

Learning from Defects Tool

Basic Information:

- The purpose of learning from defects in a structured way is to help this clinical or technical area “learn how” to operationalize best practices so that they solve problems while building capacity to improve quality in the future.
 - Use brief (30-60 min) defect learning discussions to explore and resolve system factors involved in the defect. Focus discussion on specific actions to reduce the likelihood of defect recurrence.
 - Devote protected time to discuss monthly or in response to an event in the unit or department, meet in a safe place for open discussion, try to keep group size to 5 or fewer if possible.
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To best learn from a defect, begin by identifying a problem through one of the following ways:

- Defects identified in shift report
- Infection control issues
- Coworker or physician concern
- Patient or family member concern
- Ask: How is the next patient going to be harmed?
- Occurrences/Incidences
- Poor patient outcome
- Problems with equipment or supplies
- Other issues, problems and/or risks identified

Turn to the back for “Learning From Defects” Worksheet

Learn from Defects Worksheet

Date:

Attendees:

What happened? (brief description)	
Why did it happen? What factors contributed? (Contributing Factors Tool)	
+ <u>What prevented it from being worse?</u>	- <u>What happened to cause the Defect?</u>
What can we do to reduce the risk of it happening with a different person?	
How will we know the risk is reduced?	
With whom shall we share our learning?	

ADAPTED FROM:

- Pronovost et al. Jt. Comm J Qual Pt. Saf. 2006 Feb: 32(2): 102-8.
- Pronovost et al. Crit Care Med. 2006 Jul: 34(7): 1988-95.
- Tucker AL, et al. MANAGEMENT SCIENCE 2007 53:894-907
- St. Joseph Mercy Heath System

Contributing Factors Tool

Contributing Factors (Factors can negatively or positively contribute to the defect)	Notes
Patient Factors:	
Patient was acutely ill or agitated (<i>Elderly patient in renal failure, secondary to congestive heart failure.</i>)	
Was there a language barrier (<i>Patient did not speak English.</i>)	
There were personal or social issues (<i>Patient declined therapy.</i>)	
Task Factors:	
Was there a protocol available to guide therapy? (<i>Protocol for mixing medication concentrations is posted above the medication bin.</i>)	
Were test results available to help make care decision? (<i>Stat blood glucose results were sent in 20 minutes.</i>)	
Were test results accurate? (<i>Four diagnostic tests done; only MRI results needed quickly- results faxed.</i>)	
Caregiver Factors	
Was the caregiver fatigued? (<i>Tired at the end of a double shift, nurse forgot to take a blood pressure reading.</i>)	
Did the caregiver's outlook/perception of own professional role impact this event? (<i>Doctors followed up to make sure cardiac consult was done expeditiously.</i>)	
Was the physical or mental health of the provider a factor? (<i>Provider having personal issues and missed hearing a verbal order.</i>)	
Team Factors	
Was verbal or written communication during hand offs clear, accurate, clinically relevant and goal directed? (<i>Oncoming care team was debriefed by outgoing staff regarding patient's condition.</i>)	
Was verbal or written communication during care clear, accurate, clinically relevant and goal directed? (<i>Staff was comfortable expressing his/her concern regarding high medication dose.</i>)	
Was verbal or written communication during care clear, accurate, clinically relevant and goal directed? (<i>Team leader quickly explained and direct his/her team regarding the plan of action.</i>)	
Was there a cohesive team structure with an identified and communicative leader (<i>Attending physician gave clear instructions to the team.</i>)	
Training and Education Factors	Notes
Was provider knowledgeable, skilled and competent? (<i>Nurse knew dose ordered was not standard for that medication.</i>)	
Did provider follow the established protocol? (<i>Provider pulled protocol to ensure steps were followed.</i>)	
Did the provider seek supervision or help? (<i>New nurse asked preceptor to help her/him mix medication concentration</i>)	

Information Technology/CPOE Factors	
Did the computer/software program generate an error? (Heparin was chosen, but Digoxin printed on the order sheet.)	
Did the user check what he/she entered to make sure it was correct? (Provider initially chose 0.25 mg, but caught his/her error and changed it to 0.025 mg.)	
Local Environment	
Was there adequate equipment and was the equipment working properly? (There were 2 extra ventilators stocked & recently serviced by clinical engineering.)	
Was there adequate operational (administrative and managerial) support? (Unit clerk out sick, but extra clerk sent to cover from another unit.)	
Was the physical environment conducive to enhancing patient care? (All beds were visible from the nurse's station.)	
Was there enough staff on the unit to care for patient volume? (Nurse ratio was 1:1.)	
Was there a good mix of skilled with new staff? (There was a nurse orientee shadowing a senior nurse and an extra nurse on to cover senior nurse's responsibilities.)	
Did workload impact the provision of good care? (Nurse caring for 3 patients because nurse went home sick.)	
Institutional Environment	
Were adequate financial resources available? (<i>Unit requested experienced patient transport team for critically patients and one was made available the next day.</i>)	
Were laboratory technicians adequately in-serviced/educated? (<i>Lab tech was fully aware of complications related to thalium injection.</i>)	
Was there adequate staffing in the laboratory to run results? (<i>There were 3 dedicated laboratory technicians to run stat results.</i>)	
Were pharmacists adequately in-service/educated? (<i>Pharmacists knew and followed the protocol for stat medication orders.</i>)	
Did pharmacy have a good infrastructure (policy, procedures)? <i>It was standard policy to have a second pharmacist do an independent check before dispensing medications.</i>	
Was there adequate pharmacy staffing? (<i>There was a pharmacist dedicated to the ICU.</i>)	
Does hospital administration work with the units regarding what and how to support their needs? (<i>Guidelines established to hold new ICU admissions in the ER when beds not available in ICU</i>)	