Academic medical center renews UpToDate to support clinicians' higher-level professional needs



Specialists at Temple University Health System compared resources, and the administration listened

Busy clinicians and medical instructors often encounter questions for which they need to consult the latest guidelines, best practices, or even return to primary literature. In these moments, electronic clinical decision support (CDS) resources can be a valuable and time-saving resource to connect healthcare professionals to appropriate answers quickly.

But are all CDS resources created equal?

Infectious disease (ID) specialist Brionna Matt, DO, and her colleagues at Temple University Health System in Philadelphia, PA, found the answer to be a resounding "no" when they were called upon by their administration to test UpToDate® CDS solution against another low-cost alternative.

"There were very strong feelings that the other application was appropriate for medical students where you just needed a yes or no. But infectious disease often lives in the gray zone," Dr. Matt explains. "Things are not black-and-white, which is one of the joys of the puzzle solving of ID. But that also means we can't just look at an algorithm and apply it to a patient. We need to have expert opinion and then be able to link that to primary literature to see the nitty gritty details of what data we have available and what we don't. And then we have to make a decision based on our training. I personally feel very strongly that I do not want to lose my UpToDate access."

Taking clinician satisfaction and concerns into account

Dr. Matt, who teaches at the Lewis Katz School of Medicine at Temple University while also maintaining full clinical responsibility in both the hospital and outpatient setting, says she and her colleagues were notified that Temple was considering a change in its CDS solution. Staff members were asked to try out and review the new app under consideration by the health system.

Since Dr. Matt had just completed a case in which she had used UpToDate to support her decision-making and research clinical answers, she decided to repeat the process of that case and run the same scenarios and searches on the new app.

"It was really cumbersome, and I didn't actually find the same answer," she confesses, "so that kind of sealed the deal right there for me."



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Dr. Brionna Matt Infectious Disease department, Temple Health





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Dr. David Fleece CMIO, Temple Health As it turns out, Dr. Matt was not the only one running into problems when experimenting with the new app. Several hospital staff and medical school faculty members were test-driving the new solution, and she reports, the consensus was, "These are not interchangeable, and this isn't going to meet my needs."

As notably high users of UpToDate, the ID department was singled out to test the new application. Some in her department had prior experience with this alternate solution. These colleagues shared that they would not recommend it in a clinical setting, she relates, contributing reviews to the group email chain such as, "As a physician, I'd rather try to understand something I'm not familiar with than be told what to do. I need to try to figure it out by myself using detailed literature rather than following a 'dothis-do-that' algorithm."

These sentiments were collected into a long email thread which landed on the desk of Chief Medical Information Officer Dr. David Fleece, who was surprised at the passion of his colleagues.

"I thought honestly most people would not know the difference," Dr. Fleece says. "But UpToDate behaves like a consultant, not like an encyclopedia. You're asynchronously consulting with the experts who wrote the article."

While Dr. Matt concedes the amount of email comments sent from the ID department and the strong feeling behind them may have surprised some of their supervisors and administrators, she says, "Bottom line, the new resource is not as strong a clinical resource for attending-level inquiries and would be detrimental to our clinical practice. So, it wasn't like we just said, 'I don't like it. I don't want it.' People felt strongly that it was going to impact their day-to-day ability to provide the best patient care. And then we got the email back that said, 'OK. Very well noted.'"

Their voices were heard, and the ID team, along with the rest of Temple, continues to rely on UpToDate, which they access in their offices and on mobile phones.

Current and accessible: Specialties require the 'nitty gritty'

A graduate of Philadelphia College of Osteopathic Medicine, Dr. Matt did her fellowship at Temple and stayed on as faculty immediately thereafter.

Originally planning to study neurology or psychiatry, she became fascinated in medical school by a book about infectious animal and insect bites. It led to her exploring infectious disease more closely and realizing on her ID rotation, "I really felt like I'd found my people," she says.

"I love that most of our job is talking to people," Dr. Matt explains. "I love to sit down and truly get to know the nitty gritty details of the patient's life, from the type of dog that they own, to clinically important lifestyle practices. And then the bonus is that, for infectious disease, we can cure people. And it's really nice to be able to say to someone: 'Hey, here's what we're going to do, and I'll never have to see you again. Continue to live a wonderful life.' That's actually pretty hard to do in medicine."



Dr. Matt first encountered UpToDate during her residency at Lincoln Medical Center in Philadelphia and found it so helpful as a clinical decision support tool, she says she specifically researched fellowship programs that offered it.

"That was something that definitely went in the 'pro' column," she remarks. As a continually updated electronic resource, UpToDate is "really accessible. One of the most frustrating things about textbooks, even though they're wonderful, is they can quickly become out of date. And you don't know what you don't know. So, if you're reading a textbook, you may be learning something that has been changed in the past year or two years, and you don't know that until you know it."

Dr. Matt says she likes that UpToDate is constantly "being adjusted [to incorporate] new papers that come out with new guidelines." She also appreciates that the new information is synthesized into a format that's easy to search and "digestible" for busy clinicians, "so as a resident, you could pop on really quick before rounds and get an answer that you needed, and then it also [makes] available the primary literature if you need to do a deeper dive."

A CDS tool for faculty and students

As part of her duties teaching first- and second-year medical students at the Lewis Katz School of Medicine at Temple University, Dr. Matt frequently accesses UpToDate to ensure her lectures align with current guidelines. She also checks to make sure that anything her students may be researching related to coursework matches what's found in UpToDate, or if it doesn't, there is a clear clinical reason why.

She notes that for students, learning to use UpToDate is itself a skillset. "I think it's a little bit more difficult for students to know how to use it appropriately because it is more nuanced and there's a lot of information," she says. "They need to know how to sort through it, what to include, and what not to include into presentations and their cases. It's definitely a higher-level resource."

Focusing on continuity of care

Despite their successful campaign, Dr. Matt reports that ID department didn't take much of a victory lap when the news came that Temple was keeping UpToDate among its resources.

"We made an announcement in the department to say we fought the good fight. We succeeded," she laughs, "and we certainly appreciate [the administration] taking this step to understand how we utilize it. But we didn't have any interruption of care, so now it's just back to business!"



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Temple Health and UpToDate: By the numbers

Registered users

- Students and trainees: 48.5%
- Clinicians: 32.9%

How often do Temple users access UpToDate?

- Over 724,000 times a year
 - More than 150,000 projected decisions changed
 - More than 360,000 projected decisions reinforced

Top 5 most frequently accessed topics:

- 1. Drug Information
- 2. Infectious Diseases
- 3. Hematology
- 4. Gastroenterology and Hepatology
- 5. Neurology

About the organization

Temple University Health System is a major Philadelphia-based academic health system that is driving medical advances through clinical innovation, pioneering research, and world-class education. The health system's 1,550+ physicians and scientists share a common mission of bringing tomorrow's treatments to the bedside today. Temple Health comprises a main campus hospital in Philadelphia and nine satellites. Its educational partner is the Lewis Katz School of Medicine at Temple University. https://www.templehealth.org/

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