

## SUPPLEMENTARY DATA

### Equation to Calculate Diabetic Retinopathy Progression Risk Score.

$$S_i(t) = S_0(t)^{\exp(\beta x_i)}$$

where  $S_i(t)$  is the survival probability of individual  $i$  at time  $t$ ,

$S_0(t)$  is the baseline survivor function, which is estimated for each unique event time  $t$ ,

$\beta x_i = 0.129$ \*Most recent Hba1c value +  $0.012$ \*months of ACE use in year preceding  $t$  -  $0.008$ \*months of statin use in year preceding  $t$  +  $0.003$ \* months of sulfonuyrea use in year preceding  $t$  -  $0.025$ \*months of metformin use in year preceding  $t$  +  $0.031$ \*months of insulin use in year preceding  $t$  +  $0.106$ \*female sex indicator +  $0.258$ \*black race indicator +  $0.112$ \* Latino race indicator +  $0.300$ \*Asian race indicator +  $0.096$ \*uncomplicated hypertension indicator +  $0.196$ \*complicated hypertension indicator -  $0.191$ \*dyslipidemia indicator +  $0.137$ \*diabetic neuropathy indicator +  $0.251$ \*diabetic nephropathy indicator +  $0.433$ \*non-healing ulcers indicator -  $0.006$ \*age at NPDR diagnosis

ACE= angiotensin converting enzyme; NPDR = non-proliferative diabetic retinopathy; HbA1c = glycated hemoglobin