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Dual Luedde Exophthalmometer Instructions for Use

Purpose:

The purpose of any exophthalmometer is to measure the distance (exophthalmos) between the front most surface of the cornea compared to the external orbital canthus (orbital notch). The normal range varies between 12 mm and 21 mm and a difference between the eyes greater than 2 mm is considered suspicious. In the treatment of disease effecting the exophthalmos, the instrument is used to track the degree of forward (or backward) displacement of the eye.

The Dual Luedde works in a manner comparable to the Hertel Exophthalmometer, except that the viewing angle is varied instead of employing a prism.

The Dual Luedde, like the Hertel, is not recommended where the orbit or eye socket has been damaged. In these cases, the use of the Naugle (which indexes from the cheek bone and forehead) would likely provide more consistent results.



Curved surface designed to fit the apex of the deepest angle of the lateral orbital notch. Scale in mm which is used to measure the corneal apex. Each eye is measured separately.

Operation:



After cleaning, the recommended first step is to slide the Luedde to adjust the distance between the two apexes of the Luedde's to match right to left orbital notch. Then tighten the set screw snug but not overly tight.

Set up a chair for the patient and select a fixation point in front of them at eye level.

Next, use your finger to locate the apex of the orbital notch on each side. Re-align the distance between the two apexes of the Lueddes if necessary. Be sure you have good frontal lighting so that corneal readings can be made.

Be sure to record the distance from right to left orbital notch as shown on the black scale.

Position the Dual Luedde for an initial try as a means to help the patient understand what the proper location of the instrument will feel like. Do NOT press too hard as discouragement may result. Ask the patient to look or focus on something straight ahead.



You can then make a choice as to who will maintain proper position of the instrument. Many times, excellent results have been achieved by having the patient use their right hand to hold the instrument as level as possible. This also permits you to move from the patient's right side to their left side to record the corneal measures.

Operation: (continued)



Determine and record the corneal distance on the left side of the patient Note: this determination is made looking through the Luedde at a right angle to their gaze ahead.



Then move to the right side of the patient and record the corneal distance. Check that the Dual Luedde is still held in the same position and angle. Be sure it is seated in the apex of the orbital notch.

Cleaning:

The Dual Luedde can be cleaned with mild soap and water.

Warning/Precaution:

Do NOT use Alcohol to clean nor disinfect.