

## Make No Mistake – SureScripts Adds Accuracy and Efficiency to Waiting Room Solutions EMR and E-Prescribing



Surescripts, the nation's leading e-prescription network recently announced findings from a study linking e-prescribing to a significant increase in first-fill medication adherence. Poor adherence to medication therapy is a large and costly problem in the U.S. The World Health Organization estimates that as many as 50 percent of patients do not adhere fully to their medication treatment, leading to 125,000 premature deaths and billions in preventable health care costs. The Surescripts analysis suggests that over the next ten years, the increase in first-fill medication adherence combined with other e-prescribing benefits could lead to between \$140 billion and \$240 billion in health care savings and improved health outcomes.

Surescripts collaborated with pharmacies and pharmacy benefit managers on a study to quantify the benefits of e-prescribing. Reviewers analyzed de-identified data sets representing over 40 million prescription records, comparing electronic prescriptions with paper, phoned and faxed prescriptions to measure the impact on first-fill medication adherence.

The data showed a consistent 10 percent increase in patient first-fill medication adherence (i.e., new prescriptions that were picked up by the patient) among physicians who adopted e-prescribing technology when compared with physicians who did not use e-prescribing. Physicians who adopted e-prescribing used the technology to route up to 40 percent of their prescriptions electronically during the time of the study, and Surescripts estimates that first-fill medication adherence rates will continue to improve as e-prescribing adoption and usage increase.

*Electronic prescribing (e-prescribing) has huge benefits for the overall U.S. healthcare system. While numbers are difficult to come by, the increased use of e-prescribing over the past few years has been responsible for a significant increase in patient compliance and medication safety. Waiting Room Solutions sat down with David Yakimischak, Senior Vice President and Chief Quality Officer of leading e-prescription network Surescripts to glean what is really behind the magic curtain of e-prescribing and where e-prescribing is headed.*

## *Q & A with David Yakimischak of Surescripts*

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**Waiting Room Solutions:** E-prescribing helps to reduce medication errors. Can you provide some more insight and statistics to support this claim?

**Yakimischak:** E-prescribing opens up a new window into what's going on at a national level on a continuous real time basis. The fact is that there's no window to view other forms of prescription transmission-- be it fax, phone calls or handing a computer generated or hand written prescription to a patient. Finding a comparison between e-prescribing and the old world is impossible. Numbers are difficult to find and compare. From a qualitative standpoint, though, we know that we have reduced certain kinds of problems significantly. The obvious one is handwriting. No longer do we have a problem with interpreting handwriting. That problem is gone with e-prescribing. We know that there are errors introduced in the system because somebody can't read your handwriting, but they think that they can read it and they get it wrong. On the other side, e-prescribing has also introduced new problems that didn't exist in the old analog world. We know that we've decreased the number of problems, but I don't want anyone to think that it's perfect or that we've eliminated all the problems and there's nothing new. There are new problems. Our Clinical Quality Program was built on the idea that let's not assume it's perfect. Let's be responsible and mature. Let's do something about quality. If you don't do something about improving quality, it's going to degrade.

**Waiting Room Solutions:** What new problems are you seeing because of electronic prescribing?

**Yakimischak:** The user interface of pen to paper is well understood—people are pretty proficient at it. The user interface of a user with a keyboard and a mouse, or a tablet and a screen with fields of data and information is a new science. It's a variable science and an imprecise one. If attention is not paid to it, it can be bewildering and confusing for a user to use that interface compared to a pen and paper. We have an all new paradigm for how the user is interacting with the transmission vehicle. If attention is not paid to the impact that the system is having on the desired result, then you really don't build an association between what your system is doing and the quality of the output that it generates. If you don't really know what quality you want to achieve in the end, you are not going to be designing the system with

achieving that quality in mind. So you build a system without that design in mind and you get a quality result of some kind. If you never really spend the time to analyze what the quality is of that result, it's going to be at a certain level. It could possibly be improvable, but if you don't have a management system to measure what the output is against what you are intending, you have no mechanism to go back and adjust your system to achieve a better quality result.

**Waiting Room Solutions:** How do you work with vendors to achieve that goal of a quality outcome? What influence do you have in the design of the user interface and the whole process of interacting with the technology?

**Yakimischak:**

## **CERTIFICATION**

There are two main components. One component, which has been around since the network evolved in the early 2000s is the Certification process. Before you can connect to the Surescripts' network you have to go through Certification. The Certification criteria ranges from making sure that you meet technical standards of transmission to some workflow related items to some user interface requirements as far as things that must be visible on the screen or data that needs to be presented at a certain point during the workflow. The Certification criteria has evolved over time. We try to adjust the criteria to have a good balance of achieving the desired goal, but not being so onerous that we're not giving room for creativity and competitive spirit in the market. What we found was that Certification happens at a point of time. It's done in a lab environment. It's not a real world Certification. It's done with a test system in a test environment. It's a very black and white checklist. That is necessary, but not sufficient to achieve quality.

## **QUALITY PROGRAM**

On a continuous basis you need to measure the output result that you are getting. That's where the Quality Program comes in-- it's an ongoing perpetual program. We said, 'No one has really set a standard against which we can measure the quality of e-prescribing.' Surescripts published a set of guidelines called, "The Guidelines To Creating High Quality e-Prescriptions." It's a guideline you use to be measured against to achieve our White Coat (award). That guideline says, 'Here's what's good, here's what's not good in an e-prescription.' I don't call them errors because in

healthcare, error means you actually caused patient harm or done something wrong. What we measure is not only that, but also the potential of doing harm by having something that is not perfectly clear or perfectly complete. We build the guidelines, then we build the measurement system. Then Surescripts reviews prescriptions, identifies prescriptions against that guideline and measures their adherence or failure to comply with that guideline on a continuous basis. We do it year round, continuously measuring and building that score card. These score cards are shared back with you on a quarterly basis that show where you stand versus the guidelines—the percentage of prescriptions that meet or do not meet the guidelines.

## WHITE COAT PROGRAM

Then we built the White Coat program, which is a simple program for a vendor to say, ‘I want to do better, or I want to try to do better’ and simple steps for how they can measure, improve and have a continuous program of measurement feedback to improve their system. This includes their software, user interface, training and the awareness they have with their customers—the users of the system as well as the overall workflow and how things are measured and managed and the feedback to them. That’s a continuous improvement, continuous measurement management cycle.

The certification has been in place for a long time. We added a compliance program. Compliance is the part that checks and makes sure that you stay in certification criteria on a continuous basis. This Quality program is the next step above that, looking at what the intended desired outcome is through the guidelines and measuring whether that’s being achieved on a continuous basis.

**Waiting Room Solutions:** We provide workflow solutions. Ideally, these solutions should help in automating some of the physician’s processes, but they are trying to achieve excellence in patient care through speed and productivity. That may sound contradictory, but we tell our physicians, ‘Here’s what we are doing with our partners to help you achieve that level of quality in patient care.’ What is your opinion?



**Yakimischak:** Speed and efficiency are definitely not contradictory to quality. You can do things quickly and cut corners and not do them well. However, if you are putting attention on quality and speed they can be very complementary.

**Waiting Room Solutions:** There are certain tech companies that interface to Surescripts through intermediaries. Are you able to bring in the same level of quality and efficiency with these companies?

**Yakimischak:** It depends on Surescripts establishing a quality discussion with the aggregator and with the end application. In some cases the end application uses the stock off the shelf application from the aggregator and in some cases they just use it as a switch aggregator. It's not one size fits all. In general, the aggregators who participate in the discussion about the Quality Program and who help us work with their downstream partners will generally be doing a better job than if they don't. What's behind the magic curtain? Your customers are not really aware of what's behind the magic curtain. What actually happens with all the different components and bits and pieces—just for e-prescribing-- a message can hit seven different way points along the way from a doctor's computer to a pharmacy dispensing computer. Maybe the practice has a server, then the vendor has an aggregation point in your switch, you may go through an aggregator who goes to Surescripts, who goes to an aggregator, who goes to a pharmacy's headquarters, who goes to a store, who goes to a computer in the pharmacy that does dispensing. Just that alone opens up opportunities for things to go wrong. There are times when a message goes straight from a doctor's computer to a vendor switch, to Surescripts, to a pharmacy switch, to the store computer. That complexity brings us opportunities and problems. The opportunity is we have a true open system. It's kind of a miracle in healthcare that we truly have an open system when it comes to e-prescribing.

We have standards that people follow. We do have competitor's networks. There are other e-prescribing networks in the country. Not every prescription or every benefit message goes through our network. We have approximately 400 vendor systems connected, we have over 100 back-end systems connected. There's not one piece of software that runs on all these things. Sometimes there are aggregators, sometimes not. Last year we did 500 million prescriptions through that network and over 1 billion e-prescribing messages all together. It's miraculous that that can happen in healthcare given the momentum and challenges in healthcare IT to get things going. That opportunity also brings a challenge, which is behind the magic curtain. It's not simple. There's so much more to it than hit the button and the message goes.



**Waiting Room Solutions:** Where is e-prescribing headed in the future? What's on the horizon?



**Yakimischak:** There's a growing body of research and work and it's commonly referred to as unintended consequences of healthcare IT. There's more and more awareness that just because you move stuff onto a computer and put it into a digital network, it's better. One of the landmark studies last year from the Institute of Medicine called "Health IT and Patient

Safety," looks into the question of whether we are building safer systems through the use of information technology and the opportunities and challenges around this. They call for Health and Human Services (HHS) to begin to work with the Food and Drug Administration (FDA) on the possibility of classifying electronic medical records systems as medical devices. That's a critical issue for this country as to the role of health IT and FDA and the government in regulating the safety of these systems. The electronic medical records industry has gotten together and said, 'We are going to study this issue and we have some things in place and there will be some discussion around the question of the FDA regulation in terms of health IT.' That's something I'm involved in and monitoring closely. There are pros and cons, but that question is an important one for the near future.

From a trend standpoint, when e-prescribing was new it got a lot of attention. Now it's just one piece of a giant puzzle. While it may be the most advanced and most mature because it got an early start, it's a small piece of the puzzle now. We have a challenge in that. We know e-prescribing is not finished and it cannot be put away on the shelf. E-prescribing needs constant attention, improvement, care and feeding and getting attention on e-prescribing compared to everything else going on in health IT has certainly become a challenge. We have hundreds of thousands of users connecting to thousands and thousands of pharmacies and Pharmacy Benefit Managers (PBMs). Just the momentum to make a change is a challenge compared to five years ago-- getting what they call mind share or part of the attention is getting much more difficult because there's so much going on.

**Waiting Room Solutions:** What are the new e-prescribing challenges?

**Yakimischak:** The challenge early on was adoption—getting people to start using e-prescribing. The challenge is moving away from that because there are a lot of connected doctors. Although it's not finished, the challenge is now moving to utilization. Are they using these systems effectively? Are they getting the value, the impact and the benefit? Is it working properly? Is it being well supported? If something doesn't work, do they get an answer-- do they get it fixed? Going from adoption to utilization is the challenge.

**Waiting Room Solutions:** Waiting Room Solutions believes that with the efficiency of our system we can take the prescription from being transmitted to actually taken and that can provide healthier or better data. This becomes more important going forward because of the introduction of the Accountable Care Organization (ACO) concept. The fundamental concept is that everyone will be rewarded for better health. Part of this equation is compliance of medications. If we can make this happen together to get statistics to measure and push better compliance of patients this would benefit the overall health system from a cost perspective tremendously. Do you see Surescripts playing a role in helping patient compliance?

**Yakimischak:** We built a base infrastructure that provides raw materials to do something very impactful in the area of compliance. We published a study showing what happens if a doctor writes 100 prescriptions and hands them to a patient to take to the pharmacy versus transmitting them electronically to the pharmacy. We know that net more patients end up with the drugs in their hand if they were electronically transmitted than if they were handed in a paper to the patient. The main reason is that the patient gets a paper prescription and puts it on their dashboard or purse and it never gets to the pharmacy. More electronic prescriptions get to the pharmacy. Yes, there's more drugs returned to stock because patients don't end up coming in to pick them up, but of the 100 written, they get 100 of them from e-prescribing, whereas from paper they get somewhere around 85 of prescriptions. It doesn't necessarily mean they take the medication, but if they pick up the medication, patients have a better chance of taking the medication.