

DEWS	DRY EYE: DIAGNOSTIC TEST TEMPLATE	
RAPPORTEUR	A.J.Bron	16 th Oct 2004
TEST	Schirmer-1 test without anesthesia	
TO DIAGNOSE	To classify dry eye as a part of Sjögren's Syndrome	REFERENCES
VERSION of TEST	[V 1]	Vitale et al. 1994
DESCRIPTION	Various tests (see below).	
NATURE of STUDY	22 centres from 11 countries provided data on a total of 447 SS and 246 controls (246 1°SS; 201 2°SS; 113 connective tissue disease without SS and 133 normal controls)	
CONDUCT of TESTS	<p>Order of tests: BUT; Sch-1; TFLL; RBS</p> <p>Sch-1: without anesthetic, Standard Schirmer Strips Placed over the lateral part of the lower lid Eyes closed Read length from notch to edge 5 minutes</p> <p>Rose Bengal staining Instil 2.5 µl rose bengal solution in lower fornix % not stated in this article (assume 1%) 1-2 full blinks Counting according to van Bijsterveld 1969 (score range 0-9)</p> <p>FBUT Instil 2.5 µl 1% fluorescein 1-2 full blinks Slit-lamp illumination (source not stated) Interval between last blink and formation of growing black holes Stop watch</p> <p>Tear Film Lactoferrin Paper disc in lateral part of lower fornix. When completely wet, Transferred to reagent gel of lactoplate kit Incubated 3 days at room temperature Diameter of precipitate ring measured Lactoferrin concn measured by reference to table.</p>	<p>van Bijsterveld 1969 Haldberg and Berens 1961</p> <p>Janssen van Bijsterveld 1983</p>
RESULTS of STUDY	<p>Sch-1: 5mm cut off: Sensitivity: 75.1% (310/413 correctly classified; Specificity: 76.4% (168/22 correctly classified controls). 10mm cut off: Sensitivity 82.7% Specificity 67.9%</p> <p>RBS: ≥4 in at least one eye. Sensitivity) 63.6% (208/327 of SS) Specificity 84.8% (117/138 of controls)</p> <p>BUT ≤10s Sensitivity 83.7% Specificity 44.8%</p> <p>TFLL (1.1g/L) Sensitivity 72.2% (184/255 patients)</p>	

	Specificity 61.6% (69/112 controls)	
WebVideo	Multiple tests: Not applicable:	
Materials:	<ul style="list-style-type: none"> • Schirmer papers (not stated) • Bengal rose (not stated) • 1% fluorescein (not stated) • Lactoplate kit (JDC Culemburg, Netherlands) 	
Standardization	Different requirements for each test.	
Repeatability See study results	Intra-observer agreement. [-] Inter-observer agreement. [-]	
Sensitivity	(true positives) [-]	
Specificity	(100 – false positives) [-]	
Glossary	TFLL: Tear Film Lipid Layer	

References:

Haldberg GP, Berens C. (1961). Standardized Schirmer tear test kit. *Am J Ophthalmol* 7: 840-2.

Janssen P T, van Bijsterveld OP. (1983). A simple test for lacrimal gland function: a tear lactoferrin assay by radial immunodiffusion. *Graefes Arch Clin Exper Ophthalmol* 220: 171-4.

Vitali C, Moutsopoulos HM, et al. (1994). The European Community Study Group on diagnostic criteria for Sjögren's syndrome. Sensitivity and specificity of tests for ocular and oral involvement in Sjogren's syndrome." *Ann Rheum Dis* 53:637-47.