

Sterile Processing Department

Design for Success



Senior Director – Surgical & Procedural Services



- John Olmstead, MBA, MSN, CNOR, FACHE joined Lurie Children's in 2020 as Senior Director, Surgical & Procedural Services. In his role, he directs the provision of procedural services at the main hospital and serves as Administrator for both the Northbrook and Westchester Ambulatory Surgical Treatment Centers.
- Previously, John served for 15 years as Administrative Director for Surgical & Emergency Services for Community Health Systems in Northwest Indiana. Prior to that, he served in various management & staff capacities in Indianapolis. He has earned Master's in Nursing from Indiana University, a Master's in Business Administration from City University of Seattle; he is a Certified Nurse - Operating Room, and a Fellow in the American College of Healthcare Executives.

All presentation
slides available for
free download at:

johnolmstead.org

The Nurse Manager



Non-famous quote from a mentor

- Don't talk to me about **BUDGETS**;
Talk to me about **SERVICE**.
- Get your **SERVICE** to where it needs to be; then we can talk about **efficiencies**.
- If you don't get your **SERVICE** where it needs to be you won't have to worry about efficiencies, that will take care of itself - when the patients leave.



The “Three P” approach to Dept improvement

People	Do you have the people in place to provide adequate services?
Provisions	Do the people have the tools and materials (equipment & supplies) needed to be successful?
Processes	<ul style="list-style-type: none">✓ People needed to perform✓ Tools and materials needed to be successful<input type="checkbox"/> THEN you can enact performance improvement projects!

FY22 FTE calculation model

Item to be processed	Minutes involved in processing	Avg month #'s	Avg month minutes	Avg month hours	Annualized hours
Trays	30	3,968	119,040	1,984	23,808
Peel packs received from clinics/offices	10	2,805	28,050	468	5,610
Peel packs received from OR / hospital departments	10	2,811	28,105	468	5,621
Autoclave runs	10	755	7,550	126	1,510
Clinic / office flexible / rigid scopes / equipment	45	159	7,155	119	1,431
OR / hospital scopes	45	254	11,430	191	2,286
		Subtotal hours		3,356	40,266
		12% benefit time		403	4,832
		Total staff hours		3,758	45,098
		Productive staff FTEs			26.9

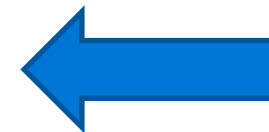
Common mistake:

8 hours calculation

$$45,098 \div 2,080 = 21.6 \text{ FTEs}$$

6.5 hours calculation

$$45,098 \div 1,676 = 26.9 \text{ FTEs}$$



In Search of: Benchmarks

CHA Benchmarks

Department Description	Hospital Group Code	Hospital Name	Unit Of Service
Central Sterile Processing	CHI	Ann & Robert H. Lurie Children's Hospital of Chicago	Adjusted Patient Days
Central Sterile Processing	LIT	Arkansas Children's Hospital	Adjusted Patient Days
Central Sterile Processing	BOS	Boston Children's Hospital	Adjusted Patient Days
Central Sterile Processing	BOS	Boston Children's Hospital	Adjusted Patient Days
Central Sterile Processing	DAL	Children's Health, Dallas	Adjusted Patient Days
Central Sterile Processing	DAL	Children's Health, Dallas	Adjusted Patient Days
Central Sterile Processing	ATL	Children's Healthcare of Atlanta	Adjusted Patient Days
Central Sterile Processing	ATL	Children's Healthcare of Atlanta	Adjusted Patient Days
Central Sterile Processing	OMA	Children's Hospital & Medical Center	Adjusted Patient Days
Central Sterile Processing	AUR	Children's Hospital Colorado	Adjusted Patient Days

In Search of: Benchmarks

Item	Time needed (min)	Source	Fixed or Variable workload?
Instruments: Decontamination	15 – 30 sec	STERIS SPM reference	Variable
Instruments: Prep & Pack	1 min	STERIS SPM reference	Variable
Peel packs	2 min	Personal observation	Fixed
Case carts	10 min / case	Personal observation	Mild variation
Scopes (rigid & flexible): decontamination	20 min	Personal observation	Fixed
Scopes (rigid & flexible): Disinfection / restocking	20 min	Personal observation	Fixed

Work-in-progress: FY24 revised calculation model

	Minutes used	Avg month #'s	Avg month minutes	Avg month hours	Annualized hours
Item to be processed					
Trays - decontamination	10	7,433	74,330	1,239	14,866
Trays - Pre & Pack area	15	7,433	111,500	1,800	21,600
Peel packs received from clinics/offices	30/hr	2,500		83	1,000
Peel packs received from OR / hospital departments	30/hr	2,500		83	1,000
Autoclave / Low temp sterilizer runs	10	880	8,800	147	1,760
Clinic / office flexible / rigid scopes / equipment	20	190	3,800	63	1,140
OR / hospital scopes	20	190	3,800	63	760
Case carts - per case	10	920	9,200	153	760
			Totals	3,632	43,600
			Adding 12% benefits		48,832
			# FTEs using 6.5 hour days		29.0
			Adding Manager position		1
			Adding Liaison		2
			Total FTEs needed		32.0

SPD FTE budget – Fixed or Variable?

- Arguments for Fixed
 - Workload that has little variability
 - Staff that don't "pick up" extra hours (so, hours really aren't "variable")
 - Lesser-pressing workload can be reserved to be completed when time permits
 - Cutting hours too dramatically risks losing the staff that were just recruited
- Arguments for Variable
 - In instances of very low surgical cases the dept will need to flex down hours anyway
 - In busier periods, overtime is justified with no variance statement needed
 - As volume grows, the argument for adding staff is easily justified

Aspects of the Staffing Calculation

- Variable work tasks
 - Trays: Decontamination + Pre & Pack area
 - Peel packs: received from clinics/offices & hospital depts
 - Scopes - flexible/rigid: Clinic & hospital
 - Autoclave/Low temp sterilizer runs
 - Case carts - per case
- Fixed commitments
 - Shift supervisors
 - Educator
 - Customer service (liaisons / runners)
 - Stationary assignments
 - Decontamination
 - Decentralized locations

Aspects continued: Quality Program

Location	Quality Measure	Measured by
Decontamination	Trays/instruments received coated with pre-cleaning spray	SPM
	Bioburden removal in known risky instruments	Inspection: rate TBD
Assembly	Productivity expectations met	SPM
	Tray completion accuracy	Inspection: 100 trays / week
Sterilization	Indicator placement accuracy	Inspection: 100 trays / week
	Log completion	SPM
	Daily testing expectations completed	SPM
Storage & distribution	Tray storage confirmation	Manual performance
	Peel Pack inventory checks performed	Inspection: rate TBD
	Case cart completion productivity expectations met	Supervisor report: daily
	Tracking of instruments requiring turnover	Supervisor report: daily

SPD staffing formula:

$$\text{Measurable workload} + \text{Fixed commitments} + \text{Quality Program} = \text{Ideal Staffing}$$

SPD staffing formula:

- Measurable workload hours
- Fixed commitments:
 - “liaisons”, department / clinic services
 - Scope cleaning located in Decontamination area
 - Orientation / Student reservations
 - Response to 20% turnover
- Quality review efforts
 - Tray inspections
- Current model:
 - 1 Manager
 - 3 Resource Coordinators (shift supervisors)
 - **25** Certified Sterile Processing Technicians
 - **3** orientees
- Total: 32 FTEs
- Service provided (annually)
 - 19,000 Surgical procedures
 - 4,500 scopes (rigid & flexible)
 - 72,000 clinic peel packs

The SPD Staffing Calculation:

Fixed FTEs	FTEs	Variable FTEs	FTEs
SPD Manager	1	Prep & Pack assembly - am	2
Equipment testing	0.5	Prep & Pack assembly - am	3
Resource Coordinator – 1 st shift	1	Prep & Pack assembly - am	3
Resource Coordinator – 2 nd shift	1	Case carts – pm	1
Resource Coordinator – 3 rd shift	1	Case carts – noc	1
OR Liaison – 12 hours	1.5	OR Liaison – 12 hours	1
Scope handler – day shift	1	Scope handler	1
Decontamination shifts – am	2	Decontamination shifts – am	1
Decontamination shifts – pm	2	Decontamination shifts – pm	1
Decontamination shifts – noc	1	Decontamination shifts – noc	1
Total	12		15

Current test budget: 32.0 FTEs

Manager, Resource Coordinators + staff

Dept tasks	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Peel packs (min)	0	390	390	390	390	390	0
Decontam (min)	225	1,800	1,800	1,975	1,775	1,625	125
Prep pack (min)	900	7,200	7,200	7,900	7,100	6,500	500
Case carts (min)	90	720	720	790	710	650	50
Scope room (min)	0	520	520	520	520	520	0
total min / work	1,215	10,630	10,630	11,575	10,495	9,685	675
total hours / work	20	177	177	193	175	161	11.25
# FTEs @ 6.5/person	3	27	27	30	27	25	1.7
# FTEs scheduled	6	27	26	28	27	23	6

SPD Staffing request for WHPUOS

	Sun	Mon	Tues	Wed	Thur	Fri	Sat	Total
Manager	0	1	1	1	1	1	0	5
Assistant Manager	0	1	1	1	1	1	0	5
Dayshift	1	8	7	8	8	7	1	40
Evening shift	2	8	8	9	9	9	2	47
Night shift	3	9	9	9	8	5	3	46
Totals	6	27	26	28	27	23	6	143
8 hr shift	48	216	208	224	216	184	48	1,144
Expected cases	9	72	72	79	71	65	5	373
WHPUOS	5.33	3.00	2.89	2.84	3.04	2.83	9.60	3.07

SPD PI Physical improvement summary

- People:
 - Enhance staffing to generate service excellence
- **Provisions:**
 - **Enhance physical environment to support high reliability service**
- Processes:
 - Enact a Quality Program to support continued high levels of service
- Projects: 11/2020 – 4/2024
 - Blue Wrap replacement
 - Tray Storage Shelving
 - Instrument wall construction
 - Dept office reconstruction
 - Lighting enhancement
 - Locker room re-design
 - Hi-purity water installation
 - Prep/pack Workstation redesign
 - Additional washer
 - Additional sink installation
 - Medivator High-Level Disinfection system installation

Provisions review: Instrument replacement



SPM linking instrument to back-wall location

Sterilization: Steam		Packaging:		
Manufacturer	Product #1	Product #2	Misc #1	Instrument / comment
Group 1				
OK TO SUBSTITUTE WITH IN SPECIFICATIONS				
Group 2: Towel Clips				
VMueller	SU2937		Panel 10, Row 4, Item 8	Towel Clip, Lorna, Non-Perfora
Group 3: Clamps				
VMueller	SU2700	106-100	Panel 11, Row 3, Item 9	Clamp, Mosquito, Straight, 5"
VMueller	SU2702		Panel 11, Row 1, Item 7	Clamp, Halsted, Mosquito, Cur
VMueller	CH8610		Panel 11, Row 1, Item 6	Clamp, Jacobson, Mosquito, XI
Integra	140-218		Panel 11, Row 3, Item 2	Clamp, Mixer, Micro, Delicate,
VMueller	SU2705		Panel 11, Row 6, Item 8	Clamp, Halstead, Mosquito, Str
VMueller	SU4054	5005-64	Panel 11, Row 7, Item 10	Clamp, Allis, Tissue, 6", w/ 4x5
VMueller	SU2760		Panel 11, Row 2, Item 2	Clamp, Pean, Artery, Curved, 6
Scanlan	5005-64		Panel 11, Row 7, Item 4	Clamp, Bailey, XDelicate, 90deg
VMueller	NL3530		Panel 11, Row 3, Item 5	Clamp, Adson, Tonsil, Curved, 1
Group 4: Needle Holders				
VMueller	RH2562		Panel 5, Row 2, Item 3	Needleholder, Webster, TC, 4 3
VMueller	NL3750			Needleholder, Microsurgery, D



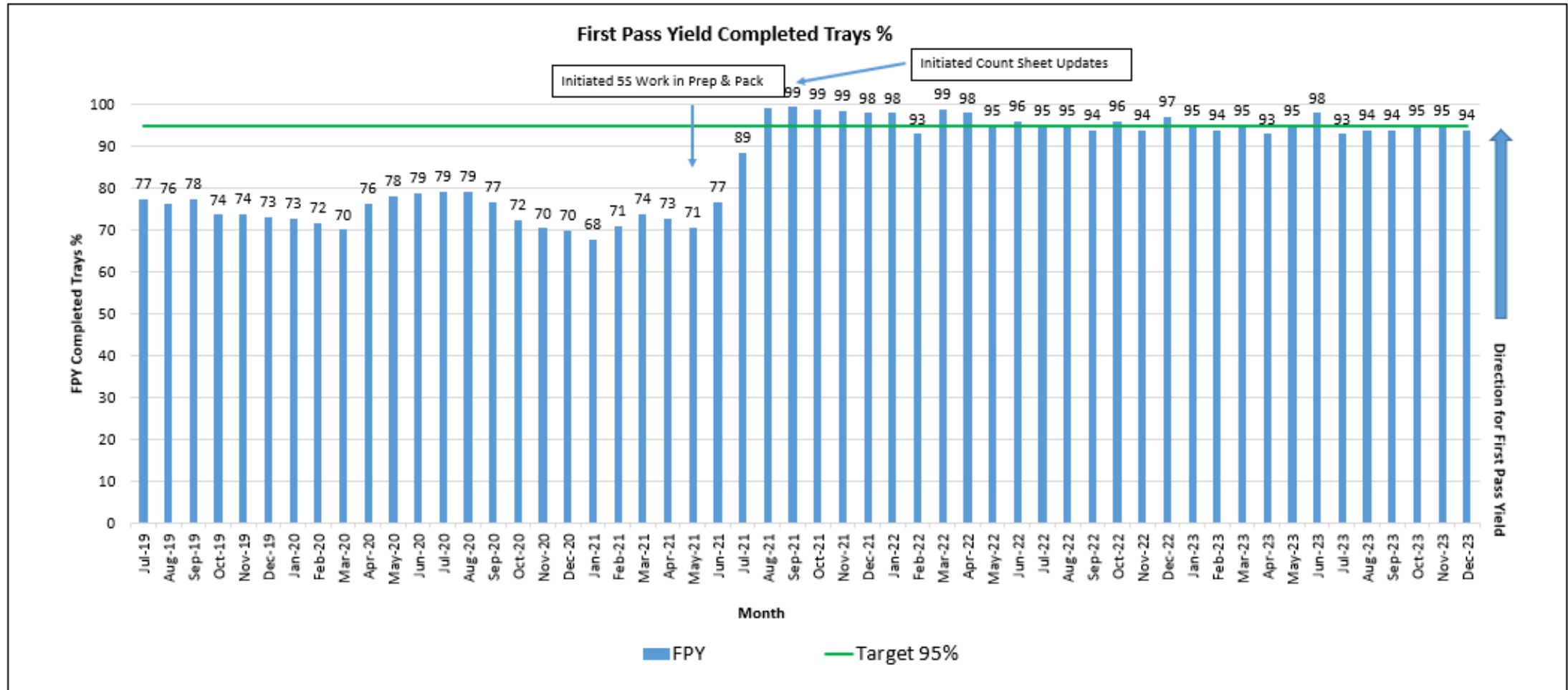
Dept Storage: Past vs Present



Chicago SPD Forum



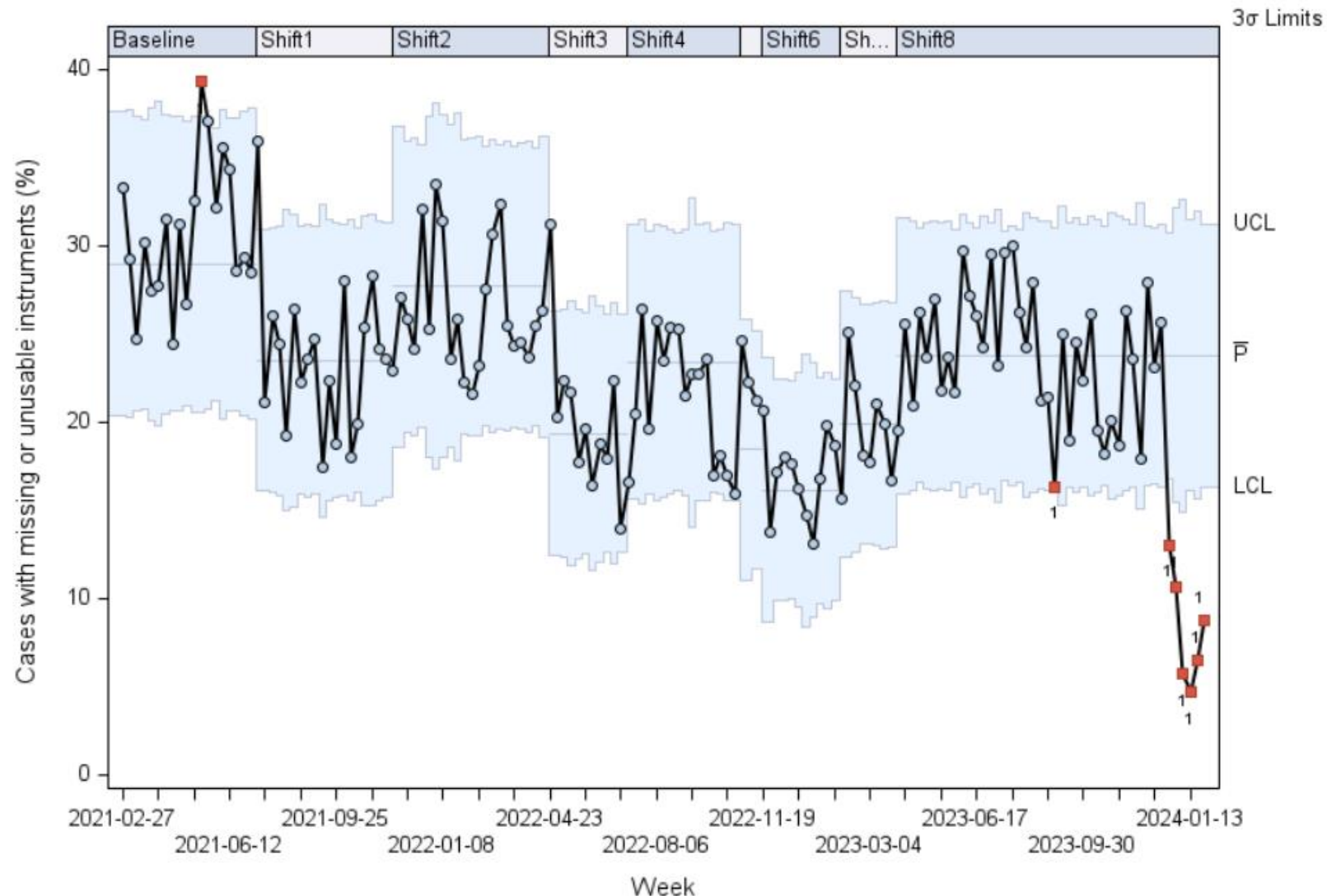
SPM Data: First Pass Yield Of Completed Trays (Last 3 Years)



- **Data Source:** SPM: First Pass Yield = number of "good" trays with no missing instruments

Epic Report: Cases delayed by Missing/Unusable instrument

P chart of Cases with missing or unusable instruments, February 22, 2021 - January 27, 2024 by Week



Day 1 – Started as an annoying interruption

High Priority Message



[Submit a Global](#) | [Global FAQs](#)

Service Interruption

Information Management is aware that many services are currently unavailable including Epic, Voalte and Coreport interface engine. We are actively working to restore service and will communicate with updates as they are available.

IM Help Desk, 73445

Day 2 – Not just an interruption...

Update as of February 1, 2024, at 10:07 PM

Our communications approach has always been to provide information that is accurate, complete, and confirmed. Based on evidence of suspicious activity and consistent with best practices, we proactively took systems down, communicated system outages, and began downtime procedures. At this time, we are confirming this is a cybersecurity matter. We are taking this very seriously, are continuing our investigation efforts with the support of leading experts, and are working in collaboration with law enforcement agencies.

Day 17 – We actually expected this

This Message Is From an External Sender

This message came from outside your organization.

[Please click here to acknowledge receipt of this message](#)

Joint Commission is here for a survey at Lurie Main Hospital. Please prepare your units appropriately.

Accreditation Readiness
Lurie Children's Hospital

Day 24 – the gift that keeps on giving

This Message Is From an Untrusted Sender

You have not previously corresponded with this sender.

Please be aware that due to the AT&T service outage, communicating with us via phone may not be feasible at this time. However, we remain accessible to address your inquiries through **text** at 312-841-9750 or **email** at info@elitechicagospa.com

We appreciate your understanding and patience as we work to resolve this situation. We will keep you updated on the status of the service through our digital communication channels.

Day 35 to 60 – slow & steady....

STATUS UPDATE AS OF 5:45 p.m. CST, March 4, 2024:

Lurie Children's continues to make progress in restoring our systems, and is pleased to share that we recently reactivated our electronic health record platform (Epic) and other key systems. Please know that MyChart is currently unavailable. Our teams continue working around the clock to reactivate all remaining systems, including MyChart, as quickly as possible.

As an academic medical center, our systems are highly complex and, as a result, the restoration process takes time. Working closely with our internal and external experts, we are following a careful process as we work towards full restoration of our systems, which includes verifying and testing each system before we bring them back online.

(1/2)

 Ann & Robert H. Lurie
Children's Hospital of Chicago®



Immediately implemented:

- Process to fill case cart needs minus the EPIC-SPM Preference Cards
- External access IFU information
- Printed copies of policies
- Series of paper logs to record all testing to demonstrate sterility
 -

Outcomes:

- No delays due to SPD provision failures
- **No instances of IUSS or One-Tray usage**
- Complete preparation for:
 - Trauma
 - Cardiac / ECMO emergencies
 - Back-to-back transplant procedures

