Breast Cancer Port Placement Study

ACoS quality improvement patient care study

Coordinating breast cancer surgical care

To evaluate services and care, the cancer leadership committee chose to review the timing of placement of central venous access devices (ports) in women with breast cancer. This is a study of quality using registry data that includes structure variables affecting the delivery of treatment to ensure a positive patient experience. The purpose of this study was to discover whether the timing of port placement could be improved by coupling the insertion with the definitive surgery post biopsy thereby eliminating a second surgery for port placement alone.

From January 2010-October 2011 registry data included 164 cases of women with breast cancer (Table 1). Of those cases, 129 either did not received chemotherapy requiring placement of a port or had a port placed at another institution. Cases with a port placed at Trinity numbered 35. The majority had a port placed after their definitive surgery to remove the breast cancer with only 3 placed at the same time as their definitive surgery. In 8 cases, women had a port placed prior to surgery for the administration of neoadjuvant chemotherapy.

Table 1. Cases of Breast Cancer n=164 January 2010-October 2011

	n (%)
No chemotherapy or port placed elsewhere	129 (78)
Ports placed **during** definitive surgery for breast cancer	3 (0.02)
Ports placed **before** definitive surgery	8 (0.05)
Ports placed **after** definitive surgery	24 (0.15)

There are commonalities among the 3 cases of ports placed at the time of the definitive surgery. Women either had a large, palpable mass or inflamed appearing breast and all had a medical oncology visit prior to their cancer surgery. Women whose ports were placed for neoadjuvant chemotherapy (n =8) the same factors are identified (Table 2). Ports were placed for neoadjuvant chemotherapy in women who presented to their primary care physician or surgeon with a palpable mass or the physician described an inflamed appearing breast. In each case, a medical oncology consult was documented.

Table 2. Commonalities in Neoadjuvant Port Placement

	n (%)
Palpable mass	5(63%)
Inflamed appearing breast	2 (25%)
Prior medical oncology consult	8(100%)

Of the 24 women who had a port placed after their definitive cancer surgery no trend in practice pattern is seen. Ten women were 50 years of age or younger and 14 over the age of 50. Eleven had a palpable lump at diagnosis and 12 did not. Half of the women had a medical oncologist consultation after biopsy and prior to definitive breast cancer surgery. Placement of the port during a second surgery ranged from 15-56 days after their definitive breast cancer surgery. Of the women who had a port placed within two weeks of their definitive breast cancer surgery 4 had an early medical oncologist referral and 2 did not.

Conclusion - Integrated cancer care requires all services to be consulted in the treatment plan. This study highlights that half the time (often) women are not referred to a medical oncologist early in the treatment plan; after tissue diagnosis.

It cannot be concluded from this small number of cases that consulting with a medical oncologist prior to definitive surgery for breast cancer would have changed the timing of port placement, eliminating a second separate surgical procedure…but it's possible.

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Registry Data

	Age	P/N	MedOnc Consult	# of days post cancer	Reexcision	Comments
1	52	P	Y	60	N	Seroma complication
2	63	N	Y	12	N	
3	47	P	N	14	Y	
4	56	P	Y	15	Y	
5	48	N	N	56	Y	
6	62	N	Y	45	N	
7	45	N	Y	24	N	
8	44	N	N	28	Y	
9	59	P	N	28	N	
10	76	P	Y	31	N	
11	63	Unk	N	31	N	
12	50	P	Y	33	N	
13	75	P	N	34	N	Presented with
14	36	N	Y	62	N	bloody nipple
15	76	P	Y	35	N	discharge Mayo ref
16	48	N	N	35	N	
17	47	N	N	41	N	
18	78	N	Y	41	N	
19	69	P	N	43	N	
20	58	N	N	58	N	
21	60	P	N	47	N	
22	53	P	N	14	N	
23	47	N	Y	15	N	
24	48	N	Y	15	N	
	10 were Under 50 14 were Over 50	P=11 N-22	Y=12 N=12	Range 14-56		