



DALLAS INTERNAL MEDICINE GROUP

USING INTEROPERABILITY TO COORDINATE PERIOPERATIVE CARE

improving healthcare together

eClinical Works CASE STUDY

The Challenge

As a perioperative care practice, Dallas Internal Medicine Group practitioners practice out of several hospitals, moving among patients, care settings, and various EHR systems. DIMG needed a partner capable of developing solutions to its interoperability challenges.

The Solution

Because DIMG already had the eClinicalWorks EHR in place, they activated the Carequality interface, thus joining one of the nation's leading networks for the exchange of clinical data. DIMG physicians now enjoy on-demand access to complete patient records and histories, including encounter histories, notes, diagnoses, medications, and allergies.

The Results

With an effective interoperability solution in place, DIMG has reduced transcription errors that used to occur during the record transcription process and has made more cost-effective use of its scribes — saving money, helping deliver higher quality medicine, and improving patient safety.

Dallas Internal Medicine Group

Interoperability: Helping with the Challenges of Perioperative Care

A Dallas Practice Faces the Data Deluge



Dr. Robert Paul Fischer

All medical providers need on-demand access to the latest patient records, and perhaps no practice illustrates that as well as perioperative care — the coordination of patient care before, during, and after surgeries.

Dr. Robert Paul Fischer is senior partner of Dallas

Internal Medicine Group, a four-provider practice specializing in perioperative care.

Interoperability, Dr. Fischer said, has been discussed in the healthcare IT field for years, beginning shortly after DIMG was founded in 1997, but it is only in the last few years that truly effective interoperability for clinical data has become widely available.

Until early 2014, connecting providers to the facilities that held their patients' data was invariably labor intensive and costly. You'd link to the major hospitals and clinics your patients use and could then obtain some data. If you needed data from other sources, you'd have to forge additional links.

"Traditionally, with standard interfaces, every time a practice wants to connect with another EMR — whether at a hospital or Health Information Exchange — the setup has always been point-to-point," said Farah Saeed, a member of the Interoperability team at eClinicalWorks.

DIMG's Daily Shuffle

Given the vast numbers of physicians, medical groups, and hospitals across the U.S., the number of potential connections is staggering. And while the challenge would be difficult enough if patients had just one doctor for all their needs, the reality is that most patients see several providers, including a primary care doctor and specialists, and may have visited any number of healthcare facilities, each of which could be on a different EHR.



Darla Turquette,
DIMG practice administrator

A physician trying to gain a complete picture of that patient's care might need to make dozens of connections.

Because DIMG's providers work out of several different hospitals, data for their patients is located in many places. Assembling that data for providers in a timely and effective manner is critical to the practice's success.

"We need the information before patients come to see us," said Darla Turquette, DIMG's practice administrator. "We wanted to get as much information

as possible, to prevent the patients from having to fill out a lot of forms, and getting them in to see the doctor as quickly as possible."

Scribes — a Partial Solution

For Dr. Fischer, one step along the way has been the use of scribes, medical students (and future physicians) whose duties include transcribing clinical information on each patient from one EHR to another.

With the old methodology, getting data into the medical record was by hand. The scribe would go to the other system, look it up, copy it, paste it into eClinicalWorks," Dr. Fischer said. "That whole process would take a lot of time. By doing it electronically, I'm able to save a lot of money, not having to spend so much on scribes. But more importantly, when the information is transcribed, there's no error. Often enough when a scribe looks at a number, they'll see 4.3 and then record 3.4."

The potential for transcription errors is just one example of the complexities practices face. More generally, Dr. Fischer noted, there has never yet been anything like a truly complete medical record.

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What is Carequality?

Carequality is a public-private collaborative that facilitates agreement among diverse stakeholders to develop and maintain a common interoperability framework enabling exchange between and among data sharing networks. Carequality brings together a diverse group of representatives from the private sector and government to come to collective agreement on how to enable data to flow seamlessly between and among networks and providers, much like the telecommunications industry did for linking cell phone networks. It is an independent initiative of The Sequoia Project, a non-profit 501c3 chartered to advance implementation of secure, interoperable nationwide health data sharing. For more information, visit www.carequality.org

CommonWell went live in January 2014, and within two years added 1,200 provider sites across 49 states, including the Social Security Administration. eClinicalWorks joined in February 2016. A year later, eClinicalWorks announced the successful deployment of CommonWell services, joining more than 5,100 provider sites now actively sharing data.

"The medical record is never complete," Dr. Fischer notes. "Multiple people will enter information, and it's never 100% accurate. I'm constantly reviewing notes from the primary care physicians, from specialists. There are always differences between them. Medications are left off. Drug interactions are left off. Drug allergies are not noted."

Enter Carequality and CommonWell

It was precisely to address these data challenges that CommonWell and Carequality were developed.

"The great thing about these organizations," Saeed says, "is that it's really just one connection. They serve as middlemen. By connecting just one time to either or both, a practice can leverage everyone else who is also participating."

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Carequality, developed by Virginia-based The Sequoia Project, has developed a vendor-neutral, common interoperability framework for the exchange of clinical data. The list of those who are participating in the framework is a who's who of the healthcare IT field, including eClinicalWorks.

How exactly do these networks work?

"When patients check in to an EMR, whether it's eClinicalWorks or another participating system," Saeed explained, "that system will go



The eClinicalWorks
EMR includes effective
interoperability, which has
meant huge savings in
time and money, as well as
improved accuracy.

"We just opened a support case," Turquette said, "and told them that we wanted to be a part of the Carequality interface and we wanted to connect to Presbyterian Hospital, Dallas. Then the implementation team called us and set everything up. It's very easy. You don't have to go and search for the patient. You just open up the patient's Progress Note that's on the current schedule, and then in the Right Chart Panel you scroll over and check the eEHX tab, and the information is there."

Most practices and providers can be up and running with Carequality and CommonWell in a week or less. To date, hundreds of eClinicalWorks customers are linked to Carequality and/or CommonWell, and the list grows daily, with teams working daily to connect more.

"Now, in the morning the scribe will arrive an hour before I even start rounds," Dr. Fischer said. "He will arrive at 6 in the morning and open up the hospital record and transpose information from one system into eClinicalWorks. He then meets up with me at 7 o'clock and we go around and see each patient, and will update the Note while I am standing there, save the Note, lock it, and then when I'm finished with rounds, around 8:30 or 9, all of those Notes are printed and put on the medical record."

With Carequality in place, Dr. Fischer said, the hour or hour-anda-half that a scribe would previously spend collecting data is now

WHY IS PERIOPERATIVE CARE IMPORTANT?

BEFORE SURGERY

Major surgery may trigger an onset in long-term illness and delay patient recovery. It is important to use the time between the decision to perform surgery and the procedure itself to assess the needs of individual patients, and to optimize treatment of long-term disease. Preoperative physicians reduce the severity of the problems faced by all medical professionals involved in the surgical process.

DURING SURGERY

Safe surgery is one of the greatest successes of modern healthcare. The challenge of care during surgery is how to improve the quality of patient care, as well as preventing medical error. The presence of an experienced preoperative specialist supported by a multi-disciplinary team provides an opportunity for the delivery of treatments which need significant medical input, without disrupting the surgical care pathway.

EARLY AFTER SURGERY

Surgeons are increasingly diversified in their technical expertise, while care of acute and long-term medical disease is ever more sophisticated. It is no longer realistic to expect surgeons to have an in-depth knowledge of recent advances in the management of patients with complex needs, who develop acute medical problems. Improving the quality of care early after surgery represents a major challenge.

LATER AFTER SURGERY

As the periospecialist team works to ensure patients recover quickly and return home early after surgery, primary and secondary care services will need to work more closely to address the needs of surgical patients with long-term disease. Even several months after they return home, complex patients need ongoing care from experts who understand the impact of major surgery on long-term health.

available with — literally — a click of a button. And data can be added just as easily throughout the day.

Improving Care and Patient Safety

For Dr. Fischer, effective interoperability has meant huge savings in time and money, as well as improved accuracy. But the even more important benefit is that interoperability improves patient safety.

"When the information is transferred there is no error," Dr. Fischer said. "Patient care is improved by better accuracy, and also by my getting around to see patients earlier in the morning."

Having complete patient records improves nearly aspect of DIMG's workflows.

"You don't have to start from scratch with the patient," Turquette said. "You're getting information that the patient already had in the hospital setting. They may not have realized that their sodium was low, or that they had a urinary tract infection that the doctor may not have mentioned because they weren't symptomatic. We could get their smoking status. We could get lab results from the hospital that the patients didn't have."

Interoperability has not made medicine perfect, but it has allowed it to take the next major step in its evolution.

A generation ago, remember, Electronic Health Records didn't exist. Today, young medical professionals have never known a world *without* EHR. And while they may not fully appreciate it, medical providers are witnessing a revolution in interoperability that may prove to be nearly as profound as the move to the EHR itself.

"I've been involved with Electronic Medical Records from the very start," Dr. Fischer said. "I'm sure I'm a member of the last generation of physicians who actually wrote in a chart. The dream of moving information quickly with a click is coming closer and closer. We're not completely there yet, but this is a major step forward."

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