CERTINAL

CERTINAL DIGITAL SIGNATURES

The Big Idea: How to improve your surgical service economies with eForms and eSign

CONTENS

INTRODUCTION

27%

TIME SPENT BY PHYSICIANS ON THEIR PATIENTS

49%

TIME SPENT BY PHYSICIANS ON PAPERWORK

Most procedures in hospitals, clinics, private consultations, telemedicine, teleconsultations, remote assistance, etc., involve the exchange of documents between various parties. All of these agreements call for flexible communication that ensures patient data security.

Are you aware that doctors spend two-thirds of their time on paperwork? With increased patients, understaffed hospitals, and difficulties capturing and keeping their data, it has gotten too much for them in the previous two years.

You must assess the whole extent of the task before making a good change in any scenario. For example, before performing Beethoven or Bach correctly, a conductor of the highest caliber must be familiar with every facet of their orchestra. Likewise, to defeat the opposition, NFL coaches must coordinate the theory, strategy, and execution of their offense, defense, and special teams.

For Surgical Services, the same idea applies. You must thoroughly assess and comprehend various internal and external aspects and how they interact with one another if you want to increase the productivity and economics of this crucial section of your hospital.

The subject of enhancing surgical services is extensive. To explore issues and potential solutions that, when tackled holistically, can result in several financial benefits, a boost in staff morale, and increased patient satisfaction, we prepared this booklet.

Find the dangers and gaps that paper-based processes always introduce and see how switching from paper Informed Consent to electronic forms signed with digital Signatures would increase patient care, service, and satisfaction, lower expenses, and put staff members back to work doing their best.

MAPPING RISKS IN THE PATIENTS' OR JOURNEY

Any unresolved inefficiencies throughout the surgical services process might mean the difference between running in the red or the black for many hospitals, where the operating room accounts for 60% or more of overall revenue.

Optimizing Operating Room: Why Large, Traditional Hospitals Don't Work(Girotto, Koltz, and Drugas 2010)[1] by Dr. John Girotto, Dr. Peter Koltz, and Dr. George Drugas — published in the International Journal of Surgery — gives us a thorough account of a patient's time in the operating room.

The findings from this study provide a sound framework to direct your efforts, but you'll want to sketch out the exact patient OR path at your hospital for a more individualized overview.

THE PATIENT'S ACTUAL JOURNEY BEGINS WHEN THEY AND THEIR DOCTOR AGREE SURGICAL INTERVENTION IS THE MOST APPROPRIATE COURSE OF ACTION.

Acknowledging the step-by-step process

"When does the patient's experience with surgical treatments begin?" You might want to reconsider your response if it was "When the patient arrives at the hospital for surgery." When the patient and their doctor decide that surgical intervention is the best course of action, we understand that the patient's real journey has just begun. A series of Surgical Services events start to happen just then.

Additionally, there is a change in the patient's emotional state of mind. Therefore, not just the internal stages themselves but also how each one might favorably or unfavorably affect the entire patient experience are important factors to consider for process optimization.

Stumbling blocks in the use of paper

14% OF SURGICAL CASES WERE DELAYED AS A RESULT OF 66% OF PATIENTS LACKING CONSENT AT THE TIME OF SURGERY.

At the surgeon's office, a significant amount of pre-surgery paperwork is created and forwarded to the hospital. Unfortunately, it has a reputation for being lacking. According to research published in the International Journal of Surgery, 83% of preoperative records were incomplete, and 31% of patients had no chart on the day of surgery. Journals of an American Medical Association titled - Missing Consent Forms in the Preoperative Area, An Assessment of the Scope of the Problem (Garonzik-Wang et al. 2013) - 14% of surgical cases were delayed as a result of 66% of patients lacking consent at the time of surgery.

If there is a feedback loop to identify these problems beforehand, accurate information must be corrected on the day of the operation.
It's an undesirable obstacle that always leads to:
1) Wait times and expenses in the OR
2) High patients stress levels

5 CORE REASONS FOR DELAYS IN SURGICAL SERVICES

It's well-known that the more moving parts you have, greater the likelihood that something will break. The procedure for Surgical Services is the same. All subsequent surgeries using the same OR may have delays due to any delays in the "first case of the day" operations. According to another study, late surgeries happen 84% of the time. That is a staggeringly high proportion. Here are the five core explanations for why this occurs.

Late surgeries happen **84%** of the time

01

Surgeons arriving late: As obvious as it may sound, delays are most frequently caused by the late arrival of surgeons or anesthesiologists. This was confirmed by the New York University Langone Medical Center's participation in the same study mentioned earlier. To change the culture, NYU implemented a plan that included the Chiefs of Surgery individually engaging with surgeons who were late. As a result, surgeons received emails reminding them to arrive 20 minutes early for their scheduled surgeries. The culmination of these actions led to a significant increase in on-time surgery commencement (from 24% to 80%).

02

Patients arriving late for the surgery: One study found that 65% of patients are tardy. The likelihood of a delayed operation start increases by 35% when this happens. The data also reveals that every 10 years, a patient's age increases, and the likelihood of a delay rises by 9%.

03

Availability of recovery room: Another study found that of all postponed procedures, 31.8% were delayed because there were no available post-operative beds. A lapse could explain this in coordination or procedure during the pre-hospital/scheduling stage of the patient journey.

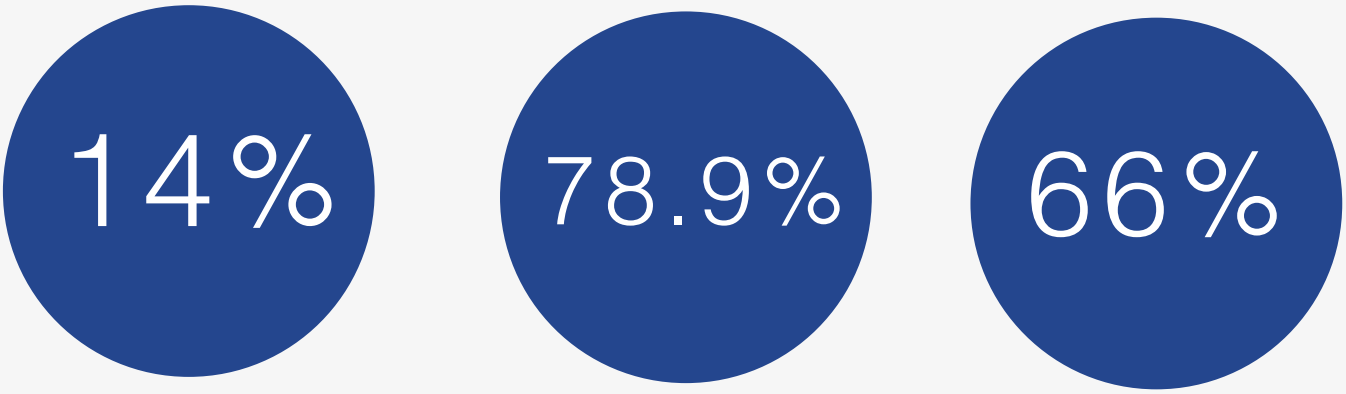
04 Missing or incomplete paper consent forms: Many studies with sample sizes of more than 1,000 operations report that 85% or more of patients either lacked paperwork or had it undone. Although improvements in EMR technology have greatly aided in resolving this issue, there still needs to be a gap in EMRs' ability to capture patient forms and signatures. For example, one study found that 66% of patients lacked informed consent forms, which delayed 14% of surgical operations.

05 Busy Staff: It seems inconceivable that a healthcare professional would tell a patient waiting for a planned surgery that they are "too busy." Nevertheless, according to one study, personnel "being too busy" to accept patients was the cause of 9% of surgical delays. The reasons could be many, but they are indeed connected to inefficiency or perhaps a lack of staff in the Surgical Services department.

ANY DELAY IN " FIRST CASE OF THE DAY" SURGERIES CAN HAVE A CASCADING EFFECT, CAUSING DELAYS IN ALL SUBSEQUENT SURGERIES SHARING THE SAME OR

THE FINANCIAL COST OF A LOST MINUTE IN THE OR

MONEY IS TIME, AND TIME IS MONEY



DELAYS IN ACTIVE CASES

RE-CONSENT IN CASES OF MISPLACED CONSENT

RESIDENTS TO STOP THEIR ROUNDS DUE TO RE-CONSULTING

Money is time, and time is money. Unfortunately, this is too true regarding delays, as delayed surgical operations happen frequently. One person or thing is blamed for the delays in 14% of active cases. Absence of the informed consent letter.

"Missing consent documents at surgery can cause delays in patient care, physician irritation, and patient concern," the authors of a recent JAMA Surgery research. The study also shows that residents are responsible for collecting consent: "In many cases, the missing consent forms interfered with team rounds and resident educational programs."

The JAMA study found that 78.9% of residents who were called to the OR to re-consent in cases of misplaced consent documents spoke with the patient for barely five minutes. In addition, 13% of residents were interrupted daily, and nearly 66% had to stop their rounds once a week to deal with re-consenting.

Delayed operations: A spanner in the work

The additional work not only takes clinical and administrative staff members away from patient-focused duties but also has a negative financial impact on the organization's bottom line.

The authors of an article in the International Journal of Surgery titled "Optimizing your Operating Room: Or, Why Large, Traditional Hospitals Don't Work" (Girotto, Koltz, and Drugas) discovered that each hour of unused operating time in the OR costs $3,600 at the University of Rochester Medical Center (URMC). Therefore, every minute wasted costs $60.

Even if these figures are high, they do not consider wasted surgical time or the 11 years of inflation that have passed since the study's publication.

URMC lost $90,720 in "first start" cases postponed or dropped in just two weeks. With 30 operating rooms at URMC, multiplying those initial numbers by five days per week for 50 weeks results in 7,500 "first start" cases annually that are postponed or canceled.

The annual loss from first start cases is $5.9M or 98,100 minutes of delay time. The revenue loss would be much higher if we included all subsequent processes in the day.

Here are some more startling figures:

- Surgical delays at URMC caused the facility to spend **$960,000** more on overtime than planned.
- The overtime pay for nursing staff was close to **$1.4 million,** about twice as much as the budgeted amount of **$500,000.**
- According to research published in Patient-Centered Research and Reviews, **88 percent** of surgical cases had delays, with the average surgical delay across various institutions being 24 minutes.
- The average delayed case costs a hospital **$1,440,** even if we use the reduced per-minute cost of **$60,** which mounts up very quickly over a fiscal year.

THE FINAL WORD?
WHEN A FACILITY'S OVERTIME COSTS INCREASE, MORE TIME IS LOST, AND THE ADVERSE EFFECTS ON PATIENT CARE, SERVICE, AND SATISFACTION BECOME MORE PRONOUNCED THE MORE CASES ARE DELAYED.

Regaining lost time and revenue

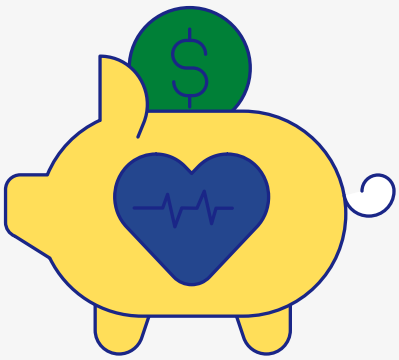
$30,000

WEEKLY GAIN

$1.5Mn

ANNUAL COST SAVINGS

Returning to the URMC case example, Girotto, Koltz, and Drugas argue that even a 10-minute reduction in the average surgical delay could result in one more treatment being conducted daily. That would result in a weekly gain of $30,000 and a $1.5 million cost savings each year. Such efficiency increases profitability and makes it simpler for the company to plan and adhere to realistic budgets, even at a smaller hospital with fewer surgical cases.



But how would a hospital's surgical services division make up that lost time? One effective solution is to replace paper consent forms with electronic ones that may be done on an iPad or tablet directly from the EMR. It would be possible to acquire complete and up-to-date information via such a system every time, doing away with the requirement for patients to provide their consent again and ending the paper chase between administrative and clinical staff.

LEGAL RISKS INVOLVE

153 OF THE 233 CASES THEY EXAMINED RELATING TO MALPRACTICE IN SPINAL SURGERY, ACCORDING TO THE AUTHORS OF A JAMA SURGERY PAPER TITLED "ALLEGATIONS OF FAILURE TO OBTAIN INFORMED CONSENT IN SPINAL SURGERY MEDICAL MALPRACTICE CLAIMS," LACKED INFORMED CONSENT. IT IS A STAGGERING 66 PERCENT! LET'S FIRST EXAMINE HOW A THEORETICAL DEFINITION OF "INFORMED CONSENT" FREQUENTLY DIVERGES FROM ACTUAL PRACTICE TO COMPREHEND THIS ISSUE BETTER.

What is informed consent?

A patient must be adequately informed and comprehend their options before making decisions about their medical care, according to the principle of informed consent in medical ethics and the law. Relevant information may include treatment risks and advantages, complementary therapies, the patient's responsibility in their care, and their freedom to refuse treatment. Healthcare professionals generally have a moral and legal obligation to make sure that a patient's consent is fully informed. In addition to healthcare interventions, this approach also extends to other situations like doing research and sharing patient records.

AN INFORMED CONSENT ALSO ALLOWS PROVIDERS TO CAPTURE THE PATIENT'S SIGNATURE TO VALIDATE THE INTERACTION AND THEIR AGREEMENT .

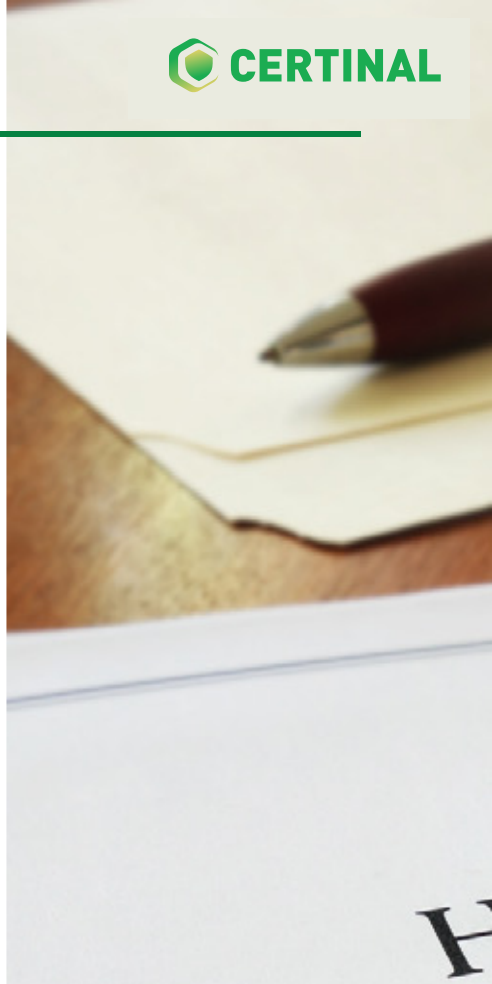
The author claims that "Informed consent must be preceded by revelation of sufficient facts" for this trust to be upheld throughout the pre-surgery procedure. Because the patient was not provided with enough information to make an informed decision, consent can be contested. For example, consider that I am an orthopedic surgeon and that you see me with a right shoulder injury. After asking you a few questions and looking through your medical history, I will send you an MRI. A partially torn rotator cuff is evident from the data. I explain to you that there are several therapy choices, with surgery being one of them. I go into great length on the possible advantages and disadvantages of such a course of action, as well as the protracted recovery period that is invariably associated with rotator cuff repair. You say you know the risks and would like to arrange the procedure.

I'd then have to fill out an informed consent form for the procedure. Consent language should be written so you may understand it and confidently engage in a contract or mutual covenant with your surgeon. When both parties sign the contract, this should be confirmed.

The information I provide you regarding your upcoming rotator cuff surgery should be consistent with the thorough explanation and risks listed in the Informed Consent. I am your surgeon. Suppose you, the patient, later assert that you needed to be given a complete and consistent vocal and written explanation. In that case, a discrepancy could expose the hospital and me to legal and compliance concerns.

Higher Risks

There are three popular methods to manage informed consent. The main difference between them is how the form is filled out with information related to the procedure (such as the name of the surgery, its description, and its hazards).



THE STRATEGIES TO MANAGE INFORMED CONSENT INCLUDE:

1. PROCEDURAL CONSENT INFORMATION WRITTEN BY HAND
2. OBTAIN A PRE-PRINTED FORM WITH APPROPRIATE PROCEDURAL MATERIAL FOR EACH PROCEDURE.
3. FINISH THE GENERAL INFORMED CONSENT FORM.

COMPLIANCE ISSUES ARISE FROM THE VARIATION

The truth is that there are dangers in all of these strategies. When doctors or even the same doctor describes procedures and the hazards that go along with them differently from case to case, it can be seen as inconsistent handwriting information. Compliance issues arise from this variation.

Managing and maintaining pre-printed forms is a logistical headache, with hundreds or even thousands of different forms in a huge, frequently challenging search library of procedure-specific forms. But from a legal standpoint, generic consent may present the most significant risks.

It's challenging for a hospital or surgeon to assert that the patient was accurately "informed" by the text on the form without particular terminology for each treatment, regardless of how detailed they may have claimed, their verbal description of the surgery, and its associated dangers. Every one of these informed consent techniques is affected by version control. Policies, rules, provider data, and other forms undergo periodic changes. A significant consolidation effort is needed for the facility to prevent multiple compliance difficulties and potential legal exposure.

How does digital transformation offer protection to patients and providers?

By requiring that the clinician sign each form and the patient and date/time stamped, replacing paper consent forms, and print-on-demand consents with electronic ones eliminate, or at the very least reduce, any potential legal issues. The hospital can also quickly change the intrinsically dangerous generic consent with one that accurately describes the precise procedural content thanks to electronic consent. So that they are never lost or forgotten, these forms may be easily traced throughout their existence.

Authorized users in surgical services, HIM/medical records, and other places within the hospital can immediately access signed eForm consent. As a result, a hospital or surgeon's exposure to a common source of legal risk can be significantly reduced by using an electronic and automated permission process, which also provides patients with the security they need.

ENRICH & ENHANCE PATIENT EXPERIENCE

33% OF PATIENTS COULD RECALL THE SPECIFICS OF THEIR INFORMED CONSENT A WEEK AFTER THEY SIGNED IT

Only 33% of patients could recall the specifics of their informed consent a week after they signed it, according to a study published in Arthritis Care & Research by MR Johnson et al. titled "Patient Understanding and Satisfaction in Informed Consent for Total Knee Arthroplasty: A Randomized Study." Therefore, it is likely that their ability to absorb information is significantly worse when they are emotionally agitated. This alone could justify a patient's sue, arguing that even if they gave their consent for surgery, they were not adequately informed about it.

The ingredients for an excellent patient experience do not typically include patients standing in long lines, needing more time to read forms attentively, and facing delays in accessing doctors' services.
The most efficient way to stop patients from being delayed by paperwork is to digitize the documentation. Electronic signature applications encompass every type of document, whether for onboarding, discharging employees, or speeding up the surgical process.

Focus on patients rather than paperwork

The top four medical specialties that spend the most time on paperwork are as follows: (in percentage)

Legal Compliance

Numerous rules exist to protect companies utilizing electronic signature software and ensure that paperless signatures comply with the law for a seamless user experience across all industries. Check out the specifics of this legislation that provide eSignatures with legal protection:

eIDAS: eIDAS makes it easier for people, businesses, and state governments to conduct electronic transactions. It guarantees a market for trust services and legally defends operations based on electronic signatures. The fact that eIDAS is legal in every EU member state and may be used to help enterprises access new EU markets is a huge advantage.

HIPAA: Adhering to HIPAA regulations can benefit your company. Since patients and clients believe you protect their data, they enjoy more market trust. The main advantage is profitability. Customer loyalty increases your business's profitability. Most insurance firms and corporations in the US sponsor or co-sponsor health insurance for their employees.

ESIGN: The ESIGN Act makes it easier to utilize electronic signatures everywhere that federal laws are in effect. It guarantees that eSignatures are accepted by courts as reliable proof. Additionally, it ensures that electronic papers have unquestionable evidence of their legality, force, and effect.

UETA: UETA offers a state-specific legal framework for the use of electronic signatures. Everything from transferable records to automated transactions and record retention is dealt with using it. It is legal in 48 states of the US.

Fastrack surgical process using Certinal digital signatures

With eSignatures, you may completely cut down on process steps, which speeds up essential procedures in the healthcare sector.

Using digital signatures eliminates the need for printing, signing, scanning, and storing documents because they are saved securely in the cloud as soon as you sign them. It offers the sick patient and the overworked medical staff various advantages, including:

- Patients are only required to sometimes have their medical records with them.
- Doctors are capable of making prompt decisions regarding patients.
- Save money on printing, copying, scanning, and document storage costs.
- Easily confirm the validity of medical bills
- Online medical records cannot be altered.

Why Certinal?

Certinal's digital signature solution helps your medical personnel complete less paperwork to give patients better treatment and concentrate more on saving their lives. Beginning with paperless, digital signatures assist in capturing and securely storing all end-to-end patient facts in a single application:

- Admission of patients
- Doctor's prescription
- Progress report
- Discharge of patient
- Medical insurance claims
- Hospital bills

Certinal digital signature complies with all legal criteria and helps firms satisfy compliance standards within the health sector. In addition, it protects health plans, medical equipment producers, pharmaceutical firms, and providers by controlling the signing process and guaranteeing that all information is authenticated and kept secure.

We would be pleased to describe how Certinal's digital signature technology helps hospitals increase the efficiency of their surgical services every day. Get in touch with us at

switchto@certinal.com

Resources

- Optimizing Operating Room: Why Large, Traditional Hospitals Don't Work(Girotto, Koltz, and Drugas 2010)[1] by Dr. John Girotto, Dr. Peter Koltz, and Dr. George Drugas
- Journals of an American Medical Association titled - Missing Consent Forms in the Preoperative Area, An Assessment of the Scope of the Problem (Garonzik-Wang et al. 2013)
- Operating Room Delays: Meaningful Use in Electronic Health Record
- Missing Consent Forms in the Preoperative Area A Single-Center Assessment of the Scope of the Problem and Its Downstream Effects
- Allegations of Failure to Obtain Informed Consent in Spinal Surgery Medical Malpractice Claims
- Patient Understanding and Satisfaction in Informed Consent for Total Knee Arthroplasty: A Randomized Study
- https://www.eid.as/
- https://www.hhs.gov/hipaa/index.html
- https://cca.gov.in/eSign.html
- https://www.cga.ct.gov/2000/rpt/2000-R-1076.htm

CERTINAL

Certinal is a wholly owned subsidiary of Zycus, the pioneer in Cognitive Procurement. A familiar name and market leader with years of experience in managing critical contracts & agreements, Zycus boasts of over Fortune 1000 enterprise clients and deployments of procurement and sourcing suite of products. Digital Signing has always been a focus area for Zycus. Thus, Certinal was born with the stated goal of offering a best-in-class Digital Transaction Management solution that will be easy-touse, 100% secure to deploy, and legally compliant around the world. We stand committed to providing a one-stop solution to large enterprise customers, compliant with various security standards and conforming to different regional regulations.

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919 North Market Street Suite 950, Wilmington, New Castle County, DELAWARE - 19801

www.certinal.com