DICKSON

insights

Winter 2015 ▪ CD286

+ SUPPLY CHAIN BREAKDOWNS

How Patients Are Suffering

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Chart Recorder Addiction

Why You Should **Kick The Habit.**

MICHAEL MILLER ▪ **DICKSON INSIGHTS** EDITOR-IN-CHIEF

In talking with our customers, we find that one of the biggest challenges in their day-to-day operations is the manual process of changing out charts on chart recorders. It's an annoyance, it's a hassle, and they would rather not have to deal with paper charts on a daily, weekly, or even monthly basis. However, they are still using them! Organizations can become addicted to chart recorders, even if it isn't in their employee's best interest, or in the best interest to their bottom lines.

Companies get addicted to using chart recorders for a number of reasons, namely:

1. They are stuck in processes that are not easily changed.

2. They are leery of the costs associated with switching away from chart recorders.

3. Their purchasing department is distant from the end-user, and doesn't realize the hassle of changing charts.

Being addicted to chart recorders is a real thing, and a real bad thing. Check out the chart on Page 14 of this catalog for a dollars and cents argument against chart recorders. You'll find a brief estimate of a company's current cost of having chart recorders on a yearly basis. It's astounding! Because of the consumables that come with chart recorders (pens, paper) and the personnel hours associated with changing and logging charts, chart recorders are expensive! And an unnecessary expense at that.

Kick the habit, switch to a data logger.

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The Business to Consumer **Cold Chain**

FINISHED GOODS

1 FINISHED GOODS

For manufacturers, monitoring their finished goods is one of the final steps in their part of the cold chain. It's also one of the most important. When finished goods spoil and become unsafe to consume, a company can see the direct cost of a lost sale, and the indirect cost of all the materials and labor that went into that lost sale. If you plan to monitor the temperature anywhere in your manufacturing facility, monitor those perishable finished goods.

TRANSPORTATION

2 TRANSPORTATION

The cold chain wouldn't be the cold chain without . . . transportation. Moving goods from a business's facility to a consumer's home is the name of the cold chain game. With transportation comes cooperation. Cooperation between manufacturers, distributors, and resellers on keeping items that should be kept cold, cold.

STORAGE

3 STORAGE

Quick question: how come grocery stores don't monitor the temperature of their coolers and freezers? Doesn't seem to make sense, right? Well, they don't because there is no precedent for it, and there are no regulatory consequences to not monitoring temperature. Whenever we visit a restaurant, local pharmacy, or down-home grocery store, we love when we see just one temperature data logger in a facility. But, shouldn't there be more?

Pharma Trade Show Tips

Pharmaceutical trade shows are a worthwhile experience, but they can seem like a waste of time if not done right. If you've attended shows like Interphex or Pharma-Expo in the last few years, you may understand this dichotomy. Eyes slowly glaze over on the third or fourth day of a trade show, and the mundane booths become almost invisible to your line of sight. If you have to be there, but also have important work to do, trade shows can not only seem like a waste of time, but like they are making you worse at your job. What gives?

No offense, but you might not be attending the trade show correctly. Follow these three tips and you will get the most out of your trade show experience.

1. Make a schedule Exhibitors often refer to attendee schedules as dance cards. They want to be on yours. Prepare before the show, and plan out trips to companies that you want to visit and talk with, fellow attendees you want to network with, and new booths you are interested in seeing. Also, reserve an hour for lunch, that's important too.

2. Attend a lecture Trade shows and conferences are different entities, but that doesn't mean that there isn't a little crossover in the content that they provide. When at a trade show, the main feature is the exhibit floor, while at a conference, the main feature is lectures. However, most trade shows will hire/ask a few experts in different fields within an industry to give a lecture on their topic of choice. Go! In the pharma industry, speakers are usually research scientists or heads of large companies. You may be able to learn something!

3. Ask about trade show deals Deals! Discounts! Free stuff! It's all available at trade show booths, and you need to get in on that action. Companies will offer special deals to returning customers and new customers if you visit their booth, hand over a phone number, an email address, or even buy a product from them at the show! Be sure to ask the sales people at the companies you plan on visiting if they are offering any trade show discounts, if they are releasing any new products early, or if they have any deals that will only be offered in their booth.

Trends In Tablets:
Increasing Your MFG Efficiency

Take a scroll through the Google results for "Tablets in Manufacturing," and you will come across a plethora of articles posted between 2010-2012, claiming that "Tablets are going to save Manufacturing," and "The tablet revolution is here!"

Did they save Manufacturing? Did a revolution occur?

For an answer, we'll look back at what the manufacturing world predicted would happen when tablets first came on the scene, what the perceived pros and cons of a tablet were, and then we'll head to the current state of things, to see where adoption really occurred.

The Tablet Revolution in MFG was poised to begin right around the time the iPad came to consumer households across the world. The iPad and its imitators proved themselves to consumers first, and then to manufacturers. The tablet craze in manufacturing that came from the advent of tablets in the business world can be attributed two-fold: the continued improvements to lean manufacturing theory and practice, and the world's obsession with tech adoption, and Silicon Valley.

Manufacturers want to be more efficient. Do tablets make them more efficient? Well we all sure thought they would. Functionally, there was a belief that ERP systems, tracking systems, and communication systems would catch up with tablet technology, to create a synchronized system perfect for the freight tracker and the production manager alike.

The pros and cons list of tablets for manufacturers is as follows:

Pros: Communication, material movement, quality reports, inventory control, process control, shipment and logistic tracking, remote monitoring, alerts, alarms, performance tracking.

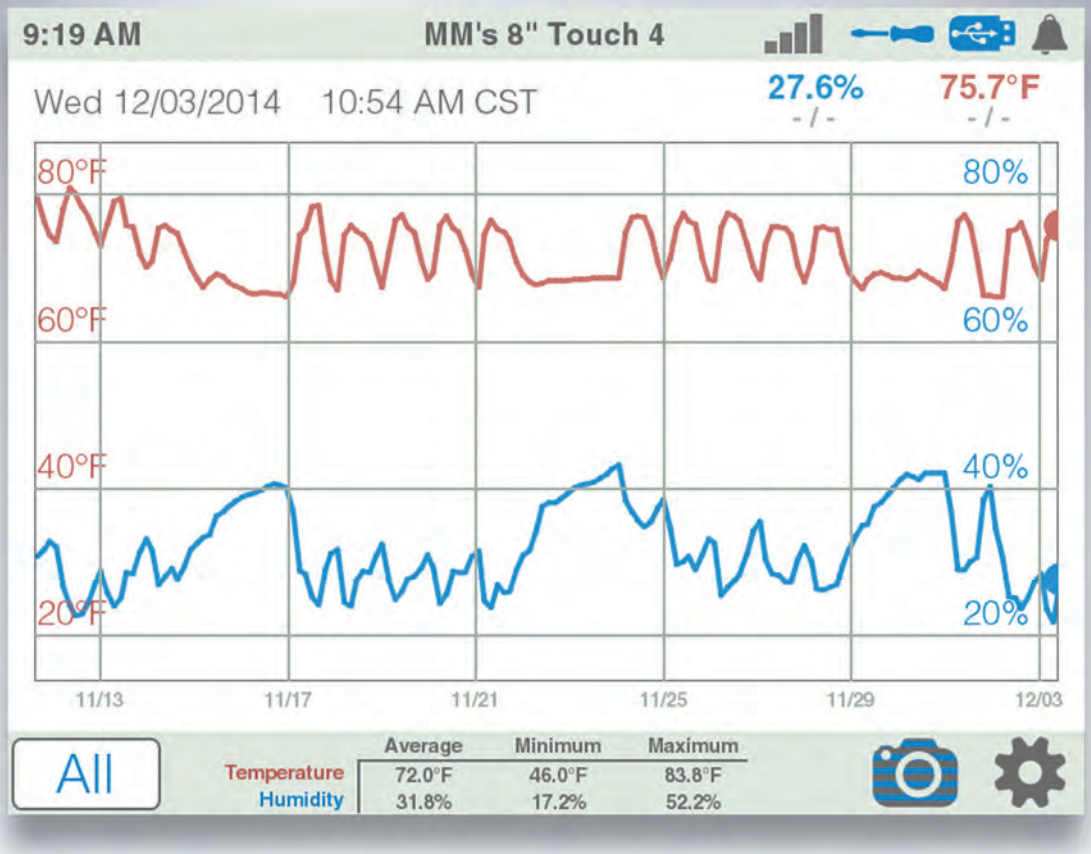
Cons: Security, Integration, Durability.

It's obvious that there are a lot of pros for the use of tablets in manufacturing, so much so, that if one was just glancing at the size of those lists, they may opt to outfit their entire floor in iPads tomorrow. But, this isn't an exercise in how many more "pros" there are for tablets than "cons." There are a lot of reasons to adopt tablets in your process, but there are a few key reasons on why it may be a bad idea. Security is a HUGE issue for the research/development and accounting teams, but it should also keep the manufacturing supervisor up at night. Tablets need connectivity, the easiest way malevolent hackers can get into your company data.

Durability is simple enough. Tablets continually have to prove they won't need to be replaced every year because the manufacturing floor is too hard on them. Integration is a key question, if not a negative side of tablets, because they aren't large computer systems, but ancillary devices that store data much differently than a typical hard drive on a computer. Your ERP system may have to have an app, and you may have to shift your internal system to use WiFi communication instead of Radio Frequency. A $300 purchase can turn into an entire process overload.

Today, we stand at on the cusp of tablet adoption in many industries. The companies adopting tablets were able to overhaul their logistics and processing applications to meet the particular tablet specifications that they wanted to purchase. Or, they actually had tablets made for their specific company.

The New **Touchscreen**



- DicksonOne Enabled
- Power Over Ethernet
- Enhanced User Interface

COMING **SPRING 2015**

Contact Us To Learn More.

Dickson Replaceable Sensors

Calibration Made Easy

THE OLD WAY

1. Call or order a recalibration online.
2. Acquire a Return Authorization Code from a Dickson Representative.
3. Take unit and probe out of their environment.
4. Shut down production/storage area if necessary.
5. Install backup system.
6. Box unit up.
7. Ship it to Dickson.
8. Dickson recalibrates the unit and ships it back.
9. Receive the unit.
10. Reinstall system.

Total Down Time: 7-10 Days

THE NEW WAY

1. Call or order a Replaceable Sensor online.
2. Receive Replaceable Sensor.
3. Take old sensor off, put new sensor on.

Total Down Time: 0 Days

MODEL	PROBE TYPE	TEMPERATURE RANGES	ACCURACY	PRICE
TEMPERATURE/HUMIDITY				
R200	Digital Sensor	-40° to 185°F (-40° to 85°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$69**
R250	Digital Straight Sensor	-40° to 185°F (-40° to 85°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$69**
TEMPERATURE				
R300	Digital Sensor	-22° to 122°F (-30° to 50°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$49**
R350	Digital Straight Sensor	-22° to 122°F (-30° to 50°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$49**
R400	K-Thermocouple	300° to 2000°F (-184° to 1093°C)	±1.8°F, -22 to 122°F (±1°C, -30 to -50°C)	**$49**
R500	Thermistor/Glass Beads	-58° to 158°F (-50° to 70°C)	±0.9°F, -58 to 68°F (±0.5°C, -50 to 20°C)	**$69**
R525	Stainless Steel Thermistor	-40° to 300°F (-40° to 149°C)	±0.8°F, -20 to 176°F (±0.44°C, -28 to 80°C)	**$69**
R600	Platinum RTD	-148° to 350°F (-100° to 176°C)	±0.5°F, -148 to 350°F (±0.3°C, -100 to 176°C)	**$199**
R700	Dual K-Thermocouple	300° to 2000°F (-184° to 1093°C)	±1.8°F, -22 to 122°F (±1°C, -30 to -50°C)	**$99**
R800	Thermistor/Glass Beads	-58° to 158°F (-50° to 70°C)	±0.9°F, -58 to 68°F (±0.5°C, -50 to 20°C)	**$69**

Instant Data Solutions

Report Logger

We decided to make the best compact data logger on the market, our **RL200.** With a new outer case, user selectable logging times, and redesigned PC interface, it's exactly what you need.

$59

Touchscreen Handheld Indicator

TC700/TH700 Instant temperature or temperature/humidity data. No-slip silicone cover. Battery powered.

$299

High Temp Solutions

High Temperature Process Logger

HT350 HACCP Compliant, K-Thermocouple Probe, USB Download, and a large temperature range. Our new Process Logger is perfect for your application. Temperature Range -40° to 257°F (-40° to 125°C).

D605 Probe sold separately. For more information on Dickson's Probes and Accessories, visit **dicksondata.com.**

$349

Waterproof High Temperature Data Logger

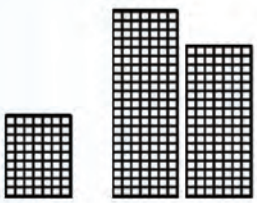
HT300 Waterproof, High Temperature Data Logger. HACCP and FDA Compliant. USB Download. IP68 Rating. Temperature Range -40° to 257°F (-40° to 125°C).

$349

DicksonOne

Temperature and Humidity Monitoring. Re-imagined.

DicksonOne is a wireless temperature and humidity monitoring system that automatically collects your data and delivers it to wherever you are. No more changing charts, no more downloading data.



MULTI-LOCATION How many points will you be monitoring? 1, 5, 100, 1000? From small cheese factories to multi-location healthcare distributors, DicksonOne is up for the task. Monitoring an additional location is as simple as buying another logger.

ALARMS When temperatures get too hot or cold, your power goes out, or your probe is unplugged, DicksonOne can call, text, or email you to alert you of the mishap. Throw away less products, and ensure the safety of your environment, even when you're not there.

INFINITE STORAGE We don't run out of space, and you never have to worry about hard drives or file folders. We've got you covered.

WHY DID WE MAKE IT?

DicksonOne is the direct result of customer feedback like this:

1. We want to monitor **multiple locations** with one system.
2. We're spending too many **personnel** hours changing charts and pens.
3. We want an **easier way** to share our data.
4. We need **more robust** alarming capabilities.
5. I need to view **my data** from anywhere.

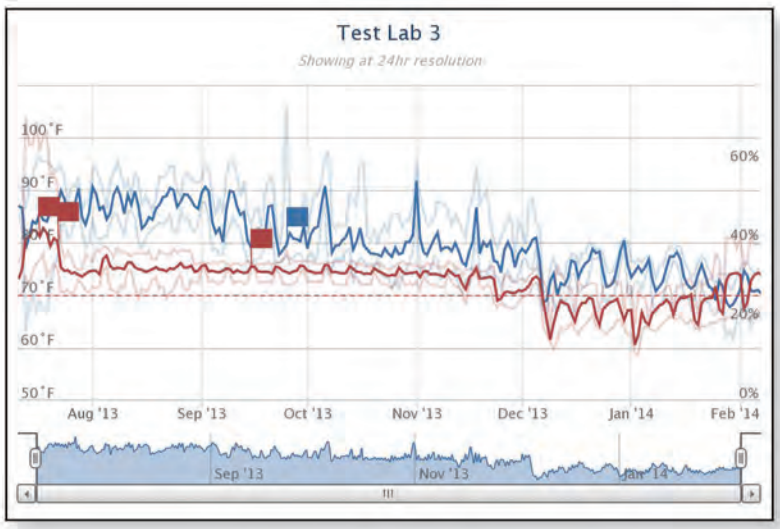
DICKSONONE SOFTWARE

DicksonOne is a SaaS (Software as a Service) platform that automatically stores your data and makes it accessible anywhere.

The software is the real key to DicksonOne. We believe it rises above the competition in usability, security, and scalability. The interface is easy to navigate for everybody, from your IT team to the end-user working with the product you're trying to keep safe. DicksonOne is 21CFR11 compliant, and all data is backed up redundantly, perfect for showing an audit trail. We've had a jump on all other environmental monitoring systems for over a year, and we've kept it that way. We continually improve the system and add new features based on customer feedback. Seriously, someone is working to make it better right now.

The list of features in DicksonOne is endless. Instead of listing them all, we invite you to see for yourself.

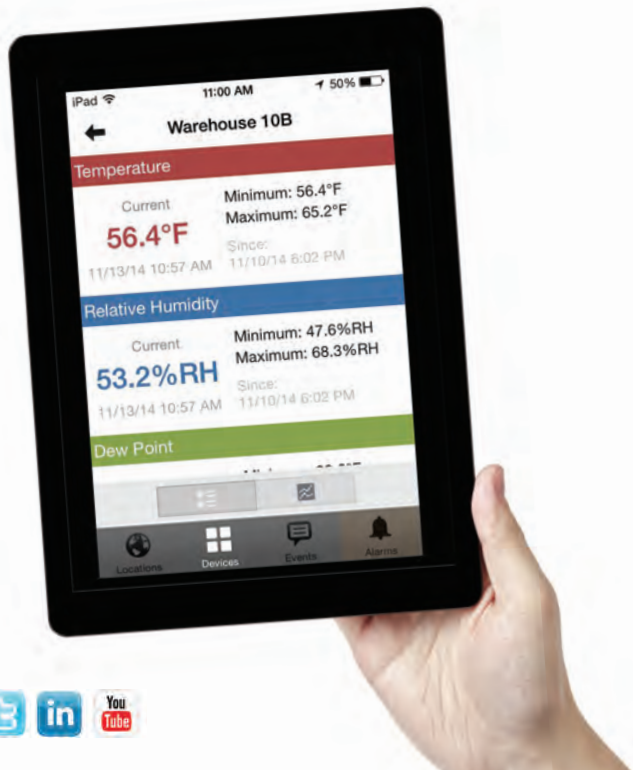
Start your free trial at **www.DicksonOne.com**



DICKSONONE MOBILE APP

DicksonOne Mobile App for iPhone and iPad A great tool for existing DicksonOne customers. Browse all devices and locations. Detailed channel display for seeing current data. Graphs for viewing current trends and historical data.

Requirements: Compatible with iPhone 3GS, 4, 4S, 5, 5S, 6, 6+, iPad, and iPod touch 3rd, 4th, and 5th generations. Required iOS 6.1 or later. This app is optimized for the iPhone.



Connect With Us:

DICKSONONE REPORTING SUITE

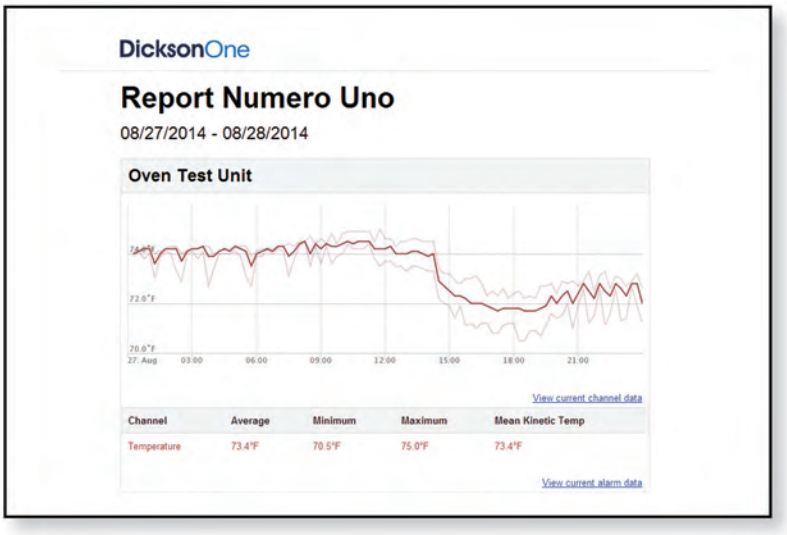
DicksonOne Reporting Suite is the latest edition to our wireless environmental monitoring system DicksonOne.

The Reporting Suite allows you to:

- Create and customize environmental reports
- Choose who in your organization will receive those reports
- Change and modify the frequency of reports

Our **DicksonOne** experts have built out a knowledge base catered directly to you. In our support pages you will find information on how to set up alarms, reports, change sample intervals, and much much more.

Visit **Support.DicksonOne.com** to take full advantage of the system and build out the features of environmental monitoring that are important to you.



Reports That Go **Great** With Your Morning Cup Of Coffee

DICKSONONE.COM

INFO, TIPS AND MUCH MORE

DICKSONONE HARDWARE

DicksonOne Data Loggers are robust and reliable. With battery backup, your choice of Ethernet or Wi-Fi communication, and a digital display, these loggers provide the security and convenience your application needs.

ENH20
Ethernet Temperature and Humidity Logger

WFT21
WiFi Vaccine Temperature Logger

WFT25
RTD Temperature Logger

DicksonOne
Hardware Pricing

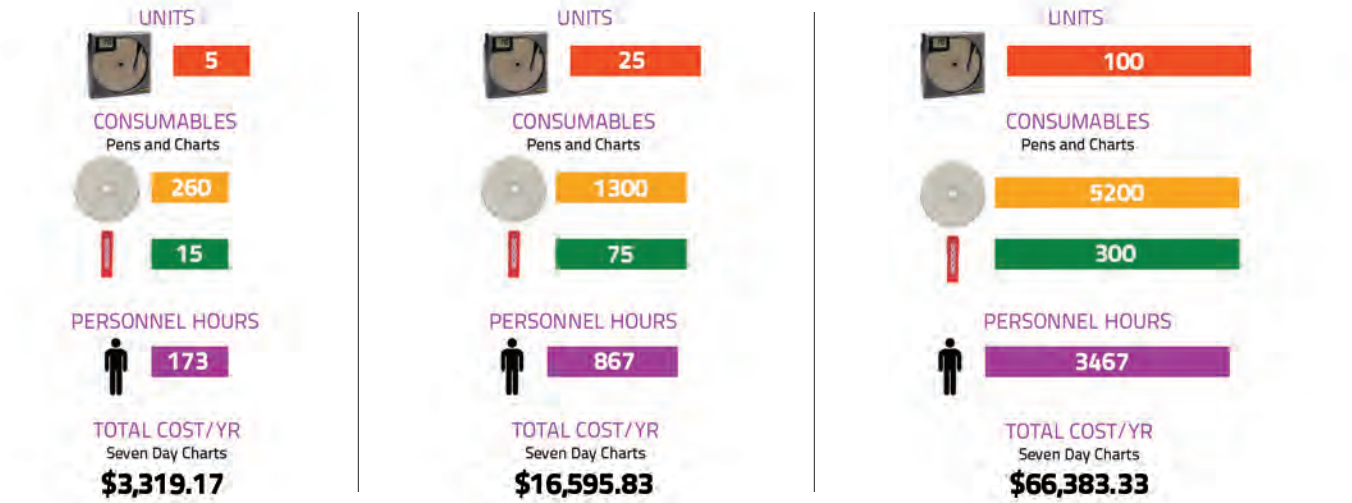
MODEL	REMOTE PROBE	PRICE
WFH20/ENH20	Digital Temperature and Humidity Replaceable Sensor	$499
WFT20/ENT20	Digital Temperature Sensor	$499
WFT21/ENT21	Thermistor Temperature Sensor with Gass Beads	$479
WFT23/ENT23	K-Thermocouple Temperature Sensor	$479
WFT25/ENT25	Platinum RTD Temperature Sensor	$599

DicksonOne
Software Pricing

DEVICES	FEATURES	PRICE
1 to 10	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	$300/year
11 to 25	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	$725/year
26 to 50	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	$1400/year
51 +	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	Call for Quote

* Dickson offers a Basic Plan, with 30 Day Data Deletion, and 1 hour sample rates for unlimited loggers at no cost.

Consider The Cost Of That Old Chart Recorder...



Temperature and Temperature/Humidity

Data Logging Solutions

Data loggers are cost effective solutions for monitoring countless applications. With solutions for the food, pharma, manufacturing and dozens of other industries, Dickson's data loggers get you your data how you want it.

1

2

3

4

1 **SM300 $249** Temperature Logger. Range -4 to 158°F, -20 to 70°C. Accuracy ±0.8°F, ±0.44°C.
SM320* $299 Temperature Logger. Remote Probe. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy ±1.8°F, ±1.0°C.
SM325* $399 Temperature Logger. Two Remote Probes. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy ±1.8°F, ±1.0°C.
SM420 $499 Temperature Logger. Remote Probe. Range with Probe -50 to 350°F, -45 to 176°C. Accuracy ±0.5°F, ±0.28°C.
TM320 $299 Temperature and Humidity Logger. Range -4 to 158°F, -20 to 70°C. Accuracy ±0.8°F.
TM325 $399 Temperature and Humidity Logger. Remote Probe. Range -40 to 185°F, -40 to 85°C. Accuracy ±0.8°F.

2 **SP125 $119** Temperature Logger. Accuracy ±1.2°F, ±0.67°C. Range -10 to 176°F, -23 to 80°C.
SP175 $229 Temperature Logger with Thermocouple Probe. Accuracy ±1.8°F, ±0.1°C. Range -300 to 2000°F, -30 to 50°C. A203 Probe required for +500°F.
TP125 $199 Temperature and Humidity Logger. Accuracy ±0.8°F, ±0.45°C. Range -10 to 176°F, -23 to 80°C.

3 **SP425 $159** Temperature Logger. Digital Display. Accuracy ±1.2°F, ±0.67°C. Range -4 to 158°F, -20 to 70°C.
TP425 $249 Temperature and Humidity Logger. Digital Display. Accuracy ±0.8°F, ±0.45°C. Range -4 to 158°F, -20 to 70°C.

4 **SK550 $699** Temperature. Pack of twelve. Accuracy ±1.8°F, ±1°C. Range -4 to 158°F, -20 to 70°C.
TK550 $999 Temperature & Humidity. Pack of twelve. Accuracy ±1.8°F, ±1°C. Ranges -4 to +158°F, -20 to +70°C.

Software required and sold separately. For software and other accessories, visit Page 16, call **630.543.3747** or go to **www.DicksonData.com.**

Connect With Us

Dickson Social Media Accounts

@DicksonData

Channel: DicksonData

Search "Dickson"

Search "Dickson Data Loggers"

Connect With Us:

Temperature and Temperature/Humidity

Chart Recorders

Want a physical readout right where you are monitoring? Our Chart Recorders have you covered. For ninety years we've built the best chart recorders in the business. Check out our models below.

8 and 6 Inch Models

Eight and Six Inch Chart Recorders display detailed temperature and humidity values.

MODELS AND FEATURES

KT6	6 Inch Temperature	**Starting at $369**
KT8	8 Inch Temperature	**Starting at $419**
TH6	6 Inch Temperature and Humidity	**Starting at $489**
TH8P	8 Inch Temperature and Humidity	**Starting at $489**

4 and 3 Inch Models

Four and Three Inch Temperature Chart Recorders designed to fit any application.

MODELS AND FEATURES

SL4350	4 Inch	**$239**
SL4100	4 Inch	**$239**
SC3 Series	3 Inch	**$239**

Charts sold separately. For charts and accessories, call **630.543.3747** or go to **www.DicksonData.com.**

PRESSURE DATA LOGGERS

Pressure Data Logger One second sampling rate. User replaceable battery. Optional delayed start. USB connectivity. Pressure sensor includes built-in diaphragm seal.

PR125	**$499**	0-100 PSI
PR325	**$499**	0-300 PSI
PR525	**$599**	0-500 PSI

Rugged Utility Pressure Data Logger Water resistant case. 3 year battery. Unobtrusive design. Fits easily in a toolbox. USB Connection.

PR150	**$499**	0-100 PSI
PR350	**$499**	0-300 PSI

PRESSURE CHART RECORDERS

4 and 8 Inch Models

Four and Eight Inch Chart Recorders to meet your needs.

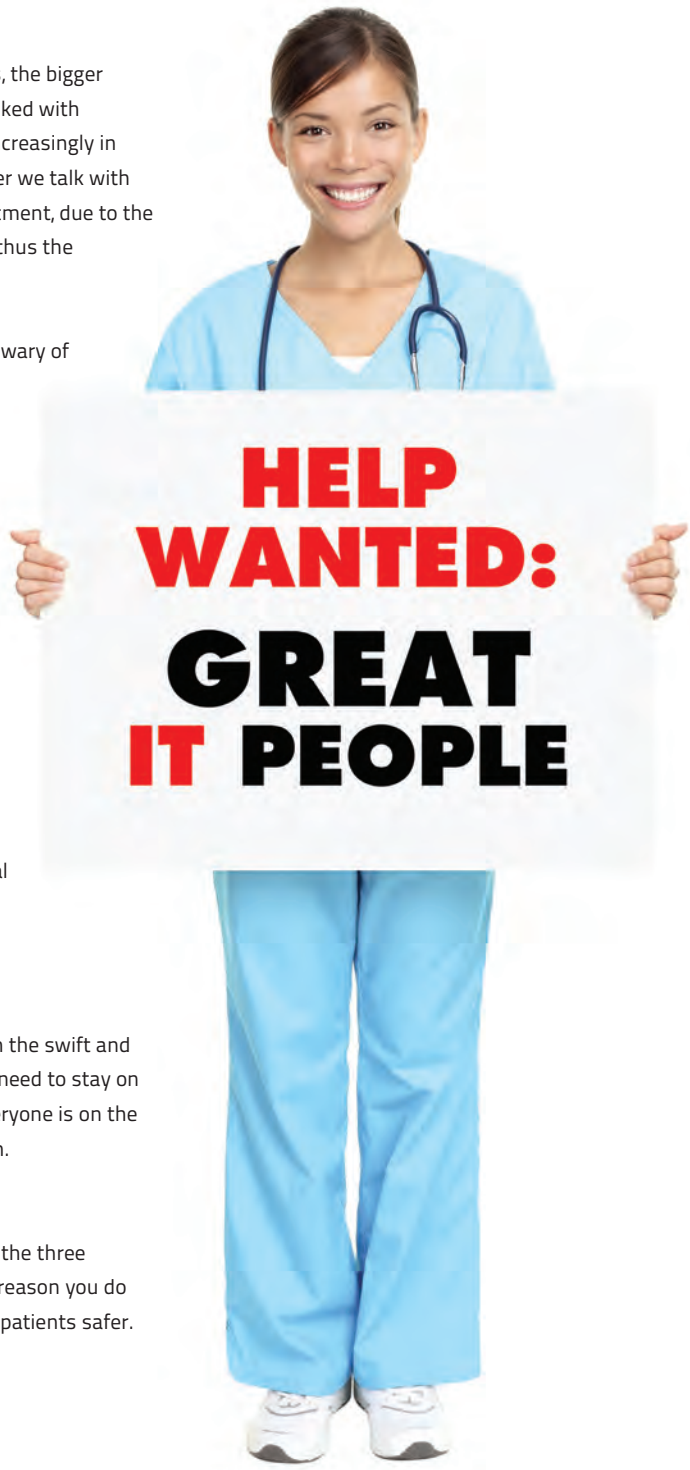
Single AA battery powered. Rugged low-maintenance design features. 7-day or 24-hour recording times. 1/4 inch NPT Connector.

MODELS AND FEATURES

0-100 PSI	**PW860/1**	**$629**	**PW470**	**$449**
0-200 PSI	**PW864/5**	**$629**	**PW474**	**$449**
0-300 PSI	**PW866/7**	**$629**	**PW476**	**$449**
0-500 PSI			**PW479**	**$629**
0-1000 PSI	**PW875**	**$749**		

Charts sold separately. For charts and accessories, call **630.543.3747** or go to **www.DicksonData.com.**

Hiring Practices:
Advantages To Hiring **The Best IT People** In Your Hospital



When we work with a hospital on installing any of our products, the bigger projects always involve the hospital's IT team. Thus, we've talked with hospital IT professionals off and on for about 90 years, and increasingly in the last two years, with the creation of DicksonOne. Whenever we talk with them, there seems to be an emphasis on hiring more people within their department, due to the increased amount of functions in the hospital that go through computers (and thus the IT department.)

Getting more people in your hospital IT department is great. But, you should be wary of hiring a dud. Here are four advantages to hiring the best and brightest in your hospital's IT department.

1. Increased Data Security

It may seem like systems are the objects of desire if you'd like to make sure your data is secure, but people help in that area, too. HIT is under fire for its lack of data security from every outlet. Give your data's security a boost with a great hire.

2. Better Communication

IT teams create and oversee a lot of the communication pathways within a hospital. You want those pathways to be as secure and efficient as possible, so hire the best IT people to do that for you. Those pathways can be as fundamental as Gchat, or as robust as a fully functioning and operating Hospital EMR system, with a "dial-a-nurse" phone and email appointment function. Whatever the case, communication is key, and hospital IT can help you out.

3. Faster Tech Adoption

This one seems a little obvious, right? That's because it's super important! With the swift and constantly changing landscape of the healthcare medical devices industry, you need to stay on top of it! And not only you, but your entire hospital. The more synchronized everyone is on the adoption of new technology within the hospital, the better your hospital will run.

4. Safer Patients

This is what all hospitals strive for, correct? "Safer patients" puts a nice bow on the three advantages to hiring the best HIT people in your hospital because it's the main reason you do everything in your hospital. IT people, the best ones that is, will help make your patients safer.

Hospital Focus:
Why You Should Revisit Past Emergencies

We don't want to give you a retroactive headache, asking you to think of a hectic and scary time in your hospital's past, but . . . if you can suffer and stay with us for the next few hundred words, your hospital will be better equipped to handle its next emergency.

You can learn from your past, especially when it comes to how your hospital reacted to its last emergency. We are not talking about emergencies in the traditional sense (ambulance, emergency room, etc.) but in the crazy, once-a-decade, natural disaster sense. We are talking about what you did when a hurricane hit your hospital, an earthquake shook its very foundation, or a power outage put the entire hospital in darkness for an extended period of time.

Those are the worst emergencies, because they affect every single thing in your hospital: every process, every medication, and every patient. Our first question to you: "How did you react last time there was an emergency?" Our second question: "Can you do better?"

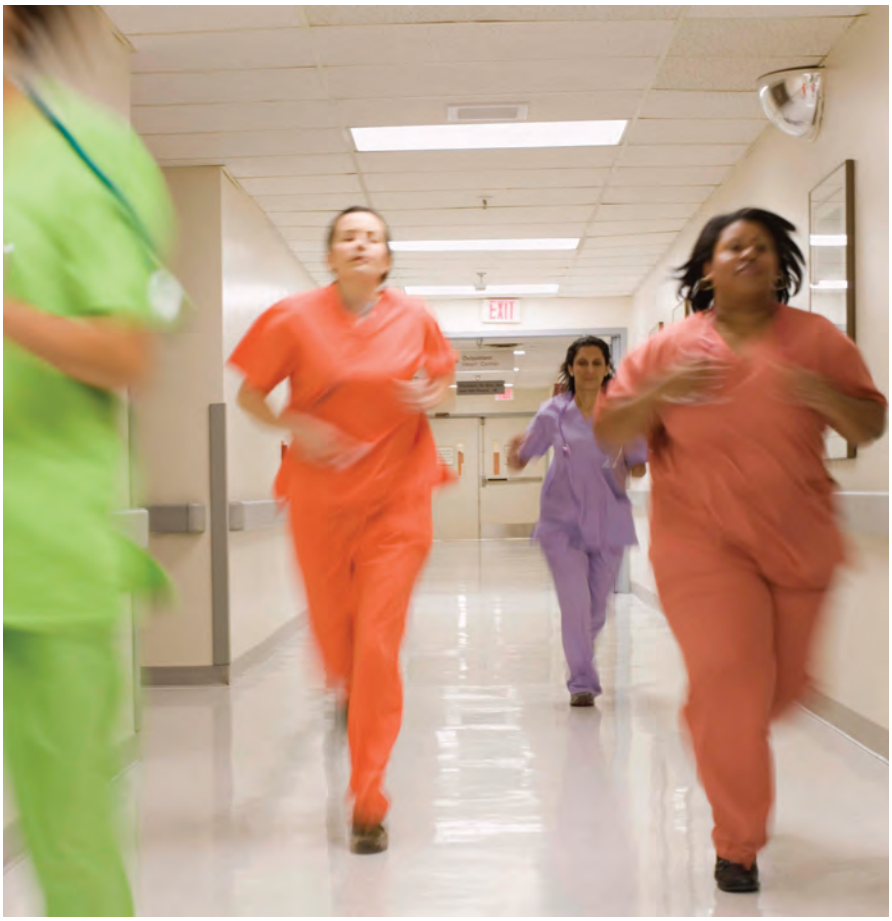
If you answered yes to the second question, below are some key points in your hospital's history to look over and update before disaster strikes.

-Emergency Plan

Dust off that old binder or scroll through that old PDF! Your hospital's emergency plan, or emergency plans, should be updated every six months. When was the last time you looked it over? This plan is the document that will guide all the people in your hospital in case of an emergency, and it should be treated with such importance. Possible areas for improvement include:

Distribution: In the last emergency, did your hospital emergency plan reach all the people it was supposed to reach?

Synchronization: In the last emergency, did the correct pieces of the emergency plan reach all of the correct people?



Application: In the last emergency, were all parts of the emergency plan followed? How applicable was the content?

-Emergency Plan Coordinator and Back-up Coordinator

This is quickly becoming an issue for not just two people, but the entire hospital. Your hospital's Emergency Plan Coordinator is probably someone like the Chief of Medicine, but that is for the large-scale hospital functions, not the finite details. Individual departments should have their Emergency Plan Coordinators and Back-up Coordinators, and essential processes should have them as well.

-Critical Medicines

Our final piece of advice, when looking through the scariest parts of your hospital's history, is to look at how critical vaccines, medications, and supplies were stored during an emergency. In many, many emergencies, power to your hospital is cut off, and falls on back-up generators (or worse, nothing at all) to supply the hospital with electricity. Patients are usually the first to be transported and taken care of, which makes sense. But, the most important medicine for those patients should be one of the next areas of highest concern.

Understanding Warehouse Temperature: The Warehouse Office

For the last two months, we posed the question: "Is figuring out the temperature of your warehouse like trying to understand alchemy?" because that's something that we ask ourselves here at Dickson all too often. These questions inevitably lead to more questions about warehouse mapping, and honestly, answers are hard to come by. Temperature mapping your warehouse, whether that is a medical device, pharmaceutical, or food warehouse, is a tricky science.

So, we've decided to tackle all those questions one-by-one. Last month we analyzed how seasonal changes influence the temperature of your warehouse, and the month before that, we took on the loading dock. This month, we are taking a look at your warehouse office. Thus, this is the third article in our series of posts titled, "Understanding Warehouse Temperatures." Hopefully by the end of this series, we will have given you a lot of new information on the delicate science of warehouse temperature mapping. We originally thought that this series would be over after just three blogs, but we have many more problems to solve! Thus, we are going to continue this series into next month, and hopefully beyond. Check back in next month's issue of Dickson Insights for the fourth article in this series, or go to **blog.dicksondata.com/tag/warehouse** to read all of the posts before they are published.

So, what's the deal with the warehouse office?

The warehouse office is a section of a warehouse that houses no products, is kept at room temperature, and has some sort of mechanism for producing coffee. This is the area where the warehouse supervisor usually sits, and where employees may take lunch, ask questions, and generally not ship, organize, or monitor products. It's where the office work happens for the warehouse.

What makes a warehouse office interesting is that it's usually inside the warehouse, and not in a separate building. It can be a makeshift desk right in the middle of things, or its own room, separated by four walls in a corner of the warehouse.

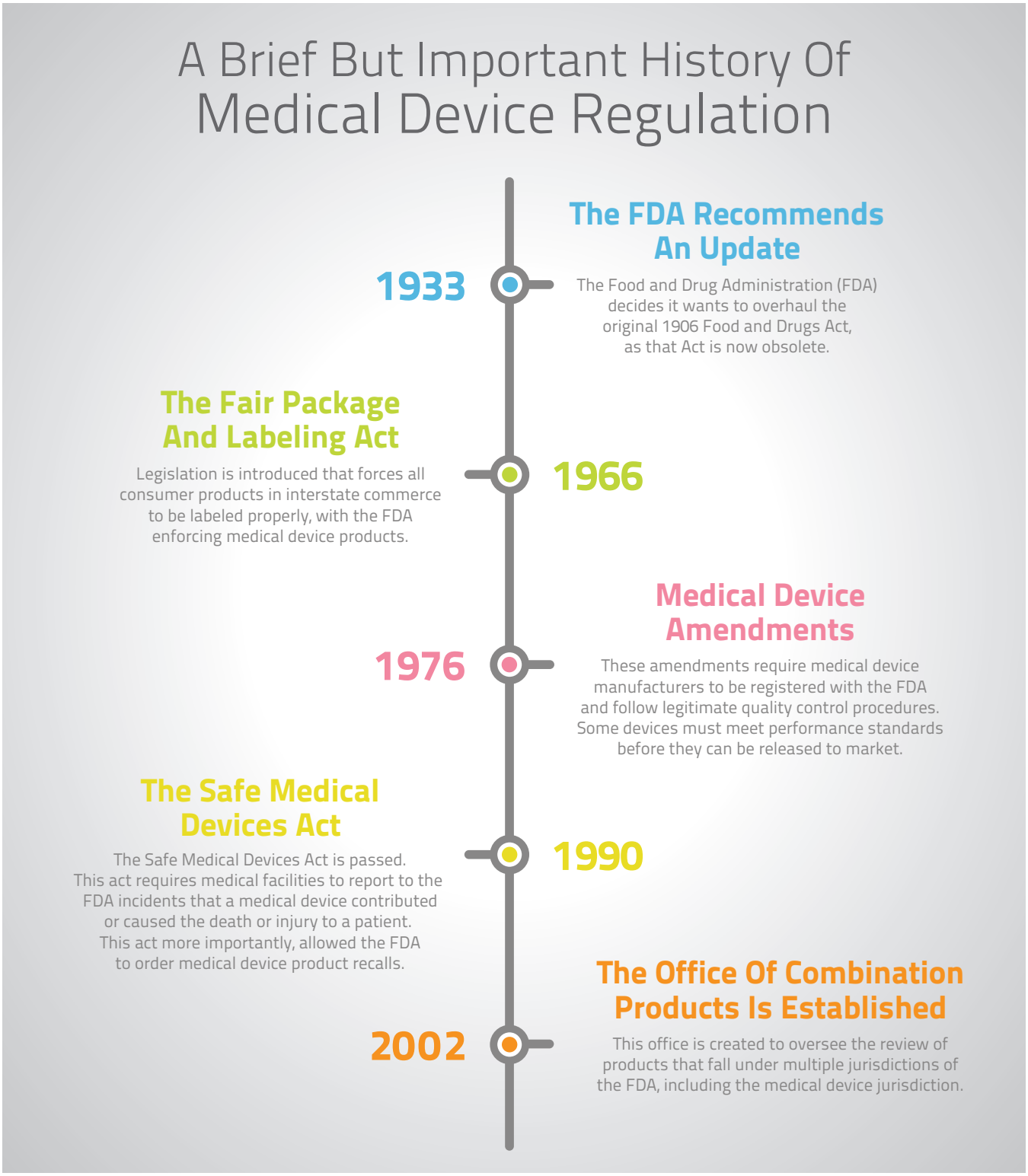
The reason that this intrigues us is because the warehouse office may have a different temperature, different HVAC settings, or a different HVAC system all together than other parts of your warehouse. Heat likes to travel, which can be an issue for warehouses that house temperature sensitive materials.

Combatting the effects of your warehouse office on the rest of your warehouse is not an easy task, and worse it is one that goes unnoticed for many, many warehouses. We suggest first analyzing what makes your warehouse office temperature different from the other portions of your warehouse. Next, place a temperature monitor at the critical points of airflow entry into and out of your warehouse office (windows and doors, usually). Next, wait. Analyze that data, and see if the temperature of your office is really affecting the other portions of your warehouse.

CHECK OUT THE DICKSON BLOG!

Like what you've read? Find more great information about temperature on our blog: **Blog.DicksonData.com**

A Brief But Important History Of Medical Device Regulation



HOSPITAL BLUES.

Supply Chain Breakdowns And How They Harm Patients.

On January 29, 2011, in Los Angeles, two kidneys arrived at the University of Southern California University Hospital, ready for transplant into two patients who desperately needed them.

On February 18, 2011, the Los Angeles Times reported that one of those patients had received the wrong kidney.

In that same story by Alan Zarembo and Lisa Girion of the Los Angeles Times, the USC University Hospital declined to comment on the nature of the mistake, chalking it up as a "process error" they discovered after the transplant had occurred. The program that ran the transplant services outlined that the packaging and documentation were correct, and that the error was "presumably" human.

Luckily, the patient escaped harm, as the kidney that was used for the kidney transplant was from a donor whose blood type was O (the universal blood type). We say luckily, because using the wrong organ in a transplant can be deadly; especially if it is something as important as a kidney, and if the mistake isn't caught right away.

The USC Hospital decided internally to shut down their kidney transplant unit as a result of the mix-up.

*"How did something like this happen? How did a patient receive the **wrong** kidney?"*

Back in 2011, the USC Hospital declined to comment on the nature of the mistake, so we don't know. But, in the report by the Los Angeles Times, they did say it was a "human error," and that it was not the fault of their packaging and documentation.

A hospital supply chain is an interesting beast to tackle, because it is so diverse and yet so important. Materials that move into a hospital range from bed pans to needles to blood and kidneys, so an accurate supply chain is essential to differentiate goods that are moving in and out of the hospitals bay doors. Accurate to the extreme. Accurate to an exceptional degree. Accurate where mistakes like the one the USC Hospital made don't happen.

Breakdowns in the supply chain for hospitals are the result of this diversity and the expanding nature of the hospital supply chain in general. Hospitals are being asked to do more than ever, and that means their supply chains are expanding to new markets. As we detailed in last month's catalog, in a post titled, "The Ever Expanding Supply Chain" with the change from a quantity versus quality model for reimbursements in healthcare due to the Affordable Care Act, hospitals are looking to cut out middle-man distributors, and buy directly from medical device manufacturers. This obviously doesn't have to do much with a misplaced kidney, but the theme runs through both practices: with an expanding supply chain, and a diverse supply chain, a hospital's accuracy will be tested.

We've also discussed in previous issues of Insights the effect of serialization on a supply chain's accuracy, and how lost, damaged, and stolen goods can be limited with the effective implementation or update of a serialization system. However, in the case of USC, it seems that the supply chain didn't fail, we humans did.

But, humans are a part of the supply chain, and for the foreseeable future, they will continue to be a part of it. Human mistakes can be accounted for in the supply chain, with increased automation and more checks and balances, but they will probably always remain. The goal of a supply chain is to limit both process mistakes and human mistakes, to the highest possible degree.

When supply chain screw-ups happen in a hospital, the result is a harmed patient. That's the title of this article, and it couldn't be more true when discussing the example used above, taken from a report by the Los Angeles Times reporters Zarembo and Girion. That's an extreme example, and luckily, the patient who was operated on wasn't harmed. One, hospitals and patients aren't always so lucky. And two, sometimes mistakes aren't so apparent and disastrous, more subtle and quietly harming a hospital's patients.

Take our bed pan reference from above. If a bed pan order gets misplaced, shipped to the wrong address, or goes missing for some odd reason, it may not seem like the end of the world. But, that effect will be felt by a hospital's staff and thus a hospital's patients. Less bed pans may mean that the current bed pans have to be used more often, and thus washed and sanitized more often. That asks the cleaning crew to wash more in the same amount time, it asks the nurses to change bed pans out more frequently, and it may end up meaning a patient doesn't receive a bed pan, or worse, his/her quality of care is lessoned because so much focus is being paid to bed pans. This all the result of one small mistake in the supply chain.

*"The repercussions of a supply chain breakdown are far reaching: they hurt more than just the **purchasing department.**"*

In our research over the past year, we've found that supply chains can be ruined through the mishandling of products in an enormous variety of ways, from mislabeling to hi-jacked goods to a leak in a semi-truck's roof.

For hospitals, it's imperative that these mistakes don't happen, as they result in the worst of consequences: direct harm to people.

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