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Nurses Campaign Against the Dangers of Digital Diagnoses

As hospitals seek to serve more and more patients, many private healthcare companies are using automated diagnosis systems to make recommendations for care provision. Now, the National Nurses United (NNU) has launched a campaign warning the public about the dangers of impersonal, streamlined treatment recommendations based on large datasets rather than individual cases.

Impersonalised Medicine

Much has been made of the ability of personalised medicine to tailor prevention and treatment guidelines to an individual's genomic sequence. Such technology is advancing in its development, though availability will always precede affordability. At the other end of the spectrum, diagnostic algorithms represent a solution for private hospitals interested in serving as many people as possible without sacrificing efficiency.

Algorithms work by analysing a patient's symptoms and generating a diagnosis and treatment recommendation according to a dataset of previous patients' symptoms and outcomes. Early diagnostic algorithms include Apache III and SAPS III; the former is based on profiles from over 17,000 ICU patients. However, according to the NNU, the technology is more beneficial to hospital profitability than it is to quality patient care.

The Cost of Efficiency

Expedited provision of care means that hospitals can serve - and bill - more patients each day. Apache III, for example, collects patient data and transmits it directly to billing departments. Administrators are undoubtedly pleased by the healthier bottom line, something that helps to justify the billions of dollar spent annually to keep hospitals technologically up-to-date.

Meanwhile, there is a human cost to algorithmic diagnoses to match the financial one: streamlined care provision is fraught with dangers due to its impersonal nature. Misdiagnoses are common since algorithms cannot consider each patient's individual medical history. A German study published in 'Deutsches Ärzteblatt International' in 2010 reported an error rate of about 33 percent for algorithmic diagnosis of urinary tract infections based on a clinical dataset. Ignoring a patient's medical record is risky when making decisions about how care should be administered, such as whether to remain or be released from an ICU.

Future Technology May Round Out Recommendations

What is missing from current diagnostic algorithms may soon be provided by advances in personalised medicine. Wearable technologies such as bracelets that track health-related data can supplement algorithms to generate more accurate diagnoses. Of course, gadgets are not always affordable or widely available. Considering that some low-income families still have no healthcare plan, spending a couple hundred dollars on a fitness tracker is far-fetched.

The solution seems to be diagnostic algorithms that are integrated into a system of healthcare, which prioritises care over simple efficiency. By viewing algorithms as one resource among many, patients are more likely to receive proper professional and personal treatment. Of course, algorithms are easier to fix than entire healthcare systems, many of which are chronically ill to the detriment of individuals and economies.

Source: Motherboard

Image credit: Google Images

Published on : Mon, 2 Jun 2014