INGESTION OF BRISTLES FROM GRILL BRUSHES

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?

1 Problem

Step 1. Outline the Problem

What	Problem(s)	People injured from inadvertently ingesting wire bristles from grill brushes
When	Date	Reported March 2011–June 2012, but the issue is ongoing
	Differences	Patients had recently eaten meat cooked on residential grills
Where	Physical Location	Rhode Island Hospital
Impact to the Goals		
	Safety	Risk of serious health issues
		This incident ??
	Frequency	6x at one hospital, likely many more cases worldwide
		Annual Total ??

Cause Map

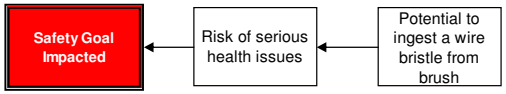
A new report documented 6 patients who were treated for accidentally ingesting wire bristles from brushes used to clean grills. The 6 cases were all seen at the same hospital within a one year period.

"We've identified 12 at one hospital in just the past couple of years, so we know that it's much more common than anyone suspects."

- said Dr. David Grand, the author of the new report and a radiologist at Rhode Island Hospital.

2 Analysis

Basic Level Cause Map - Start with simple Why questions.



Basic Cause-and-Effect

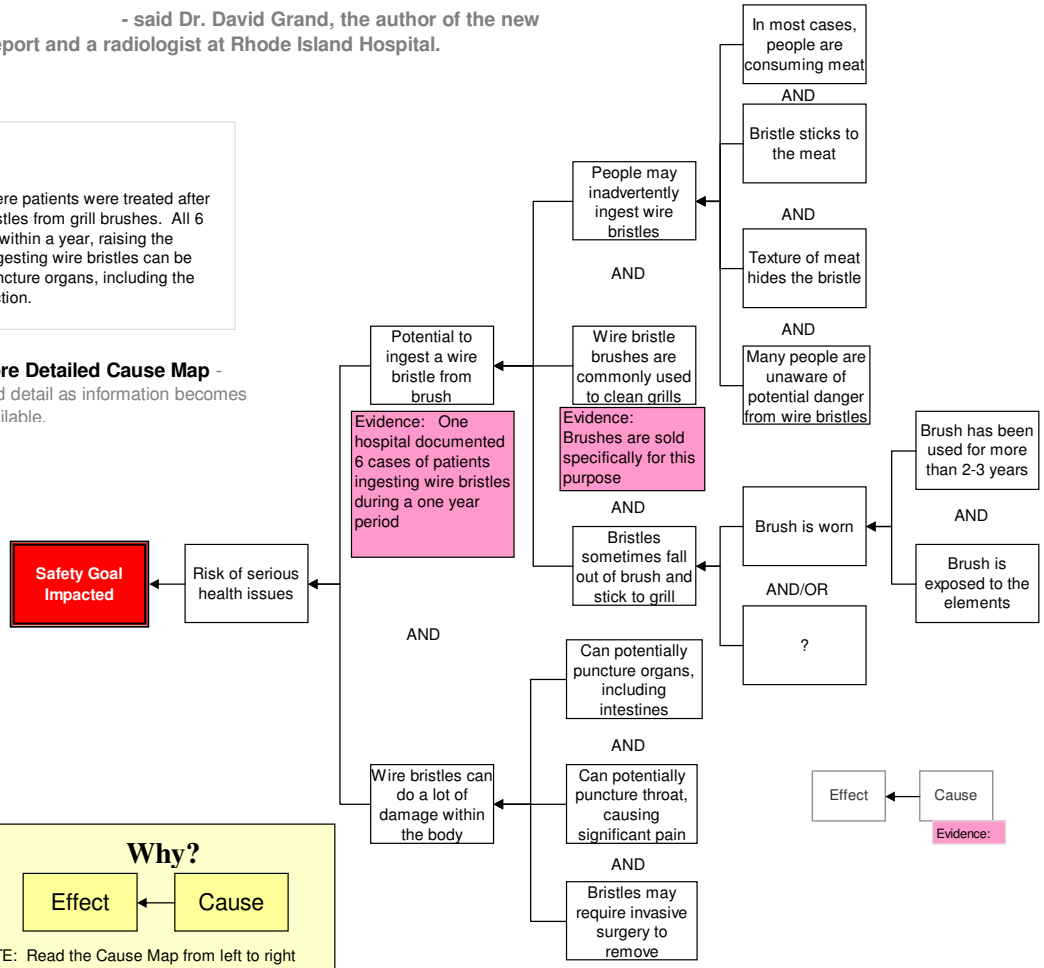
A new report documents 6 cases where patients were treated after they inadvertently swallowed wire bristles from grill brushes. All 6 cases were seen at a single hospital within a year, raising the question of how often this occurs. Ingesting wire bristles can be very dangerous because they can puncture organs, including the small intestine which can cause infection.

More Detailed Cause-and-Effect

This issue can be analyzed by building a Cause Map or visual root cause analysis. The first step in creating a Cause Map is to determine how the issue impacts the overall goals of an organization. In this example, we'll consider the organization the general public and the main impacted goal is the safety goal since there is a risk of serious health issues. Causes are now added to the Cause Map by asking "why" questions. Why is there a risk of serious health issues? Because there is the potential to swallow a wire bristle and the wire bristle can do a lot of damage within the body. (To view a high level Cause Map of this issue, click "Download PDF" above.)

Continuing the "why" questions, we would now ask "why" is there a potential to swallow a wire bristle? This possibilities exists because people may inadvertently swallow the bristles without realizing it, the bristles come from wire brushes that are often used to clean residential grills and the bristles sometimes fall out of the brushes and stick to the grill. People may inadvertently ingest the bristles because the bristles can stick to meat and the texture can hide the presence of the bristle. Many people are also unaware of the potential danger of eating a wire bristle so they aren't looking to find bristles. Investigation into this issue has not found any defects that are causing bristles to fall out. No one brand or type of grill brushes has been singled out as the culprit in these causes, but a worn grill brush is more likely to shed bristles than a new brush.

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



3 Solutions

The final step of the Cause Mapping process is to come up with potential solutions that could be used to prevent the problem from reoccurring. The best way to protect yourself from the possibility of this occurring is to inspect the grill after using a wire grill brush or to find another method to clean your grill.

Why?

Effect ← Cause

NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of

For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

ThinkReliability

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