

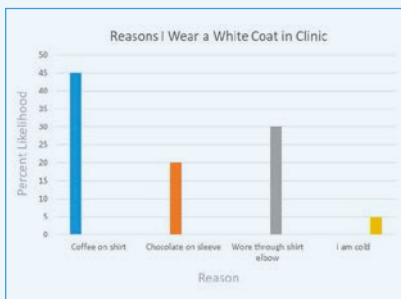
Se come medici non alziamo la voce contro la distruzione di ospedali e ambulanze, contro l'uccisione di colleghi nel pieno del loro lavoro, non siamo degni del giuramento che abbiamo fatto all'inizio. Non siamo degni.
[@elo_franchi](#) | Eloisa Franchi | 1.04.2024

Al-Shifa hospital in #Gaza this morning, following the end of the latest Israeli siege. I repeat: hospitals must be respected and protected; they must not be used as battlefields.



[@DrTedros](#) | Tedros Adhanom Ghebreyesus | 1.04.2024

I remain a dedicated wearer of ties. White coats, not so much.



[@adamcifu](#) | Adam Cifu | 5.04.2024

Sono state trovate decine di pubblicazioni con immagini riciclate tra quelle firmate da tre ruoli apicali del mondo accademico: - il ministro della salute Schillaci. - il presidente della CRUI Cuzocrea. - il presidente dell'Aifa Nisticò. Iniziative istituzionali? Nessuna. È pensabile che tre truffatori abbiano scalfato i vertici della scienza italiana? Non credo. Più probabilmente c'è un problema endemico e sistemico di riproducibilità e trasparenza nella ricerca scientifica. Dimissioni, sanzioni, scandali non sono una risposta sufficiente (e comunque non ci sono stati). Servono iniziative sul piano

della policy, cioè su - valutazione delle persone - assegnazione di finanziamenti - funzionamento delle riviste scientifiche - strapotere baronale
[@andcapocci](#) | Andrea Capocci | 6.04.2024

10 doctors on FDA panel for Abbott heart device had financial ties to the company



[@DavidHilzenrath](#) | David Hilzenrath | 6.04.2024

neanche una Università italiana nelle prime 100, l'investimento più basso tra i paesi del G7 (come quello sulla sanità), andiamo benissimo

[@WRicciardi](#) | Walter Ricciardi | 7.04.2024

Study finds most effective food safety technique just eating it and seeing what happens



[@TheOnion](#) | The Onion | 7.04.2024

Viewpoint discusses the challenges involved with secondary health care data collection vs primary data collection and provides a list of suggested data checks before registration of a study protocol using secondary data



[@JAMA_current](#) | JAMA | 9.04.2024

This is my favorite part about medical science. When you think you know something, actual evidence kicks you in the shins

[@drjohnm](#) | John Mandrola | 10.04.2024



[@TheNewYorker](#) | The New Yorker | 10.04.2024

The words 'just in case' are destroying the NHS. Go to A&E 'just in case', 'I'll get a scan just in case'. If we truly want the NHS to work we need to accept that we can never get it right 100% of the time. This is a very difficult message.

[@docib](#) | Iain Beardsell | 11.04.2024

The more I read, the more I get worried about psychedelic assisted psychotherapy breaking all the rules of running trials. "Potential participants can include current and past patients of the researchers" Current patients? For a trial you are running? Where is the equipoise?

[@IoanaA_Cristea](#) | Ioana Cristea | 11.04.2024

An appeal to my fellow radiologists: Stop writing odd, highly technical or obscure normal findings in reports Can you imagine a physician writing a letter to a GP saying: "The patient has cerulean blue irises, 5mm pupils and type 5 eyebrows" It adds nothing and just confuses

[@PMccoubrie](#) | Paul Mc Coubrie | 11.04.2024

There's big potential to change the way and the timing that pancreatic cancer is detected. @Aiims1742 and I teamed up for this new @TheLancet essay

Digital medicine
Early detection of pancreatic cancer and AI risk partitioning

Pancreatic cancer is on the rise globally, and usually presents at advanced metastatic stages, inoperable, with little responsiveness to chemotherapy. Early diagnosis has been associated with better outcomes, but only a minority of pancreatic cancer cases are diagnosed at a stage when the tumour is surgically operable. Current guidance for pancreatic cancer surveillance is restricted to high-risk individuals (HRIs) who have germline mutations that predispose to a lifetime increased risk of pancreatic cancer or a strong family history of pancreatic cancer. When a pancreatic cyst is detected incidentally by abdominal imaging, such patients are often put in the HRI category for surveillance. Cumulatively, HRIs account for only about 20-25% of cases. What about the majority of patients with no risk factors who present at an advanced stage? This is where advances in artificial intelligence (AI) based on mining of electronic health records (EHRs) have started to show some promise.

In a study that used a transformer AI model that incorporated time sequence data of longitudinal EHRs over several years, an aggregate of nearly 28000 cases of pancreatic cancer were analysed and compared with 11 million patients who did not develop this disease. The primary dataset was from over 6 million patients in a Danish national registry, and findings were subsequently validated in an additional 3 million patients in the US Veterans Affairs' system. The authors were able to define a group of people among those aged 50 years and older who had a 30-60 times higher risk than the general population of being diagnosed with pancreatic cancer within the next 12 months. One of the EHR diagnostic codes that the model consistently identified as a feature predictive of incident pancreatic cancer within the next 24 months was diabetes, reinforcing the established link between new-onset diabetes and underlying pancreatic cancer. A second independent study used AI to differentiate the approximately 35000 patients who developed

pancreatic cancer from 1.5 million people who did not. This study identified over 80 features derived from EHRs, laboratory tests, symptoms, medications, and coexisting conditions that defined increased risk. Some of the features within the algorithm are intuitive, such as age or diabetes, whereas others underscore how AI can identify patterns not readily discernible by human assessment (eg. mean corpuscular haemoglobin concentration in red blood cells).

Yet these approaches do not include multiple layers of an individual's data. There are additional genetic alterations predisposing to pancreatic cancer that could be detected from whole-genome sequencing. Similarly, a polygenic risk score could be derived from a single nucleotide polymorphism array that might help stratify lifetime risk. Constituents of a person's gut microbiome might also have a role in indicating elevated risk. The development of multimodal AI that integrates such data, along with the unstructured text in EHRs, would be expected to stratify risk of pancreatic cancer even better.

It is important to emphasise that these are retrospective studies and have not yet been evaluated prospectively in a real-world setting. Nonetheless, such research provides a potential roadmap for early detection of pancreatic cancer that extends beyond the current narrow definition of HRIs by enriching the general population with a larger proportion of individuals at "sporadic" risk who are identified through the mining of EHR data (figure). If prospective studies support this approach, this enriched population could then undergo longitudinal surveillance using liquid biopsy tools (circulating tumour DNA, methylation assays, or proteins) that are being deployed in the context of early detection of multiple cancers.

The contribution of AI does not stop at the initial EHR-based enrichment step since deep learning models are also being developed to improve the resolution of CT and MRI imaging scans for the detection of early, subcentimetric cancers in the pancreas. In addition to changes within the pancreas, these computational algorithms could also identify subtle changes in body composition (eg. attenuation of visceral fat and muscle) that may be missed by clinicians. With such surveillance of a high-risk group, early diagnosis would be enabled, as would the potential for improving outcomes, with treatment including surgical resection followed by emerging immunotherapy options, such as personalised vaccines. Therein lies the opportunity for AI support to help advance diagnosis and care for pancreatic cancer.

Further reading
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Hoffman CJ, Lippman CA, Patel D, Magliano M, Winters A. Pancreatic cancer: advances and challenges. *Cell* 2023; 186: 1259-64.
Kai J, Koudouk S, Palchuk MS, et al. A pancreatic cancer risk prediction model (Pham) developed and validated on large-scale US clinical data. *EBioMedicine* 2023; 98: 104888.
Osipov A, Nikolov D, Gertych A, et al. The molecular basis of pancreatic cancer: a multi-omic data to predict outcomes for pancreatic cancer patients. *Nat Cancer* 2024; 5: 299-314.
Panvala R, Bess A, Peterson GA, et al. New-onset diabetes: a potential clue to the early diagnosis of pancreatic cancer. *Lancet Oncol* 2009; 10: 88-95.
Pascual D, Yuan B, Hjeltnes PL, et al. A deep-learning algorithm to predict risk of pancreatic cancer from disease trajectories. *Nat Med* 2023; 29: 1213-22.
EJT is supported by the NCI National Cancer Institute Translational Sciences grant UL1TR001514 and serves as an advisor to Tempus Labs, Phenix, AI, and Abridge. AM is a consultant for Tempus Biosciences, is listed as an inventor on a patent licensed to Thivier Earlier Detection (an Exact Sciences Company) relevant to early detection of pancreatic cancer, and is supported by the Swedish Khalil bin Zayed Foundation.

Figure: Leveraging AI for pancreatic cancer diagnosis and care

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@EricTopol | Eric Topol | 12.04.2024

Towards eliminating avoidable harm in health care



@pash22 | Ash Paul | 12.04.2024

Deep down, even the proponents of invalid and untested surrogate endpoints, know that OS matters. That's why there is (appropriate) celebration when a drug improves OS but I wonder where that acknowledgment of the importance of OS endpoint disappears when cheerleading marginal drugs based on 20% RR in 30 patients. Also, when OS has improved, you should ask the following questions 1. Did the control arm get standard of care? 2. Did the control arm get crossover'd to the experimental arm if the experimental drug is already SOC at relapse? 3. Did the control arm get appropriate post protocol therapy? 3. What was the impact on QOL? 4. What is the magnitude of benefit? Not just the P-value but the c-value (clinical significance)

@oncology_bg | Bishal Gyawali | 18.04.2024

Helps correct a common misperception about nudging. It is *not* about telling people what to do, it is about improving household decision making *in markets*. Defaults are common in the private sector, for good and bad. Same order as last time? Good. Hard to unsubscribe: Bad.

@R_Thaler | Richard H. Thaler | 21.04.2024

Bad news: in reporting results of a high impact observational study, most of the media used an inappropriate causal language and made recommendations unsupported by the research. Our analysis on @BMJ_EBM



@camialderighi | Camilla Alderighi | 21.04.2024

Cerchiamo di dirla sinteticamente: qualcuno dice che parlare di antifascismo, oggi, sarebbe divisivo. L'antifascismo è la matrice della nostra Costituzione e della nostra Repubblica. Chi dice che l'antifascismo è divisivo è contro la Costituzione, contro la Repubblica.



@CianricoCarof | Gianrico Carofiglio | 21.04.2024

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The business of publishing and of getting published have corrupted the evidence needed for care. It is missing. It is late. It is hyped. It is noisy. Luca eloquently calls for urgent reform to abolish this travesty of science.

Victor Montori

Knowledge and Evaluation Research (KER) Unit, Mayo Clinic, Rochester

In this new book, Luca De Fiore, a longtime proponent of precision in medical evidence, casts his critical eye on academic medical publishing, and disdains what he sees.

Jerome P. Kassirer

Distinguished Professor, Tufts University School of Medicine, Editor-in-Chief Emeritus, New England Journal of Medicine

There are lots of things wrong with medical publishing. But, fortunately, some things are right, like this book by Luca De Fiore.

Steven Woloshin

Center for Medicine and media, Dartmouth University, Lisa Schwartz Foundation



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