

1 Problem

What	Problem(s)	Patient infections, OR closure, potential loss of accreditation
When	Date	Preliminary decision of accreditation denial: October 8, 2014 4 patient infections in late May/ early June
Where	Different, unusual, unique Facility, site	High temperatures and humidity in some rooms Orange County, CA
	Unit, area, equipment	Hospital's operating rooms (ORs)
	Task being performed	Hip-replacement procedures
Impact to the Goals	Patient Safety	4 patients developed surgical-site infections
	Employee Safety	?
	Environmental	Potential for germ-breeding environment
	Compliance	Potential for loss of accreditation
	Patient Services	14 operating rooms closed
	Schedule/ Operations	?
	Property/ Equipment	?
Labor/ Time	Investigation, response	
	Frequency	Infections among most common complications of hospital care (estimated 1 in 25 inpatients); <1% hospitals denied accreditation each year

OPERATING ROOMS CLOSED AFTER PATIENT INFECTIONS

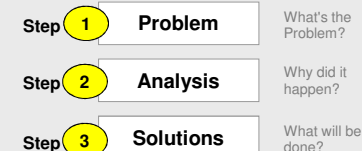
Cause Map

After 4 patients develop surgical-site infections after hip-replacements, hospital shuts down its ORs . . .and may lose its accreditation

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis

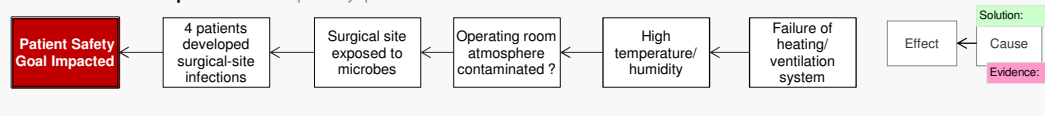


"Surgical infections are extremely rare. When we saw the cluster we stood up and took notice. We stabbed every corner and every crevice."

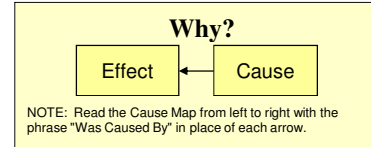
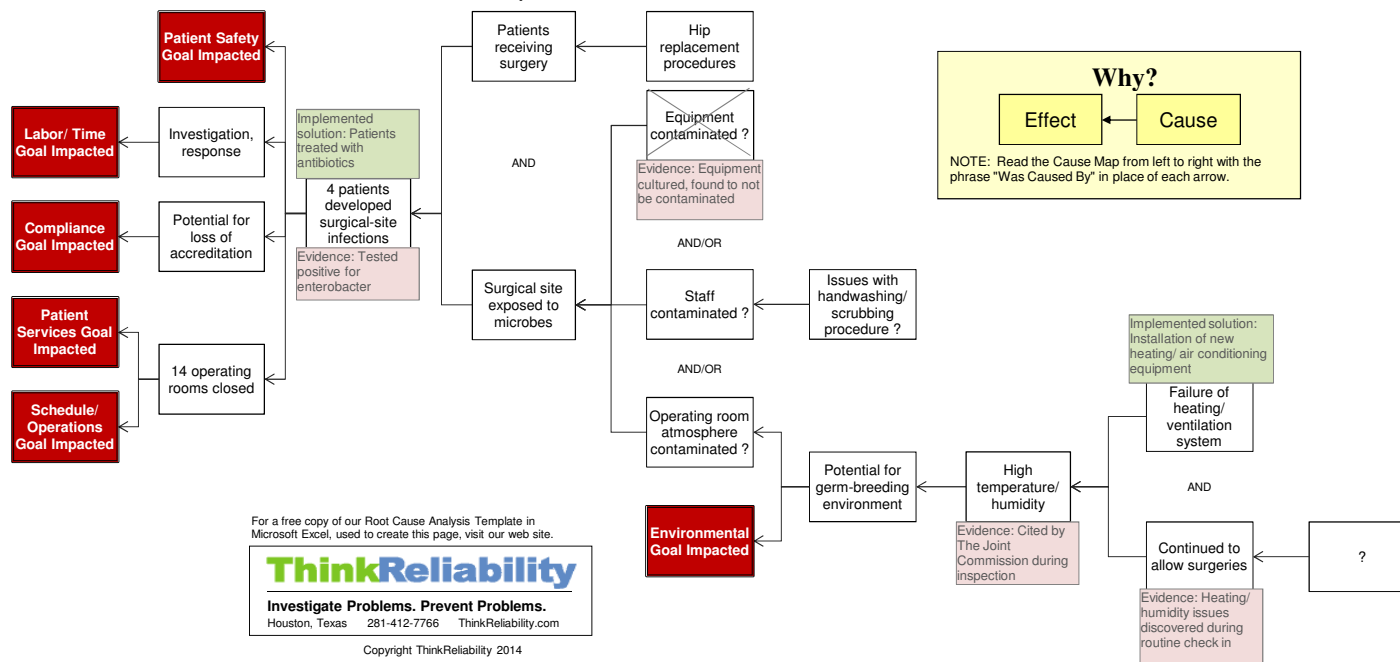
- James Keany, Associate Director of Emergency Services

2 Analysis

Basic Level Cause Map - Start with simple Why questions.



More Detailed Cause Map - Add detail as information becomes available.



A hospital in California has received a preliminary denial of accreditation after reports that four patients had developed surgical-site infections within a month. The patients all recovered after administration of antibiotics.

The hospital cultured equipment and instruments and found no contamination. However, three of the surgeries which resulted in the surgical site infections took place in an operating room that had been identified in February or March to have high humidity due to issues with the heating and ventilation system.

The germs that caused these infections can also be introduced to a surgical site by medical staff - usually due to improper hand washing or surgical prep procedures.

3 Solutions

The hospital has 23 days from the October 8th preliminary denial of accreditation to meet federal standards. The hospital is installing new heating and air conditioning equipment and is reviewing its procedures for "hospital documentation and staff communication". Hopefully other processes will be reviewed as well. The hospital expects to reopen its operating rooms soon.

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