



White paper

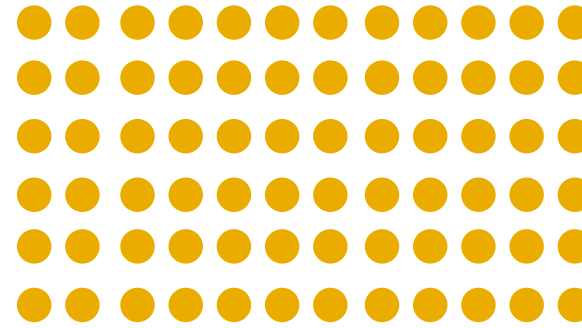
How Disconnected Data Strains Patient Care.

A Look at Physician, Nurse, and Patient Experiences Without Interoperability



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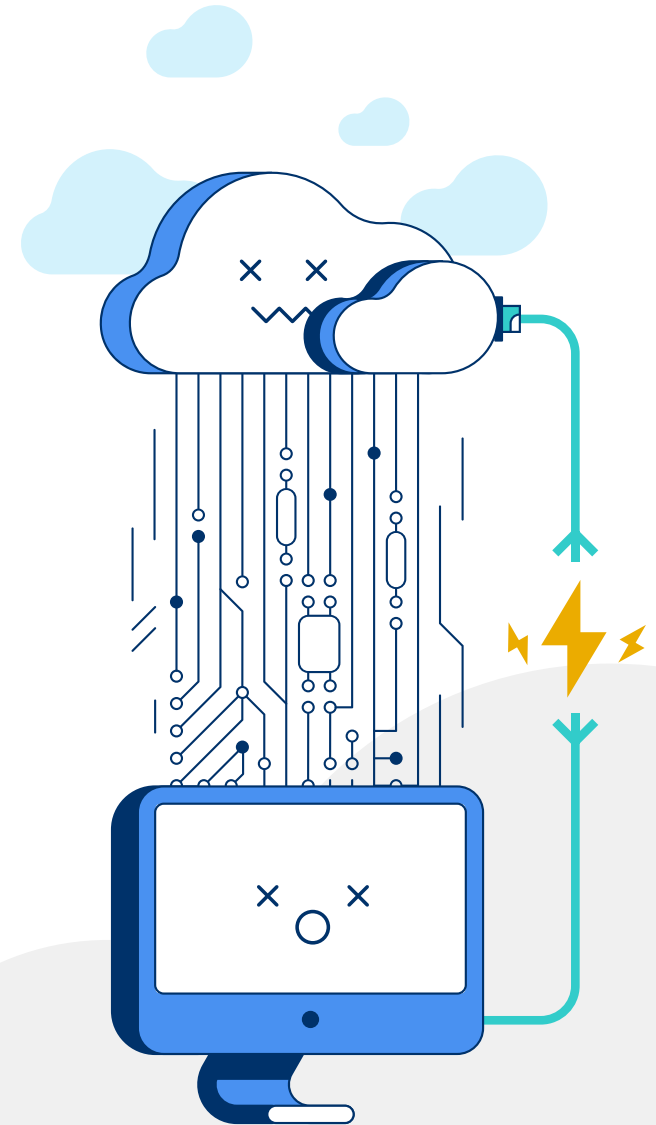
1. Executive Summary

Health officials began encouraging the use of electronic health records (EHRs) in 2009. They thought the technology would revolutionize healthcare. And it did, to a point.

EHRs enhanced patient-centered care by improving communication and reducing errors associated with paperwork. But the new data management system didn't go far enough.

Workers in the healthcare system still struggle to access information because of disconnected data. The time-consuming effort of finding details and documents affects the speed, quality, and cost of patient care.

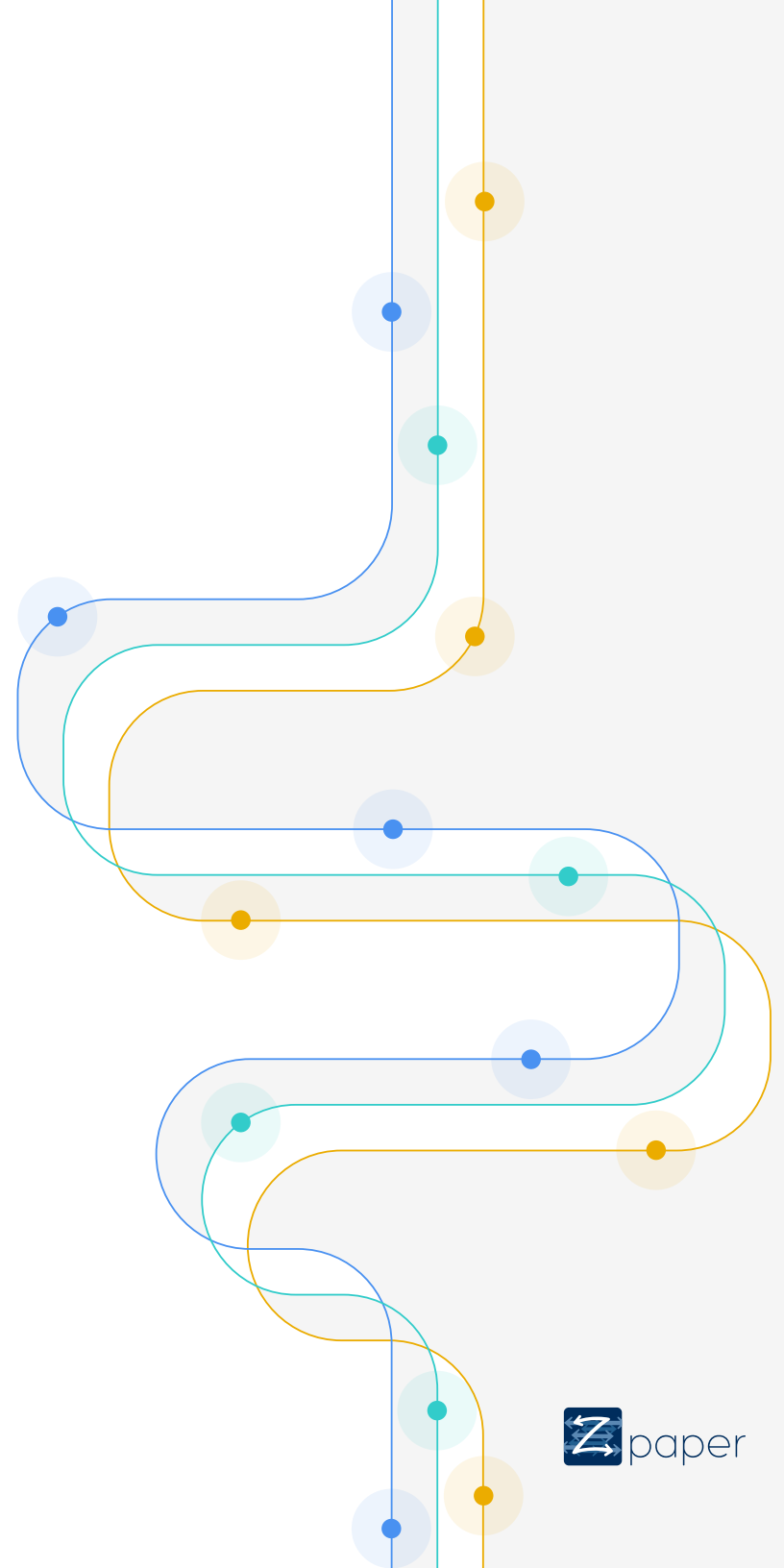
The lack of interoperability in healthcare impacts physicians, nurses, and patients. This white paper describes their experiences.



2. Introduction

Most healthcare providers use EHR systems to record, store, and transfer patient information. Facilities within the same organization have the same EHR system. For example, a medical group may own a hospital and clinic. If someone at the clinic needs to refer a patient to the emergency room, they send data electronically to the hospital. There's no need to fax documents or hand the patient papers to give to the receptionist.

Problems arise when the medical group needs to send information to a provider that doesn't use the same EHR system. Organizations can choose from hundreds of vendors to manage patient information. But these separate systems don't communicate with each other—they're inoperable. Physicians, nurses, and patients must jump through more hoops to exchange information.



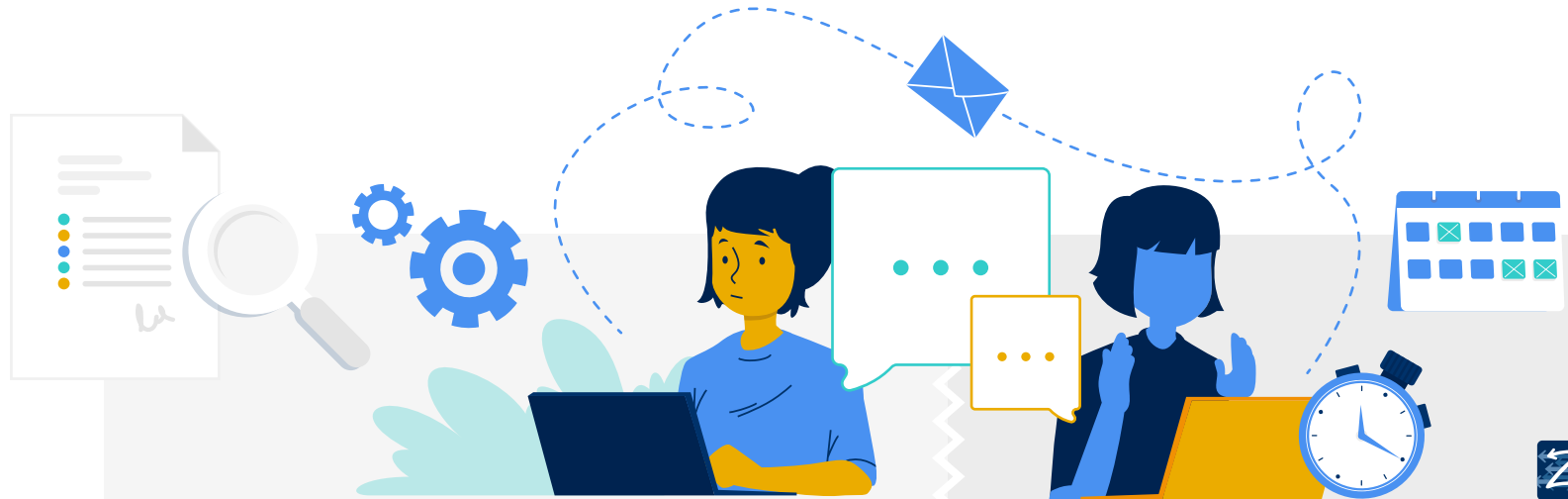
3. Why the Lack of Interoperability is an Issue in Healthcare

The lack of interoperability among providers compromises patient care. When physicians don't have immediate access to data, they can't create treatment plans quickly for patients. If physicians can't find the necessary information, they must ask patients to repeat tests and procedures. These obstacles cost time and money.

Let's say a doctor refers a patient to a physical therapist after a leg injury. The physician and therapist use EHR systems from different vendors. In this case, the doctor must print the patient's records and fax documents to the therapist.

The therapist must then upload the fax information into their EHR system. This manual process of inputting data alone takes time. But the therapist may have to wade through irrelevant details or call back for missing information. If the fax is illegible, the therapist must call the physician to ask them to lighten the document and fax it again.

This antiquated, back-and-forth process takes time away from other duties the doctor and therapist need to perform. It delays the therapist from making medical decisions and treating the patient.



4. How Disconnected Data Impacts Physicians, Nurses, and Patients

When EHR systems can't communicate, patients suffer. Let's explore some real-life scenarios where disconnected data affected the speed, quality, and cost of patient care.

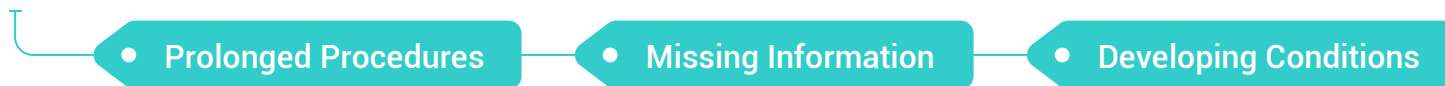
Speed of Patient Care

Speed of patient care is the number one factor impacted by lack of interoperability. Slow access to information delays physicians and nurses and prolongs patient treatment.



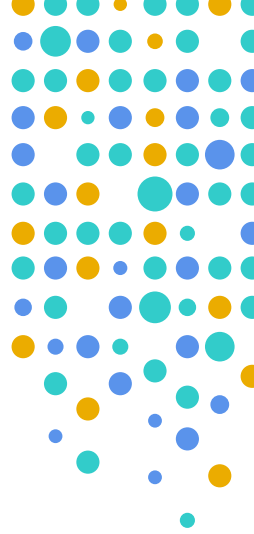
Quality of Patient Care

When physicians and nurses don't receive information when needed, the quality of patient care decreases.



Cost of Patient Care

Physicians and nurses must repeat tests when crucial data is too slow or missing. This redundancy increases costs for patients and insurance companies.



Speed of Patient Care

Finding Images

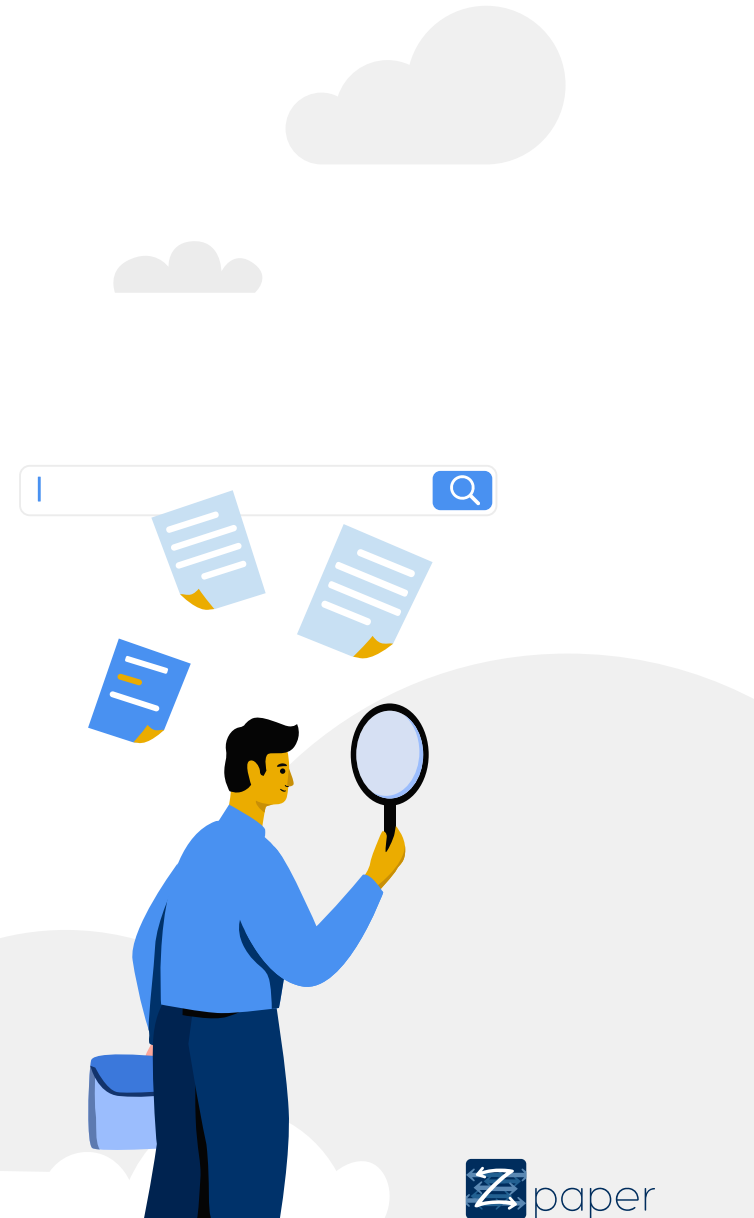
For surgeons, finding images fast is one of the most frustrating aspects of dealing with disconnected systems. Patients can go to various places for magnetic resonance imaging (MRI) and computed tomography (CT) scans. But when they get an exam from a lab with an incompatible EHR system, the physician can't get their results swiftly.

"Say I don't know my patient went to a different radiology lab. And they show up at my clinic and say, 'Hey, I went to this place instead of that place.' Then I have to contact that radiology lab to send me a report or create some kind of login system for me. So it's very siloed. It multiplies the work that you have to do." —

Doctor of Medicine (MD), interventional pain physician.

Labs sending images in different formats also slows patient care. If an MRI or CT scan is on a compact disc (CD), the surgeon's computer may not have the right technology to read it—or even a reader.

"I've needed to look at the images, and they gave me a CD. But it turns out the computer doesn't have the software to open the files on the CD." — **MD, interventional pain physician**



Speed of Patient Care

Getting Reports

Quickly getting reports is a hassle for nurses when EHR systems don't cooperate. An RN may have to do preliminary work before starting a data exchange with another hospital.

"You call another hospital for some information. And they say, 'Well, you have to sign a record release.' So you sign a record release and fax it over to them. Then we have to wait for them to get it. Then they fax (the information) over. Or they say, 'Oh, we didn't get the (record release). So it's just back and forth, back and forth.'" – Registered Nurse (RN), board-certified in cardiovascular nursing

Sometimes the received fax causes even more delays.

"We'll get faxed copies, especially with EKGs (electrocardiograms), that are printed on pink paper. When it's faxed over, it's dark. You can't even tell the rhythm strip or the EKG itself because it's just so dark. So we call back and say, 'Hey, can you make this a little bit lighter and send it to us?'" – RN, board-certified in cardiovascular nursing



Speed of Patient Care

📌 Receiving Treatment

Patients wait to receive care as the lack of interoperability persists among providers.

Take Patient A. He missed nearly two weeks of physical therapy following a car accident. Communication issues between the hospital and the rehabilitation center delayed his treatment.

"I was shocked to find out that a person had to manually take the received documents from the receiving system and manually place each document into separate areas of another system to initiate the referral process."

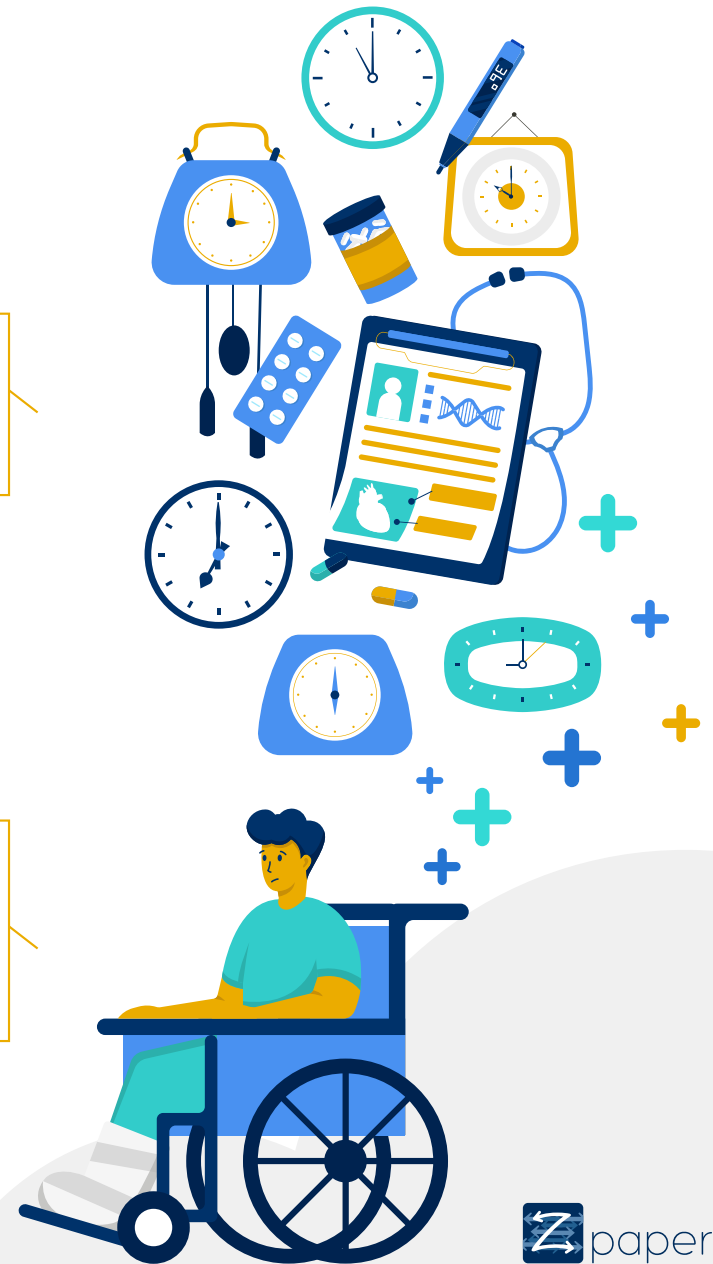
— Patient A

The slow healthcare data exchange wasn't the only reason for the holdup. A critical document was missing. So it took another five days to get that data. But then someone uploaded the information in the wrong area. That mistake added three more days to the delay.

In Patient B's case, disconnected data delayed his medications for two weeks after he switched jobs and insurance coverage.

"Because companies can't share the required documentation showing health records that previously justified the approval of prescriptions or specialty treatments, I have to go through the entire approval process again (which consists of having the doctor resend everything that was previously sent) to continue my care plan." — Patient B

Even though the companies were under the same brand, Patient B had to start over because the providers were in different states.



Quality of Patient Care

Prolonged Procedures

If a surgeon doesn't have imaging for a patient in their EHR system, they must request the information from a lab. The physician then becomes dependent on that facility's schedule.

"I just had a patient who was in a car accident, and she had imaging done at an ER (emergency room). I requested it a few months ago, and I haven't received any imaging reports." — MD, interventional pain physician

Meanwhile, the patient's condition worsens as the surgeon waits for data.

"Here's a patient saying, 'I have this much pain, and it's unbearable, and let's do something about it.' So I just ended up ordering more studies." — MD, interventional pain physician



Quality of Patient Care

Missing Information

When treating someone for heart disease, nurses need to know as much as possible about the patient's history.

"If somebody comes into the hospital with a heart attack, and they're from another city, maybe they've already had a heart attack before. Maybe they've had coronary stenting put in the past. But they're not able to give you that information (during a heart attack)." — RN, board-certified in cardiovascular nursing

Instant access to medical records through an interoperable EHR system would enhance care for these types of patients.

"Of course, we go ahead and treat the patient. But if we had other information available, we would know the year, what was done, and where the stent was put in. It would be invaluable if we had that right away." — RN, board-certified in cardiovascular nursing.



Quality of Patient Care

📌 Developing Conditions

While patients wait for test results held up by disconnected data, they're unaware of conditions that may be developing.

Patient C gets free yearly health screenings because of toxic dust exposure during his deployment to New York City after 9/11. His primary care physician (PCP) receives the results from an outpatient facility.

"But the systems the government uses as part of this care coordination process are not connected with the systems used with the primary care system." — Patient C

Because **Patient C** must get these screenings at a facility that's not operable with his PCP, he doesn't know his health status for quite some time.

"There are weeks, even months of lag time in the doctor receiving test results. If any of the results ever required medication or urgent medical attention, this would cause a lot of problems." —

Patient C



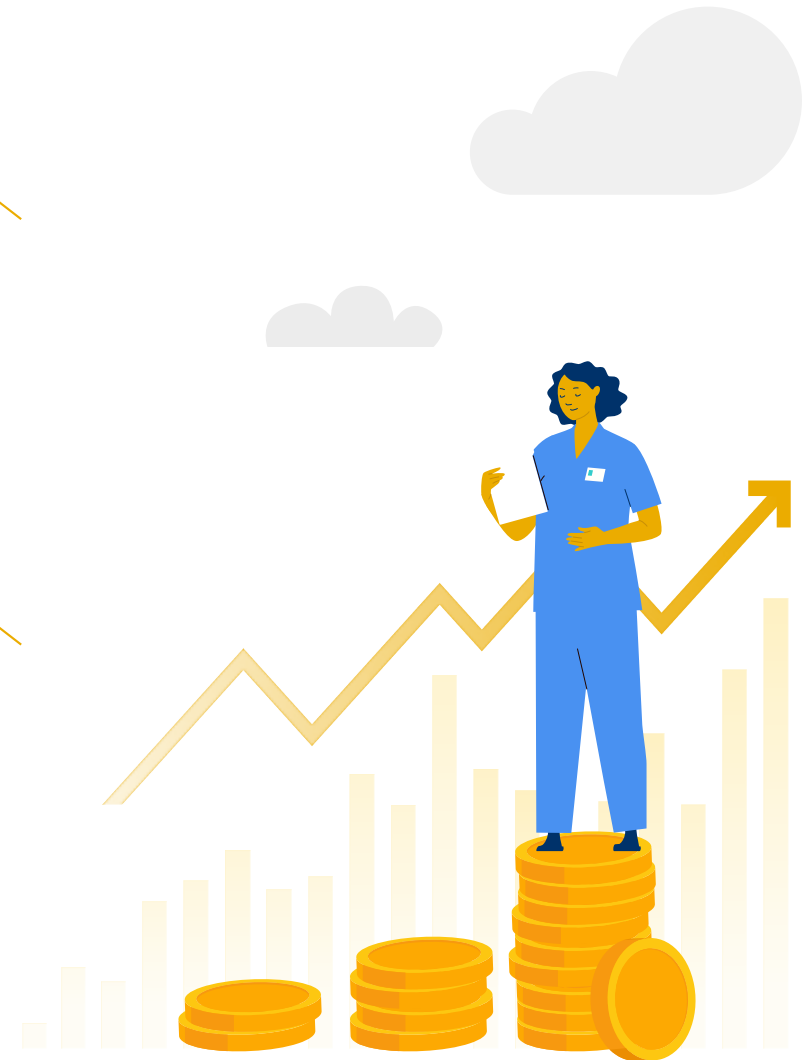
Cost of Patient Care

When a physician or nurse can't access results from a recent test, they perform another study. The redundant testing causes patients and insurance companies to pay more for the same outcome.

"With labs and some procedures, we repeat those that were probably just done within the last two to four weeks. We end up repeating it and have similar results. But then there's an increased cost because we have to bill the insurance company for a test that was just done. And it could be an out-of-pocket expense for the patient as well." — RN, board-certified in cardiovascular nursing

And remember those illegible faxes? Ordering a new exam adds extra charges if a provider must redo a test because they can't read a report.

"Any imaging or procedures are read by a cardiologist or a radiologist, and there's always an extra fee tagged on to that. When you do that, there are two fees. There's the imaging and having somebody read it. So there again, that increases your cost." — RN, board-certified in cardiovascular nursing

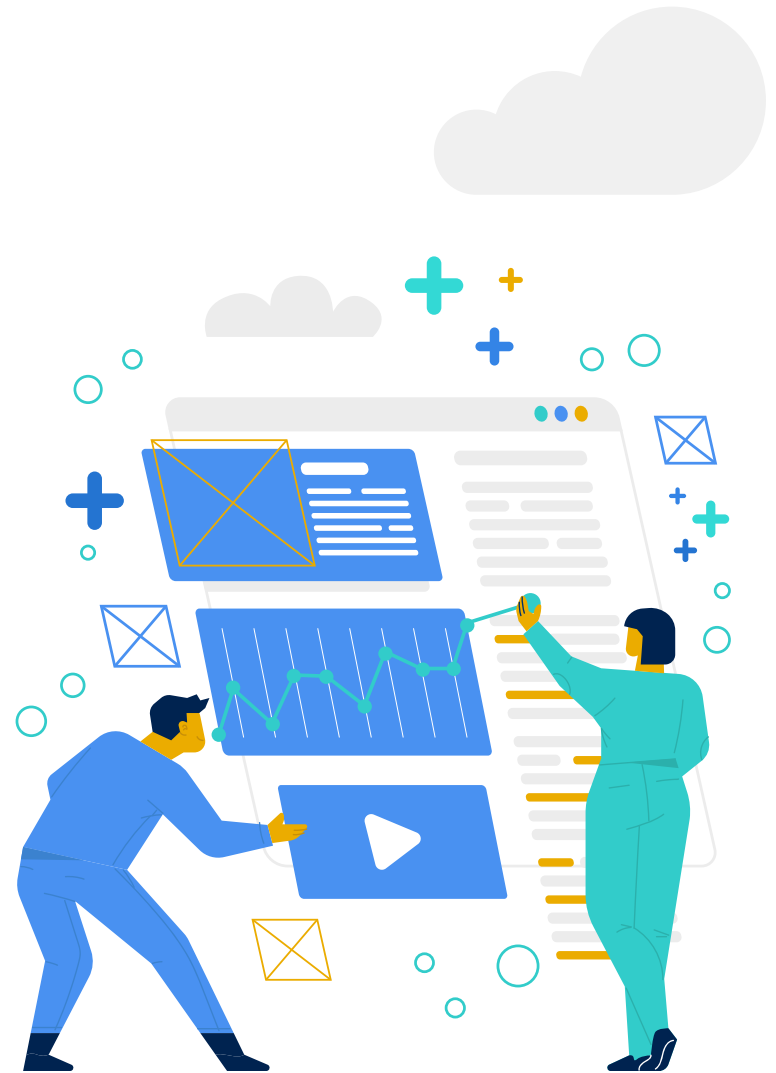


5. Why Achieving Interoperability is the Solution

Healthcare providers are working toward a deadline to achieve interoperability. This standardized, streamlined process for data exchange will speed up treatment, enrich care, and cut costs.

"What would be really modern is if the doctor who's referring a patient to you, when they're putting in the referral, there's some kind of link the accepting doctor could have. Then you could just access it, and you're not waiting for data or waiting for the front desk to respond to you." – MD, interventional pain physician

This type of interoperability is coming. Healthcare providers must complete milestones laid out by the 21st Century Cures Act Final Rule by the end of 2023. At the start of 2024, the law will require EHR vendors to be able to exchange electronic health information (EHI).



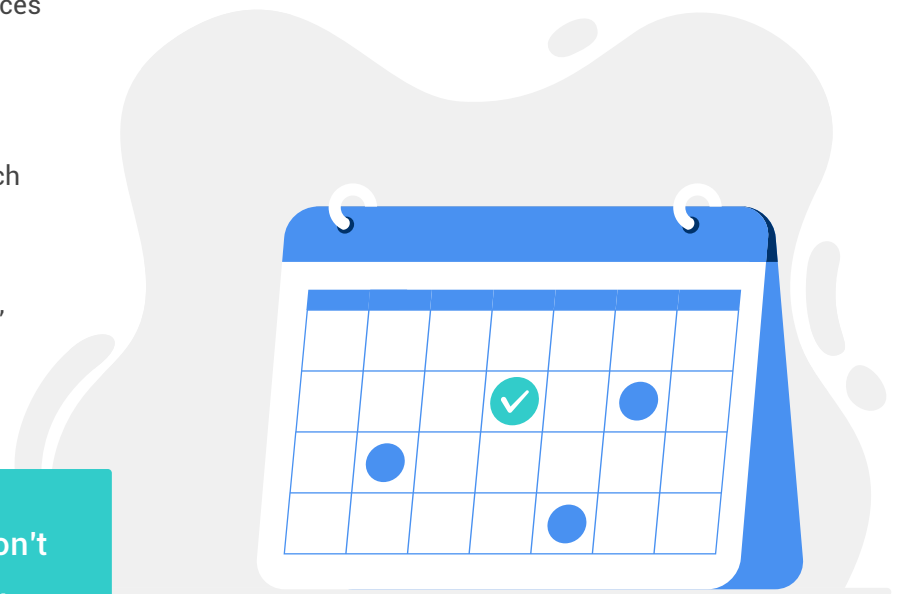
6. How Providers Can Attain Interoperability

The Final Rule allows providers to share patient data between EHR systems even if they don't use the same vendor. But there's still work providers must do to connect their systems.

Here are the remaining interoperability milestones for 2022-2023:

- **October 6, 2022** – All EHI must be made sharable, excluding a list of exemptions for privacy and security.
- **December 31, 2022** – Fast Healthcare Interoperability Resources (FHIR) compliance will be required.
- **March 15, 2023** – Developers must submit real-world testing results. They must address each type of clinical setting for which the technology is marketed.
- **December 31, 2023** – EHI export capability must be activated, requiring single patient and full export features.

With interoperability, physicians and nurses won't have as many obstacles to patient information.



7. What Interoperability Means for Patients

Easier access to patient data cuts down on repeat tests. It prevents inadvertent treatment interactions and reduces miscommunications.

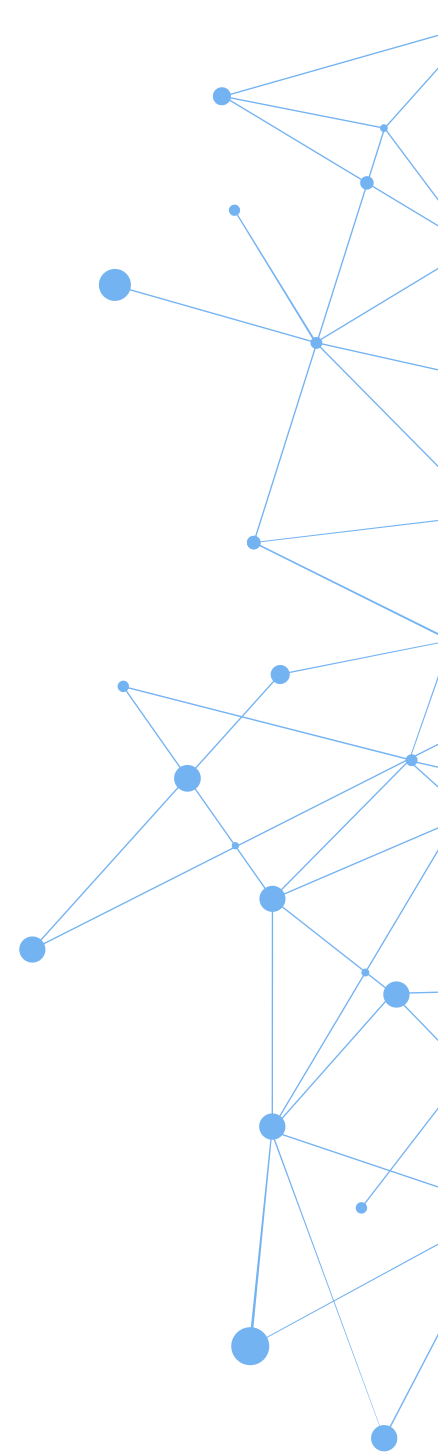
"It would just expedite the patient's care. And keep costs down because labs would not be unnecessarily drawn again if they just had them in the last week or so. We don't need to do them and create an unnecessary charge. We already have that information." – RN, board-certified in cardiovascular nursing.

Improved data organization enables physicians to analyze information faster. They can make better decisions about patient care.

"I have patients who say, 'I went to see a surgeon, but they said they wouldn't operate.' And not every patient remembers or can understand what the physician's thinking. (Having access to that information) would help with decision-making a lot." – MD, interventional pain physician

Reduced administrative work creates better experiences for physicians, nurses, and patients.

"I have been dealing with (the lack of interoperability) for 40 years. It makes it very difficult because it delays treatment. It's an excess of time wasted trying to locate that information when that time could be better spent taking care of your patient." – RN, board-certified in cardiovascular nursing



8. Conclusion

Working around disconnected systems to get information strains healthcare workers and penalizes patients.

Interoperability helps physicians and nurses improve care coordination, performance quality, and patient outcomes.

Now's the time for your organization to commit to compliance. Find a document automation for healthcare solution that works for your team.

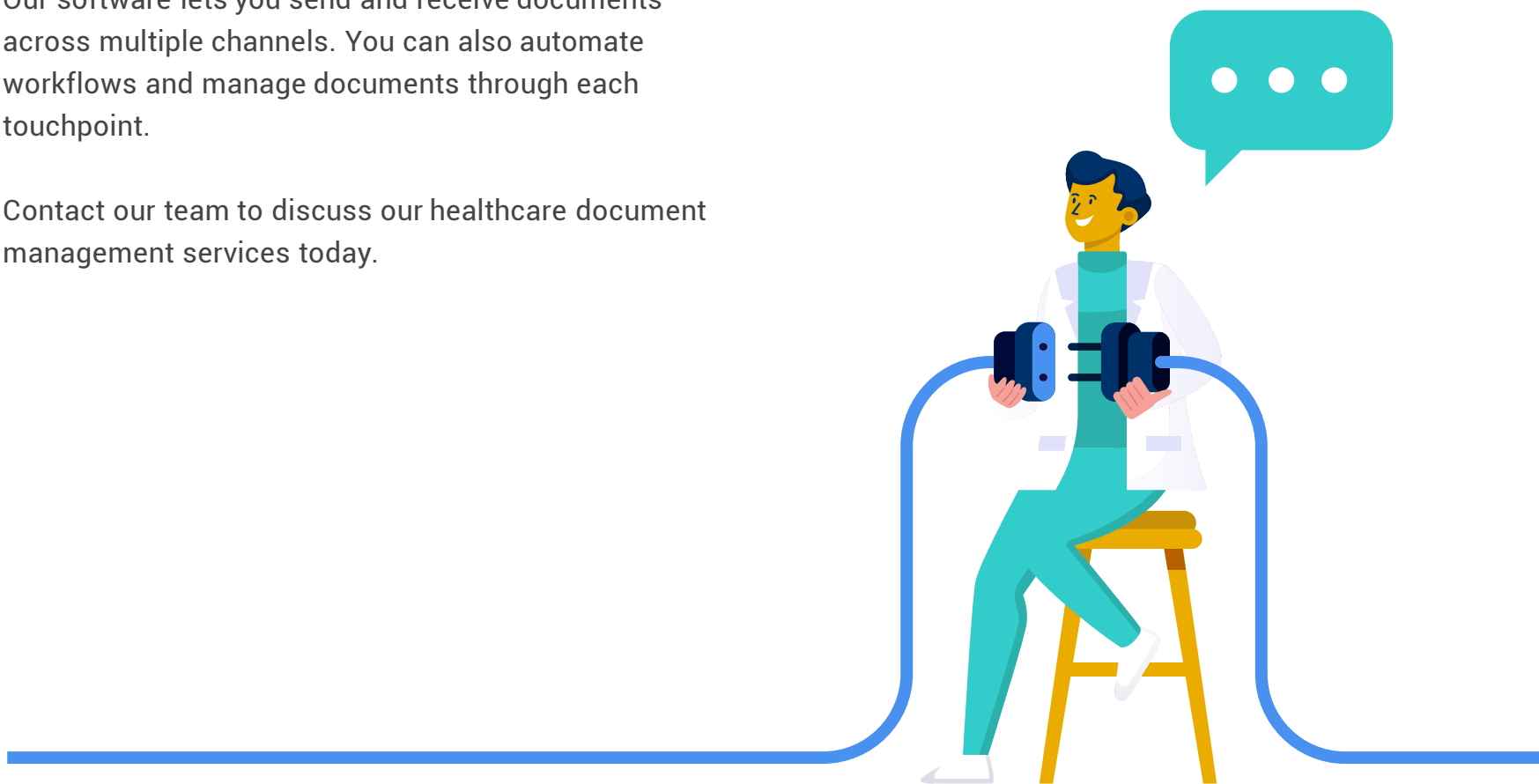


9. Start Connecting your Patient Data.

zPaper can help you move away from disconnected data and shift toward an interoperable status.

Our software lets you send and receive documents across multiple channels. You can also automate workflows and manage documents through each touchpoint.

Contact our team to discuss our healthcare document management services today.



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