 2.10.2019