BlueCross BlueShield of Alabama

Effective for dates of service on or after April 1, 2013, refer to:
https://www.bcbsal.org/providers/policies/careCore.cfm

Name of Policy:
Total Body CT Screening

Policy #: 206
Category: Radiology
Latest Review Date: February 2013
Policy Grade: B

Background/Definitions:

As a general rule, benefits are payable under Blue Cross and Blue Shield of Alabama health plans only in cases of medical necessity and only if services or supplies are not investigational, provided the customer group contracts have such coverage.

The following Association Technology Evaluation Criteria must be met for a service/supply to be considered for coverage:

1. *The technology must have final approval from the appropriate government regulatory bodies;*
2. *The scientific evidence must permit conclusions concerning the effect of the technology on health outcomes;*
3. *The technology must improve the net health outcome;*
4. *The technology must be as beneficial as any established alternatives;*
5. *The improvement must be attainable outside the investigational setting.*

Medical Necessity means that health care services (e.g., procedures, treatments, supplies, devices, equipment, facilities or drugs) that a physician, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury or disease or its symptoms, and that are:

1. *In accordance with generally accepted standards of medical practice; and*
2. *Clinically appropriate in terms of type, frequency, extent, site and duration and considered effective for the patient's illness, injury or disease; and*
3. *Not primarily for the convenience of the patient, physician or other health care provider; and*
4. *Not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.*

Description of Procedure or Service:

This policy addresses whole-body computed tomography (CT) scanning or whole-body CT screening as a potential measure for individuals who have no signs or symptoms of disease.

Whole body CT scans, encompassing the body from the neck to the pelvis have been proposed as a general screening test for diseases of the thyroid (i.e., cancer) lungs (i.e., lung cancer), heart (i.e., cardiovascular disease), and abdominal and pelvic organs (cancer, cardiovascular disease). Often the test is marketed directly to the patient and is offered through mobile CT scanners that travel from community to community.

Policy:

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Effective for dates of service prior to April 1, 2013:
Total body CT screening does not meet Blue Cross and Blue Shield of Alabama's medical criteria for coverage and is considered **investigational.**

Blue Cross and Blue Shield of Alabama does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Cross and Blue Shield of Alabama administers benefits based on the members' contract and corporate medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

Key Points:

In September 2002, the American College of Radiology published the following statement regarding whole body CT scanning:

"The American College of Radiology (ACR) recognizes that an increasing number of computed tomography (CT) screening examinations are being performed in the United States. Much CT screening is targeted at specific diseases, such as lung scanning for cancer in current and former smokers, coronary artery calcium scoring as a predictor of cardiac events and CT colonography (virtual colonoscopy) for colon cancer. Early data suggest that these targeted examinations may be clinically valid. Large, prospective, multicenter trials are currently under way or in the planning phase to evaluate whether these screening exams reduce the rate of mortality. The ACR, at this time, does not believe there is sufficient evidence to justify recommending total body CT screening for patients with no symptoms or a family history suggesting disease. To date, there is no evidence that total body CT screening is cost efficient or effective in prolonging life. In addition, the ACR is concerned that this procedure will lead to the discovery of numerous findings that will not ultimately affect patients' health but will result in unnecessary follow-up

examinations and treatments and significant wasted expense. The ACR will continue to monitor scientific studies concerning these procedures.

A recent review article also concluded “no published studies demonstrate that these procedures reduce morbidity or mortality when used to screen healthy, asymptomatic patients”.

A literature search for the period of April 2005 and November 2006 identified two retrospective reviews of findings/recommendations. Both studies observed a strong association between age of the patient and the number of findings and recommendations. Actionable findings ranged from 22.5% of subjects less than 40 years of age to 80% of patients greater than or equal to 80 years of age; follow-up imaging was the most common recommendation. In the absence of prospective randomized studies the impact of total body CT screenings on health outcomes remains unknown. There is no change in the policy statement. (January 2007).

Additional agencies, national medical and professional societies continue to announce their recommendations similar to the FDA recommendations that do not recommend whole body CT screening. Those agencies include: American College of Cardiology, American Heart Association, the American Association of Physicists in Medicine, the Health Physics Society, the U.S. Preventive Services Task Force and the American Medical Association.

The number of Computer Tomography (CT) scanners continues to increase as well as the usage of those scanners. It is estimated that more than 62 million CT scans per year are currently done in the United States, including at least 4 million children.

Conventional radiography doses of radiation are much smaller than CT; an abdominal CT delivers about 50 times more radiation to the stomach than conventional x-ray. Data has been gathered on the correlating radiation exposure and subsequent cancer rates from the Japanese survivors of atomic bombs, it is estimated by Brenner and Hall that 1.5% to 2.0% of cancers in the U.S. could be attributable to CT radiation. One study is now underway to gather direct data on CT-associated cancer with results not being available for some years. Per the December 6, 2007, Journal Watch, a recent survey suggested that many physician are unaware of radiation doses and potential risks associated with CT. (Radiology 2004; 231:393)

May 2010 Update

In a recent literature search a single controlled trial was identified on whole body computed tomography (CT) scans. In 2007, Obuchowski et al reported a small (50 subjects) randomized trial of whole body screening (vs. no screening for 3 years) to determine the feasibility fo a larger scale study. Ninety percent of the subjects were reported to be compliant with follow-up at 2 years. Images were interpreted independently by 6 radiologists from 2 institutions. Based on one interpretation, 16 (64%) subjects in the screening group had abnormal findings, although abnormalities were not in the exact same group of 16 subjects. On average, medical costs were twice as high for screened subjects. The authors concluded that a full-scale randomized controlled trial of whole body screening will need to account for the large variability in interpretation of the images, the high rate of incidental findings, and the low prevalence of cancers.

Also identified were 2 retrospective reviews of findings/recommendations from 982 and 1,192 whole body CT screening. Both studies observed a strong association between age of the patient and the number of finding and recommendations. Actionable findings ranged from 22.5% of subjects younger than 40 years of age to 80% of patients older than or equal to 80 years of age; follow-up imaging was the most common recommendation.

Summary
Evidence has not changed substantially since a 2003 review that concluded "no published studies demonstrate that these procedures reduce morbidity or mortality when used to screen healthy, asymptomatic patients." Moreover, the radiation dose of the CT scan itself could lead to an excess lifetime risk of fatal cancer, and that radiation dose and associate risk should be included as fundamental parameters for investigating the outcomes of a CT-based screening program. Evidence reviewed in a 2010 report from the Canadian Health Service Research Foundation indicates that whole-body CT screening uses 500 to 1,000 times the radiation levels of a routine chest x-ray, without any demonstrated positive effects on life expectancy. The current literature does not support an improvement in health outcomes with whole body CT screening. Therefore, this procedure is considered investigational.

Technology Assessments, Guidelines and Position Statements
See above for statement from the ACR regarding whole body CT scanning.

Updated information from the U.S. Food and Drug Administration (FDA) indicates that recommendations from the U. S. Preventive Services Task Force (USPTF) and the American Medical Association (AMA) have been added to those of the ACR, the American College of Cardiology/American Heart Association, the American Association of Physicists in Medicine, and the Health Physics Society, all of whom do not recommend CT screening. A statement by FDA was published on whole body CT scanning. Please see above.

March 2011 Update
No new literature was identified for review for whole body CT. The policy statement remains unchanged.

September 2012 Update
No new literature was identified for review for whole body CT. The policy statement remains unchanged.

Key Words:
Computerized axial tomography (CAT), computed tomography (CT), CT screening,

Approved by Governing Bodies:
Not applicable

Benefit Application:

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

ITS: Home Policy provisions apply
FEP contracts: FEP does not consider investigational if FDA approved. Will be reviewed for medical necessity.

Pre-certification requirements: Effective for dates of service on or after November 1, 2007, required when ordered by a provider in a Blue Cross and Blue Shield of Alabama's Preferred or Participating Network for a patient covered by Blue Cross and Blue Shield of Alabama who will receive outpatient imaging services(s) from a Preferred Medical Doctor (PMD) or Preferred Radiology Participating (PRP) provider.

Exceptions to the Alabama PMD and PRP pre-certification requirement: NASCO, Wal-Mart, Blue Advantage, Flowers Foods, Inc., FEP.

In addition to the above Blue Cross and Blue Shield of Alabama PMD/PRP Network requirement, **some self-insured national account groups** may require pre-certification for all MRIs **effective for dates of service on or after January 1, 2009**. Please confirm during your benefit verification process if a pre-certification is required.

Reviews to verify accuracy of pre-certification information will be conducted.

Current Coding:

CPT Codes:

There is no specific CPT code for whole body CT scanning. A non-specific CT scanning code might be submitted.

76497	Unlisted computed tomography procedure (eg, diagnostic, interventional)

References:

1. American College of Radiology. American College of Radiology Statement on Total Body CT Screening. Approved by ACR Board of Chancellors September 28, 2002. Reston, VA: ACR; 2002, www.acr.org/About-Us/Media-Center/Position-Statements/Position-Statements-Folder/ACR-Statement-on-Whole-Body-CT-Screening. Last accessed October 2004.
2. Bazell R. Are full-body scans healthy? Experts raise questions about benefits, risks of new screening method [News]. NBC News, June 22, 2001. http://stacks.msnbc.com/news/591260.asp (accessed October 1, 2004).
3. Blue Cross Blue Shield Association. Whole body computed tomography scan as a screening test. Medical Policy Reference Manual, May 2010.

4. Brenner David J and Hall Eric J. Computed tomography—An increasing source of radiation exposure. NEJM 2007; 357: 2277-2284.
5. Buls N, de Mey J, et al. Health screening with CT: Prospective assessment of radiation dose and associated detriment. JBR-BTR, Jan-Feb 2005; 88(1): 12-16.
6. Canadian Health Services Research Foundation. Myth: Whole-body screening is an effective way to detect hidden cancers. J Helath Serv Res Policy, April 2010; 15(2): 118-119.
7. Carson P. The battle over full-body scans. Manag Care. 2001; 10(9): 43-46.
8. Dixon GD. Computed tomography for screening purposes: a review of the literature — 2003. Mo Med. 2003;100(2):140-4.
9. Furtado Claudia D, Aguirre Diego A, et al. Whole-body CT screening: Spectrum of findings and recommendations in 1192 patients. Radiology 2005; 237: 385-394.
10. Lewis C. Full-body CT scans. What you need to know. FDA Consum. 2001; 35(6): 10.
11. Obuchowski N and Modic MT. Total body screening: Predicting actionable findings. Acad Radiol 2006; 13(4): 480-485.
12. Obuchowski NA, Holden D, Modic MT, et al. Total-body screening: Preliminary results of a pilot randomized controlled trial. JACR, September 2007; 4(9): 604-611.
13. Pennachio DL. Full-body scans--or scams? Med Econ. 2002; 79(15): 62, 68, 71.
14. U.S. doctors offer full body scan. BBC News, January 2, 2001. news.bbc.co.uk/hi/english/health/newsid_1097000/1097136.stm. (Accessed October 1, 2004).
15. U.S. Food and Drug Administration. Whole body scanning using computed tomography CT). www.fda.gov/cdrh/ct/.
16. U.S. Food and Drug Administration. FDA cites drawbacks of whole body CT scanning. FDA Patient Safety News: Show #6, July 2002. www.accessdata.fda.gov/scripts/cdrh/cfdocs/psn/printer.cfm?id=78.
17. U.S. Preventive Services Rask Force. Screening for coronary heart disease: Recommendation statement. Agency for Healthcare Research and Quality, February 2004, www.uspreventiveservicestaskforce.org/uspstf/uspsacad.htm.
18. Worrell B. Full body scans: Fad or new frontier for hospital radiology? Health Care Strateg Manage. 2002; 20(9): 1, 17-9.

Policy History:

Medical Policy Group, October 2004 **(4)**
Medical Policy Administration Committee, January 2005
Available for comment January 21-March 7, 2005
Medical Policy Group, August 2006
Medical Policy Group, January 2007 **(1)**
Medical Policy Group, December 2007 **(1)**
Medical Policy Group, December 2008 **(2)**
Medical Policy Group, May 2010 **(1):** Key Points updated
Medical Policy Group, May 2011 **(3)**: Key Points updated
Medical Policy Group, October 2012 **(3)**: Key Points updated
Medical Policy Group, February 2013 **(2):** Updated policy with link to CareCore National© medical policies effective April 1, 2013

Medical Policy Administration Committee, March 2013
Available for comment February 15 through March 31, 2013
Medical Policy Group, November 2013 **(2):** Updated link to CareCore National©

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.