Learning From Defects Tool

ICU & Non-ICU

**Problem statement:** Healthcare organizations can increase the extent to which they learn from defects. We define this learning as reducing the probability that future patients will be harmed.

**What is a defect?** A defect is any clinical or operational event that you would not want to happen again. This could include incidents that you believe caused patient harm or put patients at risk for significant harm. When it comes to methicillin-resistant *Staphylococcus aureus* (MRSA), the defects we focus on are events that could potentially lead to MRSA infection.

**Purpose of tool**: The purpose of this tool is to provide a structured approach to help identify steps that led to the defect. This tool will help your teams identify system factors that contribute to defects, plan improvements, and sustain those improvements. Because this tool helps you to look at MRSA infections and other patient safety events at a systems level, the solutions you create are more likely to be lasting ones.

**Who should use this tool?** It is strongly encouraged that this tool be completed by a multidisciplinary healthcare team. At a minimum, include members of the Comprehensive Unit-based Safety Program (CUSP) Team, physicians, nurses, administrators, and other selected professionals, as appropriate (e.g., for a defect that involves environmental services, make sure the Environmental Services (EVS) CUSP Team member is present; for an equipment defect, include clinical engineering staff).

**How to use this tool:** Complete the form below for at least one defect per month. Investigate all defects, MRSA related or not. Defects can be found though information gleaned from Staff Safety Assessment Forms, liability claims, sentinel events, events for which risk management is notified, cases presented at morbidity and mortality rounds, and healthcare-acquired infections (HAIs).

I. Provide a clear, thorough, and objective explanation of what happened.

II. Review the list of factors that contributed to the incident and check off those that negatively and positively contributed to the outcome of the incident. Negative contributing factors are those that harmed or increased the risk of harm for a patient. Positive contributing factors limited the amount of harm. Rate the most important contributing factors that relate to the incident.

III. Describe how you will reduce the likelihood of this defect from happening again by completing the tables. Develop interventions for each important negative contributing factor and rate each intervention for its ability to mitigate the defect and the feasibility to carry it out. Identify two to five interventions that you will use. List what you will do, who will lead the intervention, and when you will follow up to note the intervention’s progress.

IV. Describe how you will know you have reduced the risk. Survey frontline staff involved in the incident to determine whether the intervention has been used effectively and whether risk has been reduced.

**Investigation process**

1. **What happened?** In the space below, identify the MRSA infection or other event. Please describe the event to include the timeline, witnesses, and decisions that were made. Put yourself in the place of those involved and in the middle of the event as it was unfolding to understand what they were thinking and the reasoning behind their actions or decisions. Try to view the world as they did when the event occurred.

| Event Components | Descriptions |
| --- | --- |
| Event | *Enter event description* |
| Timeline | *Enter timeline description* |
| Witnesses | *Enter witnesses’ description* |
| Decisions and Reasoning | *Enter decisions and reasoning description* |

1. **Why did it happen?** In the space below, identify negative and positive contributing factors associated with the MRSA infection or other event.

**Negative contributing factors** are factors that harmed or increased the risk of harm for patients. You want to change these.

**Positive contributing factors are factors** that limited the impact of harm for patients. You want to keep and reinforce these.

*It may be reasonable to enter “Not Applicable” for some categories.*

| Factors | Negative Contributing Factors | Positive Contributing Factors |
| --- | --- | --- |
| Patient Factors (related to clinical condition of patient) | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter patient factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter patient factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| Technical Factors (related to MRSA prevention resources, including information technology resources) | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter technical factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter technical factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| Healthcare Worker Factors (related to members of the healthcare team) | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter healthcare worker factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter healthcare worker factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| Team Factors (related to teamwork and communication) | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter team factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter team factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| Institutional Factors (related to institution’s culture and resources) | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter institutional factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |
| *Enter institutional factor* | *Enter negative contributing factor* | *Enter positive contributing factor* |

1. **How will you reduce the likelihood of this defect from happening again?** In the space below, identify two to five negative contributing factors from the previous step. Discuss and develop interventions to defend against the factors, assign the person(s) who will lead the efforts, and determine followup dates.

|  |  |  |  |
| --- | --- | --- | --- |
| Contributing Factors | Interventions | Person(s) Assigned To Lead Efforts | Followup Dates |
| *Enter contributing factors* | *Enter interventions* | *Enter leader* | *Enter dates* |
| *Enter contributing factors* | *Enter interventions* | *Enter leader* | *Enter dates* |
| *Enter contributing factors* | *Enter interventions* | *Enter leader* | *Enter dates* |
| *Enter contributing factors* | *Enter interventions* | *Enter leader* | *Enter dates* |
| *Enter contributing factors* | *Enter interventions* | *Enter leader* | *Enter dates* |

1. **How will you know the risk is reduced?** In the space below, describe plans to measure the impact of the interventions and how to share and receive feedback. Ask frontline staff involved in the defect whether the interventions were effectively carried out and reduced the likelihood of recurrence of the defect. Since some issues may take several months to reach a conclusion due to multiple steps in the process (e.g., research and understand the problem, develop a plan, implement your improvements, and evaluate the impact of the planned change), it is fine to work on more than one issue at a time.

| Interventions | Plans To Measure Impact of Intervention | Interventions Were Effectively Carried Out, 1 (Low) to 5 (High) | Interventions Reduced the Likelihood of Recurrence, 1 (Low) to 5 (High) |
| --- | --- | --- | --- |
| *Enter intervention* | *Enter measurement plan* | *Enter effectiveness ranking* | *Enter recurrence ranking* |
| *Enter intervention* | *Enter measurement plan* | *Enter effectiveness ranking* | *Enter recurrence ranking* |
| *Enter intervention* | *Enter measurement plan* | *Enter effectiveness ranking* | *Enter recurrence ranking* |
| *Enter intervention* | *Enter measurement plan* | *Enter effectiveness ranking* | *Enter recurrence ranking* |
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AHRQ Pub. No. 25-0007

October 2024