

FMEA Medical Computing

October 2005

PROCESS	FAILURE MODE	CAUSE	EFFECT	LIKELIHOOD THIS OCCURS (1-4)	RISK THE LOG ON WILL NOT OCCUR (1-4)	HAZARD SCORE (1-16)
Clinician walks on to the care unit	Unable to get to medical computer	Computer missing	Clinician moves to another computer	1	4	4
Clinician walks on to the care unit	Computer not turned on	Clinician turned equipment off	Clinician moves to another computer	1	4	4
Clinician walks up to functioning computer	Computer not at EMR application	Computer recently turned on by staff or re-booted	Clinician will not wait and move to another computer	2	3	6
Clinician walks up to functioning computer	Computer at windows desktop	Logged in as workstation	Clinician unable to log out and moves to another computer	1	4	4
Clinician walks up to functioning computer	Computer at windows desktop	Non-logged task station	Clinician will not try to log on help	2	3	6

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Clinician walks up to computer with IE access	"surfs" internet	Desktop I.E. (open access) **	EMR application slow or unable to operate properly	4	3	12
Clinician walks up to functioning computer	Short cut to EMR not on start menu	Short cut removed reasons uncertain	Clinician will move on to another computer	1	4	4
Clinician walks up to functioning computer	Computer at cti-alt-del screen	Reboot of system	Difficult to navigate the screens (time or effort)	4	4	16
Clinician walks up to functioning computer	Computer at windows desktop	Reboot of system	Clinician will not try to log on or get help	2	3	6

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Clinician walks up to functioning computer	Computer "sleeping"	Battery life extended	Computer non-functioning	2	4	8
Clinician walks up to computer and EMR is on the screen	Clinician attempts 3 log ons and is locked out	User Error with username or password	Completely locked out must eventually call help desk	2	3	6
Clinician logs on sucessfully but system password change required	Compliant password	Clinician doesn't remember rules for new password	Unable to go further in EMR	4	3	12
Clinician walks up to computer and a EMR is logged on by a different clinician	Prior clinician error in leaving logged on system	User error in leaving system logged on	May attempt to sign out session and log in but will probably move to a different station	2	2	4

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Clinician walks up to computer and a session is paused by a different clinician	System pause	Previous user left system in pause	May attempt to unpause session and log in	3	2	6
Clinician walks up to computer and EMR is on the screen	Log on hangs	Multiple causes **	Clinician goes to another computer	2	4	8
Clinician walks up to laptop for use	Equipment does not work	Multiple causes**	Clinician goes to another computer	3	2	6
Clinician walks up to desktop for use	Does not work at all	Multiple causes**	Clinician leaves laptop non-functioning and unlikely to use laptop again	3	2	6

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Clinician walks up to mobile cart for use	Does not work at all	Multiple causes**	May re-try to log on , will likely move to another computer	2	1	2
Clinician has problems with any aspect of the log on	Does not work at all	Multiple causes**	May re-try to log on , will likely move to another computer	2	1	2
Clinician walks up to computer and EMR is on the screen	Clinician not calling the Help Desk	Poorly functioning system log on	Clinician will move on to another computer	3	1	3
Clinician working on wireless computer (configured for SAMC)	Clinician booted off EMR	WAP (wireless access point)	Clinician will retry log on	3	2	6
Hazard Score (RPN; Risk Priority Number)						131

** Multiple hazard scores and steps may occur which will need to be defined				
<u>Frequency or likelihood</u>	1 = Rare-- occurs rarely			
	2 = Sometimes-- occurs sometimes usually weekly			
	3 = Often--occurs more than not usually weekly and sometimes daily			
	4 = Very often--occurs daily or several times a day			
<u>Risk log in will not occur</u>	1 = Low—user will most likely get logged in with little effort or help			
	2 = Moderate—log in will occur some of the time usually with some effort or help			
	3 = High—with some significant effort or help, log in will occur			
	4 = Very High—user will not log in at the defined computer			
<u>Hazard Scoring Matrix</u>	Frequency Scores			
Risk Score	Very often (4)	Often (3)	Sometimes (2)	Rare (1)
Low (1)	0	1	2	0
Moderate (2)	0	4	1	0
High (3)	2	0	4	0
Very High (4)	1	0	2	4
Key to Hazard Score = Frequency Score x Risk Score Failure modes with scores that are 8 and greater should be given priority.				
Some concern should be given to Risk Scores of 4				