

## ***Episode-of-Care for 60-day Period Preceding Breast Biopsy***

### **Measure Description**

Resource use and costs associated with breast biopsy. Women with a breast biopsy are identified and the resource use and costs associated with the biopsy in the 60 days preceding the biopsy and the seven days following the biopsy are measured.

### **Required Data Elements**

Administrative claims data

### **Calculation**

For patients meeting inclusion criteria, determine breast biopsy resource use and costs in the 60-day period preceding their biopsy and the seven days (also exploring 30 days) following their biopsy. Prices from a standard price list will be applied to the resource use to estimate the costs of the episode of care related to breast biopsy. Resources will be defined for nine categories: 1) inpatient facility; 2) evaluation and management; 3) procedures; 4) imaging; 5) tests; 6) DME; 7) other drugs and services; 8) medications; and 9) other. Population will be stratified based on age (+/- 30yrs) and the presence of prior diagnosis of breast cancer. For inpatient facility costs, the standard cost is based on a per diem cost for a DRG and will be multiplied by the length of stay for the index event. For each of the other resource use categories, standardized prices will be available for each of the unique codes available under the other four categories.

### **Episode Definition**

Resource use related to breast biopsy

### **Rationale**

The Institute of Medicine and AQA have identified breast cancer as one of 20 conditions that should be considered priority areas in need of quality improvement based on its relevance to a significant volume of patients, its impact on those patients, and the perception of opportunity to significantly improve the quality and efficiency of related care. Breast cancer had also been previously identified as a priority area in other national initiatives including HRSA's Health Disparities Collaboratives and the Quality Improvement Program at CMS.<sup>1</sup>

In addition, episodes of breast cancer detection are costly in total in large part because of patient volume. Nearly 300,000 women received screenings with mammography during 2007 under the CDC's National Breast and Cervical Cancer Early Detection Program

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<sup>1</sup> Priority Areas for National Action: Transforming Health Care Quality. Institute of Medicine. Karen Adams and Janet Corrigan Editors. March 10, 2003.

(NBCCEDP), a program for low-income, uninsured, and underinsured women, alone.<sup>2</sup> The NBCCEDP and other public health initiatives have increased significantly the number of women who receive regular breast cancer screenings, many of whom go on to undergo subsequent diagnostic tests and breast biopsies, which are costlier still. And utilization rates are likely higher among women with higher income levels and/or more complete health insurance coverage. Furthermore, costs per breast cancer screening patient can vary dramatically from one provider to the next as well as across regions, largely because of variations in practice patterns.

This measure observes variation in resource use during the 60 days prior to breast biopsy with the expectation that much of the variation will be associated with frequency of imaging and other diagnostic studies performed during this period. The measure also looks forward 7 days beyond the date of the breast biopsy to ensure all costs incident to the biopsy are captured (considering issues of claims lag).

This measure is stratified by patient age (less than 30 versus greater than or equal to 30) because of different treatment patterns for younger patients. Since all patients in the denominator must have received a biopsy, this measure requires no further risk adjustment.

Through administrative data we are unable to identify cancer stage at diagnosis, one of the key determinants of what are considered appropriate treatment patterns. Also, it cannot be assumed that two individually attributed physicians would have comparable distributions of cancer stage within a given measurement period (such that two physicians could be justifiably compared on the basis of the measure). Moreover, the supply of breast cancer screening patients is largely public-health driven and the care provided in this context is typically at the community level. For this reason, and until cancer staging information is more readily available this measure's attribution is at the region level rather than the individual physician level.

## Measures

- Breast cancer biopsy related resource use / costs
  - Inpatient Facility
  - Evaluation and Management
  - Procedures
  - Imaging
  - Tests
  - DME
  - Other drugs and services
  - Exceptions / Unclassified
  - Other
  - Pharmacy

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<sup>2</sup> "About the Program." CDC National Breast and Cervical Cancer Early Detection Program. <http://www.cdc.gov/cancer/nbccedp/about.htm>. Viewed March 17, 2009.

**Eligible Population**

<b>Age</b>	No age restrictions on inclusion in the measure
<b>Enrollment Criteria</b>	Continuous medical and pharmacy benefit enrollment for at least one year preceding the measurement year and during the measurement year, with no more than one gap in enrollment of more than 45 days during each year of continuous enrollment.
<b>Inclusion Criteria</b>	<p>Patients will be included in the measure if they have a procedure code for breast biopsy during the measurement period (see Table BB-A). The first occurring breast biopsy is used as the triggering event for inclusion in the cohort.</p> <p>If multiply biopsies occur on the same day both are considered the triggering event</p>
<b>Exclusion</b>	<p>Males</p> <p>Subsequent biopsies that occur during the measurement period (only the first occurrence is included in the measure denominator)</p>

**Table BB-A: Codes to identify breast biopsy**

Description	CPT
Image-guided Breast biopsy	10021, 10022, 19100, 19101, 19102, 19103, 19110
Surgical Breast biopsy	19120, 19125

These CPT codes, present in any field, will be used to identify Breast Biopsy patients during the identification period and during the measurement period, regardless of corresponding ICD-9 codes.

**Table BB-B: Codes to identify breast biopsy related evaluation and management codes**

Description	ICD-9
Nonspecific abnormal findings on radiologic and other examination of body structure, breast	793.8
Mastodynia (breast pain)	611.71
Lump or mass in breast	611.72
Signs and symptoms in breast, Other	611.79

Dermatitis	692.9, 691.8
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*plus*

Description	CPT Codes
Office or Other Outpatient Services	99201–99215
Hospital Observation Services	99217–99220
Hospital Inpatient Services	99221–99239
Consultations	99241–99255, 99261–99263, 99271–99275
Critical Care and Intensive Care Services	99289–99298
Nursing Facility, Domiciliary and Home Services	99301–99350
Case Management Services and Care Plan Oversight Services	99361–99380
Preventive Medicine Services	99385–99390, 99395–99405, 99410–99429
Other E&M Services	99450–99456, 99354–99357

These combinations of ICD-9 codes, present in any field, and CPT codes will be used to identify related services during the measurement period.

**Table BB-C: Imaging related codes during breast biopsy measurement period**

Description	CPT
Stereotactic localization guidance for breast biopsy or needle placement (eg, for wire localization or for injection), each lesion, radiological supervision and interpretation	77031
Mammographic guidance for needle placement, breast (eg, for wire localization or for injection), each lesion, radiological supervision and interpretation	77032
Computer-aided detection (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation, with or without digitization of film radiographic images; diagnostic mammography (List separately in addition to code for primary procedure)	77051
Computer-aided detection (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation, with or without digitization of film radiographic images; screening mammography (List separately in addition to code for primary procedure)	77052
Mammary ductogram or galactogram, single duct, radiological supervision and interpretation	77053
Mammary ductogram or galactogram, multiple ducts, radiological	77054

*Draft specifications—subject to change. Please do not cite or quote.*

supervision and interpretation	
Mammography; unilateral	77055
Mammography; bilateral	77056
Screening mammography, bilateral (2-view film study of each breast)	77057
Magnetic resonance imaging, breast, without and/or with contrast material(s); unilateral	77058
Magnetic resonance imaging, breast, without and/or with contrast material(s); bilateral	77059
Manual application of stress performed by physician for joint radiography, including contralateral joint if indicated	77071
Digital mammography	G0202, G0204, G0206

These CPT codes will be used to identify Breast Biopsy-related services during the measurement period, regardless of corresponding ICD-9 codes.

**Table BB-D: Laboratory related codes during breast screening period**

Codes TBD based on empiric analysis of data

These codes will be used to identify Breast Biopsy-related services during the measurement period, regardless of corresponding ICD-9 codes.

**Table BB-E: Prescription medications identified as related to breast biopsy (all during the measurement period)**

Class	Medications	Redbook THERCLS or HCPCs
Benzodiazepines	alprazolam, bromazepam, chlordiazepoxide, clonazepam, clorazepate, diazepam, lorazepam, medazepam, nordazepam, oxazepam, prazepam	64
Antibiotics	Include antibiotics within +/- 7 days of biopsy date. Antibiotics are excluded if there is an E&M claim with a diagnosis of an acute respiratory infection during that period (ICD-9 460.x – 466.x)	4, 6, 7, 9, 10, 11, 12, 16, 17  J0200, J0278, J0290, J0295, J0456, J0530, J0540, J0550, J0560, J0570, J0580, J0690, J0692, J0694, J0696, J0697, J0698, J0710, J0713, J0715, J0720, J0744, J1335, J1364,

		J1580, J1590, J1840, J1850, J1890, J1956, J2020, J2280, J2460, J2510, J2540, J2543, J2700, J2770, J3243, J3260, J3370, S0021, S0032, S0034, S0039, S0040, S0073, S0074, S0077, S0081
Pain medications		57, 58, 59, 60, 61, 62

**Risk Adjustment Method**

Sample will be stratified on two criteria: 1) age < 30 yrs and ≥ 30 yrs; and 2) presence of breast cancer diagnosis in year preceding measurement year

**Episode Severity / Disease Staging**

We will examine the frequency with which image-guided biopsies occur, as opposed to surgical biopsies. We will consider stratification based on related findings.

**Outlier Methodology**

All individuals are included in the analysis with costs winsorized at the 2<sup>nd</sup> and 98<sup>th</sup> percentile.

**Level of Measurement/Analysis**

Measurement will take place at the region level.

*Note: Portions of these measure specifications are based on existing HEDIS measure specifications.*