Medical Coverage Policy | Autologous Platelet-Derived Growth Factors (i.e. Platelet-Rich Plasma)

EFFECTIVE DATE: 11|15|2016
POLICY LAST UPDATED: 10|03|2017

OVERVIEW
This policy documents the coverage determination for autologous platelet-derived growth factors (PDGF) (i.e., platelet-rich plasma [PRP]). Autologous platelet-derived growth factors have been investigated as wound-healing products.

MEDICAL CRITERIA
Not applicable

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
BlueCHiP for Medicare
Coverage of autologous platelet-rich plasma (PRP) for BlueCHiP for Medicare members is allowed only as part of a Centers for Medicare and Medicaid (CMS) approved clinical trial. Refer to Related Policy section.

Commercial Products
Autologous blood-derived preparations (i.e., platelet-rich plasma) are considered not medically necessary as the evidence is insufficient to determine the effects of the technology on health outcomes.

COVERAGE
Benefits may vary among groups. Please refer to the appropriate section of the Benefit Booklet, Evidence of Coverage or Subscriber Agreement for services not medically necessary.

BACKGROUND
A variety of growth factors have been found to play a role in wound healing, including platelet-derived growth factor (PDGF), epidermal growth factor, fibroblast growth factors, transforming growth factors, and insulin-like growth factors.

Autologous platelet concentrate suspended in plasma, also known as platelet-rich plasma (PRP), can be prepared from samples of centrifuged autologous blood. Exposure to a solution of thrombin and calcium chloride degranulates platelets, releasing various growth factors, and results in the polymerization of fibrin from fibrinogen, creating a platelet gel. The platelet gel can then be applied to wounds or may be used as an adjunct to surgery to promote hemostasis and accelerate healing. In the operating room setting, PRP has been investigated as an adjunct to a variety of periodontal, reconstructive, and orthopedic procedures. For example, bone morphogenetic proteins are a type of transforming growth factor, and thus PRP has been used in conjunction with bone-replacement grafting (using either autologous grafts or bovine-derived xenograft) in periodontal and maxillofacial surgeries.

PRP is distinguished from fibrin glues or sealants, which have been used for many years as a surgical adjunct to promote local hemostasis at incision sites. Fibrin glue is created from platelet-poor plasma and consists primarily of fibrinogen. Commercial fibrin glues are created from pooled homologous human donors; Tisseel® (Baxter International) and Hemaseel® (Haemacure Corp.) are examples of commercially available fibrin sealants. Autologous fibrin sealants can also be created from platelet-poor plasma.

For individuals who have chronic wounds or acute surgical or traumatic wounds who receive platelet-rich plasma (PRP), the evidence includes a number of small controlled trials. Relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. The potential benefit of PRP has received considerable interest due to its appeal as a simple, safe, low-cost, and minimally invasive method of applying growth factors. Current results of trials using PRP are mixed and the studies are limited in both size and quality. The evidence is insufficient to determine the effects of the technology on health outcomes. Therefore, this service is considered not medically necessary for Commercial products.

CODING

BlueCHiP for Medicare and Commercial Products

The following codes are not medically necessary for Commercial products and may be allowed for BlueCHiP for Medicare members as part of a CMS approved clinical study when CMS criteria are met:

G0460 Autologous platelet rich plasma for chronic wounds/ulcers, including phlebotomy, centrifugation, and all other preparatory procedures, administration and dressings, per treatment

0232T Injection(s), platelet rich plasma, any site, including image guidance, harvesting and preparation when performed

Note: If you are treating a BlueCHiP for Medicare member as part of a CMS approved study, please follow the procedures for correct billing and coding of services found in the policy Clinical Trials BlueCHiP for Medicare.

RELATED POLICIES

Clinical Trials BlueCHiP for Medicare
BlueCHiP for Medicare National and Local Coverage Determinations

PUBLISHED

Provider Update, December 2017
Provider Update, January 2017
Provider Update, Apr 2015
Provider Update, Sep 2014
Provider Update Aug 2013
Provider Update Sep 2012
Provider Update Sep 2011
Provider Update July 2009
Provider Update Oct 2010
Provider Update May 2009

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2. Martinez-Zapata MJ, Marti-Carvajal A, Sola I, et al. Efficacy and safety of the use of autologous plasma rich in platelets for tissue regeneration: a systematic review. Transfusion. Jan 2009;49(1):44-56. PMID 18954394

3. Carter MJ, Fylling CP, Parnell LK. Use of platelet rich plasma gel on wound healing: a systematic review and meta-analysis. Eplasty. 2011;11: e38. PMID 22028946

4. Picard F, Hersant B, Bosc R, et al. The growing evidence for the use of platelet-rich plasma on diabetic chronic wounds: A review and a proposal for a new standard care. Wound Repair Regen. Sep 2015; 23(5):638-643.
PMID 26019054

5. Martinez-Zapata MJ, Marti-Carvajal AJ, Sola I, et al. Autologous platelet-rich plasma for treating chronic wounds. Cochrane Database Syst Rev. May 25 2016(5):CD006899. PMID 27223580

6.Escamilla Cardenosa M, Dominguez-Maldonado G, Cordoba-Fernandez A. Efficacy and safety of the use of platelet-rich plasma to manage venous ulcers. J Tissue Viability. Nov 29 2016. PMID 27955807

7.Marck RE, Gardien KL, Stekelenburg CM, et al. The application of platelet-rich plasma in the treatment of deep dermal burns: A randomized, double-blind, intra-patient controlled study. Wound Repair Regen. Jul 2016;24(4):712-720. PMID 27169627

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