P67 HOW VALID ARE THE VISION TESTERS FOR VISUAL SCREENING? A COMPARATIVE STUDY WITH A CLINICAL ASSESSMENT

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Objectives Vision testers -such as OPTEC-6500- are widely available in occupational health services for visual screening, probably because they are inexpensive and easy to use. Few studies have evaluated their validity. We aim to compare OPTEC-6500 assessment with the clinical visual examination performed by an optometrist considerate as gold standard.

Methods Random sample of university lecturers (n=266) without previous ocular pathology. First, an optometrist evaluated the refractive and binocular status by measuring monocular and binocular visual acuity (VA), stereoscopic visual acuity and lateral phoria (LP) at near and distance vision with standardised methods (ETDRS chart, Wirt circles, cover test). The same measurements were repeated with the Optec-6500 (blind examination). Sensitivity, specificity, positive predictive value (PPV) and negative (NPV), and κ coefficient were calculated to compare the two procedures.

Results VA obtained maximum sensitivity and specificity >80%. LP at idistance vision was sensitive (92.3%) but it wasn´t specificity (54.5%). The other tests obtained percentages of sensitivity and specificity <75%. PPV was very low -highest value was for LP at near vision and stereoscopic VA, (34.3% and 47.5% respectively)-. NPV was >85%. κ coefficient was <0.40 in all cases, being particularly low for LP at distance vision (0.091).

Conclusions Optec-6500 is not specific enough to diagnose refractive errors and binocular vision. Their likelihood for detecting alterations in VDT workers is low. The low concordance between the two procedures affects the validity of its application for visual screening.