

## How to Choose an EMR Software System

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Welcome to Medical Practice Trends, Expert Teleseminar Series. This is Peter J. Polack M.D.

In this issue, we speak with Don Fornes, founder and CEO of Software Advice. Don founded Software Advice after noticing first-hand the lack of quality research on industry-specific software systems. Analytical by nature, Don actually enjoys making sense of complex markets. Today most of this time is spent working with software vendors to understand their products while managing the developers that continue to enhance the Software Advice database. Prior to Software Advice, Don worked as a software company executive in Silicon Valley and as an equity research analyst on Wall Street. Don earned a degree in economics from Princeton University.

**Peter:** Welcome Don.

**Don:** Thanks for having me.

**Peter:** Could you tell us a little bit about your background and how Software Advice came into being.

**Don:** Sure. My career has been in software starting on the financing side of software working with companies, software companies, raising money, mergers and acquisitions. At one point I then moved into an in-house data software company doing their corporate development, their own mergers and acquisitions and market research. And through that I noticed that while there were large firms like Gartner or Forrester that helped very big corporations research and select software systems, there wasn't really anyone filling that role for the small and medium sized business, medical practices being a very good example.

You can certainly hire a consultant to help you select and implement a system and those firms play an important role. But just in the very up-front part of the process of how you whittle down a list of hundreds of software vendors to just a short list of say five that you can really dig into, do full demos and evaluations, there wasn't anyone really helping with that. So I founded Software Advice to help small/medium sized businesses, and some large ones here and there, do that. And medical was one industry that we identified as a market that needed that help. And that's why we founded Software Advice.

**Peter:** And now with the government essentially mandating in the next decade or so that all medical practices need to get with the EMR program, there is really a dearth of good objective advice out there. What do medical practices do or whom do they turn to for advice? Most don't even know where to get started.

**Don:** Yeah, and that's true and we're seeing a lot of folks coming together to try and help them. You have blogs or journals like yours that can give them some good advice. You have more formal organizations like CCHIT [Certification Commission for Healthcare Information Technology] for example that are helping to define a set of requirement for, you know, what is EMR, what should be expected in EMR, and so that's a more formal organization. And then there are you know folks like us that are out there advising practices on, on their selection. So I think if, if physicians dig in to the internet, they will find a variety of resources to help them. One thing that I really encourage is that physicians take charge of this process and say, "you know what, this is something that I've got to do. This is something that I want to do, and I'm going to lead the charge on this. I'm not going to delegate it to my staff. I'm going to play an active role." And not everyone wants to do that. So, but I do try to encourage them to take that role. And once they dig in I think they'll find there are good resources out there.

**Peter:** Tell us how Software Advice works and let's say that there is a practice that has decided to implement EMR and they're going to use you as a resource. What's the process that the practice will go through when they're dealing with you?

**Don:** Sure, well first, most practices find us through a Google search or another search engine, or perhaps just through a link from another website. But when they come to our website, they will find a lot of information, whether it be articles that we write or directories that we publish of EMRs or practice management systems for a specific specialty. There's a lot of information on our website that they can take advantage of, but at any point in their review of our website, they'll have opportunities to engage one of us live. So they can call our toll-free number or they could fill out a form to request consultation or more information on a specific product.

And at that point, one of our experts gets on the phone with that physician or office manager and does a needs analysis, where we talk about, you know, what type of medicine do you practice? How big of a practice do you have in terms of physicians and providers? And then we'll talk about functionally what does that practice need? Are you looking for an electronic medical record or a practice management system? Do you want all of that in one piece or do you want a best-of-breed deployment where you just deploy one portion of that? We'll talk about, do you want that system to be installed and managed on-premise, at the office? Or do you want a web-based system where all of the data and the software is hosted and managed at the software vendor's secure data center?

And as we talk through these requirements and these topics and start to agree on what are the needs, we can then access our database which is a very rich repository of profiles of all of the different products that we've had a chance to review and we can apply filters. And, so okay, based on what you've told us, the following systems can meet those needs that we discussed. And we will give them a short list of products which may be three products, it may be five products, something small enough to where they can manage the more detailed follow-up of seeing detailed demos of the products, getting price quotes of the products, asking the very specific questions of those software vendors.

So what we've done in that process I just described is help the practice get from 200, 300, 400 different products that are out there, down to just a manageable list of three to five that they can really dig into.

**Peter:** And how do you find these EMR vendors? I mean, your people are constantly sifting through the different products? There must be a dizzying array of products on the market today.

**Don:** Yes, there absolutely is. But like any process, if you get organized, it suddenly becomes much more manageable. And so any buyer, and practice, should have an organized process for how they're going to go about their search and we have described that process in detail on our website. It's one of the pieces of information they could read there.

But what we've done is taken our expertise around what that process should be and codified that in our own software, our own database, so that all the different criteria you might use to filter down a list of products, plus all the data of the products that are out there, all of that is in our technology that we've built. So we're, you know, as experts, well we do know quite a bit about a wide range of products and functionalities. What we rely on most is a very well-organized structured database of products with sophisticated filters so that we don't have to remember or know everything. What we have to do is go through a disciplined process of asking the right questions and then using the data and the tools that we've built to narrow down that list.

**Peter:** So the practice really should have a pretty good idea of what it is that they're looking for in an EMR, or what is the solution that they're looking for. And then as you said, you have some resources they can look at to help them answer some of those questions. But doing a little bit of homework ahead of time, will probably give them a little bit of an advantage.

**Don:** That would be true. We love it when a physician comes in and knows what they want. But at the same time, for those that don't know what they want, we can talk through and help them understand what they might want. So we'll often talk to a physician who says, "I want an EMR and I want the ability to manage prescriptions in that EMR." And we'll say, "Do you want electronic prescribing?" And they'll say, "Um, what's that?" So they know that they want

to handle their scripts in the system but they don't really know the full extent of what it is out there in terms of E-Prescribing functionality. And we'll explain, "Well, you could simply manage a medication list. You could go one step further and have the system fax a script that you write up in the system to the pharmacy. Or you could go one more step and you could do an electronic submission of that script to the pharmacy and, you now, have it be that much more automated."

So often times, while people have a general idea of what they want, in discussions with us they will solidify exactly what they want. They'll understand more about what is possible with technology. And so that's another benefit of the discussions that we have with physicians.

**Peter:** And actually Medicare is now giving a little bit of carrot for E-Prescribing. And I think a little bit of a stick for not, so I'm sure that's going to be a question that is coming up very frequently now.

**Don:** Yeah, there are Federal level carrots and sticks. There are state level carrot and sticks. And there are you know health system carrots and sticks. There's a lot out there to understand and, you know, we ourselves struggle to keep up to date with all the different mandates and incentives. But there are different standard emerging like the CCHIT certification that are a way to ensure that you're compliant with many of those mandates, or with the requirements to qualify for various incentives. E-Prescribing is certainly one, Pay-For-Performance is another. Simply having the right level of automation in your practice can qualify physicians for discounts on liability insurance. There are a wide range of opportunities out there.

**Peter:** Don, you mentioned earlier about the issue of having a stand-alone EMR product as opposed to an integrated practice management and EMR product. For those practices, nowadays pretty much most practices have some type of practice management system, even if it's a fairly simple one. What sort of advice would you give them in helping them make the decision whether they

should go with an integrated product or if they should just look at a stand-alone EMR product to add to their practice management system?

**Don:** Well it's definitely a case-by-case basis. If a physician were coming to me saying I'm starting a new practice, a clean slate, I would be inclined to say, "You should implement an integrated system that includes scheduling, billing, patient demographics, your EMR. You should get everything all in one system to start. The complexity comes in with the existing practice that already has something in place. They may have a practice management system in place that's paid for, it's working very well, and they don't want to replace that, in which case it is absolutely possible to implement a stand-alone EMR and integrate to that practice management system through standards such as HL7 or just the de-facto standard of sequel databases. I'd say it's absolutely possible. I don't say that it's easy. In some cases it may be, in others it may not be. The physician really has to weigh the trade-off between the challenge of integrating the systems and the challenge of migrating from an existing practice management system into a new all-in-one suite. So it's definitely a case-by-case basis.

I absolutely do see the benefits of a system that includes everything in one system, in one database. It's definitely an ideal. I will say that we tend to see larger organizations be more comfortable with the idea of a best-of-breed strategy and smaller practices just really not able to implement and maintain the type of interfaces required for a best-of-breed strategy. So there, it does tend to break down somewhat along size of organization.

**Peter:** Now is one of your criteria, as far as the EMR vendors, their track record with integration with other types of products or is this something that you assess from each EMR vendor?

**Don:** It's really not. A track record, whether that be the track record of how well they've integrated or track record of how good their customer service is. Their track record of investability of their various product releases. That would be great information for us to provide but it's a daunting task to collect that. And

we think at this point we're providing a lot of value in just these very objective classifications of systems. And getting into the, you know, assessing track records, something I'd like to do but something that's a very big undertaking and not something we're ready to do yet. There are other organizations, you know, like KLAS [KLAS Research] that do those types of assessments. But it's not something that we're ready to do. I will say that as far as integration which what you specifically mentioned, we can capture, okay, what is their ability to integrate technically? Do they support HL7? Do they support sequel databases? Which databases? What types of interfaces have they built? And that's something that we definitely can track in our system.

**Peter:** Another question that came up was: some smaller practices have looked at EMR products that are not specialty specific. What kind of advice can you give them as far as weighing the pros and cons of going with something that's maybe less expensive but is not specialty-specific as opposed to getting something that's possibly a little more costly but maybe a more-customized solution?

**Don:** Yeah, that's a good question. I'm not sure that I would tie expensive or inexpensive to it. That's probably another answer. But to address the question of specialty-specific versus horizontal or generic or multi-specialty, you know, personally my own business philosophy is there is a lot to be gained from focus. You know our own business; we are very focused on a very narrow set of industries. And that has allowed us to go deeper early and provide more value. So I definitely believe in focus. And I believe that that exists in the EMR market where, if a vendor is focused on say urology or women's health, they're going to be able to provide capabilities out-of-the-box in the case of in women's health, an antepartum module or flow sheets for tracking data over time that are very specific to OB/GYN. There's definitely some value there.

At the same time, that's not to say that a horizontal vendor or broadly-focused vendor can't build out templates or specialty-specific solutions that are at parity with the specialty vendors. And you'll see that many of the broadly-focused or generic EMR vendors do have certain specialties where they are particularly strong.

And so it is true that a focused vendor is going to have some strength around the specialty that they focus on. But I would not say that means that the broadly focused vendor could not. The other aspect of this to assess is the company's overall strength and ability to invest in core technologies. There are core capabilities of any software system or, of any EMR system, core features that any practice is going to need. And so you want to make sure that the system, that the vendor has the resources to really invest in building out that core. And that's a trade-off that you sometimes have to consider with these specialty vendors. Is their market opportunity large enough to provide enough revenue to support the continued investment in core features, core software infrastructure relative to the vendors that have carved out a very broad market and may have larger revenue streams to support that investment? So that's not an absolute answer to your question of which is better, it's really just the things to consider there.

**Peter:** Now would you agree, I've heard this said before, that the EMR software systems that are basically ready to use out of the box can get a practice off and running quicker but may require the practice adapting their workflow to the system, as opposed to some of the more complex EMR software systems which are more customizable but take a little more technical know-how in order to adapt the system to the workflow of the practice.

**Don:** Well, there's an interesting precedent for that in other industries. Manufacturing, for example, that automated their core business processes well before medicine did. They found that there were trade-offs to structuring a rigid workflow for a business process. So you had one camp of vendors that said, "We are the most flexible systems out there. We will do business however you do business." And then there was another camp that said, "Well, actually, we worked with the best companies out there and we have taken their best practices and implemented that workflow in our system. And so if you adopt this system and start doing your work the way that our system requires you to, you will then become a best practices organization." And of course, those competing marketing messages or philosophies continue to exist in the manufacturing market today.

And there's you know in the end, sometimes they are just marketing messages. I would encourage any physician as they make a decision that is this big to consider reevaluating their workflows. Are they truly doing things the best way possible? Start with trying to say, "How could we make this more efficient?" Get ideas from software demos to see how it could become more efficient through the use of software. And then agree on what is the best workflow. And then find the system that supports that workflow, whether it's one that imposes a rigid workflow that actually seems like the best way to do it, or whether it's, you know, what we just really believe in this very unique workflow we have and we need a system that is highly configurable and can map to that. So again, like most of these answers, it requires the physician to really put a lot of thought into the, the alternatives and which way they want to head.

**Peter:** In some medical practices such as ours, we found that when they started planning their EMR implementation, they had to look critically at their workflow processes, and, as you said found some deficiencies. So it was a very educational process to go through.

**Don:** Yeah, yeah I think approaching this process with humility and curiosity is critical in realizing there may be better ways to do things than you're currently doing them. And going back to that prescribing scenario that I described earlier, there may be technologies or functions out there that are way more efficient and you don't even know what they are. Digging in and seeing the way that these different systems enable things could be very valuable to a practice that doesn't even realize that there is a better way of doing what they do or that there's a technology out there that makes things much easier. So there's a lot to learn there. I would definitely, you don't want to come in, come into a process and say this is how we do things whether we do it right or wrong, let's just reinforce it with software. You want to make sure it's right, it is the right workflow. Or fix it, improve it, and then, you know, then impose the process you through you know putting it in the software.

**Peter:** What is meant by ease-of-use and how do you evaluate that in a product?

**Don:** Yeah, so ease-of-use is by far the biggest requirement that we hear from buyers of software. Everyone's been using software long enough and using enough bad software long enough to where they realize the importance of an easy-to-use system. So that is really important. How you assess it is a little more complicated. So absolutely the way to assess ease-of-use is through demonstration of the software, whether that be an in-person demonstration at the practice or whether it's a live web demonstration over the internet, say like a Webex or GoToMeeting, something like that. But what you want to be doing is driving that demo, not just sticking to the script but driving; "Okay, I want to see this particular workflow and how you, how you perform this process in the system". So you're kind of in control of the demo. And as you're going through you want to make sure that the ways that that's performed is intuitive. That you almost know what that user, the person giving the demonstration, is going to click next, what they're going to do next. Software should seem fairly intuitive.

I think one thing that we've learned with the advent of the internet is that in all these websites we go to, buying a book on Amazon or searching on Google, performing any kind of e-commerce transaction or research, those are applications. Those are software applications. And there are enough used that anyone can go and figure out how to use them. You don't need a tutorial on how to use Amazon. So a lot of those constructs, the standards for ease-of-use on the web are starting to make their way into actual software applications like an EMR. And you should be looking for those types, that type of simplicity during those demos. If you're more the quantitative type and you want a real frame for assessing ease-of-use, then you could actually count how many clicks does it take to perform this process. How many windows had to be opened? How many fields had to be filled in, typed in? That is a quantitative way to measure it, not perhaps the way I'd recommend for everyone but for some folks that would be the most efficient way to do it.

Finally, understand the different user interface technologies available for EMRs. It's not just typing. It's voice recognition or speech recognition. It's using a tablet pc with a stylus, that is, you know, the electronic equivalent of a pen where you're actually tapping on options on a tablet pc. And there is traditional typing and mouse clicks. So everyone may have a different form of interactivity that they prefer but test out those different options.

**Peter:** Now another question that comes up is, whether a practice should get a web-based type of system or should they purchase the software or lease it and have it installed on premise.

**Don:** I think that varies from practice to practice. We have noticed recently more folks asking explicitly for a web-based system than say two or three years ago. But it's still pretty even, it's probably a third, a third, a third in terms of a third want web-based, a third want on-premise, and a third really aren't sure yet.

I'll go through quickly the advantages of each. You know in a web-based system, you are not responsible for managing the data, managing the software, upgrading the software, backing up, and those types of recovery operations. All of that is taken care of for you at the vendor's secure data center. And also because the user interface is in a web browser, you do start to benefit from some of those ease-of-use standards that you see on the web. The user interface is typically fairly, you know, straight forward web browser-type construct so it gets, you get some of that benefit.

But people that come to us and say, "I want an on-premise system." And when we ask why, they typically refer to, "Well my internet is not dependable. I'm a rural clinic". Or they will say, "Well, you know, I've just found that an on-premise system is more interactive, more responsive to users," which traditionally was the case. But when they say, "Well, I don't want my patient data out there on the internet," that's a misconception. We typically don't try and convince them otherwise for too long because it's somewhat of a religious battle. But the reality is the security and redundancy built into these data centers is top-notch. It's the same as your bank would use to support your online banking. And so, it's typically much stronger than what you could provide at your own practice if you think of the potential for fire or robbery or a hardware crash at your own practice. I actually think the web-based model is, has got some advantages there around security.

My biggest problem at this point with the web-based model is that there just aren't enough systems out there. There are certainly a number of pure web-based or on-demand software as service-type EMR systems. But the vast majority of systems out there remain on-premise systems. They are built on a traditional architecture. And they are very good systems. And so we just haven't seen enough of those very good systems from very good vendors move to the web-based model yet. And so there are just a lot of reasons to go with a particular system that doesn't happen to be web-based yet. I think it still, it's a preference sort of thing, but the market, the web-based systems just, it hasn't gotten big enough with enough variety yet to please me.

**Peter:** Are the web-based systems typically less cost-involved with the start up as opposed to the on-premise type of application?

**Don:** Well, anytime you think about costs or expenses you have to take a total cost-of-ownership view which includes, you know, what is the cost of the software license in the case of on premise or subscription? In the case of web-based, you have to look at what kind of hardware do I need to buy to support this implementation? What kind of training and implementation and data migration services do I need? And what are my ongoing costs to receive product updates? And so that's a very holistic way of looking at the costs of the software. In the case of on-premise, those costs tend to be broken out. All of the software, the maintenance and support, the training and implementation tend to be broken out. Whereas with web-based you typically pay one subscription fee which is your license to use the software, your support, sometimes even your claims or your prescribing fees, and your ongoing improvements to the product.

And the reality is when you add it all up and do, say a net present value type of assessment of it, you know if I assume a life of 7 or 10 years for this software, and I add up all the costs under each model and discount it back to what is, you know, what is the net present value of that up front and future costs, I think they're more or less the same. From a cash-flow perspective you're going to pay more up front to get an on-premise system and you'll pay over time, you'll spread that over time with a software-as-service subscription model. But the absolute dollar amount, probably about the same.

The thing that can really throw that equation is the amount of time and effort that is required of the physician or her staff to deal with any on-premise issues, if there are IT issues locally that need to be taken care of and they invest a lot of time in it. They should find some way to quantify that effort, that time, and apply that to the total cost of ownership as well. And overall I think they come out to be about the same.

**Peter:** You mentioned earlier that some practices may be afraid of having their information off-premises. What is the liability involved of the vendor and how can a practice protect itself?

**Don:** Well, implicit of that question is an assumption that there's more risk to having the data off-premise or stored you know at a data center. And you know back to my previous answer I don't think that's necessarily the case. But assuming that the physician is just concerned about general, concerned about liability generally, you know there's risk if you have the data at your practice. There's risk if it's elsewhere. What you want to be doing is thinking about, okay, what can I do to minimize that risk? And in the case of web-based, you want to be making sure that, you know, all HIPPA compliance requirements are met, that the various security protocols are in place and the CCHIT organization has a very detailed list of security and audit trail requirements defined and you can find on their website.

**Peter:** Can you tell us what their website is?

**Don:** I believe it is CCHIT.org

**Peter:** Okay.

**Don:** And you know it may be more than, than some folks want to dig into but you can, just yesterday I was reviewing every one of the hundreds of CCHIT certification criteria. It's actually, for a guy like me it's kind of an interesting read, but it might not be to everyone. But you can go into that list criteria, go down to the security section and see all the different things that they mandate from vendors that want to achieve CCHIT certification. And it's things like SSL, secure sockets layer, which is a tech term but it's basically a way of encrypting data and providing security. It's things like audit trail, a very granular record of everything that was done in the system and by whom. Making sure that every user has a unique ID and password. And that, that every action they take is tracked in the system. So you know who did what and when in case you need to go back and answer those questions. And also you know 128K encryption, a very sophisticated way of encrypting data that goes over the internet. These types of security compliance that a system should meet, if you implement those, you know make sure that the system you implement has that type of security and controls in place, you will minimize your liability. The other thing, and I'm not a lawyer, but the service level agreement, the SLA, that's part of the software license agreement, should hold the vendor to certain standards and service levels as far as security goes. But again I'm not a lawyer that can dig into that, but that service, that SLA that you would have in place with the vendor, is a very important document.

**Peter:** There's actually a whole new specialty in law now that is involved with the e-discovery and auditing of electronic medical records, so I'm sure this will be a really big issue in the future.

**Don:** Absolutely. You know there are some very traditional analogies though. You know if you look at just your own personal financial data, there's risk to having your wallet stolen and all your credit card and financial information there and your identification. Criminals can definitely perpetrate fraud by gaining that physical information on the internet. There have certainly been attempts to do that and there's been successful fraud there. But by and large, web banking and e-commerce have been very successful in limiting that kind of crime. And I think there are far more people out there trying to gain access to your bank account than there are people trying to gain access to John Doe's medical record.

**Peter:** That's a good point. Well, Don, it looks like we're about out of time. And I appreciate you spending some time speaking with us and the name of the company, Software Advice and the website is ...

**Don:** It's SoftwareAdvice.com.

**Peter:** I appreciate it and thanks again.