# **Medical Coverage Policy** | Breast Ductal Lavage for Detection of Breast Cancer



**EFFECTIVE DATE:** 09|01|2001 **POLICY LAST UPDATED:** 02|15|2023

### **OVERVIEW**

Ductal lavage is a method of collecting breast ductal epithelial cells for cytological analysis. It can be used as a risk assessment tool in women with a higher risk of breast cancer. Breast Ductal Lavage is sometimes called the "breast pap smear."

## **MEDICAL CRITERIA**

Not applicable

**PRIOR AUTHORIZATION** 

Not applicable

## **POLICY STATEMENT**

## Medicare Advantage Plans

Breast ductal lavage is considered not covered as the evidence is insufficient to determine the effects of the technology on health outcomes in comparison to more established techniques for acquisition and evaluation of breast cytology.

Fiberoptic ductoscopy is considered not covered for the detection, diagnosis, or treatment of breast cancer as the evidence is insufficient to determine the effects of the technology on health outcomes or to permit scientific conclusion regarding the role of breast duct endoscopy in the evaluation and management of patients with known or suspected breast cancer.

## **Commercial Products**

Breast ductal lavage is considered not medically necessary, as the evidence is insufficient to determine the effects of the technology on health outcomes in comparison to more established techniques for acquisition and evaluation of breast cytology.

Fiberoptic ductoscopy is considered not medically necessary for the detection, diagnosis, or treatment of breast cancer as the evidence is insufficient to determine the effects of the technology on health outcomes or to permit scientific conclusion regarding the role of breast duct endoscopy in the evaluation and management of patients with known or suspected breast cancer.

### **COVERAGE**

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

#### BACKGROUND

All ductal and lobular breast cancers originate in a single layer of epithelial cells that line the ductal/lobular system of all milk ducts. Ductal lavage enables the retrieval of these cells using a microcatheter inserted into the milk ducts through the nipple orifices. A saline solution is flushed through the catheter into the ducts to wash out cells for cytological examination. The ductal lavage technique is directed at patients identified as being at high risk for breast cancer utilizing the Gail index, a personal history of breast cancer, or evidence of BRCA mutation and have no mammographic abnormality.

The gold standard for examination of these cells has been nipple aspiration with cytopathological examination of the specimen. Ductal lavage is designed to harvest an increased number of cells with the ability to gather cells from individual milk ducts. Each breast has 6 to 8 milk ducts. The technique is based upon decades of research indicating that breast cancer originates in the epithelial lining of the milk ducts and involves a series of molecular changes from normal to abnormal to malignant. As long as the abnormal cells are contained within the ducts or lobules, they are termed preinvasive disease. Once they have invaded surrounding tissue, they are considered invasive cancer.

The procedure has been dubbed "breast pap smear" because like the test for cervical cancer, it is a nonsurgical approach to identifying abnormal cells prior to their development into cancer. The HALO® Breast Pap Test (Halo Healthcare, Inc, Irvine, CA) is a U.S. Food and Drug Administration (FDA) approved, noninvasive device that is positioned on the nipple and acquires ductal fluid by applying heat, cyclic compression and suction. This device is discussed in one small study funded by the manufacturer and concludes that although the device can collect the duct fluid noninvasively, well-designed randomized controlled studies are required to determine the utility of cytological analysis of breast ductal fluid (Proctor, 2007). Mammography is the standard for early detection for breast cancer. However, by the time an abnormality is detected via mammography, the lesion has grown to a size of 1 to 2 cm and may have been present for 6 to 8 years.

The value of cytopathological examination of specimens from the breast, especially from nipple aspiration is well documented. However, no studies utilizing cells acquired via ductal lavage have been reported. There is as yet no consensus among practicing cytopathologists as to the criteria for interpreting specimens obtained by ductal lavage. While the technique may be theoretically interesting and even promising in early studies, it has yet to be the subject of sufficient controlled studies to allow for a determination of its effectiveness, accuracy and safety in both an absolute sense and in comparison to more established techniques for acquisition and evaluation of breast cytology. It is not presently known how the technique will modify management of the high-risk patient.

Fiberoptic ductoscopy is a technique that provides direct visual examination of the breast ducts through nipple orifice cannulation and exploration. It has been explored in the following clinical situations:

- Diagnostic technique in women with spontaneous nipple discharge (as potential alternative to surgical exploration)
- A follow-up to atypical cytology from ductal lavage specimen
- Delineation of ductal disease to define margins for surgical resection
- Direct delivery of therapeutic agents

There is minimal published information about how fiberoptic ductoscopy would be used in the management of the patients either in determining the need for other diagnostic tests, such as mammography or ductography, determining the need for biopsy or excision, or determining the extent of surgical excision. Although ductoscopy may be a useful technique for diagnosing ductal carcinoma in situ, (DCIS) prior to surgery, there is no data reporting on how the results of ductoscopy influences either the decision to undergo biopsy or excision or the extent of the excision. The data is insufficient to permit scientific conclusion regarding the role of breast duct endoscopy in the evaluation and management of patients with known or suspected breast cancer.

## CODING

## Medicare Advantage Plans and Commercial Products

There is no specific CPT code(s) for Breast Ductal Lavage or Fiberoptic Ductoscopy. Claims should be filed with the following Unlisted CPT code below:

**19499** Unlisted procedure, breast

## **RELATED POLICIES**

Unlisted Procedures

## PUBLISHED

Provider Update, April 2023 Provider Update, May 2022 Provider Update, March 2021 Provider Update, March 2020 Provider Update, March 2019

## **REFERENCES:**

1. Dooley WC, Ljung BM, Veronesi U et al. Ductal lavage for detection of cellular atypia in women at high risk for breast cancer. J Natl Cancer Inst 2001; 93(21):1624-32.

2. Wrensch MR, Petrakis NL, King EB et al. Breast cancer incidence in women with abnormal cytology in nipple aspirates of breast fluid. Am J Epidemiol 1992; 135(2):130-41.

3. Wrensch MR, Petrakis NL, Miike R et al. Breast cancer risk in women with abnormal cytology in nipple aspirates of breast fluid. J Natl Cancer Inst 2001; 93(23):1791-8.

4. Fabian CJ, Kimler BF, Zalles CM et al. Short-term breast cancer prediction by random periareolar fine-needle aspiration cytology and the Gail risk model. J Natl Cancer Inst 2000; 92(15):1217-21.

5. Dupont WD, Page DL. Risk factors for breast cancer in women with proliferative breast disease. N Engl J Med 1985; 312(3):146-51.

6. Port ER, Montgomery LL, Heerdt AS et al. Patient reluctance toward tamoxifen use for breast cancer primary prevention. Ann Surg Oncol 2001; 8(7):580-5.

7. Fisher B, Costantino JP, Wickerham DL et al. Tamoxifen for prevention of breast cancer: report of the National Surgical Adjuvant Breast and Bowel Project P-1 Study. J Natl Cancer Inst 1998; 90(18):1371-88.

8. Cytyc Corporation FirstCyte Web site. www.producthealth.com

9. Morrow M, Vogel V, Ljung BM et al. Evaluation and management of the woman with an abnormal ductal lavage. J Am Coll Surg 2002; 194(5):648-56.

10. 2002 TEC Assessments; Tab 1.

11. Khan SA, Wiley EL, Rodriguez N et al. Ductal lavage findings in women with known breast cancer undergoing mastectomy. J Natl Cancer Inst 2004; 96(20):1510-7.

12. Khan SA, Wolfman JA, Segal L et al. Ductal lavage findings in women with mammographic microcalcifications undergoing biospy. Ann Surg Oncol 2005;12(9):689-96.

13. Brogi E, Robson M, Panageas KS et al. Ductal lavage in patients undergoing mastectomy for mammary carcinoma: a correlative study. Cancer 2003; 98(10):2170-6.

14. Johnson-Maddux A, Ashfaq R, Cler L et al. Reproducibility of cytologic atypia in repeat nipple duct lavage. Cancer 2005; 103(6):1129-36.

15. O'Shaughnessy JA. Ductal lavage: clinical utility and future promise. Surg Clin North Am 2003; 83(4):753-69.

16. Newman LA. Ductal lavage: what we know and what we don't. Oncology 2004; 18(2):179-85.17. Fabian CJ, Kimler BF, Mayo MS. Ductal lavage for early detection – what doesn't come out in the wash. J Natl Cancer Inst 2004; 96(2):1488-9.

18. The American Society of Breast Surgeons. Official statement. Ductal lavage and cell-based risk assessment. Available at: http://www.breastsurgeons.org/statements/Ductal\_Cell.pdf. Last viewed May 2009.

19. Visvanathan K, Santor D, Ali SZ et al. The importance of cytologic intrarater and interrater reproducibility: the case of ductal lavage. Cancer Epidemiol Biomarkers Prev 2006; 15(12):2553-6.

20. Patil DB, Lankes HA, Nayar R et al. Reproducibility of ductal lavage cytology and cellularity over a six month interval in high risk women. Breast Cancer Res Treat 2007 Dec 21. [Epub ahead of print] 21. Arun B, Valero V, Logan C et al. Comparison of ductal lavage and random periareolar fine needle aspiration as tissue acquisition methods in early breast cancer prevention trials. Clin Cancer Res 2007; 13(16):4943-8.

22. Bushnaq ZI, Ashfaq R, Leitch AM et al. Patient variables that predict atypical cytology by nipple duct

lavage. Cancer 2007; 109(7):1247-54.

23. Visvanathan K, Santor D, Ali SZ et al. The reliability of nipple aspirate and ductal lavage in women at increased risk for breast cancer-a potential tool for breast cancer risk assessment and biomarker evaluation. Cancer Epidemiol Biomarkers Prev 2007; 16(5):950-5.

24. Khan SA, Lankes HA, Patil DB et al. Ductal lavage is an inefficient method of biomarker measurement in high-risk women. Cancer Prev Res (Phila Pa) 2009; 2(3):265-73.

25. National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology™,

Breast cancer screening and diagnosis guidelines v.1.2009. Available at:

http://www.nccn.org/professional/physician\_gls?PDF/breast-screening.pdf.

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