
Medical Policy



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Category: Surgery

Title: Circumferential Kyphectomy

**Procedure Code(s):
22818**

Description/Background

Kyphosis is a spinal deformity that can result from trauma, developmental problems or degenerative disease. Kyphosis can occur at any age, although it is rare at birth. Adolescent kyphosis, also known as Scheuermann's disease, results from wedging of several consecutive vertebrae. The cause of Scheuermann's disease is unknown. In adults, kyphosis can be seen as a result of osteoporotic compression fractures, degenerative disease (like arthritis), or spondylolistheses (slipping of one vertebra forward on another).

Other causes of kyphosis include infection (such as tuberculosis), spina bifida (congenital deformity with incomplete formation of part of the spine), disk degeneration, endocrine diseases, Paget's disease, polio and tumors. Kyphosis can also be seen in association with scoliosis (an abnormal sideways curvature of the spine seen in children and adolescents). Risk factors are related to the causes.

Surgical correction involves extensive circumferential exposure of the spine with actual resection of the abnormal vertebra and arthrodesis of the appropriate segments to maintain correction. Fixation of the spine is accomplished by employing a "U" shaped rod (Luque rod) modified in shape to fit each individual case. The limbs of the rod are anchored on the anterior aspects of the sacrum and secured to the lumbar segments. Harrington rods can be applied to the thoracic spine and fixed to the Luque rod if correction of the compensatory lordotic curvature is required. Anterior spinal release with application of anterior instrumentation may be necessary to correct lordotic deformity of the thoracic spinal segments.

CPT/HCPCS Level II Codes and Description

22818	Kyphectomy, circumferential exposure of spine and resection of vertebral segment (s) (including body and posterior elements); single or two segments
22819	Kyphectomy, circumferential exposure of spine and resection of vertebral segment (s) (including body and posterior elements); 3 or more segments

Diagnoses/Medical Conditions

None specified

Medical Policy Statement

The safety and effectiveness of circumferential kyphectomy have been established. It may be considered a useful therapeutic procedure to relieve progressive spinal cord compression, correct gross deformity of the spine or rehabilitate patients with complications of kyphos formation.

Rationale

Kyphectomy may be indicated in patients who have developed progressive spinal deformities due to congenital, traumatic or degenerative disease. Correction of paralytic deformities of the spine becomes important in the management of children born with spina bifida and/or meningomyelocele. Gibbus formation with a compensatory lordotic curvature can result in skin breakdown over the site and subsequent osteomyelitis of the underlying vertebral segment. Pulmonary compromise may occur as the progressive deformity of the spine results in the impingement of the costal margin against the pelvis. This deformity limits ventilatory efficiency due to increased pressure of the abdominal viscera against the diaphragm. It is very difficult for these children to sit in a chair in a normal fashion without special accommodation since they are unable to sit in the upright position.

Medical Policy Position Summary (Non-clinical summary statement for customer use)

The safety and effectiveness of circumferential kyphectomy have been established. It may be considered a useful therapeutic procedure to relieve progressive spinal cord compression, correct gross deformity of the spine or rehabilitate patients with complications of kyphos formation.

Inclusionary and Exclusionary Guidelines (Clinically based guidelines that may support individual consideration and pre-authorization decisions)

The age at which kyphectomy should be done may be dictated by the progression of the spinal deformity. Decision-making may be influenced by recurrent decubiti over the kyphotic segment or progressive loss of renal function. The general consensus is that children undergo surgery

between 6 and 11 years of age. Initial imaging studies of these patients should include CT scans, myelography, and MRI examinations performed preoperatively to be able to plan the correction as accurately as possible. These studies are also important in the detection of any intraspinal abnormalities that may exist above the level of the obvious vertebral defects. The patient should have any local or urologic infection treated adequately prior to surgery. Assessment by a neurosurgeon is necessary since resection of the terminal spinal cord with ligation of the dural sac may be required in the performance of a kyphectomy.

Related Policies

N/A

Medicare Information

There are no national or local medical review policies for Medicare on this subject.

(The above Medicare information is current as of the review date for this policy. However, since Medicare coverage issues and policies may be updated or revised by Centers for Medicare & Medicare Services (CMS, formerly HCFA) on a frequent basis, the most current information may not be contained in this document. For the most current information, you should contact an official source.)

References

- Liew, Susan M. MD, MB, BS (Hon); "THORACIC AND LUMBAR DEFORMITY "Rationale for Selecting the Appropriate Fusion Technique (Anterior, Posterior, and 360 Degree)", Orthopedic Clinics of North America Volume 29, Number 4, October 1998.
- Sarwark, John F. MD, KYPHOSIS DEFORMITY IN MYELOMENINGOCELE, Disorders of the Pediatric and Adolescent Spine; Orthopedic Clinics of North America. Volume 30, Number 3, July 1999.

The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through 1/7/2002, the date the research was completed

Joint BCBSM/BCN Medical Policy History

Date	Rationale
7/8/02	Joint medical policy established
11/18/03	Policy retired; see comment below

Next Review: This policy is established and is no longer subject to periodic review.

Pre-Consolidation Medical Policy History

Original Policy Date		Comments
BCN	N/A	Revised: N/A
BCBSM	5/20/99	Revised: N/A

BLUE CARE NETWORK

POLICY: CIRCUMFERENTIAL KYPHECTOMY

I. Coverage Determination:

Circumferential kyphectomy is covered for BCN member for the purpose of relieving progressive spinal cord compression, correcting gross deformity of the spine or rehabilitating patients with complications of kyphos formation.

II. Benefit Information:

Appropriate hospital copayments will apply

- BCN 1, BCN 5, BCN 5 Michigan Catholic Conference, FEP – no copayment
- BCN 10, BCN Non-Group, Personal Plus – The hospital copayment is 25% of all hospital-billed fees for facility, professional and related services received while an inpatient and for outpatient surgery. All copayments made for hospital-billed fees apply to a hospital copayment maximum. Once the maximum is reached, no copays will be taken for hospital-billed services for the rest of the year.
- BCN Basic – All hospital inpatient and outpatient services are subject to a 20% copayment. Where more than one service is provided at one time, all the applicable copayments apply. Certain copayments will accumulate toward an annual copayment. Once the annual copayment maximum is reached in any calendar year, the copayments for benefits that are described as applicable toward the annual copayment maximum are waived.

III. Benefit Exclusions:

N/A

IV. Administrative Guidelines:

- The member's contract must be active at the time the service is rendered.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Appropriate copayments will apply
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.
- Payment is based on BCN payment rules, individual certificate benefits and certificate riders.

V. Effective Date:

Policy taken off routine review schedule: 11/18/03

Joint policy effective date: 07/08/03

Supersedes benefit information of: N/A