



# Using Lean to Create Rosie's Story

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# Objectives

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- Describe how ThedaCare Healthcare System utilized Lean methodology to create Rosie's story
- Discover your own Rosie



# ThedaCare

- From January 01, 2010 to May 31, 2011 the ThedaCare system Performed 1,700 Hip and Knee replacements and revision procedures.
- During this period, 29 of our patients developed a SSI, leading to a SSI rate of 1.7%, although in line with the national average, this rate will continue to cause pain, suffering , and increased costs.
- Based on the national average; our system, providers, and patients were burdened with an increased cost of \$ 928,000 during this period.

**Our SSI rate can be reduced by adopting and standardizing procedures related to Infection Prevention**



# IPC Interventions

## Ortho Staff Education

- CHG Product Variation
- MRSA Education
- Hand Hygiene Education for staff and patients
- Understanding Diabetes Management
- Remote Infection

## Joint Camp

- What should be covered
- Variation in CHG bathing Time
- Variation of CHG type products
- Little education for pre and post surgery infection prevention

## Pre-Operative Physical

- Requirements for Pre-op physical – MRSA Screen
- Dental Exam
- Importance of documenting remote infection
- Glucose control
- Healthy habits – smoking, drinking, eating
- CHG used/Reminder?
- Shaving
- Patient Advocacy for hand hygiene

## Prep Holding Activities

- Patient Hygiene
- Diabetic status (insulin drip needed?)

- Clipped not shaven
- CHG Bath performed
- Head to toe assessment for remote infection
- Nasal antiseptic
- Intra Op**
- Environment
  - Quality of room cleaning
  - Monitoring open cases
  - Room Temperature
  - OR doors open
  - Personal tools used



# IPC Interventions

- **Staff Concerns**

- Correct attire for surgical team – no fleece, skull caps, cloth caps
- Proper hand hygiene
- Hair coverage
- Improper underwear
- Masks worn properly
- Traffic Pattern
- Number of People in the room

- **Patient Concerns**

- Prophylactic Antibiotic delivered and redosing
- IV lines
- Warming fluids and patient
- Scrubbing the hub
- Isolation
- Skin Prep- what products/scrub times/dry times
- Drapes – cloth vs. synthetic

- **Incision and Wound**

- Safety Scalpels
- Irrigation – antibiotics/Epinephrine
- Antibiotic Sutures
- Debris in field
- Drains

- **Recovery Room**

- Isolation
- Hand Hygiene

- **Post Operative**

- Isolation
- Hand Hygiene
- Drain Removal
- Antibiotics
- Dressing maintenance
- Diabetes Management
- Medication Management
- First Bath
- Patient Hand Hygiene
- Excessive bleeding

- **Wound Care for Staff and Patient**

- Foley and Line removal
- Discharge Planning

- **Rehabilitation and Home**

- Bathing
- Fall Prevention
- Home Safety
- Dietary Needs
- Patient/Family hand hygiene
- Environment – home, rehab facility, SNF
- Healthy habits – smoking, drinking, eating
- Signs and Symptoms of an early infection
- Patient advocacy



Time to Roll Up  
Our Sleeves

# Lean Quotes to Live By...

“Keep things as simple as possible, but  
no simpler”

*Albert Einstein*

■ “I have made this letter longer than usual  
because I lack the time to make it shorter”

■ *Blaise Pascal*

Think Rosie



# Goals/Targets

	Measure	Initial	Target
<b>Safety/Quality</b>	Orthopedic SSI Rate	1.7% (29/1,700)	.85% (50% Reduction)
<b>Customer Satisfaction</b>	Rate of additional surgical procedures	79% (23/29)	39.5% (50% Reduction)
	Number of Re-Admissions	83% (24/29)	41.5% (50% Reduction)
<b>People</b>	# of providers involved in Value Stream work	3	50 (over course of 18 months)
<b>Financial Stewardship</b>	Reduce cost associated with SSI's	\$928,000	\$464,000 (50% Reduction)





# Analysis/Root Cause

Problem	Root Cause
Lack of overall Infection Control Education	<ul style="list-style-type: none"> <li>•Lack of Understanding of the criticality of Infection Prevention</li> <li>•Lack of Standard work in relation to Infection Control</li> <li>•Taboo subject</li> </ul>
Lack of adherence to AORN/APIC Standards	<ul style="list-style-type: none"> <li>•No one wants to be the “cop”</li> <li>•Staff do not accept the criticality of the standards</li> </ul>
Patient Hygiene and care, Post Op	<ul style="list-style-type: none"> <li>•Incomplete Standard Work</li> <li>•Lack of Standardized Infection Prevention Product</li> </ul>
MRSA Identification	<ul style="list-style-type: none"> <li>•No ownership</li> <li>•Lack of understanding the criticality</li> <li>•Lack of identification in EPIC</li> </ul>



# What was done and What will be done

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## **Will be complete by 07-25-11**

- Standard work in relation to bathing procedures
- Standard Work in relation to bathing timing
- Standard MRSA testing Algorithm
- Document to display Infection Stats on a monthly basis
- Policy in relation to 3M Nasal Swabs
- Checklist to ensure AORN (Association of peri-operative Nursing) Compliance
- Posters to highlight AORN requirements
- Inputs into upcoming Patient Care Binder



# What was done and What will be done

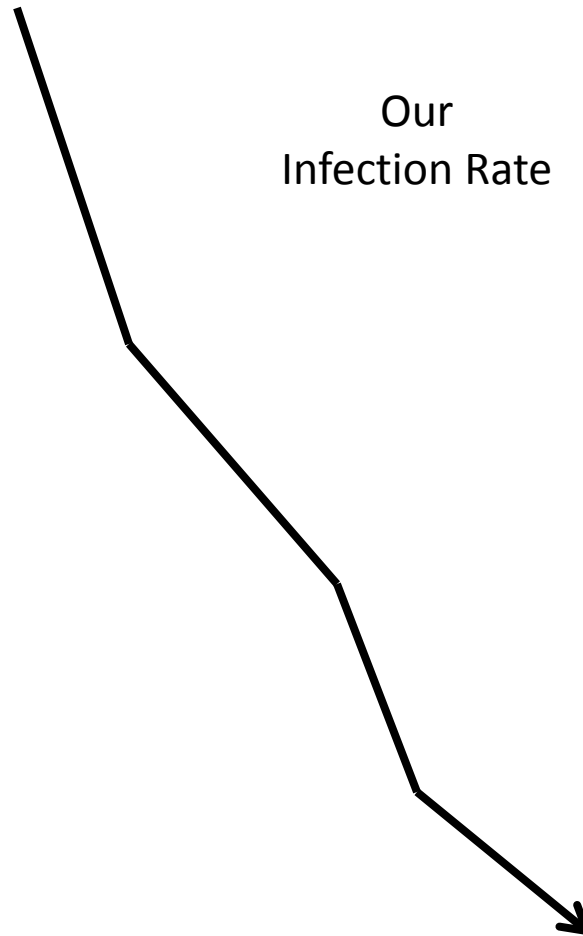
## Short Term Work

- *Create Patient Education Binder for continuum of care*
- Establish standard MRSA procedures and owner
- Create a network of Infection Prevention Champions to instill best practices across staff
- *Make patient MRSA status easily visible*
- Create digital media site for patient education
- Project to determine standard products to reduce infection rates
- *Create a "Infection Cross" replicating the work done on the safety cross*

## Medium Term Work

- Ensure leaders are engaged in compliance oversight
- *Project to share voice of customer and all aspects of Infection Prevention with staff*
- *Improve Vendor policy to reduce movement and increase critical attire compliance*
- Create Operating Room visitor policy
- Improve policy in relation to X-ray movement in O.R.

Our  
Infection Rate





# Infection Cross



Sharing one Theda Care patient's experience with a healthcare acquired infection



### SSI Control Observations

75% Compliant	1	2			
<75% Compliant	3	4			
	5	6			
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
	25	26			
	27	28			
	29	30	31		
Previous					

Following AORN standards is one of the simplest tools to use in the fight against surgical site infections!

## The Bad

- Incorrect PPE usage
- Personal items in the OR
- Food and drinks in the OR



## The Ugly

- Leaving rooms unmonitored after case is opened.
- Excess movement in and out of OR.



## Ask yourself:

Would you, or anyone on your team modify your actions if it was one of your loved ones in the OR?

Following AORN standards is one of the simplest tools to use in the fight against surgical site infections!

## The Good!

- Mask worn correctly
- Bouffant covering hair and ears
- No fleece in OR

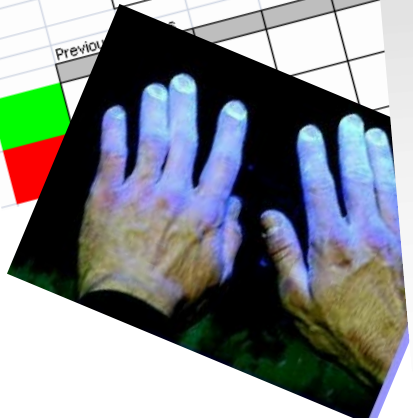


## The Good!

- OR doors remain closed
- No food stuffs
- No personal items such as backpacks, laptops etc
- Minimize traffic in and out of OR



When we follow AORN standards we create an environment where each person is responsible for ensuring that Infection Prevention standards are followed and we can say "Yes I treat each event as if my loved one was in the OR"





**Think Rosie**

Your Attitude, Almost Always determines your success in Preventing Infections!

*Cleanse your hands!*

**THEDA♥CARE**

**T**

"We would accomplish many more things if we did not think of them as impossible."  
- Vince Lombardi

**STOP THE SPREAD OF INFECTION!**

*Cleanse your hands!*

**THEDA♥CARE**

# CULTURE CHANGE

**Think Rosie**

If Florence Nightengale knew it 150 years ago, shouldn't we?

Preventing infections saves lives.

*Cleanse your hands!*

**Think Rosie**

Hand Hygiene **STOPS** the spread of infection.

Cleanse your hands when:

- > Walking in a room
- > Leaving a room
- > Changing a dressing
- > Going from dirty to clean

**THEDA♥CARE**

**Think Rosie**

"An investment in knowledge always pays the best interest."  
- Benjamin Franklin  
...and Miki Gould, Thecadare Infection Preventionist!

Know how to stop the spread of infection!  
It's in your **BEST INTEREST!**

*Cleanse your hands!*

**THEDA♥CARE**

**Think Rosie**

Stopping the spread of infection may sound difficult, but....

"If you'll not settle for anything less than your best, you will be amazed at what you can accomplish in your lives"!!  
- Vince Lombardi

*Cleanse your hands!*

**THEDA♥CARE**



# Confirmed State

## Planned vs. Actual Results

Meeting target  
 Not meeting target

	Measure	Initial (05-31-11)	Target
<b>Safety/Quality</b>	Orthopedic SSI Rate	1.7% (29/1,700)	.85% (50% Reduction)
<b>Customer Satisfaction</b>	Rate of additional surgical procedures	79% (23/29)	39.5% (50% Reduction)
	Number of Re-Admissions	83% (24/29)	41.5% (50% Reduction)
<b>People</b>	# of providers involved in Value Stream work	3	50 (over course of 18 months, average 2.7 per event)
<b>Financial Stewardship</b>	Reduce cost associated with SSI's	\$928,000	\$464,000 (50% Reduction)



# Reflections on What We Learned

“We do not learn from experience...we learn from reflecting on experience.” *Donald Schon*

## Our Insights from this Week: (aha)

- Surgical Site Infections have not been highlighted through the system
- Infection Prevention touches everyone
- The high impact of a Surgical Site Infection

## How is the New Process more Respectful of People?

- Improved quality of care for all
- Empowers staff and patients
- Decreases healthcare costs to all

## Challenges to the Change Process:

- Our culture may not be ready
- Very large scope, Infection Prevention touches everyone
- Justify the cost of Infection Prevention

## Actions Required to Sustain or Build on this Change?

- Building a transparent feedback mechanism
- Leadership support
- Everyone needs to hear Rosie's story



# Wrap Up & Next Steps

## Ortho-Staff-Education

- CHG-Product-Variation
- MRSA-Education
- Hand-Hygiene-Education-for-staff-and-patients
- Understanding-Diabetes-Management
- Remote-Infection

## Joint-Camp

- What-should-be-covered
- Variation-in-CHG-bathing-Time
- Variation-of-CHG-type-products
- Little-education-for-pre-and-post-surgery-infection-prevention

## Pre-Operative-Physical

- Requirements-for-Pre-op-physical—MRSA-Screen
- Dental-Exam
- Importance-of-documenting-remote-infection
- Glucose-control
- Healthy-habits—smoking,drinking,eating
- CHG-used/Reminder?
- Shaving
- Patient-Advocacy-for-hand-hygiene

## Prep-Holding—Activities

- Patient-Hygiene
- Diabetic-status-(insulin-drip-needed?)
- Clipped-not-shaven

- Head-to-toe-assessment-for-remote-infection
- Nasal-antiseptic

## Intra-Op

- Environment
  - o•Quality-of-room-cleaning
  - o•Monitoring-open-cases
  - o•Room-Temperature
  - o•OR-doors-open
  - o•Personal-tools-used
- Staff-Concerns
  - o•Correct-attire-for-surgical-team—no-fleece,skull-caps,cloth-caps
  - o•Proper-hand-hygiene
  - o•Hair-coverage
  - o•Improper-underwear
  - o•Masks-worn-properly
  - o•Traffic-Pattern
  - o•Number-of-People-in-the-room
- Patient-Concerns
  - o•Prophylactic-Antibiotic-delivered-and-redosing
  - o•IV-lines
  - o•Warming-fluids-and-patient
  - o•Scrubbing-the-hub
  - o•Isolation
  - o•Skin-Prep-what-products/scrub-times/dry-times
  - o•Drapes—cloth-vs.-synthetic
- Incision-and-Wound
  - o•Safety-Scalpels
  - o•Irrigation—antibiotics/Epinephrine

- o•Debris-in-field
- o•Drains

## Recovery-Room

- Isolation
- Hand-Hygiene

## Post-Operative

- Isolation
- Hand-Hygiene
- Drain-Removal
- Antibiotics
- Dressing-maintenance
- Diabetes-Management
- Medication-Management
- First-Bath
- Patient-Hand-Hygiene
- Excessive-bleeding
- Wound-Care-for-Staff-and-Patient
- Foley-and-Liner-removal
- Discharge-Planning

## Rehabilitation-and-Home

- Bathing
- Fall-Prevention
- Home-Safety
- Dietary-Needs
- Patient/Family-hand-hygiene
- Environment—home,rehab-facility,-SNF
- Healthy-habits—smoking,drinking,eating
- Signs-and-Symptoms-of-an-early-infection
- Patient-advocacy



# It Takes a Village!

## Team Members:

- Miki Gould, Infection Preven. Cord.
- John Gijsen, TIS Facilitator
- *Dr. Kliet, Orthopedic Surgeon*
- Dr. Brooks, Infectious Disease
- Jessica Eubank, TCAH QC
- Keri Froehlich, AMC Surgery Sup.
- *Kandi Schlueter, NL Surgery MGR*

## Team Members:

- Kristine Enli, TC Surgery Sup
- Bette Casey, Infection Cont. Sup
- Ashley Skalmusky, LPN 5<sup>th</sup> FI AMC
- Sara Vandenberg, TIS Facilitator
- *Michelle Halverson, TCAH RN*
- Rosemary Bartel
- Gail Wietor, QC Cons., MetaStar

## Team Role:

- Team Leader
- Facilitator
- Participant
- Participant
- Participant
- Participant
- Participant



## Team Role:

- Participant
- Participant
- Participant
- Participant
- Participant
- Customer
- Fresh Eyes

*Rosie*



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Think Rosie!

Any Questions?

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