

3 ways medical AI can improve workflow for physicians

NOV 20, 2018

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Interest in artificial intelligence in health care is high because—explicitly or implicitly—this interest has focused on using technology to automate physician decision-making. But the real promise of health care AI is to enhance the work of physicians and other members of the care team, not to replace them.

“The applications of AI to ‘augment’ physicians may be more realistic and broader reaching than those that portend to replace existing health care services,” says a *Health Affairs Blog* post co-written by AMA Chief Medical Information Officer Michael L. Hodgkins, MD, MPH, and Shantanu Nundy, MD, director of the Human Diagnosis Project.

“We see opportunities for AI to be a solution for—rather than a contributor to—burnout among physicians and achieving the Quadruple Aim of improving health, enhancing the experience of care, reducing cost and attaining joy in work for health professionals,” Drs. Hodgkins and Nundy wrote.

The two physicians outlined three ways that AI could be used to improve physicians’ workflow while simultaneously contributing to burnout relief and prevention.

Point-of-care learning. AI has potential to deliver information to physicians as clinical questions arise. Current efforts to keep physicians up to date on the latest medical developments lack personalization, so doctors waste time reviewing what they already know or scanning through content that is not relevant to their practices.

In contrast, AI can personalize content that physicians need and desire by analyzing practice data, online search queries and formal and self-completed assessments.

Similar efforts are underway at Johns Hopkins University School of Medicine, where the use of informatics personalizes what and how students are taught.

Clinical documentation. Using AI to complete clinical documentation tasks is “one of the most promising” medical applications of technology.

They envision programs that can analyze a physician’s free-text narrative, extract relevant information and insert it into the appropriate structured data field.

Quality-measurement reporting. Physicians spend an average of 2.6 hours a week dealing with quality-measure reporting—enough time to see nine additional patients, according to research cited by Drs. Hodgkins and Nundy. Staff, meanwhile, spends about 12.5 hours on these tasks.

AI could replace manual data-collection processes by reviewing clinical documents and extracting information for quality reports and to populate missing data fields. Similar AI-enabled tools are already being used in radiology, Dr. Hodgkins and Nundy noted.

“By freeing doctors from clinical documentation and quality measurement as well as enhancing the value of practice-based learning, AI has the potential to augment the most foundational aspect of high-quality care: the doctor-patient relationship,” they wrote.

Words of caution

While highlighting AI’s “potential to transform the work of health care professionals,” Drs. Hodgkins and Nundy also warned that electronic health records had similar potential but have yet to live up to it.

“As we learned from the flawed implementation of the EHR, this transformation can only take place if physicians are instrumental to the design, validation, and implementation of augmented intelligence systems.”