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Kaiser Foundation Health Plan of Washington

Clinical Review Criteria
Vitrectomy Chair or Support Face Down Positioning Device

Criteria

For Medicare Members

Source	Policy
CMS Coverage Manuals	None
National Coverage Determinations (NCD)	Durable Medical Equipment Reference List (280.1)
Local Coverage Determinations (LCD)	None
Local Coverage Article	None
Joint DME MAC Publication	Correct Coding – Face Down Positioning Devices **This device is noncovered per Medicare*

For Non-Medicare Members

There is insufficient evidence in the published medical literature to show that this service/therapy is as safe as standard services/therapies and/or provides better long-term outcomes than current standard services/therapies.

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, Kaiser Permanente will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.

Background

The macula is the small area of the retina that provides the sharp central vision that is needed for reading, driving, and seeing fine details. A macular hole is a small break in the macula, which can cause blurred and distorted central vision. Macular holes are related to aging; fifty percent of macular holes occur in patients 65-74 years old. Only three percent were found to occur in patient under the age of fifty-five. The majority of holes are idiopathic; however, they can occur from eye disorders, such as high myopia (nearsightedness), macular pucker, and retinal detachment; eye diseases, such as retinopathy and Best's disease; and trauma to the eye (Solebo 2010; American Academy of Ophthalmology 2008).

The pathogenesis of idiopathic macular holes is not fully understood; however, recent histopathological and high resolution imaging studies have increased current understanding of the natural history of this condition. One theory of macular hole formation suggests that as we age, the vitreous, a gel-like substance that fills about 80 percent of the eye, shrinks and pulls away from the retinal surface creating tractional forces on the retinal and leading to macular holes (Solebo 2010). If left untreated, approximately three percent to eleven percent of macular holes close spontaneously (American Academy of Ophthalmology 2008). The treatment for macular hole is vitrectomy, which involves the surgical removal of the vitreous gel from the middle of the eye and is thought to relieve vitreofoveal traction and reactivate reparative healing mechanisms (Gupta 2009). Some surgeons instruct their patients to postoperatively maintain a face-down position from one day to three weeks to tamponade the macular hole. However, a recent study demonstrated that approximately 77% percent of macular holes close as soon as twenty-four hours after surgery (Solebo 2010). Research is lacking regarding the appropriate duration of postoperative face-down posturing and as to whether face-down positioning is needed at all.

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Medical Technology Assessment Committee (MTAC)

Vitrectomy Chair

04/19/2010: MTAC REVIEW

Evidence Conclusion: There is limited evidence regarding the effect of duration of face-down posturing on macular hole closure. The best available evidence was provided by the Tatham and Banerjee (2009) meta- analysis of five studies. This meta-analysis attempted to determine whether decreasing or eliminating face-down position time would affects surgical outcomes. Posturing for 5 to 10 days was compared to posturing for 24 hours or less. The results from the analysis suggest that there is a 34% increased risk of anatomical failure (macular hole non-closure) when face-down posturing is reduced from 5 to 10 days to less than 24 hours. However, this difference was not statistically significant. Within the studies that comprise the meta-analysis there is diversity of study design, surgical technique used, follow-up periods, and patient characteristics. This diversity reduced the validity of the meta-analysis. Additionally, non-randomized studies were included in the analysis making it more prone to bias. Conclusion: There is insufficient evidence to determine whether the duration of face-down posturing after macular hole surgery affects macular hole closure rates. There is insufficient evidence to determine whether a vitrectomy chair will improve outcomes after surgery.

Articles: The literature search yielded over 100 articles. The majority of the articles were unrelated to the current review. There was only one meta-analysis regarding face-down posturing. This article was selected for critical appraisal. The search did not reveal any evidence pertaining to the use of a vitrectomy chair after surgery.

Tatham A., Banerjee S. Face-down posturing after macular hole surgery: A meta-analysis. British Journal of Ophthalmology 2009. Advance online publication. doi:0.1136/bjo.2009.163741 See Evidence Table.

The use of a Vitrectomy Chair for the treatment of post-operative recovery from macular surgery does not meet the *Kaiser Permanente Medical Technology Assessment Criteria.*

Applicable Codes

Considered Not Medically Necessary:

CPT® or HCPC Codes	Description
No specific codes	

***Note:** Codes may not be all-inclusive. Deleted codes and codes not in effect at the time of service may not be covered.

****To verify authorization requirements for a specific code by plan type, please use the **Pre-authorization Code Check.**

Date Created	Date Reviewed	Date Last Revised
05/10/2010	05/04/2010 MDCRPC, 04/05/2011 MDCRPC, 02/07/2012 MDCRPC, 12/04/2012 MDCRPC, 10/01/2013 MDCRPC, 08/05/2014 MPC, 06/02/2015 MPC, 04/05/2016 MPC, 02/07/2017 MPC,12/052017 MPC, 11/06/2018 MPC, 11/05/2019 MPC, 11/03/2020 MPC,11/02/2021 MPC, 11/01/2022 MPC, 11/07/2023 MPC, 02/13/2024MPC	11/03/2020

MDCRPC Medical Director Clinical Review and Policy Committee

MPC Medical Policy Committee

Revision History	Description
11/03/2020	Added Correct Coding reference from Noridian

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