PATIENT DEATH

Cause Map

1 Problem

Wrong Dye Injected into Spine During Surgery

A woman died unexpectedly after a routine procedure to insert a pump underneath her skin to administer medication. The wrong dye was injected into her spine during the surgery, which is the type of error that should be entirely preventable.

What	Problem(s)	Patient death, Wrong dye injected into spine
When	Date	November 2013
	Different, unusual, unique	Pharmacy didn't have dye that was requested, provided another one
Where	Facility, site	Tufts Medical Center
	Unit, area, equipment	Neurosurgery, operating room
	Task being performed	Insertion of a pump to dispense medication

Impact to the Goals

Patient Safety	Patient death
Employee Safety	N/A
Compliance	Lawsuit filed again hospital and staff involved
Patient Services	Wrong dye injected into patient's spine
Schedule/ Operations	?
Property/ Equipment	?
Labor/ Time	Investigation into patient death

"He said he asked for one dye and they gave him another. I said, 'You didn't check it?' He said, 'The nurse gave it to me and I used it.' "

-the patient's son, Michael Carcerano, as reported in the Boston Globe

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

Step 1 **Problem** — What's the Problem?

Step 2 **Analysis** — Why did it happen?

Step 3 **Solutions** — What will be done?

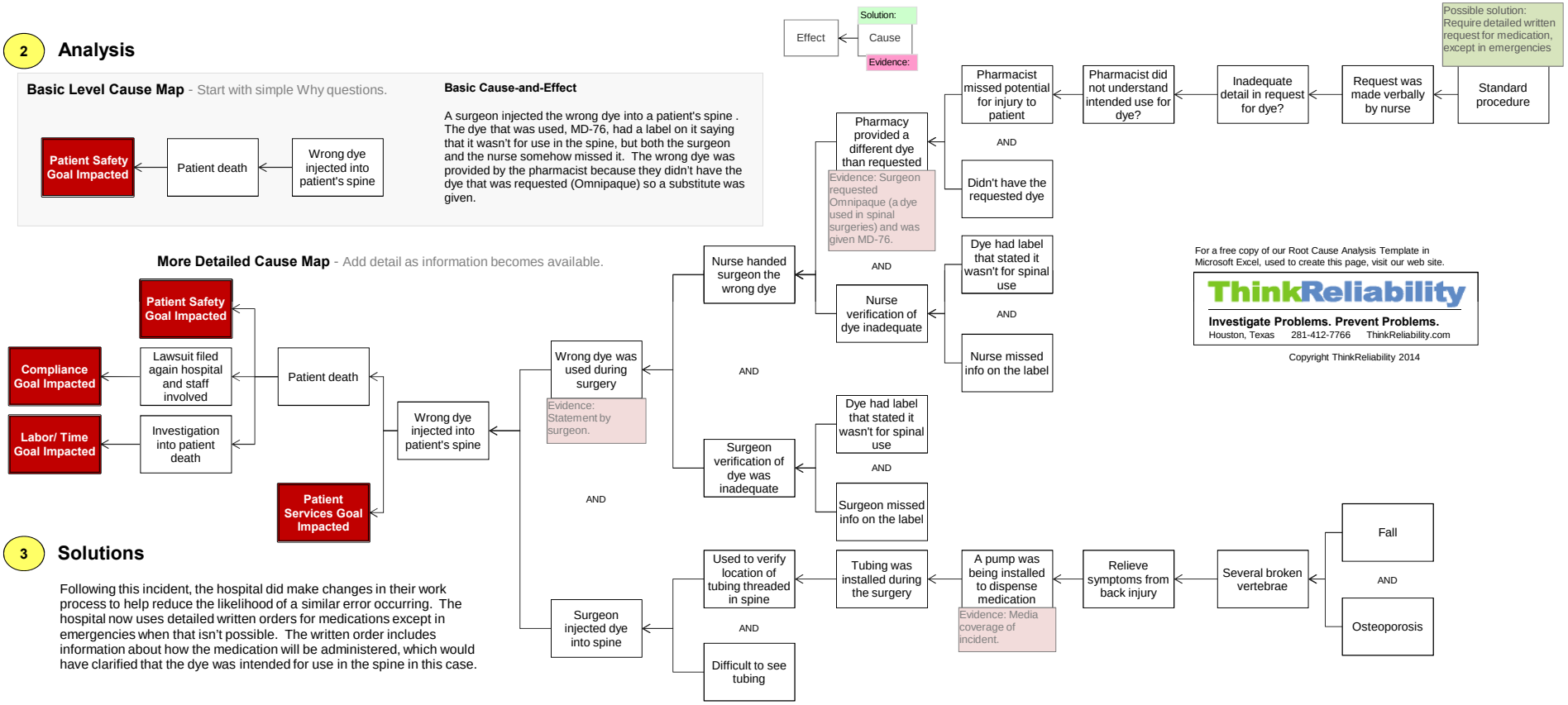
2 Analysis

Basic Level Cause Map - Start with simple Why questions.

Basic Cause-and-Effect

A surgeon injected the wrong dye into a patient's spine . The dye that was used, MD-76, had a label on it saying that it wasn't for use in the spine, but both the surgeon and the nurse somehow missed it. The wrong dye was provided by the pharmacist because they didn't have the dye that was requested (Omnipaque) so a substitute was given.

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



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3 Solutions

Following this incident, the hospital did make changes in their work process to help reduce the likelihood of a similar error occurring. The hospital now uses detailed written orders for medications except in emergencies when that isn't possible. The written order includes information about how the medication will be administered, which would have clarified that the dye was intended for use in the spine in this case.