

DEW	DRY EYE: DIAGNOSTIC TEST TEMPLATE	
RAPPORTEUR	A.J.Bron	18 th Oct 2004
TEST	Schirmer 1 without anaesthesia	
TO DIAGNOSE	Diagnostic Test of Dry Eye	REFERENCES
VERSION of TEST	[V]	Pflugfelder et al. 1998
DESCRIPTION	An estimation of tear flow stimulated reflexly by insertion of a filter paper into the conjunctival sac.	
NATURE of STUDY	40 adults with ocular irritation: (SSATD (11); NSATD (9) ; inflamm MGD (rosacea) (10); atrophic MGD (10). 10 normals Controls and SSATD were of younger age. SSATD less males than controls or inflame MGD [for details: see Bron Mixed Tests Pflugfelder 1998]	
CONDUCT of TEST	SCHIRMER TEST Without anaesthesia Eyes open Short part of paper placed over lower lid margin at junction of middle and lateral third Read at 5 minutes NASAL-LACRIMAL REFLEX TEARING Method: After removing the Schirmer strip following the 30 min clearance test : Nasal mucosa stimulated with a dry cotton swab (time?) on the side with the lowest Schirmer value. Then Schirmer strip inserted for 1 minute. A Schirmer value greater than 1 mm more than the 30 min value.	
Web Video	Not available:	
Materials:	<ul style="list-style-type: none"> Schirmer papers: Iolab Corporation 	
Standardization	Time of day [√] Temperature [√] Humidity [√] Air speed [√] Illumination [√]. Assumed to influence.	
Repeatability	Intra-observer agreement. [-] Inter-observer agreement. [-]	
Sensitivity	(true positives) [-]	
Specificity	(100 – false positives) [-]	
Other Stats	Data from this paper was used to contrast the behaviour of different diseases causing ocular irritation. SCHIRMER TEST: Worse eye Schirmer scores lower for nonSS- and SSATD groups than for MGD and controls (p≤0.001) Fellow eyes similar, but SSATD fellow eyes scores lower than for nonSSATD (p=0.02). Inflam Sch scores < atrophicMGD scores (p=0.04) SCHIRMER CORRELATIONS:	Pflugfelder et al. 1998

	Schirmer scores correlated inversely with: Total fluorescein scores (Kendall's $\tau = 0.505$; $p < 0.001$) Total Rose bengal scores (Kendall's $\tau = 0.474$; $p < 0.001$) (Stain and Schirmer scores meaned from both eyes?) SS group Greater loss of nasolacrimal reflex Schirmer .	
Test problems	Note two-eye means used in comparisons SS patients younger than other groups	

Reference

Pflugfelder SC, Tseng SC, et al. (1998). Evaluation of subjective assessments and objective diagnostic tests for diagnosing tear-film disorders known to cause ocular irritation. *Cornea* 17(1): 38-56.