QUALITY CONTROL EXERCISE
MAJOR vs. MINOR ERRORS—ANALYSIS EXERCISE

Breast Surgery of Primary Site Codes

	Major	Minor
00 No treatment	Any of 19-90, 99	--
19 Local tumor destruction	00, 20-90, 99	--
20-24 Partial mastectomy	00, 19, 30-90, 99	Any within 20-24
30 Subcutaneous mastectomy	00, 19-24, 40-90, 99	--
40-49, 75 Total mastectomy	00, 19, 20-30, 50-74, 80-90, 99	Any within 40-49 or 75
50-59, 63 Modified radical	00, 19, 20-49, 60-62, 64-90, 99	Any within 50-59 or 63
60-62, 64-69, 70-74 Radical mastectomy	00, 19, 20-59, 63, 75, 80-90, 99	Any within 60-74
80-90 Non-specific surgery	00, 19, 20-75, 99	80 vs 90

Unknown to known
99 to 00
99 to any of 19-90

The central registry has completed a reliability study of treatment codes for Surgery of Primary Site for breast cancer. The major and minor errors were determined prior to the start of the study. You are analyzing the results for three of the cases. The preferred answer and the distribution of responses (n=50) are shown below. Answer the questions for each case as indicated below.

CASE #4. Patient had a right total mastectomy, axillary lymph node dissection, and insertion of a tissue expander during the same surgery. No other procedures.

Preferred answer: Code 55, modified radical mastectomy without removal of uninvolved contralateral breast and with implant reconstruction.

Code	00	20-30	40	41	42	43-46	47-49	50	51	52	53	54	55	56	57-59	60	61	62	64-67	68-90	99
#			1			3			4		1		39	1							1

Question 1. How many MAJOR errors did this case have? _____

Question 2. How many MINOR errors did this case have? _____

Question 3. How many UNKNOWN TO KNOWN errors did this case have? _____

Question 4. What type of education would be needed based on the findings of this particular question?
Case #5. Patient had a left simple mastectomy and sentinel lymph node biopsy. No further treatment was planned.

Preferred answer: Code 41, total (simple) mastectomy without removal of uninvolved contralateral breast.

Code	00	20-30	40	41	42	43-46	47-49	50	51	52	53-56	57-59	60	61	62	64-67	68-90	99
#			4	44	1			1										

Question 5. How many MAJOR errors did this case have? _____

Question 6. How many MINOR errors did this case have? _____

Question 7. How many UNKNOWN TO KNOWN errors did this case have? _____

Question 8. What type of education would be needed based on the findings of this particular question?

Case #6. Patient had an excisional biopsy with tumor within 2 mm of the margin. Patient was readmitted for a wider excision, and this time had clear margins.

Preferred answer: Code 23, reexcision of biopsy site for gross or microscopic residual disease.

Code	00	20	21	22	23	24	30	40	41	43-46	47-49	50	51	52	53-56	57-59	60-74	99
#		3		15	28		1	2										1

Question 9. How many MAJOR errors did this case have? _____

Question 10. How many MINOR errors did this case have? _____

Question 11. How many UNKNOWN TO KNOWN errors did this case have? _____

Question 12. What type of education would be needed based on the findings of this particular question?

DISCUSSION QUESTION
Based on the results of these three cases, would you rate the overall results of the surgery coding reliability study as satisfactory or unsatisfactory?

ANSWERS TO QUALITY CONTROL EXERCISE
MAJOR vs. MINOR ERRORS—ANALYSIS EXERCISE

CASE #4

Question 1. How many MAJOR errors did this case have? **4 (1 person coded 40; 3 coded in the 43-46 range) (Eight percent of the respondents could not identify the procedure.)**

Question 2. How many MINOR errors did this case have? **6 (4 persons coded 51; 1 person coded 54; 1 person coded 56). Cases code in the range of 50-59 or 63 are minor errors.**

Question 3. How many UNKNOWN TO KNOWN errors did this case have? **1 person coded as 99 when there was a specific surgery code for the case.**

Question 4. What type of education would be needed based on the findings of this particular question? **Only 74% of respondents had the correct code, although 90% recognized that the patient had a modified radical mastectomy (combination of total mastectomy and axillary node dissection). Education is needed in applying the hierarchy of codes, in knowing that a tissue expander is not a tissue reconstruction, and in making the assumption that the contralateral breast was not removed if there is a statement that there were no other procedures.**

Case #5

Question 5. How many MAJOR errors did this case have? **1 person coded outside the 40-49 or 75 range for total mastectomy. (Two percent of respondents could not identify the correct procedure.)**

Question 6. How many MINOR errors did this case have? **5 (4 persons coded 40; 1 person coded to 42)**

Question 7. How many UNKNOWN TO KNOWN errors did this case have? **None.**

Question 8. What type of education would be needed based on the findings of this particular question? **Nearly all of the errors were minor errors (a good result). Overall, 98% of respondents correctly identified the procedure as a total mastectomy. (Sentinel lymph node biopsy does not qualify as an axillary dissection to move the case into the modified radical mastectomy code range.) Education is needed in coding the most specific procedure when there are no other procedures.**

Case #6

Question 1. How many MAJOR errors did this case have? **3 (1 person coded 30; 2 persons coded 40)**

Question 2. How many MINOR errors did this case have? **18 (3 people coded 20; 15 people coded 22) This is a minor error rate of 36%.**

Question 3. How many UNKNOWN TO KNOWN errors did this case have? **1 person coded 99 when there was specific information available about the procedure.**

Question 4. What type of education would be needed based on the findings of this particular question?
Although 94% of respondents could identify the procedure as a partial mastectomy, the minor error rate for this case was significant at 36%. Education is needed in understanding the coding rules that give the re-excision code priority over the initial excision code. The education should reinforce the rules to code as precisely as possible.

DISCUSSION QUESTION
Based on the results of these three cases, would you rate the overall results of the surgery coding reliability study as satisfactory or unsatisfactory?
Overall, from an epidemiologic perspective, the results of this reliability study were satisfactory, because the major error rate was 8% or less for all three cases. However, from a researcher's perspective, the data could be more precise. Minor error rates ranged from 10% to 36% and indicate the need to review the rules for coding more specifically. Unknown to known error rates were generally satisfactory.