



MEDICAL POLICY

Date Reviewed: 10/27/06, 11/16/07, 02/15/08, 01/23/09, 02/05/10, 04/15/11

Subject: Autologous Cell Therapy for Damaged Myocardium (Skeletal Muscle Myoblast Transfer, Myoblast Transplantation, Autologous Skeletal Myoblast Implantation)

Description: Autologous cell therapy for damaged myocardium involves the implantation of various cells into damaged areas of the heart muscle (myocardium). In one procedure, bone marrow cells (stem cells) are injected into the heart muscle. Another procedure involves performing a muscle biopsy to obtain skeletal muscle cells for culturing. After several weeks of growth, the cultured muscle cells (myoblasts) are implanted into areas of the heart muscle with decreased contractility. The goal of both of the procedures is to improve the function of the heart.

Indications of Coverage:

None

Limitations of Coverage:

Review contract and endorsements for exclusions and prior authorization or benefit requirements.

Transplantation of myoblasts or bone marrow cells for the treatment of cardiac disease is considered investigational as there is insufficient peer-reviewed scientific literature supporting the effectiveness of the procedure. (Note: the procedures related to the cell implantation (for example, obtaining the muscle biopsy, obtaining the bone marrow cells) would also be considered investigational.)

Documentation required:

Procedure report(s)

Rationale: Autologous cell therapy for the treatment of damaged myocardium involves the transplantation of various types of cells into the heart in an effort to replace damaged muscle, improve the effectiveness of the muscle, or to accelerate the healing process following infarction. The criteria for selecting individuals likely to benefit from the procedure or the optimal method for implantation of the cells have not been established. Further, how the transplanted cells react, whether they are incorporated into heart tissue, and whether they have a significant benefit has yet to be established. At this time, there is insufficient peer-reviewed literature documenting the effectiveness of the procedure. Studies are currently ongoing.

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Approved by the Medical Director