DEWS	DRY EYE: DIAGNOSTIC TEST TEMPLATE	
RAPPORTEUR	A.J.Bron	21st Oct 2004
Reviewers	Barbara Caffery,	April 2, 2006
TEST	Grading staining: van Bijsterveld schema	•
TO DIAGNOSE	The scheme is used to estimate surface damage in sicca.	REFERENCES
VERSION of	[V]	Van Bijsterveld
TEST		1969
DESCRIPTION	Surface damage to the exposed eye, assessed by staining, is graded against standard chart.	
NATURE of	Diagnostic value of the Schirmer 1 test, Rose bengal staining	
STUDY	and a test of lysozyme tear level in sicca syndrome.	
	Normal controls: 550 Age 20-74 years M=F in each 5 y band	
	Sicca syndrome: 43 F32; M11	
CONDUCT of TESTS	Rose bengal staining: 1% liquid rose bengal is instilled into the eye. The examiner uses white light to assess the amount of staining. Intensity scored in 2 exposed conjunctival zones and cornea Score 0-3 for each zone.	
DECLUTE OF	Maximum score 9. 1+ = few separated spots 2+ = many separated spots 3+ = confluent spots (see figure) 1+	
RESULTS of STUDY	N. A.	
Web Video	Available [No]	
Materials:	Bengal rose 1%. Source not stated.	
Standardization	Time of day [] Temperature [] Humidity [] Air speed [] Illumination [] These have not been assessed	
Variations		
Repeatability	Intra-observer agreement. [-]	
	Inter-observer agreement. [-]	
Sensitivity	Rose bengal test: with a cut off of ≥ 3.5 mm the probability of misclassification of patients was 5% and of controls was 4%.	
	(true positives) [95%]	
Specificity	(100 – false positives) [96%]	

Other Stats	Data available in a number of studies: eg. European /	Vitali et al. 2002
	American collaboration on classification criteria for	
	Sjőgren's syndrome.	
Test problems	1% rose bengal is difficult to obtain. Also, significant	
	stinging is caused by instillation of a full drop (eg. 25-50µ) of	
	the solution, especially in dry eye patients where the stain is	
	retained.	
Test solutions	Approaches to the use of bengal rose, where this is thought to	
	be appropriate, are discussed in :	

References

van Bijsterveld OP. (1969). Diagnostic tests in the sicca syndrome. Arch Ophthalmol 82: 10-14.

Vitali C, Bombardieri S, et al. (2002). Classification criteria for Sjogren's syndrome: a revised version of the European criteria proposed by the American-European Consensus Group. *Ann Rheum Dis* 61:554-8.