A Supplementary Material

Table 3. Performance at *Eye-level* on *Dataset-1* achieved through *bootstrapping* with 1000 resamplings. Each resampling involves randomly selecting one scan per eye from a single visit. Mean and standard deviation are computed across 5 folds × 1000 bootstrap samples.

	AUROC			Balanced Accuracy			
	6	12	24	6	12	24	CcI
Proposed	$\mathbf{0.835 \pm 0.16}$	$\mathbf{0.826 \pm 0.11}$	$\mathbf{0.798 \pm 0.08}$	$\mathbf{0.824 \pm 0.10}$	$\mathbf{0.794 \pm 0.09}$	$\mathbf{0.774 \pm 0.08}$	$\mathbf{0.780 \pm 0.06}$
Cens. CE [21]	0.775 ± 0.14	0.772 ± 0.13	0.790 ± 0.08	0.804 ± 0.11	0.756 ± 0.11	0.746 ± 0.06	0.762 ± 0.06
Logis. Hazard [12]	0.769 ± 0.19	0.768 ± 0.12	0.786 ± 0.08	0.792 ± 0.14	0.760 ± 0.11	0.766 ± 0.08	0.749 ± 0.08
DeepSurv [4]	0.769 ± 0.18	0.710 ± 0.16	0.723 ± 0.14	0.749 ± 0.17	0.689 ± 0.12	0.686 ± 0.12	0.752 ± 0.07
SODEN [19]	0.675 ± 0.24	0.674 ± 0.17	0.698 ± 0.11	0.711 ± 0.19	0.671 ± 0.14	0.693 ± 0.10	0.673 ± 0.09

Table 4. Performance (mean ± std. dev.) comparison between unsupervised (Unsup.-F) and Supervised (Sup.-F) Fine-tuning on *Dataset-2*.

	AUROC			Balanced Accuracy			
	6	12	24	6	12	24	CcI
Finetuning with 50% training data							
Unsup.-F	0.829 ± 0.01	0.843 ± 0.01	0.829 ± 0.01	0.790 ± 0.01	0.801 ± 0.01	0.772 ± 0.01	0.822 ± 0.01
Sup.-F	0.835 ± 0.02	0.847 ± 0.01	0.839 ± 0.01	0.788 ± 0.01	0.795 ± 0.01	0.772 ± 0.01	0.825 ± 0.01
Finetuning with 75% training data							
Unsup-F	0.833 ± 0.01	0.851 ± 0.01	0.834 ± 0.01	0.785 ± 0.01	0.807 ± 0.01	0.773 ± 0.01	0.831 ± 0.01
Sup-F	0.844 ± 0.01	0.856 ± 0.01	0.843 ± 0.01	0.777 ± 0.01	0.789 ± 0.01	0.77 ± 0.01	0.833 ± 0.01

Table 5. *Eye-level* Performance on *Dataset-2* computed through *bootstrapping* with 1000 resamplings. Each resampling involves randomly selecting one scan per eye from a single visit. Mean and standard deviation are computed across 5 folds × 1000 bootstrap samples. Unsupervised(Unsup.-F) and Supervised(Sup.-F) Fine-tuning are compared.

	AUROC			Balanced Accuracy			
	6	12	24	6	12	24	CcI
Cross-Test	0.749 ± 0.06	0.762 ± 0.06	0.753 ± 0.06	0.716 ± 0.05	0.719 ± 0.05	0.703 ± 0.05	0.739 ± 0.06
Finetuning with 25% training data							
Unsup-F	0.816 ± 0.03	0.832 ± 0.02	0.823 ± 0.02	0.758 ± 0.03	0.775 ± 0.03	0.763 ± 0.02	0.813 ± 0.02
Sup-F	0.812 ± 0.03	0.833 ± 0.02	0.821 ± 0.02	0.762 ± 0.04	0.776 ± 0.03	0.76 ± 0.02	0.81 ± 0.02
Finetuning with 50% training data							
Unsup-F	0.821 ± 0.03	0.835 ± 0.02	0.824 ± 0.02	0.77 ± 0.03	0.789 ± 0.02	0.771 ± 0.02	0.816 ± 0.02
Sup-F	0.824 ± 0.03	0.842 ± 0.02	0.836 ± 0.02	0.775 ± 0.03	0.79 ± 0.02	0.774 ± 0.02	0.818 ± 0.02
Finetuning with 75% training data							
Unsup-F	0.827 ± 0.03	0.843 ± 0.02	0.827 ± 0.02	0.77 ± 0.03	0.791 ± 0.02	0.769 ± 0.02	0.824 ± 0.01
Sup-F	0.83 ± 0.02	0.85 ± 0.02	0.839 ± 0.02	0.771 ± 0.03	0.792 ± 0.02	0.771 ± 0.02	0.827 ± 0.01
Finetuning with 100% training data							
Unsup-F	0.838 ± 0.03	0.847 ± 0.02	0.834 ± 0.02	0.788 ± 0.03	0.796 ± 0.02	0.772 ± 0.02	0.827 ± 0.01
Sup-F	0.83 ± 0.02	0.851 ± 0.02	0.844 ± 0.02	0.77 ± 0.03	0.796 ± 0.02	0.782 ± 0.02	0.828 ± 0.01