

## BRCA Testing in ZSW Breast Cancer Patients

Eighty four patients were tested for the presence of a BRCA1 or BRCA2 mutation between 2011 & 2014. Of these 49 were available for analysis to show that we were compliant with the NCCN guidelines for appropriate testing indications and treatments. The Indications for testing in this sample of patients were a family history of breast CA, triple negative Breast CA, bilateral breast CA, breast CA under the age of 45 and a pelvic mass. 4 patients had a + result, 1 with family history, 1 with bilateral breast Ca, & 2 under age 45. These indications are included in the NCCN Guidelines.

Four patients were found to have a positive result, 1 with a family history of breast cancer, one with bilateral breast cancer, and 2 with breast cancer under the age of 45. The Incidence of just over 8% is consistent with nationally reported incidence of 10-15%.

Two patients were lost to follow up and no results were reported on 2 of the patients

Of the remaining 45 patients all have completed their treatment or under active surveillance consistent with the NCCN Guidelines. At the completion of the survey all patients revealed no evidence of locally recurrent or metastatic Cancer

<b>BRCA Testing in ZSW Breast Cancer Patients</b>				
	<b>Indication</b>	<b>BRCA-</b>	<b>BRCA+</b>	<b>Outcome</b>
	FHBC	10	1	NED
	TNBC	7	0	NED
	Bilateral BC	2	1	NED
	BC<45yo	7	2	NED
	Pelvic Mass	1	0	NED
	<b>Total</b>	<b>49</b>		
	Lost to f/u	2		
	No Results	2		
	Not Indicated	14		

BREAST MALIGNANCIES DIAGNOSED AT MON GENERAL HOSPITAL 2007 TO 2013

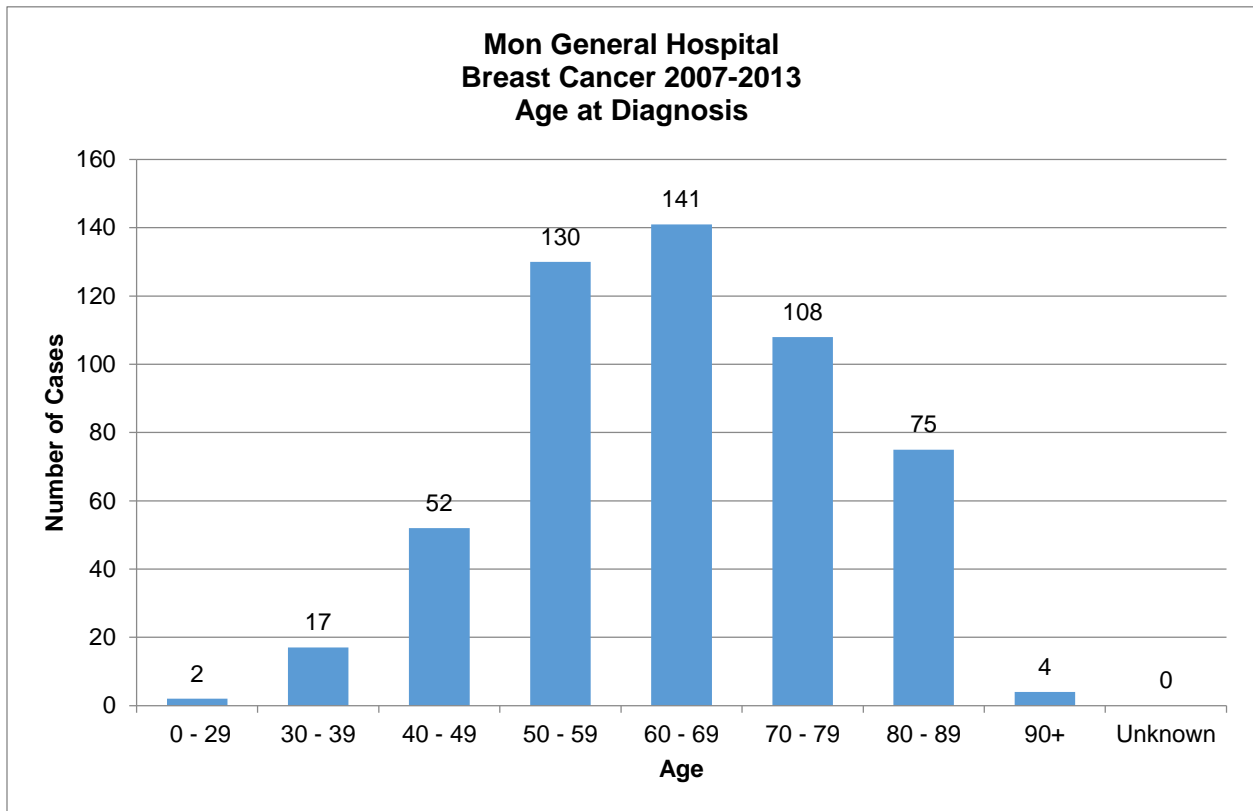
This breast cancer study shows statistics from Monongalia General Hospital from 2007 to 2013 and NCDB Benchmark reports comparing Mon General versus Comprehensive Community Cancer Program Hospitals in ACS Division of South Atlantic 2000 to 2011.

Age at diagnosis:

Registry data showed the average age at diagnosis at Mon Gen to be 60-69 with 141 cases. The next highest age group was 50-59 with 130 cases. This is in range with NCDB benchmark for Comprehensive Community Cancer Program in ACS South Atlantic Division for cases diagnosed 2000 to 2011 (most current data available). NCDB comparison showed 60-69 age group at Mon and nationally to be 25% of cases diagnosed and 50-59 age group representing 24% of cases diagnosed for both Mon and national.

<i>Age Group of Breast Cancer Diagnosed in 2000 to 2011</i>					
<b>Monongalia General Hospital, Morgantown WV</b>					
<b>vs. Comprehensive Community Cancer Program Hospitals in ACS Division of South Atlantic</b>					
<b>All Diagnosed Cases - Data from 131 Hospitals</b>					
#	Age Group	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	<b>Under 20</b>	.	4	.	0%
2.	<b>20 - 29</b>	1	486	0.16%	0.46%
3.	<b>30 - 39</b>	17	4490	2.68%	4.21%
4.	<b>40 - 49</b>	82	17627	12.93%	16.53%
5.	<b>50 - 59</b>	157	26513	24.76%	24.86%
6.	<b>60 - 69</b>	159	26878	25.08%	25.2%
7.	<b>70 - 79</b>	131	20313	20.66%	19.04%
8.	<b>80 - 89</b>	82	9276	12.93%	8.7%
9.	<b>90 and over</b>	5	1080	0.79%	1.01%
<b>Col. TOTAL</b>		<b>634</b>	<b>106667</b>	<b>100%</b>	<b>100%</b>

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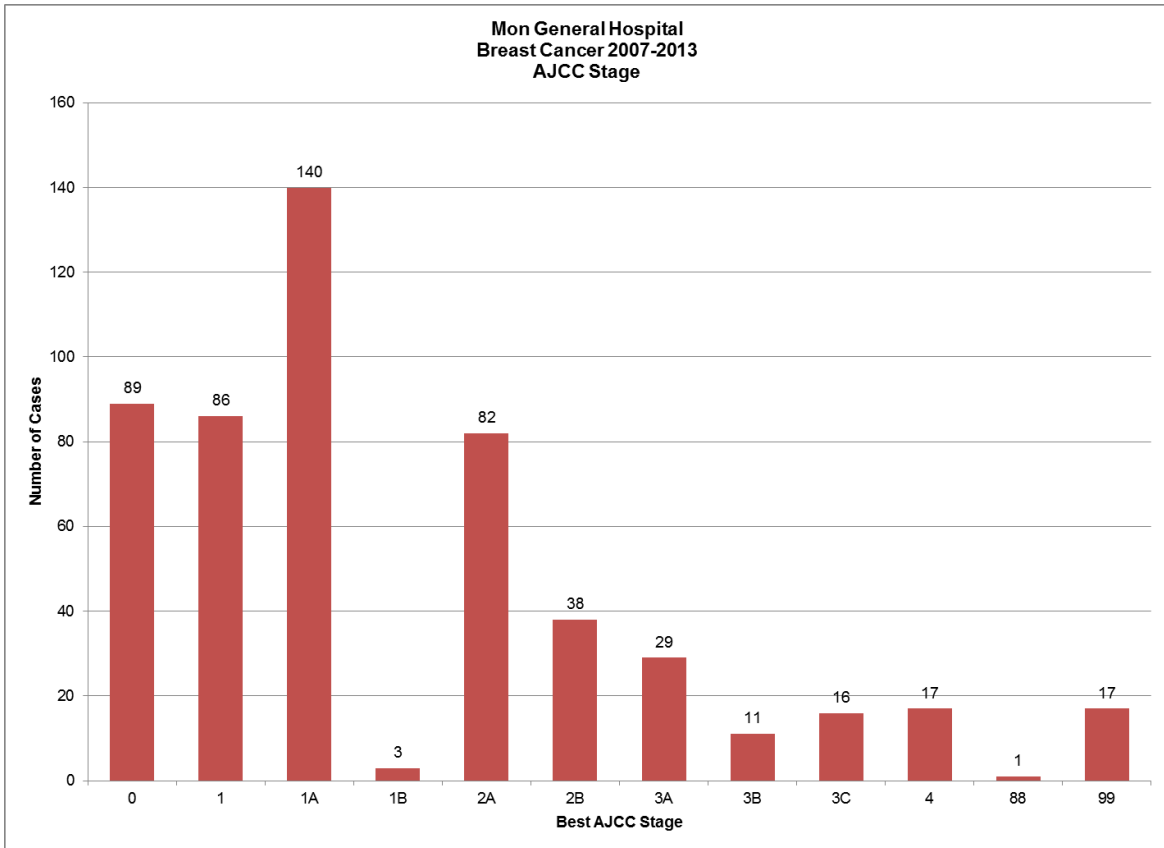


Stage of breast cancer:

For Mon General current data reflected the majority of cases being diagnosed at Stage I and then stage II which is consistent with NCDDB comparisons. NCDDB benchmark report shows for 2000 to 2011 our ACS Division had 38 % diagnosed at stage I and Mon Gen had 40%. Stage II showed 27% ACS and 26% at Mon Gen. Stage III showed 9% by ACS division and 10% at Mon Gen and stage IV 3% both at ACS and Mon Gen.

Stage of Breast Cancer Diagnosed in 2000 to 2011 Monongalia General Hospital, Morgantown WV vs. Comprehensive Community Cancer Program Hospitals in ACS Division of South Atlantic All Diagnosed Cases - Data from 131 Hospitals					
#	Stage	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	<b>0</b>	116	18402	18.3%	17.25%
2.	<b>I</b>	256	40516	40.38%	37.98%
3.	<b>II</b>	164	28685	25.87%	26.89%
4.	<b>III</b>	63	9650	9.94%	9.05%
5.	<b>IV</b>	17	3725	2.68%	3.49%
6.	<b>NA</b>	1	91	0.16%	0.09%
7.	<b>UNK</b>	17	5598	2.68%	5.25%
<b>Col. TOTAL</b>		<b>634</b>	<b>106667</b>	<b>100%</b>	<b>100%</b>

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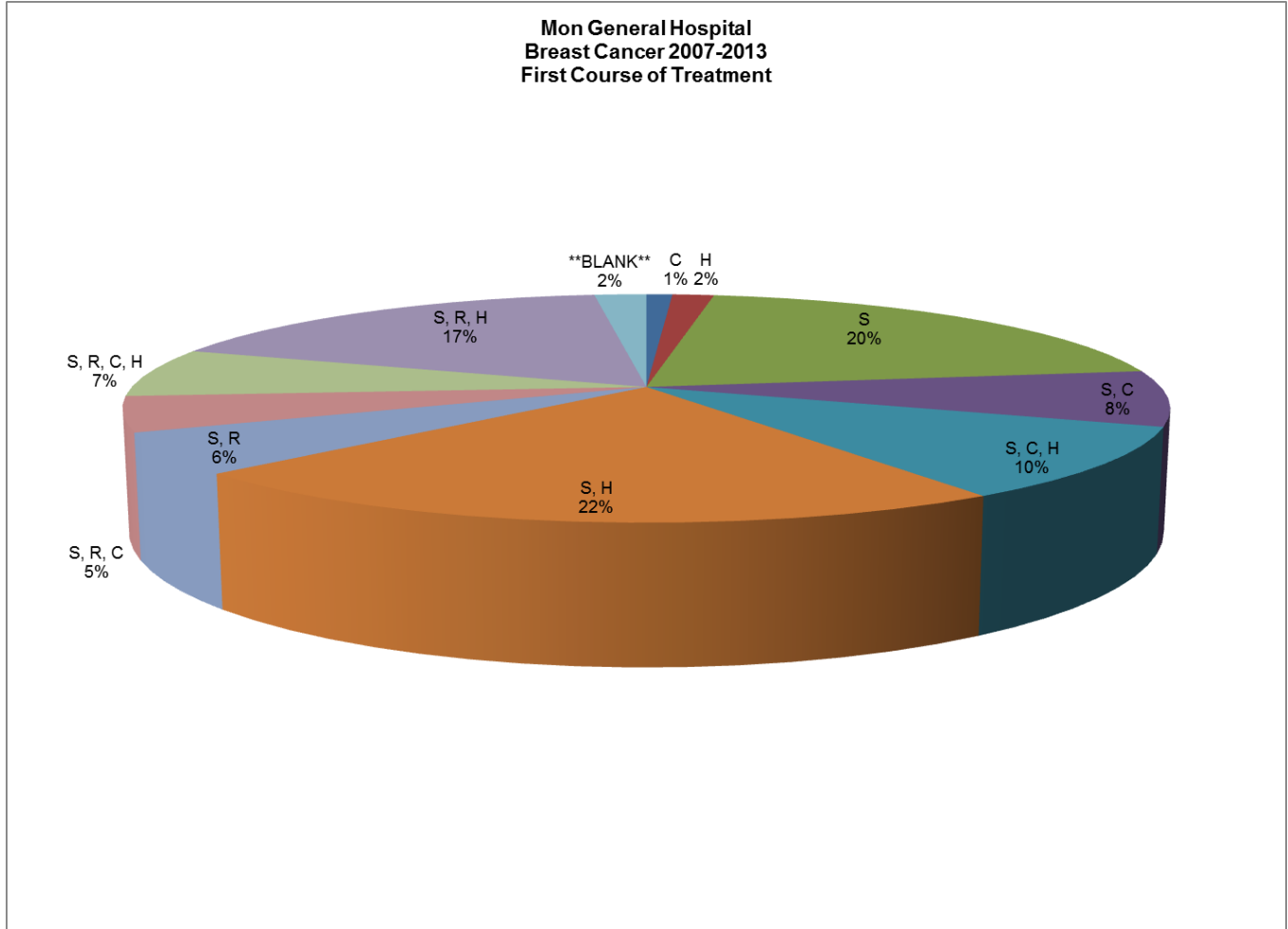


First Course of Treatment:

Cases with surgery only for Mon Gen was 29% and ACS division 23%. Surgery and radiation for Mon Gen was 4% and ACS 10%. Surgery and chemotherapy for Mon Gen 12% and ACS 8%. Surgery, radiation and chemotherapy for Mon Gen 5% and ACS 9%. Surgery, radiation and hormone therapy for Mon Gen 12% and ACS 15%. Surgery and hormone therapy for Mon Gen 18% and ACS 10%.

<i>First Course Treatment of Breast Cancer Diagnosed in 2000 to 2011</i>					
<b>Monongalia General Hospital, Morgantown WV</b>					
<b>vs. Comprehensive Community Cancer Program Hospitals in ACS Division of South Atlantic</b>					
<b>All Diagnosed Cases - Data from 131 Hospitals</b>					
#	First Course Treatment	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	<b>Surgery Only</b>	183	24382	28.86%	22.86%
2.	<b>Surgery &amp; Radiation</b>	28	10162	4.42%	9.53%
3.	<b>Surgery &amp; Chemotherapy</b>	75	9029	11.83%	8.46%
4.	<b>Surgery, Radiation &amp; Chemotherapy</b>	29	10169	4.57%	9.53%
5.	<b>Surgery, Radiation &amp; Hormone Therapy</b>	75	15984	11.83%	14.98%
6.	<b>Surgery &amp; Hormone Therapy</b>	113	11137	17.82%	10.44%
7.	<b>Surgery, Radiation, Chemotherapy &amp; Hormone Therapy</b>	26	10175	4.1%	9.54%
8.	<b>Surgery, Chemotherapy &amp; Hormone Therapy</b>	52	6077	8.2%	5.7%
9.	<b>Other Specified Therapy</b>	38	6813	5.99%	6.39%
10.	<b>No 1st Course Rx</b>	15	2739	2.37%	2.57%
<b>Col. TOTAL</b>		<b>634</b>	<b>106667</b>	<b>100%</b>	<b>100%</b>

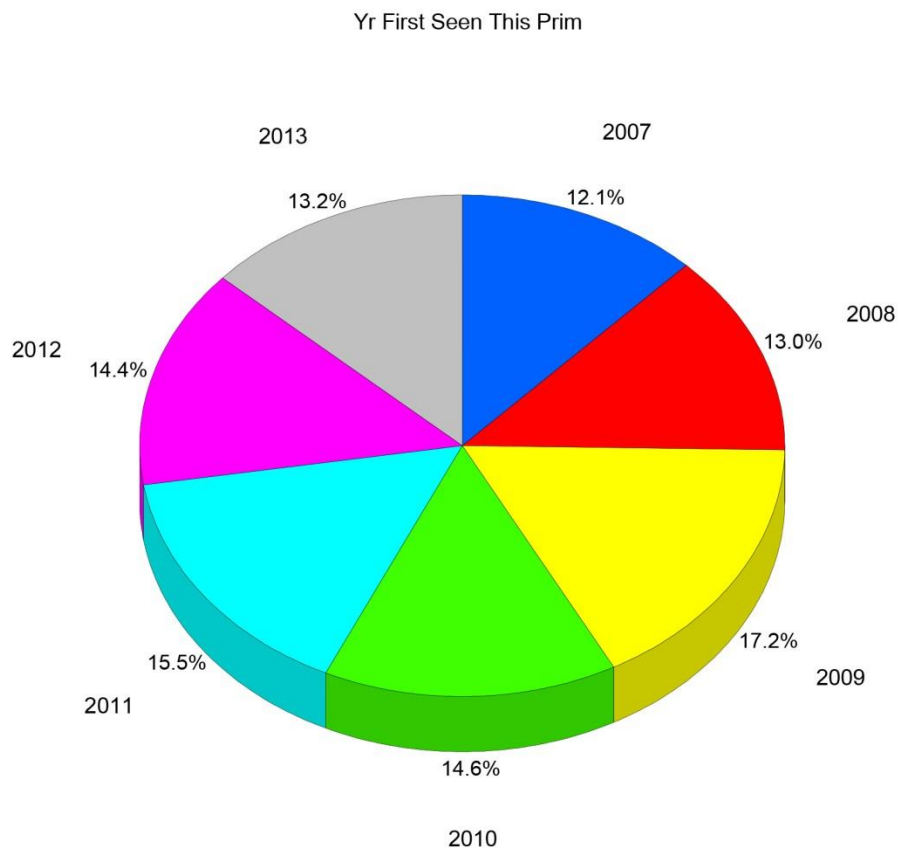
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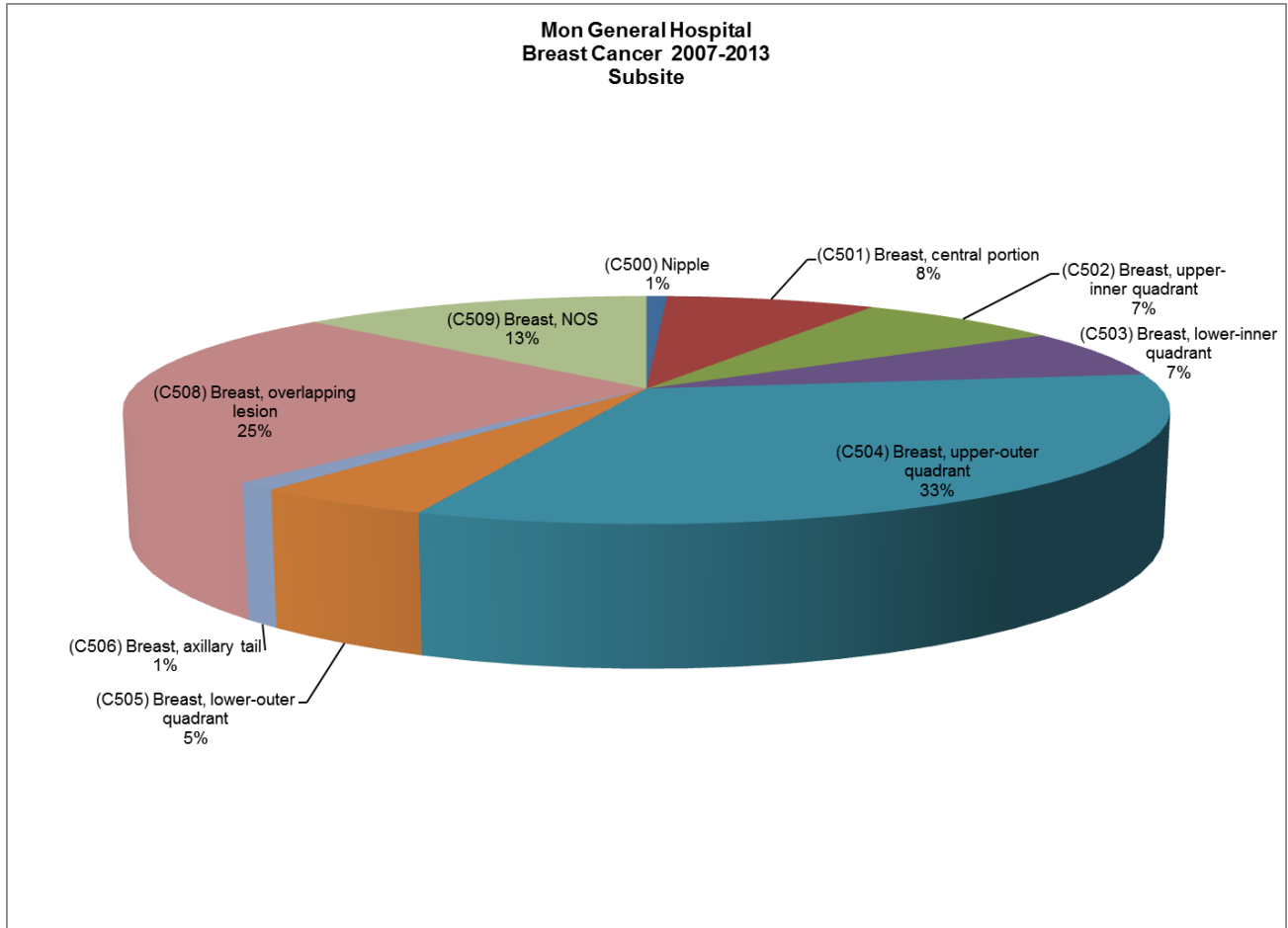
Year first seen for breast cancer at Mon Gen Hospital:

**Yr First Seen This Prim**  
**Breast Cancer 2007-2013**



BREAST MALIGNANCIES DIAGNOSED AT MON GENERAL HOSPITAL 2007 TO 2013

Breast cancer 2007-2013 subsites:



Histology 2007-2013:

Histology/Behavior	Count (N)	Percent (%)
(85003) Infiltrating duct carcinoma, NOS	354	66.92%
(85002) Intraductal carcinoma, noninfiltrating, NOS	30	5.67%
(85203) Lobular carcinoma, NOS	29	5.48%
(85232) Intraductal ca plus 2 or more subtypes	21	3.97%
(85233) Infiltrating duct mixed w/ other types of carcinoma	20	3.78%
(85012) Comedocarcinoma, noninfiltrating	15	2.84%
(85223) Infiltrating duct and lobular carcinoma	12	2.27%
(84803) Mucinous adenocarcinoma	9	1.70%
(85202) Lobular carcinoma in situ, NOS	7	1.32%