IMPLEMENTING AMNIOTIC TISSUE

BEST PRACTICES

**Getting Started:**

* Dehydrated amniotic tissue provides easy storage and long shelf life (2 years).
* Tissue can be applied and secured under a bandage contact lens.
* The Food and Drug Administration (FDA) has approved a handful of contact lenses for extended wear, including Alcon Air Optix Night & Day® and Johnson & Johnson Acuvue Oasys®.
* Some ODs prefer a flatter base curve to allow for more movement compared to a steeper base curve which could lead to a tighter fit.

**Patient Selection:**

* Consider utilizing amniotic membranes in patients with warranted ocular conditions **(see list of reimbursable conditions below)**
* It may be best to start with less severe cases to maximize positive results and clinical confidence.
* It is important to abate anterior inflammation earlier before it progresses to a chronic condition. Tissue tends to heal and respond better in earlier stages of inflammation.
* Consider treating blepharitis prior to treatment to maximize ocular surface health outcomes.
* Ensure thorough patient education prior to proceeding with procedure. A few educational talking points include:
	+ Discuss blurry vision with the amniotic membrane in place.
	+ Inform patient of possible discomfort with the amniotic membrane in place, especially once the topical anesthetic effect wears off.
	+ Advise patient not to rub eyes to avoid dislodging the membrane and contact lens.
* Ideally, understand prior to AM application if a patient’s medical insurance will cover for amniotic membrane use and if so what the reimbursement will be. Be aware of costs that may count towards a patient deductible and what a patient may have to pay out of pocket for AM placement. Consider having patients sign an advance beneficiary notice (ABN).
* Understand the appropriate modifiers that can be used in AM utilization (usually -50 for a bilateral procedure).

**Application Techniques:**

**(Option #1 directly on cornea)**

* Wash hands thoroughly
* Prepare surgical tray and include the following: surgical drape, bent forceps, surgical spears, anesthetic eye drop, gloves (be aware of patient allergies), surgical mask, bandage contact lens, and lid speculum (if preferred).
* Put on gloves (if desired).
* Instill 1 drop of an anesthetic eye drop (proparacaine, tetracaine) into patient’s eye.
* Unwrap the bandage contact lens, remove it from the lens well, and dry the inside with a surgical spear.
* Unseal the amniotic tissue package.
* Hold patient’s upper and lower eyelids wide open and ask the patient to look straight ahead before drying the patient’s cornea with a surgical spear with a dabbing technique.
* **NOTE**: With the direct-to-cornea amniotic membrane application technique, most eye care practitioners prefer to use a lid speculum at this step to ensure optimal lid opening while others utilize the help of an optometric technician/assistant to pry patient lids open.
* Quickly grab the edge of the membrane with bent forceps and *carefully* apply the membrane directly to patient’s cornea over the lesion(s).
* Use a *wet* surgical spear to smooth wrinkles and properly position the tissue over the lesion(s).
* Quickly apply the *dry* bandage contact lens over the amniotic membrane.
* Use a *wet* surgical spear to smooth wrinkles.
* Release the patient’s eyelids while taking care *not to displace the bandage contact lens and amniotic membrane*.
* Grasp the eyelids and pull the eyelids up over the contact lens so it puts downward pressure directly onto the contact lens and the membrane.

**(Option #2 inverted BCL)**

* Wash hands thoroughly
* Put on gloves (if desired).
* Instill 1 drop of an anesthetic eye drop (proparacaine, tetracaine) into patient’s eye.
* Unwrap the bandage contact lens, remove it from the lens well, and dry the inside with a surgical spear.
* Unseal the amniotic tissue package.
* Place the BCL on index finger and invert it.
* Gently tap the inverted BCL to the amniotic membrane aiming for a centered placement.
* Reinvert the BCL and use a weck cel sponge to smooth out potential wrinkles/air bubbles.
* Hold patient’s upper and lower eyelids wide open and ask the patient to look straight ahead before drying the patient’s cornea with a surgical spear with a dabbing technique.
* **NOTE**: It can help to utilize an optometric technician/assistant to assist in opening patient eyelids.
* Apply the BCL/AM unit directly to the patient cornea
* Release the patient’s eyelids while taking care *not to displace the bandage contact lens and amniotic membrane*.
* Grasp the eyelids and pull the eyelids up over the contact lens so it puts downward pressure directly onto the contact lens and the membrane.

**Post Application:**

* Massage gently the upper eyelids to push out any residual air bubbles.
* Let the patient sit with eyes closed for a couple of minutes.
* Examine the patient’s ocular surface with a slit lamp to ensure proper positioning.
* Consider prescribing a topical antibiotic/corticosteroid combination drop QID to the involved eye until the AM is removed or absorbed (if appropriate).
* Patients may occasionally demonstrate an inflammatory response to the amniotic membrane tissue, in which case the AM should be removed as soon as possible.

**More Common Possible ICD 10 Codes**

* H16.01\_ - Central corneal ulcer
* H16.02\_ - Ring corneal ulcer
* H16.04\_ - Marginal corneal ulcer
* H16.05\_ - Mooren's corneal ulcer
* H16.07\_ - Perforated corneal ulcer
* H16.14\_ - Punctate Keratitis
* H18.1\_ - Bullous keratopathy
* H18.21\_ - Corneal edema secondary to contact lens
* H18.42\_ - Band keratopathy
* H18.46\_ - Peripheral corneal degeneration
* H18.49 - Other corneal degeneration
* H18.82\_ - Corneal disorder due to contact lens
* H18.83\_ - Recurrent erosion of cornea
* S05.01X\_ - Injury of conjunctiva and corneal abrasion without foreign body, right eye
* S05.0sX\_ - Injury of conjunctiva and corneal abrasion without foreign body, left eye

**FAQ – IPATCH REIMBURSEMENT**

* **What is iPatch?**

iPatch is a surgical graft that acts as a physical barrier against the external environment on the ocular surface, and is an anti-scarring, anti-inflammatory, and anti-angiogenic agent. It also supports epithelial adhesion and differentiation. Additionally, iPatch has anti-adhesive properties which are useful for keeping potentially adhesive surfaces apart.

* **What are the indications for iPatch?**

The use of amniotic tissue for assistance with wound healing has been advocated for over 65 years. Amniotic membrane tissue is indicated for the management of ocular wounds and to control minor bleeding. The allograft maintains a moist environment which helps provide a physiologically favorable milieu for ocular wound management such as in the reduction of inflammation and scarring, and in reducing abnormal blood vessel growth. Amniotic membrane transplantation has proven beneficial where frequent topical lubrication has failed and as an alternative to tarsorrhaphy, tissue adhesives and conjunctival flaps to repair persistent epithelial defects. Some conditions for which it may be used include:

* Band keratopathy
* Bullous keratopathy
* Corneal abrasions
* Corneal epithelial defects
* Corneal ulcer
* Punctate Keratitis
* **Does Medicare cover procedures using iPatch?**

Yes, when medically necessary

* **Which CPT codes are used for amniotic membrane transplantation?**
* 65778 – PLACEMENT OF AMNIOTIC MEMBRANE ON THE OCULAR SURFACE; WITHOUT SUTURES
* **Are there any other restrictions on Medicare reimbursement?**

Yes. Medicare’s National Correct Coding Initiative (NCCI) edits bundle amniotic membrane tissue transplantation procedures (65778) with office visit codes. NCCI edits change quarterly. Please check them periodically.

Other third payers are not obligated to follow Medicare’s NCCI edits, although many do. Check with your local payers.

* **What are Medicare’s allowed amounts for these procedures?**

Payment rates vary but usually range between $1100-$1500 per amniotic membrane placement.

Regarding ALL of the above codes, these amounts are adjusted in each area by local wage indices.

Other payers set their own fee schedules, which may differ considerably from Medicare rates.

* **What is the global period for 65778?**

Zero days

* **Does Medicare pay for the supply of iPatch separately?**

No, the supply is included in the provider reimbursement.