

COURSE OUTLINE

Title: Amniotic Membranes in Primary Care

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Description: This course will discuss the types of amniotic membranes available, biophysiology of the membranes, indications, usage, management, and follow up.

Duration: 1 hour

Objectives

- Familiarize attendees with the types of membranes available
- Understand indications for use of membranes
- Understand the basics of usage, management and follow up

Outline

A. OVERVIEW

- a. Types of lenses available.
- b. Sizes available
- c. Use with bandage contact lenses

B. TECHNOLOGY

- a. Process
- b. Sterilization
- c. History

C. RETAINED BIOSTRUCTURE, PROTEINS, CYTOKINES

D. WHAT IS HUMAN AMNIOTIC MEMBRANE?

- a. Structure
- b. Function

E. WHY HUMAN AMNIOTIC MEMBRANE?

- a. Wound Healing
- b. Benefits

F. UNIQUE GRAFTING CHARACTERISTICS

- a. Matrix
- b. Biological Barrier
- c. Mimics conjunctiva

G. STRUCTURAL PROTEINS

- a. Extracellular Matrix
- b. Collagen Types
- c. Elastin, fibronectin, Laminin

H. SPECIALIZED PROTEINS

- a. Cytokines
- b. Interleukin
- c. Tissue Inhibitors

I. GROWTH FACTORS

- a. Fibroblast Growth Factor (FGF)
- b. Transforming Growth Factor Beta (TFG- β)
- c. Epidermal Growth Factor (EGF)
- d. PDGF A&B

J. PROCESSING

- a. Serological testing
- b. Raw tissue storage
- c. Cleansing of the membrane layers
- d. Dehydration
- e. Sterilization

K. INDICATIONS

1. NEUROTROPHIC ULCERS
2. CORNEAL EROSIONS
3. CORNEAL PERFORATIONS
4. DRY EYE
5. KERATITIS (POST INFECTIOUS)
6. CHEMICAL/THERMAL BURNS
7. STEVENS JOHNSON SYNDROME
8. PERSISTENT EPI DEFECTS

L. APPLICATION

1. STEP 1: PREP AND DENUDE
2. STEP 2: PLACEMENT OF MEMBRANE
3. STEP 3: PLACEMENT OF LENS
4. STEP 4: FINISH

M. TIMEFRAME AND FOLLOW UP

- a. FOLLOW UP
- b. DISSOLVE
- c. ABSORPTION
- d. REMOVAL

N. MANAGEMENT

O. CLINICAL CASES

- a. THERMAL BURNS
- b. CORNEAL ULCERS
- c. CORNEAL ABRASION
- d. DRY EYE
- e. CHEMICAL BURNS
- f. SJS

P. CODING AND BILLING

- a. CPT CODES
- b. DOCUMENTATION
- c. ALLOWABLE FEES

Q. SUMMARY & QUESTIONS