QI Tools
Root Cause Analysis

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• Problem Solving

• Treating the Symptom vs. Treating the Cause

• Symptom – sign or indication

• Cause – what actually makes something happen
• Addressing the symptom instead of the cause leads to a temporary or partial fix

• Problem will occur again

• Can create more problems unintentionally

• Address the problem at its cause(s) is more efficient and effective

“Avoid the bandaid approach!”
Benefits

- Identifies & categorizes issues
- Organizes ideas
- Shows relationships
- Reveals potential problems
- Facilitates process understanding
- Easy to use
- Useful reporting tool
• Fishbone Diagram
• Cause and Effect Diagram
• Ishikawa Diagram
• Why use a fishbone diagram?
  ◦ To allow a team to identify, explore, and graphically display – increasing detail – all of the possible causes related to a problem or condition to discover its root cause(s).

• What does it do?
  ◦ Enable a team to focus on the content of the problem versus the history of the problem or personal interests of the team.
  ◦ Creates a snapshot of the collective knowledge and consensus of a team around a problem
  ◦ Focuses the team on causes, not symptoms.
• Construct your problem statement on the right-hand side within your “fish head”

• This problem statement is known as the effect

• An arrow or “fish spine” should point towards the problem statement
Fishbone – Problem Statement

High number of patients falling while under facility xyz's care
• Decide what your main causes of the problem are
• Use these as the headers
• Arrows should connect the headers to the spine
• Examples of headers:
  ◦ Manpower, Machinery, Materials, Methods (4 M’s)
  ◦ People, Plant, Procedures, Policies
  ◦ Lifestyle, Environment, Forms
Fishbone – Major Causes

- Facility/Equipment
- Staff
- Methods & Procedure
- Patients

High number of patients falling while under facility xyz's care
- Use the 5 whys
- Continuing to ask why can help ensure that you don’t focus on “low hanging fruit”
- Symptoms may return
Fishbone – Sub-Causes

Facility/Equipment
- Limited number of walkers available
- Limited number of wheelchairs
- Facility does not have onsite rehabilitation
- No safety procedures in place
- Not enough patients are referred to physical therapy

Staff
- Some hallways are not wheelchair accessible
- No handrails present
- No or limited training
- Too many duties assigned to each person
- Limited number of staff per shift
- Want independence
- Not properly supervised
- Want to participate in activities

Methods & Procedure

Patients

High number of patients falling while under facility xyz’s care
Fishbone – 5 Why’s Technique

Highest-Level Cause – ROOT CAUSE

Higher-Level Cause

First-Level Cause

Visible Problem

Symptoms
Fishbone – Detailing 5 Why’s
• It is an easy exercise to use and apply
• Helps you avoid the low-hanging fruit
• Can help you find the root cause
The 5 Why’s may not lead to a root cause identification when the cause is ultimately unknown.

The problem may have more than one cause.

The 5 Why’s method is dependent upon the skill level of how it is applied to the analysis.

The method is not necessarily repeatable.

It has difficulty distinguishing between causal factors and root causes.

**Fishbone – 5 Why’s Limitations**
• Choose the items you want to focus on

  ◦ Looks for causes that repeat within the major categories

  ◦ Choose causes that the team can control or influence

  ◦ Select through consensus

  ◦ May need to use other tools such as check forms or surveys and other data collection
## Root Cause Analysis Rating Form

<table>
<thead>
<tr>
<th>Potential Root Cause</th>
<th>Improved Outcome</th>
<th>Reduced Costs</th>
<th>Improved Overall Quality of Care</th>
<th>Other</th>
<th>Total Score</th>
<th>Ranking</th>
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**Impact Scoring Scale:** Low=1  Medium=3  High=5
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• Things to remember
  ◦ Work on the cause – NOT the symptoms or low-hanging fruit
  ◦ Fishbone diagram is useful for identifying root causes
  ◦ Use the 5 why’s
  ◦ The Root Cause Analysis Rating Form can help determine which is the most important cause to work on

Wrap Up