Plasmin-Assisted Vitrectomy

Policy Number: HS-122

Original Effective Date: 8/13/2009

Revised Date(s): 8/20/2010; 8/2/2011; 8/2/2012; 8/1/2013; 8/7/2014; 7/11/2015

APPLICATION STATEMENT

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.
BACKGROUND

Plasmin, a non-specific serine protease mediating fibrinolysis, has properties to hydrolyze a variety of glycoproteins, including laminin and fibronectin. By degrading the links between these components of the vitreoretinal interface and the inner limiting membrane (ILM), therapeutic posterior vitreous detachment (PVD) has become possible. In controlled experiments in postmortem porcine eyes, enzymatic action alone is sufficient to induce PVD. However, there are remnants of cortical vitreous remaining adherent to the ILM depending on the dose and exposure time of Plasmin.

Enzymatic vitrectomy is envisaged to augment or even replace conventional vitrectomy by proposed means of less surgical risks, less surgeon time, lower costs, and a transition to office-based vitreoretinal procedures. However, there are few data concerning the effect of plasmin at the vitreoretinal interface of human eyes. Especially the impact of plasmin as an enzymatic adjunct to vitrectomy has not been studied and published as yet.

Further studies are now required to investigate the short- and long-term complications of the different surgical techniques. Before plasmin-assisted vitrectomy may be regarded as a viable alternative or adjunct to vitrectomy, central questions of efficacy and safety need to be addressed. Nevertheless, plasmin-assisted vitrectomy holds the promise of creating a raft of new therapeutic strategies for a variety of vitreoretinal diseases.

POSITION STATEMENT

Plasmin-assisted vitrectomy is considered experimental/investigational and not medically necessary.

CODING

Non Covered CPT® Codes
67299 Unlisted procedure posterior segment of eye

HCPCS Codes – No applicable codes.

Non Covered ICD-9-CM Procedure Codes
14.79 Other operations on vitreous

Non Covered DRAFT ICD-10-PCS Codes
08Q43ZZ Repair right vitreous, percutaneous approach
08Q53ZZ Repair left vitreous, percutaneous approach

Non-Covered ICD-9-CM Diagnosis Codes
361.00 - 361.07 Retinal detachment with retinal defect
361.2 Serous retinal detachment
361.81 - 361.89 Other forms of retinal detachment
362.01 - 362.06 Diabetic retinopathy
362.07 Diabetic macular edema
362.42 Serous detachment of retinal pigment epithelium
362.43 Hemorrhagic detachment of retinal pigment epithelium
362.53 Cystoid macular degeneration of retina
362.54 Macular cyst, hole, or pseudohole
362.56 Macular puckering
362.83 Retinal edema
379.23 Vitreous hemorrhage

Non-Covered Draft ICD-10-CM Diagnosis Codes

E08.311 - E08.349 Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy with macular edema
E08.351 – E08.359 Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema
E09.311 – E09.349 Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E10.311 - E10.319 Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.311-E11.319 Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.311 - E11.359 Type 2 Diabetes Mellitus with diabetic retinopathy
H33.001 - H33.199 Retinal detachments and breaks
H33.20 - H33.23 Serous retinal detachment
H33.40 - H33.43 Traction detachment of retina
H33.8 Other retinal detachments
H35.30 - H35.389 Degeneration of Macula and posterior pole
H35.721 - H35.729 Serous detachment of retinal pigment epithelium
H35.731 - H35.739 Hemorrhagic detachment of retinal pigment epithelium
H35.31 Retinal Edema
H43.10 - H43.13 Vitreous hemorrhage


REFERENCES


MEDICAL POLICY COMMITTEE HISTORY AND REVISIONS

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<th>Action</th>
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