Priority Health

MEDICAL POLICY
No. 91553-R7

PLATELET RICH PLASMA/PLATELET RICH FIBRIN MATRIX/ AUTOLOGOUS BLOOD-DERIVED PRODUCTS/BMAC

Effective Date: December 1, 2024	**Review Dates: 6/08, 6/09, 6/10, 6/11, 6/12, 6/13, 8/14, 8/15, 2/16, 2/17, 2/18, 2/19, 2/20, 2/21, 11/21, 11/22, 11/23, 11/24**
Date Of Origin: June 2008	**Status: Current**

Related policies:

- 91443 - Autologous Chondrocyte Implant/ Meniscal Allograft/ Osteochondral Replacement
- 91571 - Osteoarthritis of the Knee

Summary of Changes

- Clarification I.A.vi.1. and I.B:
  - Specified indications referenced in other medical policies or prior authorized by TurningPoint.
- Deletion: I.C - Replaced criteria specific to Medicare members with link to CMS' NCD 270.3

I. POLICY/CRITERIA

A. Platelet rich plasma (PRP), autologous blood-derived growth factors, bone marrow aspirate concentrate (BMAC), and mesenchymal stem cells are considered investigational and experimental for all indications, including, but not limited to:

i. Avascular necrosis of the hip
ii. Bone healing and fusion, including as an adjunct to spinal fusion
iii. Chronic non-healing wounds
iv. Dupuytren's contracture
v. Epicondylitis (e.g., tennis elbow, elbow epicondylar tendinosis)
vi. Osteoarthritis
    1. For the treatment of the knee see the Osteoarthritis of the Knee # 91571 medical policy.
vii. Plantar fasciitis
viii. Sinus surgery

B. Applications of platelet rich plasma (PRP), autologous blood-derived growth factors, bone marrow aspirate concentrate (BMAC), and/or mesenchymal stem for orthopedic applications may or may not be medically necessary according to TurningPoint criteria.

C. For Medicare members: Centers for Medicare & Medicaid Services (CMS) covers autologous blood-derived products/PRP for chronic non-

healing diabetic wounds according to National Coverage Determination (NCD) for Blood-Derived Products for Chronic Non-Healing Wounds (270.3).

II. MEDICAL NECESSITY REVIEW

Prior authorization for certain drugs, services, and procedures may or may not be required. In cases where prior authorization is required, providers will submit a request demonstrating that a drug, service, or procedure is medically necessary. For more information, please refer to the Priority Health Provider Manual.

III. APPLICATION TO PRODUCTS

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

- **HMO/EPO:** ***This policy applies to insured HMO/EPO plans.***
- **POS:** ***This policy applies to insured POS plans.***
- **PPO:** ***This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.***
- **ASO:** ***For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.***
- **INDIVIDUAL:** ***For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.***
- **MEDICARE:** ***Coverage is determined by the Centers for Medicare and Medicaid Services (CMS) and/or the Evidence of Coverage (EOC); if a coverage determination has not been adopted by CMS, this policy applies.***
- **MEDICAID/HEALTHY MICHIGAN PLAN:** ***For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.***

IV. DESCRIPTION

Blood-derived biologic therapies:

Platelet rich plasma (PRP) is defined as a platelet-rich concentrate with platelet levels greater than the baseline count in whole blood. It is manufactured using centrifugation of blood, which separates the denser red cells from the plasma.

PRP and fibrin matrix (PRFM), or autologous platelet-derived growth factors, are proposed as an adjunct to standard treatment for several indications including wound care for the treatment of diabetic ulcers and venous stasis ulcers, bone augmentation and fusion, tendonitis, and plantar fasciitis. PRP is a general term describing a therapy with no standardized preparation or administration technique. PRP can be produced in an autologous or homologous manner. Autologous PRP is made of the patient's own blood while homologous PRP is derived from blood from multiple donors. The PRP contains whole cells including white cells, red cells, plasma, platelets, fibrin, stem cells, and fibrocyte precursors. Blood is centrifuged to produce an autologous gel and then used by physicians in clinical settings. PRFM is a second-generation platelet concentrate in does not require any gelifying agent. PRFM attempts to accumulate platelets and released cytokines in a fibrin clot using platelet cytokines, growth factors, and cells to serve as a resorbable membrane. (Naik, 2013).

Administration of PRP is a procedure and is, therefore, not subject to regulation by the Food and Drug Administration (FDA). However, the devices used to prepare PRP are regulated by the FDA premarket approval process. Several centrifuge devices have been approved by the FDA for preparation of PRP.

One example of a commercially available device, the Cascade® Autologous Platelet System produces a completely autologous platelet biologic with a high concentration of viable platelets, extracted from a small amount of the patient's own blood, spun through a centrifugation process and resulting in a dense suturable platelet rich fibrin matrix (PRFM) that can be delivered directly to the tear site and sutured in place to potentially stimulate a reparative healing response for soft tissue and bone repair.

The heterogeneity and the small number of controlled trials make it difficult to assess the efficacy of PRP for tendon and muscle injuries and disorders. A systematic review and meta-analysis of 40 randomized and quasi-randomized controlled trials, including 3035 patients with knee osteoarthritis did not show that PRP improved pain or function compared with hyaluronic acid, intra-articular steroid, or saline (Costa, 2023). PRP has been used in conjunction with different grafting materials in bone augmentation procedures since the day of its introduction; the results from these studies are controversial and no conclusions can be drawn regarding the bone regenerative effect of PRP till date. There is insufficient evidence to support the use of autologous platelet-derived growth factors for any indication at this time.

Cellular therapies:

Bone marrow aspirate concentrate (BMAC) is an injectable product derived from a patient's bone marrow. Bone marrow is harvested from the iliac crest using commercial aspiration kits. The bone marrow aspirate is then processed and injected back into the patient (Chala, 2017). BMAC has been proposed for anti-inflammatory and regenerative treatment for joints and tendons (Ryu, 2020). Several studies have examined outcomes after BMAC injection, but there remains a lack of consensus in terms of the frequency of injection, the amount of BMAC that is injected, and the timing of BMAC injections. Mesenchymal stem or stromal cell (MSC) is a rare, undifferentiated multipotent stem cell. MSCs are multipotent progenitor cells that can be obtained from bone marrow, adipose tissue, synovium, articular cartilage, and skeletal muscles (Koga, 2008; Orozco, 2013). MSCs differentiate into fat, bone, and cartilage.

V. CODING INFORMATION

ICD-10 Codes: *Not specified*

CPT/HCPCS Codes:

Not Covered for the indications listed in this policy

0232T	Injection(s), platelet rich plasma, any tissue, including image guidance, harvesting and preparation when performed
0481T	Injection(s), autologous white blood cell concentrate (autologous protein solution), any site, including image guidance, harvesting and preparation, when performed
20939	Bone marrow aspiration for bone grafting, spine surgery only, through separate skin or fascial incision (List separately in addition to code for primary procedure) *(Subject to Prior Authorization)*
20999	Unlisted procedure, musculoskeletal system, general (*Explanatory notes must accompany claims)*
38206	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; autologous
38232	Bone marrow harvesting for transplantation; autologous
38241	Hematopoietic progenitor cell (HPC); autologous transplantation
G0460	Autologous platelet rich plasma for chronic wounds/ulcers, including phlebotomy, centrifugation, and all other preparatory procedures, administration and dressings, per treatment
G0465	Autologous platelet rich plasma (PRP) for diabetic chronic wounds/ulcers, using an FDA-cleared device (includes administration, dressings, phlebotomy, centrifugation, and all other preparatory procedures, per treatment) *(Covered for Medicare only)*
P9020	Platelet rich plasma, each unit *(facility only)*
P9073	Platelets, pheresis, pathogen-reduced, each unit

Revenue Codes:

0383	Blood and Blood Components-Plasma
0384	Blood and Blood Components-Platelets
0390	Administration, Processing and Storage for Blood and Blood Components, General
0399	Administration, Processing and Storage for Blood and Blood Components-Other Processing and Storage

VI. REFERENCES

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