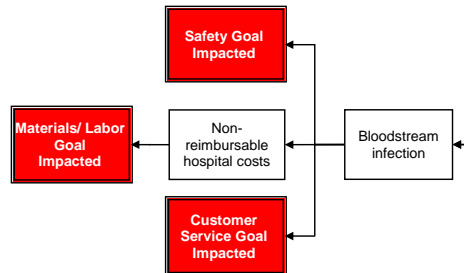
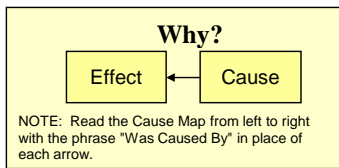


### Step 1. Outline the Problem

<b>What</b>	Problem(s)	Vascular Catheter-Related Infection
<b>Where</b>	Physical Location	Bloodstream
	Unit/Process/Equipment	Vascular catheter
<b>Impact to the Goals</b>		
	<b>Patient Safety</b>	Bloodstream infection
	<b>Patient Services</b>	
	<b>Materials, Labor</b>	Non-reimbursable hospital costs
		This incident \$ 45,000
	Frequency	80,000/year
		Annual Total \$ 3,600,000,000

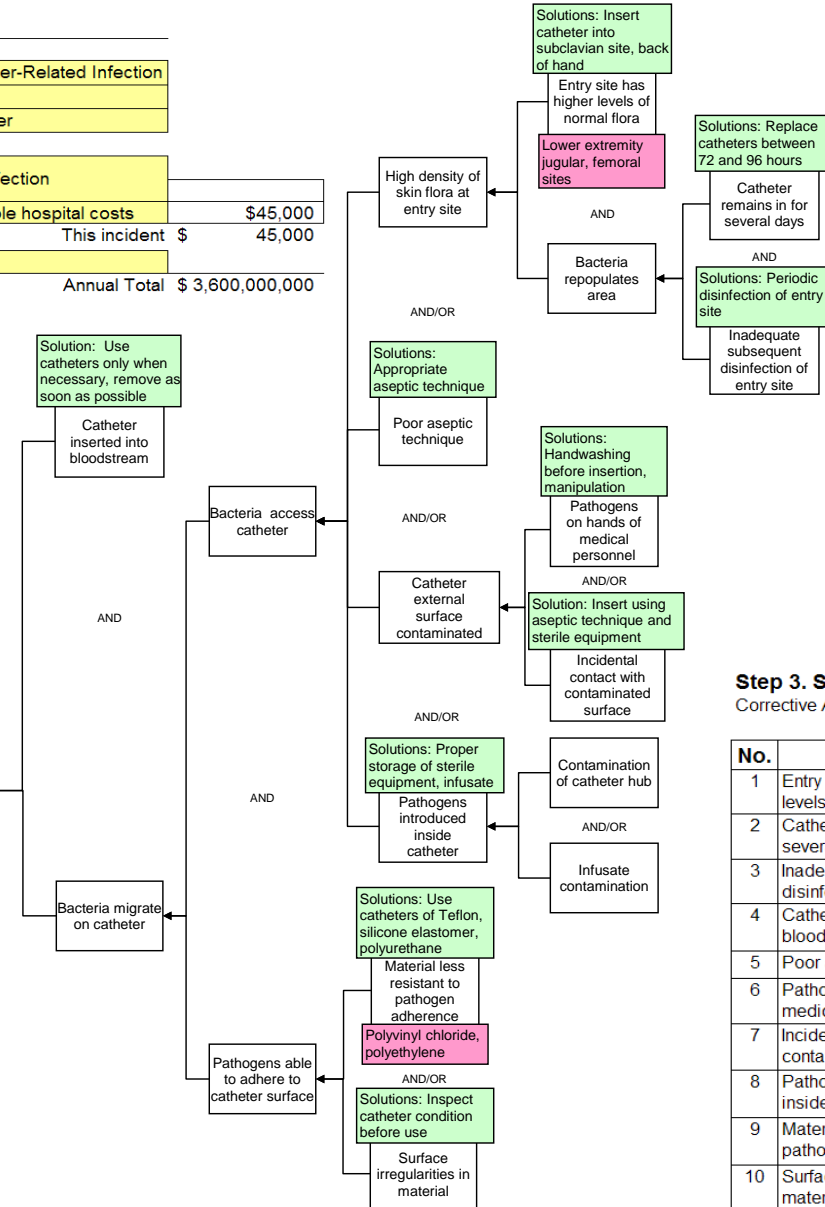
### Step 2. Perform the Analysis (Cause Map)



#### Cause Map Detail Level



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### Vascular Catheter-Related Infections

This page shows the entire root cause analysis investigation performed with the goal of reducing vascular catheter-related infections.

**Step 1, Outline the problem,** is found at the upper left. Note that the impacts to the goals from the Outline form the beginning of the Cause Map (red boxes).

**Step 2, Perform the analysis,** is found in the center. This visual root cause analysis is known as a Cause Map.

**Step 3, Solutions,** is found in the bottom right. The solutions are identified on the Cause Map in green boxes.

### Step 3. Solutions

Corrective Actions to be taken from this Incident that are Causally Related

No.	Cause	Action Item
1	Entry site has higher levels of normal flora	Insert catheter into subclavian site, back of hand
2	Catheter remains in for several days	Replace catheters between 72 and 96 hours
3	Inadequate subsequent disinfection of entry site	Periodic disinfection of entry site
4	Catheter inserted into bloodstream	Use catheters only when necessary, remove as soon as possible
5	Poor aseptic technique	Appropriate aseptic technique
6	Pathogens on hands of medical personnel	Handwashing before insertion, manipulation
7	Incidental contact with contaminated surface	Insert using aseptic technique and sterile equipment
8	Pathogens introduced inside catheter	Proper storage of sterile equipment, infusate
9	Material less resistant to pathogen adherence	Use catheters of Teflon, silicone elastomer, polyurethane
10	Surface irregularities in material	Inspect catheter condition before use