

Model Coverage Determination: Total Joint Arthroplasty

LCD ID Number

LCD Title

Major Joint Replacement (Hip and Knee)

Indications and Limitations of Coverage and/or Medical Necessity

Joint replacement surgery has been performed on millions of people over the past several decades and has proved to be an important medical advancement in the field of orthopaedic surgery. The hip and knee are the two most commonly replaced joints. The knee is the largest joint in the body and includes the lower end of the femur, the upper end of the tibia and the patella. The knee joint has three compartments, the medial, the lateral and the patellofemoral. The surfaces of these compartments are covered with articular cartilage and are bathed in synovial fluid. The bones of the knee joint work together, allowing the knee to function smoothly. The hip is a large weight bearing joint made up of two components: a ball (femoral head) and socket (acetabulum). These components are covered with articular cartilage and are bathed in synovial fluid produced by a synovial membrane.

The most common reason for total knee replacement surgery is arthritis of the knee joint. Types of arthritis include

- osteoarthritis,
- rheumatoid arthritis and
- traumatic arthritis (arthritis which occurs as a result of injury).

Arthritis causes a severe limitation in the activities of daily living, including difficulty with walking, squatting, and climbing stairs. Pain is typically most severe with activity and patients often have difficulty getting mobilized when seated for a long time. Other findings include chronic knee inflammation or swelling not relieved by rest, knee stiffness, lack of pain relief after taking non-steroidal anti-inflammatory medications and failure to achieve symptom improvement with other conservative therapies such as steroid injections and physical therapy.

Osteonecrosis and malignancy are additional reasons to proceed with total knee replacement surgery. The goal of total knee replacement surgery is to relieve pain and improve or increase patient function.

Total hip replacement surgery is most often performed due to severe pain caused by osteoarthritis of the hip joint. Rheumatoid arthritis, traumatic arthritis, malignancy involving the hip joint and osteonecrosis of the femoral head are also causes for hip replacement surgery. The pain from the damaged joint usually limits activities of daily living, such as walking, bathing and cooking. The pain can also cause disruption of sleep due to the inability to lie on the hip while in bed. Pain relief not achieved by taking non-steroidal anti-inflammatory medications and failure to achieve symptom improvement with other conservative therapies such as physical therapy,

activity modification and (in some patients) assistive device use are reasons for proceeding with a total hip replacement. The goal of total hip replacement surgery is to relieve pain and improve or increase patient function.

Occasionally, there may be a need to redo a total hip or total knee replacement. This is often referred to as a revision total knee or revision total hip. Circumstances that lead to the need for a revision total hip or knee are continued disabling pain, continued decline in function which can be attributed to failure of the primary joint replacement. Failure can be due to infection involving the joint, substantial bone loss in the structures supporting the prosthesis, fracture, aseptic loosening of the components and wear of the prosthetic components.

Indications

Medicare Administrative Contractor (MAC) Jurisdiction _____ will consider total knee replacement surgery medically necessary when one or more of the following criteria are met:

*See Documentation Requirements section for additional information

Total Knee Arthroplasty (TKA)

- Advanced joint disease demonstrated by :
 - Radiographic supported evidence or when conventional radiography is not adequate, magnetic resonance imaging (MRI) supported evidence (subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, joint space narrowing, avascular necrosis); **and**
 - Pain or functional disability from injury due to trauma or arthritis of the joint); **and**
 - If appropriate, history of unsuccessful conservative therapy (non-surgical medical management) that is clearly addressed in the pre procedure medical record. **If conservative therapy is not appropriate, the medical record must clearly document why such approach is not reasonable;**
or
- Failure of a previous osteotomy; **or**
- Distal femur fracture; **or**
- Malignancy of the distal femur, proximal tibia, knee joint or adjacent soft tissues;
or
- Failure of previous unicompartmental knee replacement; **or**
- Avascular necrosis of the knee; **or**
- Proximal tibia fracture

Non surgical medical management is usually but not always implemented prior to scheduling total joint surgery. Non surgical treatment as clinically appropriate for the patient's current episode of care typically includes one or more of the following:

- anti-inflammatory medications or analgesics,
- flexibility and muscle strengthening exercises,

- supervised physical therapy [Activities of daily living (ADLs) diminished despite completing a plan of care],
- assistive device use,
- weight reduction as appropriate, or
- therapeutic injections into the knee as appropriate.

In some circumstances, for example, if the patient has bone on bone articulation, severe deformity, or pain and interference with activities of daily living, the surgeon may determine that nonsurgical medical management would be ineffective or counterproductive, and that the best treatment option, after explaining the risks, is surgical. **If medical management is inappropriate, the medical record should indicate these findings.**

Replacement/Revision Total Knee Arthroplasty

- Loosening of one or more components, **or**
- Fracture or mechanical failure of one or more component, **or**
- Infection, **or**
- Treatment of periprosthetic fracture of distal femur, proximal tibia or patella, **or**
- Progressive or substantial periprosthetic bone loss, **or**
- Bearing surface wear leading to symptomatic synovitis, **or**
- Implant or knee malalignment, **or**
- Knee stiffness/arthrofibrosis, **or**
- Tibiofemoral instability, **or**
- Extensor mechanism instability

Medicare Administrative Contractor (MAC) Jurisdiction _____ will consider total hip replacement surgery medically necessary when one or more of the following criteria are met:

*See Documentation Requirements for additional information

Total Hip Arthroplasty (THA)

- Advanced joint disease demonstrated by:
 - Radiographic supported evidence or when conventional radiography is not adequate, magnetic resonance imaging (MRI) supported evidence (subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, joint space narrowing, avascular necrosis); **and**
 - Pain or functional disability from injury due to trauma or arthritis of the joint); **and**
 - If appropriate, history of unsuccessful conservative therapy (non-surgical medical management) that is clearly addressed in the pre procedure medical record. **If conservative therapy is not appropriate, the medical record must clearly document why such approach is not reasonable;**
or
- Malignancy of the joint involving the bones or soft tissues of the pelvis or proximal femur; **or**

- Avascular necrosis (osteonecrosis of femoral head); **or**
- Fracture of the femoral neck; **or**
- Acetabular fracture; **or**
- Non-union or failure of previous hip fracture surgery; **or**
- Mal-union of acetabular or proximal femur fracture

Non surgical medical management is usually but not always implemented prior to scheduling total joint surgery. Non surgical treatment as clinically appropriate for the patient's current episode of care typically includes one or more of the following:

- anti-inflammatory medications or analgesics,
- flexibility and muscle strengthening exercises,
- supervised physical therapy [Activities of daily living (ADLs) diminished despite completing a plan of care],
- assistive device use,
- weight reduction as appropriate, or
- therapeutic injections into the hip as appropriate.

Replacement/Revision Total Hip Arthroplasty

- Loosening of one or both components; **or**
- Fracture or mechanical failure of the implant; **or**
- Recurrent or irreducible dislocation; **or**
- Infection; **or**
- Treatment of a displaced periprosthetic fracture; **or**
- Clinically significant leg length inequality; **or**
- Progressive or substantial bone loss; **or**
- Bearing surface wear leading to symptomatic synovitis or local bone or soft tissue reaction
- Clinically significant audible noise; **or**
- Adverse local tissue reaction

Limitations

Medicare Administrative Contractor (MAC) Jurisdiction _____ will not consider a total knee replacement or total hip replacement medically necessary when the following contraindications are present:

- Active infection of the hip or knee joint or active systemic bacteremia
- Active skin infection (exception recurrent cutaneous staph infections) or open wound within the planned surgical site of the hip or knee
- Rapidly progressive neurological disease except in the clinical situation of a concomitant displaced femoral neck fracture

This local coverage determination (LCD) is only addressing medical necessity criteria for performing total hip and knee replacement surgery. With respect to knee replacement surgery,

there is a form of knee joint replacement surgery called unicompartmental knee replacement. This is typically done for patients with osteoarthritis of the knee in which the damage is contained to one compartment of the knee. The indications outlined in this LCD are not to be applied for unicompartmental knee replacement surgery. Failed previous unicompartmental joint replacement is an indication for performing a total knee arthroplasty.

Coding Information

CPT/HCPCS Codes

<u>Total Hip Arthroplasty</u>	
27130	ARTHROPLASTY, ACETABULAR AND PROXIMAL FEMORAL PROSTHETIC REPLACEMENT (TOTAL HIP ARTHROPLASTY), WITH OR WITHOUT AUTOGRAFT OR ALLOGRAFT
27132	CONVERSION OF PREVIOUS HIP SURGERY TO TOTAL HIP ARTHROPLASTY, WITH OR WITHOUT AUTOGRAFT OR ALLOGRAFT
27134	REVISION OF TOTAL HIP ARTHROPLASTY; BOTH COMPONENTS, WITH OR WITHOUT AUTOGRAFT OR ALLOGRAFT
27137	REVISION OF TOTAL HIP ARTHROPLASTY; ACETABULAR COMPONENT ONLY, WITH OR WITHOUT AUTOGRAFT OR ALLOGRAFT
27138	REVISION OF TOTAL HIP ARTHROPLASTY; FEMORAL COMPONENT ONLY, WITH OR WITHOUT ALLOGRAFT
<u>Total Knee Arthroplasty</u>	
27445	ARTHROPLASTY, KNEE, HINGE PROSTHESIS (EG, WALLDIUS TYPE)
27447	ARTHROPLASTY, KNEE, CONDYLE AND PLATEAU; MEDIAL AND LATERAL COMPARTMENTS WITH OR WITHOUT PATELLA RESURFACING (TOTAL KNEE ARTHROPLASTY)
27486	REVISION OF TOTAL KNEE ARTHROPLASTY, WITH OR WITHOUT ALLOGRAFT; 1 COMPONENT REVISION OF TOTAL KNEE ARTHROPLASTY, WITH OR WITHOUT ALLOGRAFT; FEMORAL AND
27487	ENTIRE TIBIAL COMPONENT

ICD-9 Codes that Support Medical Necessity

ICD-9CM diagnosis codes for Total Hip Arthroplasty	
170.7	MALIGNANT NEOPLASM OF LONG BONES OF LOWER LIMB
171.3	MALIGNANT NEOPLASM OF CONNECTIVE AND OTHER SOFT TISSUE OF LOWER LIMB INCLUDING HIP
213.7	BENIGN NEOPLASM OF LONG BONES OF LOWER LIMB
215.3	OTHER BENIGN NEOPLASM OF CONNECTIVE AND OTHER SOFT TISSUE OF LOWER LIMB INCLUDING HIP

714.0	RHEUMATOID ARTHRITIS
714.30	CHRONIC OR UNSPECIFIED POLYARTICULAR JUVENILE RHEUMATOID ARTHRITIS
714.31	ACUTE POLYARTICULAR JUVENILE RHEUMATOID ARTHRITIS
714.32	PAUCIARTICULAR JUVENILE RHEUMATOID ARTHRITIS
714.33	MONOARTICULAR JUVENILE RHEUMATOID ARTHRITIS
715.15	OSTEOARTHRITIS LOCALIZED PRIMARY INVOLVING PELVIC REGION & THIGH
715.25	OSTEOARTHRITIS LOCALIZED SECONDARY INVOLVING PELVIC REGION & THIGH
715.35	OSTEOARTHRITIS LOCALIZED NOT SPECIFIED WHETHER PRIMARY OR SECONDARY INVOLVING PELVIC REGION AND THIGH
715.95	OSTEOARTHRITIS UNSPECIFIED WHETHER GENERALIZED OR LOCALIZED INVOLVING PELVIC REGION AND THIGH
716.15	TRAUMATIC ARTHROPATHY INVOLVING PELVIC REGION AND THIGH
716.55	UNSPECIFIED POLYARTHROPATHY OR POLYARTHRITIS INVOLVING PELVIC REGION AND THIGH
716.65	UNSPECIFIED MONOARTHRITIS INVOLVING PELVIC REGION AND THIGH
716.85	OTHER SPECIFIED ARTHROPATHY INVOLVING PELVIC REGION AND THIGH
716.95	UNSPECIFIED ARTHROPATHY INVOLVING PELVIC REGION AND THIGH
718.55	ANKYLOSIS OF JOINT OF PELVIC REGION AND THIGH
718.65	UNSPECIFIED INTRAPELVIC PROTRUSION OF ACETABULUM PELVIC REGION & THIGH
718.85	OTHER JOINT DERANGEMENT NOT ELSEWHERE CLASSIFIED INVOLVING PELVIC REGION AND THIGH
718.95	UNSPECIFIED DERANGEMENT OF JOINT OF PELVIC REGION AND THIGH
719.35	PALINDROMIC RHEUMATISM INVOLVING PELVIC REGION AND THIGH
719.45	PAIN IN JOINT INVOLVING PELVIC REGION AND THIGH
731.0	OSTEITIS DEFORMANS WITHOUT BONE TUMOR
733.14	PATHOLOGICAL FRACTURE OF NECK OF FEMUR
733.40	ASEPTIC NECROSIS OF BONE SITE UNSPECIFIED
733.42	ASEPTIC NECROSIS OF HEAD AND NECK OF FEMUR
733.82	NONUNION OF FRACTURE
733.96	STRESS FRACTURE OF FEMORAL NECK
754.30	CONGENITAL DISLOCATION OF HIP UNILATERAL
755.63	OTHER CONGENITAL DEFORMITY OF HIP (JOINT)
808.0	CLOSED FRACTURE OF ACETABULUM
808.1	OPEN FRACTURE OF ACETABULUM
820.00	FRACTURE OF UNSPECIFIED INTRACAPSULAR SECTION OF NECK OF FEMUR CLOSED
820.01	FRACTURE OF EPIPHYSIS (SEPARATION) (UPPER) OF NECK OF FEMUR CLOSED
820.02	FRACTURE OF MIDCERVICAL SECTION OF FEMUR CLOSED
820.03	FRACTURE OF BASE OF NECK OF FEMUR CLOSED
820.09	OTHER TRANSCERVICAL FRACTURE OF FEMUR CLOSED
820.10	FRACTURE OF UNSPECIFIED INTRACAPSULAR SECTION OF NECK OF FEMUR OPEN
820.11	FRACTURE OF EPIPHYSIS (SEPARATION) (UPPER) OF NECK OF FEMUR OPEN

820.12	FRACTURE OF MIDCERVICAL SECTION OF FEMUR OPEN
820.13	FRACTURE OF BASE OF NECK OF FEMUR OPEN
820.19	OTHER TRANSCERVICAL FRACTURE OF FEMUR OPEN
820.20	FRACTURE OF UNSPECIFIED TROCHANTERIC SECTION OF FEMUR CLOSED
820.21	FRACTURE OF INTERTROCHANTERIC SECTION OF FEMUR CLOSED
820.22	FRACTURE OF SUBTROCHANTERIC SECTION OF FEMUR CLOSED
820.30	FRACTURE OF UNSPECIFIED TROCHANTERIC SECTION OF FEMUR OPEN
820.31	FRACTURE OF INTERTROCHANTERIC SECTION OF FEMUR OPEN
820.32	FRACTURE OF SUBTROCHANTERIC SECTION OF FEMUR OPEN
820.8	FRACTURE OF UNSPECIFIED PART OF NECK OF FEMUR CLOSED
820.9	FRACTURE OF UNSPECIFIED PART OF NECK OF FEMUR OPEN
996.40	UNSPECIFIED MECHANICAL COMPLICATION OF INTERNAL ORTHOPEDIC DEVICE, IMPLANT & GRAFT
996.41	MECHANICAL LOOSENING OF PROSTHETIC JOINT
996.42	DISLOCATION OF PROSTHETIC JOINT
996.43	BROKEN PROSTHETIC JOINT IMPLANT
996.44	PERI-PROSTHETIC FRACTURE AROUND PROSTHETIC JOINT
996.45	PERI-PROSTHETIC OSTEOLYSIS
996.46	ARTICULAR BEARING SURFACE WEAR OF PROSTHETIC JOINT
996.47	OTHER MECHANICAL COMPLICATION OF PROSTHETIC JOINT IMPLANT
996.49*	OTHER MECHANICAL COMPLICATION OF OTHER INTERNAL ORTHOPEDIC DEVICE, IMPLANT, AND GRAFT
V43.64*	HIP JOINT REPLACEMENT
<u>ICD-9 CM diagnosis codes for Total Knee Arthroplasty</u>	
170.7	MALIGNANT NEOPLASM OF LONG BONES OF LOWER LIMB
171.3	MALIGNANT NEOPLASM OF CONNECTIVE AND OTHER SOFT TISSUE OF LOWER LIMB INCLUDING HIP
213.7	BENIGN NEOPLASM OF LONG BONES OF LOWER LIMB
215.3	OTHER BENIGN NEOPLASM OF CONNECTIVE AND OTHER SOFT TISSUE OF LOWER LIMB INCLUDING HIP
714.0	RHEUMATOID ARTHRITIS
715.16	OSTEOARTHRITIS LOCALIZED PRIMARY INVOLVING LOWER LEG
715.26	OSTEOARTHRITIS LOCALIZED SECONDARY INVOLVING LOWER LEG
715.36	OSTEOARTHRITIS LOCALIZED NOT SPECIFIED WHETHER PRIMARY OR SECONDARY INVOLVING LOWER LEG
715.96	OSTEOARTHRITIS UNSPECIFIED WHETHER GENERALIZED OR LOCALIZED INVOLVING LOWER LEG
716.16	TRAUMATIC ARTHROPATHY INVOLVING LOWER LEG
718.56	ANKYLOSIS OF LOWER LEG JOINT
718.86	OTHER JOINT DERANGEMENT NOT ELSEWHERE CLASSIFIED INVOLVING LOWER LEG

719.46	PAIN IN JOINT INVOLVING LOWER LEG
719.96	UNSPECIFIED DISORDER OF LOWER LEG JOINT
733.43	ASEPTIC NECROSIS OF MEDIAL FEMORAL CONDYLE
996.40	UNSPECIFIED MECHANICAL COMPLICATION OF INTERNAL ORTHOPEDIC DEVICE, IMPLANT, AND GRAFT
996.41	MECHANICAL LOOSENING OF PROSTHETIC JOINT
996.42	DISLOCATION OF PROSTHETIC JOINT
996.43	BROKEN PROSTHETIC JOINT IMPLANT
996.44	PERI-PROSTHETIC FRACTURE AROUND PROSTHETIC JOINT
996.45	PERI-PROSTHETIC OSTEOLYSIS
996.46	ARTICULAR BEARING SURFACE WEAR OF PROSTHETIC JOINT
996.47	OTHER MECHANICAL COMPLICATION OF PROSTHETIC JOINT IMPLANT
996.49*	OTHER MECHANICAL COMPLICATION OF OTHER INTERNAL ORTHOPEDIC DEVICE, IMPLANT, AND GRAFT
996.66	INFECTION AND INFLAMMATORY REACTION DUE TO INTERNAL JOINT PROSTHESIS
V43.65*	KNEE JOINT REPLACEMENT

*Note: ICD-9- CM code V43.65 should not be used as a primary diagnosis code when billing for a total hip replacement. It should be used in conjunction with a diagnosis code found in group 996.40-996.49.

Diagnoses that Support Medical Necessity

N/A

ICD-9 Codes that DO NOT Support Medical Necessity

N/A

Diagnoses that DO NOT Support Medical Necessity

N/A

General Information

Documentation Requirements

The medical record must contain documentation that fully supports the medical necessity and justification of the procedure performed. The documentation must be made available to MAC _____ upon request. When the documentation does not meet the criteria for the service(s) rendered or the documentation does not establish the medical necessity for the service(s), such service(s) will be denied as not reasonable and necessary under Section 1862(a)(1)(A) of the Social Security Act.

A history and physical, discharge summary, physician progress notes and an operative report are typically in the hospital record for the procedures in this LCD. Other relevant information addressing coverage criteria related to the patient's episode of care prior to the hospitalization, should be included in the hospital record.

When the procedure is indicated for advanced joint disease, the following should be documented in the medical record:

- Arthritis of the knee or hip supported by X-ray or MRI. The X-ray or MRI should demonstrate one of the following: a) subchondral cysts, b) subchondral sclerosis, c) periarticular osteophytes, d) joint subluxation, e) joint space narrowing, f) avascular necrosis or g) bone on bone articulations.
- Pain or functional disability at the hip or knee. For example, documented pain that interferes with ADLs (functional disability), or pain that is increased with initiation of activities or pain that increases with weight bearing.
- Unsuccessful conservative therapy (non-surgical medical management) if appropriate. The documentation should demonstrate a history of a reasonable attempt at conservative therapy as appropriate for the patient in their current episode of care. For example, documented trial of NSAIDs or contraindication to such therapy and/or documented supervised physical therapy. Documentation should support that ADLs are diminished due to pain and/or disability despite non-surgical medical management.
- For patients with significant conditions or co-morbidities, the risk/benefit of non-cardiac surgery, such as TKA or THA should be appropriately addressed in the medical record.

Medical record documentation for other TKA and THA indications outlined in the LCD should include the following, when indicated:

- Supporting evidence (e.g., pathology reports and referral from an Oncologist for a malignancy of the joint or X-ray of a fracture).
- Pain at the hip or knee when indicated as a reason for the procedure (e.g., for revision/replacement TKA/THA). For example, documented pain that interferes with ADLs (functional disability), pain that is increased with initiation of activities or pain that increases with weight bearing.
- For patients with significant conditions or co-morbidities, the risk/benefit of non-cardiac surgery, such as TKA or THA should be appropriately addressed in the medical record
- When infection is the reason for revision TKA or THA surgery, laboratory and/or pathology reports must be in the medical record and all documentation regarding treatment of the infection and a physician note indicating that it is appropriate to proceed with surgery should be in the medical record as well.

In the instance that the patient is undergoing a bilateral knee or hip replacement, all criteria listed above would apply to the bilateral surgery when indicated. The medical record should also support the medical necessity for performing THA or TKA bilaterally.

Any major procedure has significant benefit and risk (injury or death) that the treating physician discusses with the patient. To meet Medicare's reasonable and necessary (R&N) threshold for coverage of a procedure, the physician's documentation for the case should clearly support both the diagnostic criteria for the indication (standard test results and/or clinical findings as applicable) and the medical need (the procedure does not exceed the medical need and is at least as beneficial as existing alternatives & the procedure is furnished with accepted standards of medical practice in a setting appropriate for the patient's medical needs and condition). **Lacking compelling arguments for an exception in the supporting documentation, the hospital (FISS claim) and physician services (MCS claim) can be denied.**

If in certain circumstances the patient does not meet all of the required criteria outlined in the local coverage determination (LCD) for a procedure, but the treating physician feels that the procedure is a covered procedure given the current standards of care, then the documentation must clearly outline the patient's episode of care that supports the major procedure and must clearly address the reason(s) for coverage. For example, if clinical findings (or lack of) for an indication are not consistent with the LCD criteria, it should be directly addressed in the pre procedure documentation. For example, if certain conservative measures are not necessary or appropriate for a given patient, it should be directly noted in the pre procedure documentation. The clinical judgment of the treating physician is always a consideration if clearly addressed in the pre procedure record and if consistent with the episode of care for the patient as documented in patient records and claim history.

When reviewing claims for procedures with DRGs, the CMS online Manual, Pub 100-08, Chapter 6, Section, 6.5.2 states the following:

Review of the medical record must indicate that inpatient hospital care was medically necessary, reasonable, and appropriate for the diagnosis and condition of the beneficiary at any time during the stay. The beneficiary must demonstrate signs and/or symptoms severe enough to warrant the need for medical care and must receive services of such intensity that they can be furnished safely and effectively only on an inpatient basis.

Appendices

Utilization Guidelines

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters they may be subject to review for medical necessity.

The devices/implants utilized for total knee and total hip replacement surgeries are regulated by the FDA as medical devices. The devices used should be class II or class III devices that meet the requirements outlined in CFR 21, Chapter 1, subchapter H, Part 888 (<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=888>)

The CMS Manual System, Pub. 100-08, Program Integrity Manual, Chapter 13, Section 5.1 (<http://www.cms.hhs.gov/manuals/downloads/pim83c13.pdf>) outlines that "reasonable and necessary" services are "ordered and/or furnished by qualified personnel." Services will be considered medically reasonable and necessary only if performed by appropriately trained

providers. This training and expertise must have been acquired within the framework of an accredited residency and/or fellowship program in the applicable specialty/subspecialty or must reflect extensive continued medical education activities. If these skills have been acquired by way of continued medical education, the courses must be comprehensive, offered or sponsored or endorsed by an academic institution in the United States and/or by the applicable specialty/subspecialty society in the United States, and designated by the American Medical Association (AMA) as Category 1 Credit.

Sources of Information and Basis for Decision

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