Report on users' perceptions of UpToDate and DynaMed Plus

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Results from focus groups comparing DynaMed Plus and UpToDate.

METHODOLOGY
Six focus groups were held, each representing a specific group within the clinical environment: members of the Resident Senate, hospitalists, nurses, and residents from the Department of Pediatrics and Internal Medicine. In addition, an initial "practice" focus group was held, with the purpose of testing the script. The practice focus group consisted of a mix of residents, physician/faculty and nursing staff. Because insightful opinions about both products were obtained during this group session, we included them in the final synthesis of results. The script used during the focus groups is located at the end of this report.

Librarians involved in the task force recorded and transcribed the focus group discussions. They then analyzed the results and identified themes.

THEMES

Format:

Bulleted Format in DynaMed Plus might be helpful in looking for information quickly.

Participants had mixed reviews regarding the bulleted format of the information presented by DynaMed Plus. There was a general consensus amongst the groups that the bulleted format would be most useful in situations where the user was looking up quick clinical information. Some indicated that the format was "much less overwhelming than UpToDate."

As one user put it,

"if you want to read an entire article on a particular topic, it would be much nicer to have narrative form (aka UPTODATE). If you're looking for a guideline to refresh your memory, I think the bulleted format is helpful."

Another participant agreed,

"I like the bulleted stuff more than the paragraph reading in UpToDate....You have to read through the paragraphs (in UpToDate) to find the information you're looking for...."

Bulleted format too dense and difficult to read through, lacking context.

However, a number of users felt the bulleted format did not provide enough contextualized information.

"I have a visceral response to bullets because it reminds me of review books that are bullet points of random facts that aren't synthesized in any way."

In addition, some commented that the bulleted format was often difficult to read through.

"For me, you use bullets for something short, but it looks like they took sentences and made them into bullets and that is not how I read things."

Some felt that the bulleted format was too uniform in format to easily browse through.

"I think one thing that doesn't help at all is that you have the blue and black text throughout but not enough ways to differentiate different sections."
“I think its confusing (bullets) because I don’t understand the progression of the bullet points. It looks like they’re flipping between data from the evidence they are citing as well as describing the paper that the data is coming from.”

“There are so many bullet points that you get lost and forget which heading they’re under.”

Don’t have as much confidence in information presented in bulleted format.

The bulleted format also appeared to translate into a lack of confidence in the information presented. As a faculty member, one participant expressed the opinion that

"...when students and residents go to these tools and quote it as gospel, it makes me nervous about bullet points in isolation...."

A resident indicated that "...DynaMed Plus would probably be quicker, but there is a robustness that is lacking, or it seems to be. That is the impression I’m getting, probably because of the lay out."

Evidence and internal References:

Appreciate levels of evidence in Dynamed Plus. However, they wanted more internal journal references to coincide with recommendations in DynaMed Plus. Preferred UpToDate’s embedded references.

Almost all users appreciate when levels of evidence are indicated within the recommendations made by a resource. Most liked the way DynaMed Plus presented this but the majority of participants wished that it provided more one to one correlation between recommendations and primary evidence (specific articles).

"What’s nice about UpToDate is that, as you go through the text, there is a number for a citation in the text which takes you directly to the reference in the bibliography. They are numbered, like in an index, in the bibliography section."

In DynaMed Plus, you can’t drill down to where they got the recommendation.

“There may be just as many references at the bottom of the DynaMed Plus topic but the recommendations within DynaMed Plus don’t seem to be one to one linked as they are in UpToDate.”

Preferred how DynaMed Plus cited references within the text of the topic.

When DynaMed Plus does cite an article within a topic's text, most users preferred how it formatted the reference (includes journal title and year, not just a cited number).

Having a trustworthy and complete list of references, per topic is very important.

The references listed within topics and, specifically within the bibliography in UpToDate, and in the “Review articles” section of DynaMed Plus, were typically important to participants.

“If you’re using this (the clinical point of care resource) to prepare for a presentation, then you do want to read the articles yourself.”
Or, “If you’re teaching, and you’re with residents, you want to go to the articles. You can use the original article in UpToDate to go to the original source and then talk about the quality of the evidence.”

One faculty member felt that
“The link to the primary evidence is hands down more available in UpToDate.”

It appeared that users of these resources, while not relying on them to do their research, often went to the references listed within topics to begin research.

Finding Information:

Most disliked having to continually expand DynaMed’s tables of content to get full list of headings. Preferred how UpToDate presented their topics’ tables of content.

There was a general consensus that users did not appreciate having to expand topic table of contents within DynaMed Plus to fully see which sections were present.

"I like not having to expand the index all of the time" (don’t have to expand them in UPTODATE).

When using DynaMed Plus, "you have to do a lot of scrolling...to get to what you're looking for."

One participant compared the table of contents in DynaMed Plus to what student notes look like when they're trying to pass exams.

"UpToDate looks like a text you use when you want an understanding. If I want to review my knowledge on X, then I’ll go to UpToDate. The other (DynaMed Plus) is like a cheat sheet."

Some participants did recognize that, because they use UpToDate regularly, they had a greater familiarity with how topics are organized.

"It’s hard because I feel I was raised on UPTODEATE. I know exactly where everything is. It’s so much easier to look in the same place. I’m sure that if I had Dynamed Plus in medical school that is where I would go."

UpToDate has many more topics, and many more specific topics on each condition, than DynaMed Plus.

UpToDate definitely had a greater breadth of topics available. For instance, with one focus group we looked for information on POUR (post-op urinary retention) and pain medication. We could not find this in DynaMed Plus but it was present as a separate topic in UpToDate. The participants felt that the UpToDate information on this topic would have helped their team look at the big picture.

The same was true when we searched for pain management and sickle cell anemia. UpToDate has more focused and specific categories on various topics. When we looked up sickle cell, there were a number of specific topics on this condition in UpToDate but only one in Dynamed.

UpToDate also clearly labeled different types of treatment within the table of contents. Users have to hunt for that more in DynaMed Plus.
“I think dynamed is nice for pulling those global review articles but when I want to learn about something I’m still going back to UpToDate every time. I learn a lot more from scanning UpToDate than scanning Dynamed where I get bogged down.”

Authority:

Split opinions on importance of having authorship predominantly displayed with each topic.

Participants were split on the importance of having authors listed for each topic. Some did not feel that it gave them any additional confidence in the recommendations or information provided by the resource.

“These authors don’t mean anything to me.” "For our specialty, it’s always nice to say ‘oh X wrote it’ but for our folks, I don’t know if it matters."

"I never pay attention to the author section."

"We care more about the references in the topic, not who wrote it."

Others specifically looked for authors related to each topic.

"I personally like to see UpToDate’s authors. I find comfort in the fact that I recognize experts. Medicine is so based on leaders. The fact that DynaMed Plus is evidence based doesn’t make me feel that experts in the field are authoring it."

“UpToDate articles are written by experts in the field who are well known to us, and they are listed at the beginning of the section so you are more comfortable reading that information.”

The importance of having author names associated with a topic seemed to differ depending on participants’ clinical roles (ie. nurses, residents, hospitalists, clinicians).

Features:

Weekly updates:
Residents were interested in this feature. UpToDate does not have a comparable option. One resident had discovered this feature on her own, before it was pointed out during the focus group.

Guidelines:
Two groups of participants looked for specific guidelines within a topic they knew had recently updated guidelines. They were pleased to find them within the guidelines listed in the topic in DynaMed Plus. It was easy to get to them using the guidelines link in the DynaMed Plus table of contents.

Most participants appreciated the availability of international guidelines within DynaMed Plus as well.

Algorithms and flow charts and graphs:
In almost each group, someone asked if these were available in DynaMed Plus. Participants acknowledged that they used these quite frequently in UpToDate.
“One of the things I really appreciate about UpToDate are the tables and the graphs.”

We looked for an algorithm or chart on “thyroid work up.” Found it in UpToDate but not DynaMed Plus. Couldn’t find any examples of relevant algorithms in DynaMed Plus although vendors have indicated that they do exist.

Calculators, images, ICD-9s and 10s:
“I really like the ICD9 codes [in DynaMed Plus], although in EPIC now you can find them too, but you don’t always know what keyword EPIC needs to find them so these (the DynaMed Plus versions) might be useful.”

Patient handouts:
UpToDate has both basic and advanced patient handouts which participants felt were very helpful. In addition, they often have patient information in Spanish as well. DynaMed Plus links to patient information provided by validated outside organizations and Societies.

“As long as they’re just as good (as UpToDate’s), that’s alright.” (DynamedPlus)

Drug information:
Most preferred how UpToDate presents drug information. A general dislike of Micromedex (used by DynaMed Plus).

Clinical staff often admitted using UpToDate consistently for drug information. As a result, the source for each resource’s drug information, (DynaMed Plus from Micromedex; UpToDate from Lexicomp) and how it then presents this information is very important.

“(UpToDate) has sections for neonates, pediatrics, and adults, and they bullet the conditions you want to treat, which is nice.”

Most complaints about drug information in DynaMed Plus related to Micromedex and how it displays and organizes information.

“That’s why it looks so bad, because it is literally from Micromedex. It just needs to be organized.”

“I stopped using Micromedex on my phone. I use epocrates because Micromedex basically looks like that (DynaMed Plus) on the app and it drove me crazy.”

“Its error prone (DynaMed Plus) because it’s not useful.”

“I think that’s annoying to read. (DynaMed Plus) To find an actual indication you’d have to read each link. UpToDate makes it easier to find.”

Users preferred how UpToDate used headers to break down categories within medication info.
However, it was noted that nursing staff are told to use only medication information from Micromedex, so it would not be proper for them to refer to drug information from UpToDate (Lexicomp).

“If we are driving the nurses to Micromedex, we can say that DynaMed Plus is a one stop shop.”

No other groups seemed to feel that there were any problems in using drug information from UpToDate.

**GENERAL THOUGHTS**

Participants made it clear that clinical point of care resources were used frequently and were important in supporting the care they gave patients.

“There is a "crucial need for a clinical tool in our world today. The information grows at such a rapid pace, and the ability to stay current in everything at all times becomes more of a challenge each year. I think there needs to be something robust there for trainers and providers, to educate us in the moment."

"In a way, we’ve adapted our teaching to this. It is less important to memorize everything. We look things up all of the time. The need of a robust clinical tool will never go away."

"I guarantee that I used UpToDate at least twenty times yesterday in the ED."

"I use it when a patient presents with a disease and I vaguely remember it from med school, then I’ll use it for an overview. For more complicated or in-depth information I do PubMed searches."

There was an acknowledgement that some specialties had specific tools that were more relevant and better suited to their work.

"I think that the way different specialties use a summary resource like this are different.” (compared surgery and emergency medicine as their example)

While the majority of participants preferred using UpToDate to DynaMed Plus, there was a recognition that DynaMed Plus could serve an important role in their work.

"I like it (DynaMed Plus). I think they can complement each other. DynaMed Plus is good at quoting the original data and letting you come to your own conclusion, but I use UpToDate to have more summaries and more of a reading experience without having the numbers thrown at you."

"The reason I like DynaMed Plus is that it’s more neutral. They make recommendations but you have to come to your own conclusions....I think it doesn't force you into a management strategy. It forces you into evidence based medicine which is what we’re trying to get to."

A number of people expressed concern that if Yale did not have UpToDate, resident recruiting would be negatively effected.
“I would worry that it would hurt recruitment if we didn’t have UptoDate. I think that is such a standard of care. One program I interviewed with said they had UpToDate but it was through the school so it wasn’t on the computers immediately, you had to log in through the VPN, and it was a big turn off.”
Library Clinical Resources Focus Group Script

INTRODUCTION (10 mins)
Does anyone object to us recording this session? [turn on digital recorder]

[Go around room for introductions.] Thank you for any time you spent preparing by looking at topics in both UpToDate and DynaMed Plus. We will begin by looking at DynaMed Plus, a recently improved clinical support tool, and then we will compare it to UpToDate, another point-of-care resource. The Library is looking at these resources because we try to make the best decisions for meeting your educational and clinical needs in the most cost-effective way possible.

In addition to these focus groups, there will be an online survey. Information from these sources will be used by the DynaMed Plus/UptoDate Evaluation Task Force to make recommendations about resources going forward. [have list of task force members available]

[Moderator will go to the DynaMed Plus search screen and briefly explain it. Point out recent updates and information located in “world-class editorial team.” Click on contributors. 3 minutes] Physician experts in different specialties initiate the work on a topic, providing an outline and references. Then the editors and managerial staff use evidence-based principles to find the best evidence on the topic. These are then shared and vetted by the original physician contributor.

As many of you have seen, this is the DynaMed Plus home page. We will type in our clinical topic (“sepsis treatment”). It will start to autocomplete. [don’t choose an autocomplete option.] If you decide not to choose one of the options that comes up, you see we get images, calculators and topics. [Go back to empty search screen] If you choose one of the options that appear during autocomplete, you will go directly to a topic screen. [Go back to home page and type in “sepsis” and choose the autocomplete option for “sepsis treatment in adults.”]

This is a typical topic page in DynaMed Plus. On the left is a table of contents that matches the information shown on the main screen. You can hop around based on the section you click on from the table of contents on the left). [Go to "treatment" and show that there are internal links to articles, other topics, etc. 3 mins]

We’re going to first ask you to comment on the format and organization of the material that comes up, and then we’re going to ask you about the actual content included in the topic.

For those of you who have used DynaMed Plus, would you like to comment on your experience in getting the information you needed?

PROMPTS: Does this format work for you?
How do you feel about navigating this page? Are these the right categories to be thinking about? Is anything missing? Do you like the way the information is organized? What do you think of the use of bullets? What do you think of having a guidelines section available? (7 mins)

Now we’re going to look at another topic, this time sickle cell disease [type in “sickle cell” and choose “sickle cell disease in adults and adolescents.”]
You’ll notice if anything has been updated for this topic and what the update was based on. [click on the “+” next to updates] I’m going to pause on specific sections [diagnosis, management, guidelines and resources] briefly so you can look more closely at each and comment on them.

[Point out levels of evidence in the "management" section.] Do you understand what these refer to? Are levels of evidence important to you? (7 min)

Now we are going to bring up the same topic in UpToDate, which we believe you are all more familiar with.
[Comparison: Pull up the resources side by side. Type “sickle cell”]

What are your impressions of looking at this topic in UpToDate? [click on “Overview of the management and prognosis of sickle cell disease”]

How would you compare the way the content is presented in each tool? Do you have a preference? Why?

Let’s say you want to focus on managing pain in your patient with sickle cell disease. Where would you find that information in DynaMed? In UpToDate? 5 min.

Which tool provides you with content that you could apply to a patient? Why? (7 min)
PROMPTS: Which one do you feel provides you with the most evidence-based information?
   Is it important that the authors of topics are listed?
   Is it important that information within topics identifies the level of evidence it is based on?
   What gives you a greater sense of trust? (5 min)

How else might you use these tools?

Would you think to use these tools to find drug information? [Use Gentamicin as example]

If you were going to start researching a topic, which tool would you use first? Why?
PROMPT: Is having a list of references useful? [Show “references” within UpToDate. Show “review articles” in DynaMed (located within guidelines and resources)].

Is there anything you want to add about UpToDate or DynaMed Plus? (5 min)

Thank you. Please continue to send feedback to [me] on either or both resources.