SAFE AND SOUND: CULTURAL TRANSFORMATION AT CHILDREN'S HOSPITAL LOS ANGELES

2018 HOSPITAL QUALITY INSTITUTE C. DUANE DAUNER QUALITY AWARD SUBMISSION

HOSPITAL

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APPLICATION FOCUS

Patient Safety

STATEMENT OF SUPPORT

To: HQI C. Duane Dauner Quality Award Selection Committee

From: James E. Stein, MD, MSc, FACS, FAAP
Senior Vice President
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Located in East Hollywood off Los Angeles' famed Sunset Boulevard, Children's Hospital Los Angeles (CHLA) is an urban pediatric healthcare system that admits 14,600 inpatients, logs an estimated 343,800 outpatient visits per year and provides care through more than 350 specialty programs. CHLA is uniquely positioned as a safety net hospital that is also ranked No. 6 nationally by U.S. News and World Report and No.1 in California. These attributes directly inform the hospital's culture, as those who work here deeply care about the quality of care our patients receive and routinely go above and beyond to provide compassionate, human-centered care with high levels of skill, knowledge and experience.

However, without an overarching safety culture strategy to translate this compassion to zero harm, variation persisted among care givers in the understanding, awareness and actionable steps to achieve the goal of eliminating preventable patient harm.

In our journey to become a high reliability organization, the Quality Improvement and Patient Safety Department at CHLA took a multi-factorial approach to grow organizational understanding of event reporting, communication, teamwork and embedding best theories and practices in patient safety to cultivate a safety culture at CHLA. This work was supported by recognition, education, operational restructuring and gamification.

This submission is the story of how our team accomplished just that, striving to eliminate harm with humility in our hearts and resolve on our minds.

EXECUTIVE SUMMARY

Culture change is a daunting task, one that takes an estimated five to seven years to attain. With more than 7,000 employees, Children's Hospital Los Angeles (CHLA) achieved this shift, rounding out its fifth year of culture transformation in 2017, building a culture of safety and excellence rooted in the principles of high reliability. CHLA measures culture change using the Press Ganey Employee Engagement survey, which captures organizational perception of culture of safety, engagement and nursing excellence. The hospital saw a net percentage increase in favorable results ranging from +3.4 percent to +7.8 percent for top gains for those years – all of which are statistically significant, and all in the areas of quality and safety. During this time, CHLA launched *Safe and Sound: Aim for Zero Harm*, a cultural transformation effort aimed at eliminating all preventable harm.

This shift in perception over time is a monumental milestone in the hospital's transformation work, as it is indicative of a decrease in variation of perception and understanding of safety culture among the organization, from management to frontline staff. It is also highlighted by a decrease in harm to patients, as shown by a 53 percent decrease in Serious Safety Events (SSEs) from 2013 to 2017. High severity events decreased by 30 percent, while overall incident reports increased by 270 percent and near misses increased 619 percent, all from 2012 to 2017. Additionally, Code Blue, Acute Respiratory Compromise (ARC) and Cardiopulmonary Arrest (CPA) rates, decreased by 20 percent, 88 percent, and 75 percent, respectively. The cultural transformation is reflective of key strategic initiatives created, implemented and deployed by the Quality Improvement and Patient Safety Department at CHLA.

BACKGROUND, RELEVANCE OF THE PROBLEM ADDRESSED AND EFFORT UNDERTAKEN

In 2012, with a growing event reporting program that had recently shifted from paper to electronic incident reports, Children's Hospital Los Angeles (CHLA) lacked organizational reference points for patient safety outside of incident reports that were punitively perceived and reactive in nature. The hospital also joined Solutions for Patient Safety in 2012, a national collaborative of children's hospitals that shares data and evidence-based practices to concretely

eliminate patient harm by focusing on specific hospital acquired conditions (HACs) via multidisciplinary workgroups dedicated to each one.

At the time, CHLA Quality leadership realized that the organization faced a large gap in awareness among more than 2,700 frontline staff for this expanded list of HACs, but also for the new electronic reporting system in addition to an overall sparse understanding of safety culture. CHLA also lacked an organizational framework and definition for why everyone at the hospital should understand the science behind patient safety.

According to the Agency for Healthcare Research and Quality, improving the culture of safety within healthcare is an essential component of preventing or reducing errors and improving overall healthcare quality (2017). The agency states that culture of safety encompasses the following features:

- Acknowledgment of the high-risk nature of an organization's activities and the determination to achieve consistently safe operations.
- A blame-free environment where individuals are able to report errors or near misses without fear of reprimand or punishment.
- Encouragement of collaboration across ranks and disciplines to seek solutions to patient safety problems.
- Organizational commitment of resources to address safety concerns.

Knowing that improving CHLA's safety culture within the hospital would be essential in eliminating preventable harm, the Quality team embarked on a first-ever journey to transform the organization's culture of safety with a number of key strategic initiatives that would serve to create a solid safety culture through a blend of evidence-based and innovative, out-of-the-box outreach efforts, while simultaneously positioning the hospital to become a high reliability organization and advance CHLA's cultural maturity from reactive to generative.

With plans to create this organizational quality and safety reference point, the team strategized a multi-factorial approach to not only enhance the understanding of events, but to provide education to bolster this call to eliminate harm combined with operational restructuring and specific tools for staff to deploy to take a more proactive stance to providing care. Additionally, the department created branding to support *Safe and Sound*, which had never been undertaken.

DESCRIBE THE EFFORT

With a layered strategy aimed at strengthening and building the overall safety culture foundation of one initiative to the next, the Quality Department focused on nestling this work within the constructs of *Safe and Sound: Aim for Zero Harm*, while deploying consistent

branding and messaging across additional schemes as they were rolled out (see Exhibit 1). With a clear directive spelled out in its name, this overall initiative targeted both large and small groups of people in phases, reinforcing safety topics at each point in time. This addressed the issue of designing content for different audiences with different needs. The phases, outlined in the CHLA Quality and Safety Strategy, entail:

- Phase 1: Introduction of the campaign and education for Clinical Services leadership and staff
- Phase 2: Creation of an online module for new hire orientation, development of modules for physicians and nonclinical staff

Within *Safe and Sound: Aim for Zero Harm*, the following program-building strategies were implemented:

- Participation in Solutions for Patient Safety
- Event Reporting and Recognition
- *Safe and Sound: Aim for Zero* Harm Education
- Speak Out for Safety
- Situation Awareness
- March for Patient Safety

SOLUTIONS FOR PATIENT SAFETY

In 2012, CHLA joined this national collaborative of children's hospitals as part of a second wave focused on sharing data to reduce specific hospital acquired conditions via the creation of multidisciplinary workgroups focused on implementing evidence-based practices and applying quality improvement tools. This concrete way of preventing harm in patients, via bundles or a series of steps known to eliminate HACs, was incorporated into the training for awareness and understanding. Additionally, as part of the second wave of hospitals to join the network, CHLA Quality team members also went through trainings offered to new members, focused on leadership methods and error prevention while sorting out how to sustain training efforts.

HACS implemented were:

- Adverse Drug Events
- Catheter Associated Urinary Tract Infections
- Central Line Associated Blood Stream Infections
- Falls
- Pressure Injuries
- Readmissions (7 day)
- Surgical Site Infections
- Venous Thromboembolisms
- Ventilator Associated Events

EVENT MANAGEMENT AND RECOGNITION

To promote transparency around safety concerns, staff members and leadership alike were encouraged to consistently report events, but were also actively engaged in the redesign of CHLA's incident reporting system through focus groups and surveys in 2013. The feedback received provided insights about necessary system changes and addressed myths and perceptions of stigma about event reporting. Feedback led to immediate changes, such streamlined forms to reduce submission time. A series of awards, including the "Patient Safety is Up to Me," "Good Catch," "Great Catch" and "Extraordinary Catch," were created to engage staff in ways the rewarded their participation in finding improvement opportunities and keeping patients safe.

SAFE AND SOUND: AIM FOR ZERO HARM EDUCATION

In 2014, the *Safe and Sound* transformation effort was launched. Aimed at eliminating preventable harm at CHLA, the education component incorporated evidence-based practices focused on promoting a dynamic and supportive workplace culture to minimize all safety events.

Work on the initiative began in 2013, with a Quality team meeting several times a week for 10 months to create the bones of this movement by first defining elements of the training curriculum. With three team members newly minted as Master TeamSTEPPS trainers, the group used the AHRQ-evidence-based training as the backbone of the course elements, supported by additional frameworks from SPS training offered on leadership methods and error prevention (Sheppard et al, 2013).

From August through December 2014, Clinical Services directors and managers were trained first over three, two-day sessions, followed by all Clinical Services Collaborative Governance Councils (Quality; Recruitment and Retention; Education, Practice and Development; Clinical Practice). The rest of Clinical Services staff began their one-day training in January 2015, with classes held three times a month. A team of trainers grew from 10 to 17, ranging from the Chief Quality Officer, Chief Patient Safety Officer, quality staff, social workers and security staff, leading courses three times a month through November 2017. *Safe and Sound* sessions also became part of Clinical Services New Hire Orientation for a fourth day of class every other month.

Safe and Sound education contained the best of the best – relevant patient safety theories, sections teamwork, communication, event reporting, in addition to speaking out for safety and situation awareness, along with employee safety topics of second victims, de-escalation techniques, and how to respond to aggressive behavior.

Spurred by an event at CHLA where staff did not feel comfortable voicing concerns, the Speak Out for Safety (SOS) initiative was rolled out as part of *Safe and Sound* in 2014. Created by and for CHLA staff and physicians to clearly escalate concerns and empower all involved in such potential situations, SOS is complete with an algorithm to guide users to act on concerns. This model entailed surveillance, triage, action, outcome and review, with subcomponents that supported tactics to achieve the goal of empowerment. As part of *Safe and Sound* education, the circular algorithm, with empowerment at the center was presented to staff, discussed and applied to their personal experiences for reference.

Speak Out for Safety (SOS) Algorithm

Surveillance: Proactively seek potential patient safety issues
- Situation Awareness Checklist

Triage: Categorize concern
- Near Miss
- Watch List
- High-risk/Immediate risk for harm
- Patient deterioration

Action: Mitigate and escalate concern
- iReport
- SOS Script- "I have an SOS patient I am concerned about. SBARQ"
- Utilize Chain of Command
- SMART Plan
- Stop the Line
- RRT
- Code Blue

Outcome: Timely resolution of concern
- Determine resolution
- If no resolution, utilize Chain of Command

Review: Complete feedback loop
- Reward/Feedback
- Analyze/Improve
- Share/Educate
- Debrief

SITUATION AWARENESS

Launched in 2013 in select pilot units, and in all inpatient units in 2016, the Situation Awareness (SA) tool and training enabled and empowered the healthcare team to identify patients at risk for deterioration or a potential safety event. Based on the tool implemented at Cincinnati Children's Hospital (Brady et al, 2013), patients are placed on the SA Watch List, held by the unit Charge Nurse, when they meet any of the following six criteria:

- High PEWS >4: Patient is at higher risk of deteriorating or needing higher level of care.
- High Risk/Unfamiliar Therapy: A therapy that the floor does not normally provide or has serious side effects, or patient diagnosis that is not usually cared for in that area.
- Watcher: Staff has a gut feeling that the patient is at risk for deterioration.
- Family Concern: About deterioration or safety ("my child does not look right")

- Communication concern: Delay in response time, miscommunication or conflict.
- Critical in the ED: If patient was triaged as "Red" upon arrival to the ED or had a critical care consult done in the ED, he or she should remain on the watch list for the first 24 hours of hospitalization.

Placing a patient on SA prompts the first call provider, bedside nurse and charge nurse to come to the bedside and develop a plan together to address the concern defining specific outcomes, timeframe for reaching that outcome and an escalation plan if the outcome is not achieved.

SA was introduced as part of *Safe and Sound* in 2014. As part of the Speak Out for Safety training component, where Clinical Chain of Command and Stop the Line were also included. In June 2016, SA was implemented house wide.

The six-month process entailed:

- Policy and procedure development and implementation
- Education
- Data collection (audit tool)
- Patient and family education materials
- Report out structure (unit→charge RN→Daily Safety Huddles)

Training for the following groups was provided for the Clinical Services Collaborative Governance Councils, Clinical Services leadership and staff, ancillary services, residents, fellows, hospitalists and sub-specialists.

MARCH FOR PATIENT SAFETY

In 2014, the quality team took the notion of Patient Safety week to another level with this month-long version, complete with progressive ways to reinforce various safety topics and encourage event reporting. The team organized food trucks with free giveaways to complement weekly celebrations, participated in night shift rounds, organized speakers, and gave away weekly awards. The event sparked an annual ping pong tournament where rotating themes, such as high reliability organizations, were emceed by the Chief Operating Officer, the Chief Patient Safety Officer and the Chief Quality Officer, among others. In addition, units throughout the hospital were targeted for visits by the Quality team to spark discussion about patient safety and celebrate those encountered for their daily efforts to keep patients safe. The following components became standing activities for this annual event:

- Patient Safety is Up to Me Award (weekly)
- Ping Pong Tournament
- Patient Safety Fair
- Patient Safety Parade
- Grand Rounds

- Clinical Services Collaborative Governance Council Presentations

DESCRIBE THE RESULTS AND SIGNIFICANCE OF THE EFFORT

An analysis of metrics relevant to the safety culture transformation effort at CHLA shows that all but one measure resulted in statistically significant increases and/or decreases (see Exhibits 2-9). The *Safe and Sound* education evaluation, scored on a Likert scale of 1-6, with 6 being strongly agree, shows that courses remained high at 5.6 for both time periods analyzed.

Simply put, during the course of the hospital's culture journey, as more people became engaged, change was made. The Quality team at CHLA achieved its goal of reducing preventable harm, as measured by data the following summary table:

Major Quality and Patient Safety Statistical Significance Summary

Initiatives	High Reliability Organization Principles	Measures	Years		Net Difference	% Net Change	Significant
			2015	**2017**			
Employee Engagement Survey - Culture of Safety	Preoccupation with failure	I can report patient safety mistakes without fear of punishment.	3.98	4.29	0.31	7.8%	Yes
	Sensitivity to operations	I am involved in quality improvement activities.	3.86	4.05	0.19	4.9%	Yes
	Resilience	Mistakes have led to positive changes here.	3.97	4.13	0.16	4.0%	Yes
	Deference to expertise	Different work units work well together in this organization.	3.65	3.79	0.14	3.8%	Yes
	Reluctance to simplify	Employees will freely speak up if they see something that may negatively affect patient care.	4.09	4.23	0.14	3.4%	Yes
			2014-2015	**2016-2017**			
Safe and Sound Course Evaluation		Course met stated objective (2,785 people trained)	5.6	5.6	0	0.0%	No
			2013-2015	**2016-2017**			
Event Management		Serious Safety Events (SSEs)*	10.5	6	-4.5	-42.9%	Yes
			2015-2015	**2016-2017**			
		High Severity Events	383	174	-209	-54.6%	Yes
		Near Misses	1234.5	3014.5	1780	144.2%	Yes
		Submitted iReports	5387	7270	1883	35.0%	Yes
			2012-2015	**2016-2017**			
Situational Awareness		Cardiopulmonary Arrest (CPA) Rate	0.2	0.08	-0.12	-60.0%	Yes
		Acute Respiratory Compromise (ARC) Rate	0.41	0.17	-0.24	-58.5%	Yes
		Code Blues Rate	1.08	0.98	-0.1	-9.3%	Yes
		Rapid Response Transfers (RRT) Rate	6.17	8.47	2.3	37.3%	Yes
		Transfers to Higher Level of Care (HLOC) Rate	3.49	4.75	1.26	36.1%	Yes

*Serious Safety Events (SSEs) classification implemented in 2013

- Additionally, it should be noted that Serious Harm Events at CHLA, a measure that shows how many patients are harmed per month by hospital acquired conditions, decreased by 20 percent, from 16.9 to 13.5 events per month during the hospital's most recent centerline shift, which occurred in 2015, and has since been maintained.

- Since 2013, more than 3,800 staff concerns, or documentation of gut feelings noted as "Watcher" concerns have been logged.

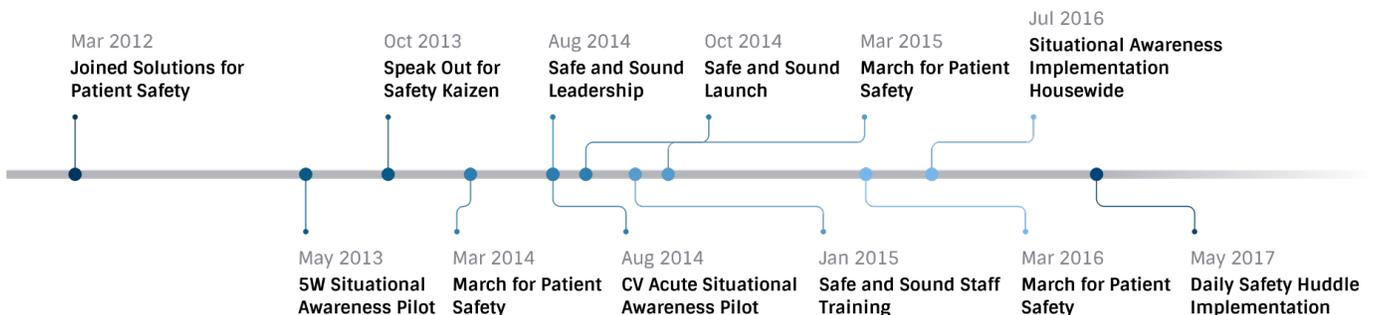| WATCHER CONCERNS	
2013	190
2014	366
2015	456
2016	935
2017	1892
TOTAL	3839

- From 2014 to 2017, more than 5,000 people participated in one or more of the previously mentioned March for Patient Safety events. Below is a summary of those years, themes and audience.

YEAR	THEME	TOTAL PEOPLE REACHED
2014	*Safe and Sound* Components	908
2015	*Safe and Sound* Components	1,656
2016	High Reliability Organizations	1,136
2017	High Reliability Organization Principles	1,378
		OVERALL = 5,078

SUSTAINABILITY AND SCALING OF THE ACHIEVEMENT

As the timeline below reveals, layering the key strategic initiatives within *Safe and Sound* provided for a sustainable and scalable effort that achieved the goal of reducing harm.

Major Quality and Patient Safety Initiatives

Mar 2012 — Joined Solutions for Patient Safety

Oct 2013 — Speak Out for Safety Kaizen

Aug 2014 — Safe and Sound Leadership

Oct 2014 — Safe and Sound Launch

Mar 2015 — March for Patient Safety

Jul 2016 — Situational Awareness Implementation Housewide

May 2013 — 5W Situational Awareness Pilot

Mar 2014 — March for Patient Safety

Aug 2014 — CV Acute Situational Awareness Pilot

Jan 2015 — Safe and Sound Staff Training

Mar 2016 — March for Patient Safety

May 2017 — Daily Safety Huddle Implementation

SAFE AND SOUND EDUCATION

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To fulfill Phase 2 of the *Safe and Sound* strategy, an online module is expected to be released July 2018 to serve as both an annual refresher for staff and patient safety introduction to new hires, with additional planning to address the two remaining groups – nonclinical staff and physicians – who have not yet been trained in person. Currently, members of the Quality team are gaining Master Trainer certification of TeamSTEPPS for Office Based Care while conversations with key physicians about how best to deploy these rooted safety culture reference points to medical staff are being had.

SOLUTIONS FOR PATIENT SAFETY

HAC workgroups meet at minimum on a monthly basis, with more than 130 people engaged in this work across a total of 12 conditions with more on the way. The number of Serious Harm Events for the hospital has decreased by 9 percent. Annual touchpoints for everyone involved in HAC work will take place in the 2018-19 fiscal year, along with more robust use of quality improvement tools.

DAILY SAFETY HUDDLES

In May 2017, the Daily Safety Huddle was launched, creating a venue to discuss patient safety issues at an organizational level. This daily 15 minute huddles allow for interdepartmental and multidisciplinary communications to take place, address concerns in a swift manner and foster a culture of safety.

EXCELLENCE

With the hospital's inaugural Chief Medical Officer now overseeing quality efforts, the department has recognized that it is time to shift to a new campaign that recognizes staff for achieving excellence and continuing our safety improvements. Branding and messaging for hospital *ALL-STARS* was released in March 2018, with plans for strategic application underway.

CLOSING SUMMARY: KEY LESSONS LEARNED

Pursuit of zero harm is a lofty goal, and one that is relentless. Constant shifts are required to turn strategy into improved outcomes, and no single approach will work.

Three key lessons learned over the last five years:

- Urgency is crucial, so is having fun
- Buy-in is critical
- Culture change comes last

URGENCY

With harm defined via hospital acquired conditions, the Quality team had a reference point to begin a conversation with staff about why the organization cares about eliminating harm among patients. The team created venues to have these discussions leading up to the launch of *Safe and Sound* so that as more and more awareness events took place, it was clear why classes on the subject matter were being required. That said, to balance the heavy subject matter of patient harm and create engagement, the Quality team worked hard to make all *Safe and Sound* events fun and tangible. For example, the cultural transformation effort was kicked off with a fall patio celebration where the entire hospital was invited for tacos. More than 400 participants took part. There was a theme song, "Safe and Sound" by Capital Cities. *Safe and Sound* education contained a Lego game that drove home the importance of role clarity and communication. And in another example, the annual March for Safety Ping Pong tournament drew participants from Information Services and Development, groups who were not routinely engaged with patient safety efforts.

BUY-IN

Requiring staff to attend a day-long training was made possible by collaboration with Clinical Services leadership. While plans originally called for a half-day class, it was noted that it would be difficult to schedule staff for a partial day rather than a whole one. This led the Quality team to work with Security to merge separate sessions, and arrange a day that also addressed employee safety with meaningful topics such as second victims and de-escalation.

CHANGE

Five to seven years is a long time to wait for change. Even with awareness of this typical timeframe for culture change, it wasn't until the most recent Employee Engagement survey that the team was reminded that success had truly been achieved. Constant reminders of this timeline help provide context for the journey ahead, and serve as a reminder when a destination has been reached.

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