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RCA and infection control	www.cclin-arlin.fr
KEY POINTS An error is something realised only after the event	
Slips and lapses are errors of action and memory	
Mistakes are errors of knowledge and planning	
Errors can only be properly understood in context	and institutional context
factors may all influence incidents and accidents	and institutional context
Incidents may act as a 'window' on the healthcare system	
http://www.chfg.org/wp-content/uploads/2012/03/Vincent-Essenti	ials-of-Patient-Safety-2012.pdf 5



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WHO RCA definition		
Systematic analysis of all the fact the potential to prevent an error	tors which (…) have	
Explains how the incident occurr	ed	
Designs mechanisms to prevent happening again	the incident from	
Can be applied to incidents or to	'near misses'.	
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Root Cause Analysis			
Patient factors: Clinical condition Physical factors Social factors Psychological/ mental factors Interpersonal relationships	Task factors: Guidelines/ procedures/ protocols Decision aids Task design	Working condition factors: Administrative Design of physical environment Environment Staffing Workload and hours Time	
Team factors:	Organis	sational + strategic	
Role congruence	-	factors:	
Leadership	Organi	sational structure	
Support + cultural		Priorities	
factors	Externa	ally imported risks	
	S	afety culture	
http:/	/www.nrls.npsa.nhs.uk/re	sources/collections/root-cause-analysis/ 23	



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Surgical	site infections for	ollowing bar	iatric surge
	Problems	Causes	Solutions
Patients	Patients usually with poor cutaneous state.	Patients with comorbidities.	
	Difficulties to shower alone before surgery.	Mechanical difficulties due to obesity.	Help patients to shower.
	Patients did not ask for help to shower before surgery.	Psychological difficulties accepting someone looking at them.	Patients education to make them aware that showering before surgery is necessary.
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urgical	site infections	following ba	ariatric surge
	Problems	Causes	Solutions
Health care workers	Did not check the cutaneous state of patients neither that they correctly shower before surgery.	No protocol for such checking.	To integrate in the check-list the cutaneous state and the realization of the shower.
	Did not offer to help patients to shower.	Psychological difficulties to ask patients about showering and to offer help.	Awareness to make them be confident that showering before surgery is a care which needs to be checked.
		No training or protocol to help patients shower.	HCWs training + protocol.
	Wearing rings and wrist watches in the ward.	Underestimation of the risk.	Forbid rings and wrist watches.

	Problems	Causes	Solutions
Tasks	Boxes of surgery devices were opened a long time before surgery.	Increase in the activity. Small time between interventions.	Stop early box opening by respecting time between interventions and adapting the program activity.
	Complex postoperative dressings.	Ward habits.	Discussion on medical prescriptions.
	Increased nursing workload because of many patients with a Picc-line.	Picc-line were used instead of peripheral venous access in obese patients because physicians thought it was easier to use.	Only use Picc-line when justified.

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Surgical s	site infections	following b	ariatric surger
	Problems	Causes	Solutions
Context and organization	Increased nursing workload because of reduction in paramedical workers.	Institutional strategy.	
	Nurses were regularly interrupted when performing cares and dressings.	Nurses had to frequently answer the telephone.	To be more organized to stop answering the phone when performing a care.
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		MRSA Bacteraemia I Actions proposed and P	RCA riorities
		Proposed action	Responsible
	1	New configuration of computer software to be able to notify a PVC emergency insertion by checking a box	IT services
	2	Review PVC practices through an observational audit	IC team
	3	Probabilistic antibiotic treatment protocol to complete with a part on PVC infection	Infectiologists
	4	Positioning of positive blood cultures results as a management priority. Inform your doctor as soon as the alert by the laboratory for immediate care.	All wards of the hospital
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	Exploring BBFE		
Chronolog	Y		
Friday 9:00 AM	Beginning of MRI session for radiologist.		
11:00 AM	The radiologist adds on the schedule a breast microbiopsy for a patient with a suspicious MRI image.		
	The radiology technician sets the patient in the biopsy room.		
	The radiologist comes in the biopsy room.		
	She puts a sterile drape upside down on the table to place sterile medical devices.		
12:20 AM	First of all, the radiologist performs a subcutaneous anesthesia then manually removes the subcutaneous needle and puts it down on the sterile drape. Next, she perfoms intramuscular anesthesia.		
	Afterwards, she inserts the bisopsy gun, pulls the trigger and removes it.		
	The radiologist takes the subcutaneous needle placed on the sterile drape to drag the carrot into the bottle of formol. Then, she replaces the needle on the sterile drape.		
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	Exploring BBFE				
12·30 AM	The radiologist who wears open shoes feels a needlestick on the back of her foot	_			
12100 741	She sees the subcutaneous needle on the floor and notes the BBFE.				
	The radiologist reports the BBFE to the radiology technician and asks for an antiseptic.	_			
	The technician returns with a bandage. The radiologist continues her act and performs two other samples with the same process.	_			
12:45 AM	End of the biopsy. The radiologist disinfects the wound with sterile gauze soaked with Dakin® for at least 5 minutes.	t			
1:30 PM	She meets the nurse manager who reminds her the protocol to follow in case of BBFE.	_			
1:35 PM	The radiologist goes to emergency. The source patient returns at hospital for serology at 2:30 PM.	_			
6:30 PM	The laboratory calls the radiologist to inform her about the negative results of serology.	_			
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Exploring BBFE		
<u>Main gaps</u>	Contributing factors	Influential factors
Non immediate disposal of the needle	Lack of safety container close to the work area	Lack of adequate safety container
Reuse of subcutaneous needle	Difficulties to drag the carrot into the bottle of formol because of its adhesion in the biopsy gun needle	Lack of adequate material device to drag the carrot into the bottle of formol
Non scheduled breast microbiopsy	Biopsy session scheduled 6 days after the RMI session. Recent increase of biopsy activities	Sub-optimal organization for the breast microbiopsy procedure: no protocol, inadaquate time-slot, lack of dedicated time
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