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Reduction of Erosion Risk in Adult Patients with Implanted Ports

Evidence Based Practice Project Team Co- Leaders: Mary K. Weis RN, MSN, ACNS-BC| Coborn Cancer Center, Jennifer Burris MA, RN, CNS| Medicine Care Center
 Advisor: Roxanne Wilson, RN, PhD| Director Community Cancer Programs| Coborn Cancer Center

Literature Review/ Supporting Evidence

- Erosion complications are infrequently reported <1% (C)
- Probably unreported erosion (C)
- Erosion develops overtime when the port septum is accessed at the same location each time(C)
- Patients treated with Avastin were inversely proportional to erosions with the interval less than 14 days (C)
- Port should be placed at depth of 0.5–2 cm (C,M)
- Patients at risk:
 - Repetitive motions can cause skin to erode (C)
 - Significant amount of weight loss (C, M)
 - Possible correlation with the weight of the breast pulling on skin above port site. (E)
- Observation of lack of adequate securement of port access tubing to the patient causing skin damage at the access site. (E)
- Regional telephone surveys of cancer centers indicate use of 20 Ga needles to access ports (E)
- Premark bra strap line prior to insertion. (E)
- Genetech Avastin recommendations – Consider port placement to be 14 days before or after Avastin administration (C).

AACN Level of Evidence

Level	Description
A	Meta-analysis of multiple controlled studies or met synthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment
B	Well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment
C	Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results
D	Peer-reviewed professional organizational standards, with clinical studies to support recommendations
E	Theory-based evidence from expert opinion or multiple case reports
M	Manufacturer's recommendation only

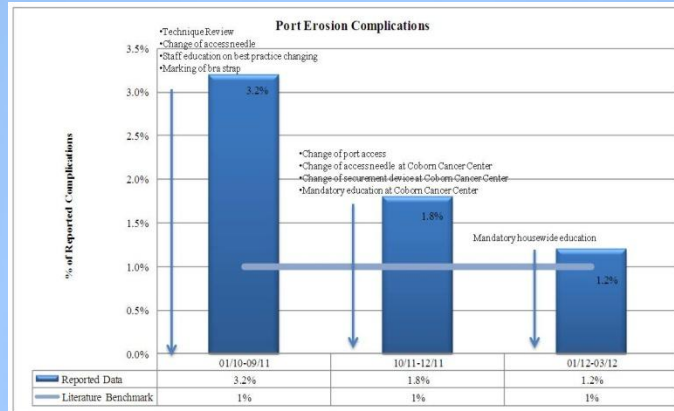
Team Members

- Joannie Nei, Clinical Value Analysis Specialist
- Hoang D. Nguyen, M.D.
- Bob Miller, RN, Radiology
- Mary Super, Director of Radiology
- Brenda Swendra-Henry, RN, Educator Radiology

Goal

Percent of port erosions per year will be at or below the number reported in the literature.

Outcomes



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Best Practice Changes

Changes Implemented March 2011-September 2011

- Change of Bard Power Port to version with lower profile palpation bumps
- Change in access needle from 19 to 20 ga
- Staff education on securing port access tubing and accurate documentation of port assessments
- Staff education on providing patient teaching specific to caring for the access device (i.e. Using a pad to protect from bra straps or seat belts)
- Radiology will mark bra straps prior to insertion
- Radiologists have acknowledged the practice and support that ports should have depths of 0.5-2 cm
- Continue to send eroded devices to Bard for review of medical device failure

Changes Implemented October 2011-December 2011

- Medical Oncology will continue to consider timing of port placement to be 14 days before or after Avastin administration
- Change of Bard Power Port to upgraded version without profile palpation bumps
- Mandatory education for nursing staff at the Coborn Cancer Center and Radiology on new Bard Power Access needle and Tegaderm Securement Dressing
- Change to Bard Power Access needle and Tegaderm Securement Dressing in Outpatient Infusion at the Coborn Cancer Center

January 2012 and Beyond

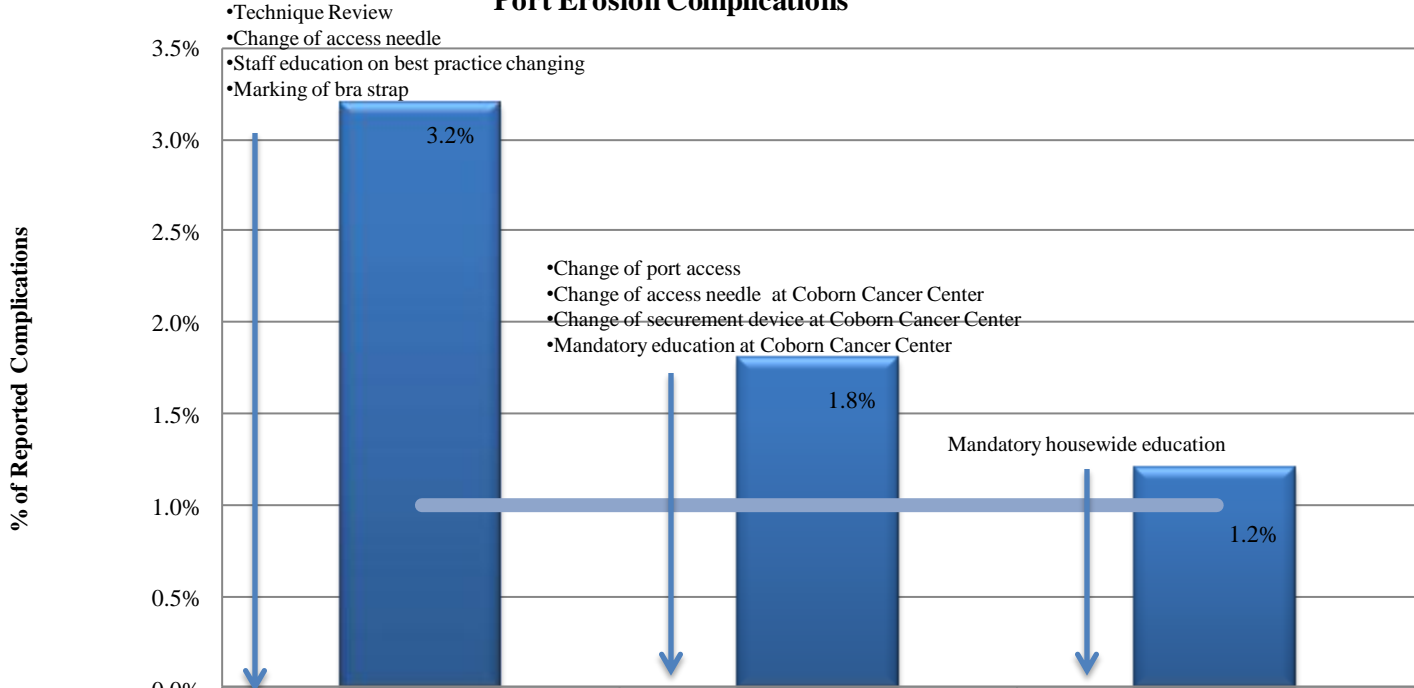
- Mandatory education for nursing staff at the St Cloud Hospital on new Bard Power Access needle and Tegaderm Securement Dressing
- New Bard Power Access needle and Tegaderm Securement Dressing for entire SCH implementation date expected April 2012

St. Cloud Hospital
CENTRACARE Health System



Coborn Cancer Center
CENTRACARE Health System

Port Erosion Complications



Reported Data	3.2%	1.8%	1.2%
Literature Benchmark	1%	1%	1%