DEWS	DRY EYE: DIAGNOSTIC TEST TEMPLATE	
RAPPORTEUR	William Mathers	15th March 2006
TEST	**Meibography**	
TO DIAGNOSE	MGD and gland drop-out	REFERENCES
VERSION of TEST	[1]	Mathers 1994
DESCRIPTION	To determine the presence of meibomian gland loss (drop-out)	
CONDUCT of TEST	1. Place subject's chin in a stand-alone chin-rest. 2. Fold the lower lid over a standard hand held light probe until the conjunctival surface is facing outwards. 3. The meibomian glands will be visible through the transilluminated lid. 4. Focus an infra-red camera with a macro lens held in a stable tripod to capture images of the meibomian glands. 5. Record the appearances.	Mathers 1994
Web Video	Not available	
Materials:	Transilluminator	
Variations of technique	Digital or S-VHS tape can be used. Any small point source of light may be used.	
Standardization	Time of day [ ] Temperature [ ] Humidity [ ] Air speed [ ] Illumination [ ] Assumed to be insensitive to such factors.	
Diagnostic value	This version : [reliable way to identify MGD]	Mathers1994
Repeatability	Intra-observer agreement. [good] Inter-observer agreement. [good]	
Sensitivity	**(true positives)** [good]	
Specificity	**(100 – false positives)** [good]	
Other Stats	This test reliably determines gland drop-out and this correlates well with increased evaporation.	Mathers 1994 Mathers 1996
Test problems	Some gland drop-out is often present in elderly subjects without other symptoms of MGD or dry eye.	Mathers 1996
Test solutions		
FORWARD LOOK	Diagnostic screening for lipid abnormalities that induce MGD	

References:

Mathers WD, Daley T, Verdick R: Video imaging of the meibomian gland. *Arch of Ophthalmol* 1994;112(4):448-9.

Mathers WD, Lane JA, Zimmerman MB: Tear film changes with normal aging. *Cornea* 1996;15(3):229-35.

Mathers WD, Lane JA, Zimmerman MB: Model for ocular tear film function. *Cornea* 1996;15(2):110-9

Mathers WD, Choi D. Cluster analysis of patients with ocular surface disease, blepharitis, and dry eye.

Arch Ophthalmol 2004; 122(11):1700-4.