

Origination Date: 6/07	Revision Date(s): 7/07, 7/08, 12/09
Developed By: Medical Criteria Committee	

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Description:

Computer aided detection (CAD) has been used as a tool to assist radiologists in the interpretation of mammograms and MRIs of the breast as well as other diagnostic studies such as chest radiographs for lung cancer screening. Detection programs analyze digitized images and identify suspicious areas for review by the radiologist. The basic concept of CAD is to assist and improve the radiologist's interpretation. Although CAD is used most often in mammography, many types of CAD technology and devices are being developed for detection of various lesions in medical imaging.

Criteria:

- I. ODS considers CAD a medically necessary adjunct for both screening and diagnostic mammography.
- II. ODS considers the use of computer aided detection experimental and investigational for use with the following imaging studies because its clinical value has not been established:
 - a. MRI of the breast
 - b. Chest radiographs for lung cancer screening

Information to be Submitted with Pre-Authorization Request:

None. ODS considers computer aided detection experimental and investigational when used with imaging techniques other than mammogram.

Applicable CPT/HCPC Codes:

Note: list may not be all inclusive

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; diagnostic mammography (list separately in addition to code for primary procedure)
77052	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)

Not Covered:

0159T	Computer-aided detection, including computer algorithm analysis of MRI image data for lesion detection/characterization, pharmacokinetic analysis, with further physician review for interpretation, breast MRI
0174T	Computer-aided detection (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation and report, with or without digitization of film radiographic images, chest radiograph(s), performed concurrent with primary interpretation (list separately in addition to codes for primary procedure)
0175T	Computer-aided detection (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation and report, with or without digitization of film radiographic images, chest radiograph(s), performed remote from primary interpretation

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- Buhmann S, Herzog P, Liang J, et al. Clinical evaluation of a computer-aided diagnosis (CAD) prototype for the detection of pulmonary embolism. Acad Radiol. 2007 Jun;14(6):651-8.
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