

Fundus Photographic Data Provided by the NIDDK Phoenix PIC

FIND Eye Study data from the NIDDK Phoenix PIC 10 is being obtained from data collected for another research study, rather than from scheduled appointments for FIND eye exams and fundus photographs. The site takes retinal photos of two fields after pupillary dilation as part of on-going longitudinal studies. A technician from their clinic is trained to take the photos, and the photos are read by the Ocular Epidemiology reading center at the University of Wisconsin. An eye exam form is also completed.

Data from the Phoenix eye exams will not be used. Photograph grading data will be submitted to the Fundus Photograph Reading Center in spreadsheet form containing the following fields:

Phoenix Data Field	Description
LocalID	FIND Participant ID
BX_DATE	Photograph Date
RDIABLEV	RE Retinopathy Level
LDIABLEV	LE Retinopathy Level
CREATNIN	Serum Creatinine
HBA1	Glycosylated Hemoglobin
HBA1C	Glycosylated Hemoglobin
AC_RATIO	Albumin to Creatinine Ratio

The retinopathy level is based on a modified ETDRS severity system (see attached FIND Phoenix Data – Retinal photography grades). FPRC has created the following table to convert each Phoenix retinopathy level to a corresponding diabetic retinopathy severity level used for grading the FIND fundus photographs.

FPRC-Phoenix DrSev Conversion		
Phoenix Description	PhoenixDRSev	FPRC DRSev
No retinopathy	10	10
Questionable diabetic retinopathy	11	10
Retinopathy due to other causes.	12	10
Definite hard exudates, soft exudates or intraretinal microvascular abnormalities in the absence of MAs.	14	20
Retinal hemorrhage without MAs	15	20
MAs only without other diabetic lesions	20	20
MAs and one or more of the following: retinal hemorrhage (less than those in standard photograph 2A), hard exudates, soft exudates questionably present, intraretinal microvascular abnormalities questionably present, venous beading questionably present, and venous loops definitely present.	31	35
MAs and one or more of the following: soft exudates definitely present, and intraretinal microvascular definitely present but less than necessary for level 51.	41	43
MAs and one or more of the following: venous beading definitely present, hemorrhages and microaneurysms (equaling or exceeding those in standard photograph 2A) and intraretinal microvascular abnormalities present.	51	53
Any of several levels of severity of proliferative retinopathy, including neovascularisation, fibrous proliferation, vitreous hemorrhage and preretinal hemorrhage, scars of panretinal photocoagulation, and/or retinopathy ungradeable because of vitreous hemorrhage obscuring the retina, phthisis bulbi, or enucleation secondary to a complication of diabetic retinopathy	60	60
	61	61
	65	65
	70	71
	75	75
Missing or ungradeable photograph.	88	90
	99	90
	null	90

FPRC will export a spreadsheet to the GADCC containing the following information for each data record received from Phoenix:

Phoenix Data Field	Description
LocalID	FIND Participant ID
BX_DATE	Photograph Date
RDIABLEV	RE Retinopathy Level
LDIABLEV	LE Retinopathy Level
CREATNIN	Serum Creatinine
HBA1	Glycosylated Hemoglobin
HBA1C	Glycosylated Hemoglobin
AC_RATIO	Albumin to Creatinine Ratio
RetSev_R	Diabetic Retinopathy (DR) severity level for RE
RetSev_L	Diabetic Retinopathy (DR) severity level for LE
DRSeverityRecode_R	Diabetic Retinopathy severity level recoded as integer for RE
DRSeverityRecode_L	Diabetic Retinopathy severity level recoded as integer for LE
DRSeveritySubject	Diabetic Retinopathy (DR) severity level for the subject
DRSeveritySubjectRecode	Diabetic Retinopathy severity level for the subject recoded as integer

The FPRC fields added to the Phoenix data spreadsheet (RetSev_R, RetSev_L, DRSeverityRecode_R, DRSeverityRecode_L, DRSeveritySubject, DRSeveritySubjectRecode) are defined in the UW FPRC System Software Specifications for the FIND Eye Study.

Each data file received from NIDDK Phoenix will be saved in a file labeled “Retinal Photos ddMmmyyyy.xls” in a Phoenix Data folder with the FIND database files. The export files will be saved as “Export Retinal Photos ddMmmyyyy.xls” in the same Phoenix Data folder, with the date corresponding to the date on the file received. When more than one submission is received for a participant, FPRC will export all data to GADCC. When multiple visit data are received for a subject, the GADCC will use the visit data with greatest eye score that is under 90 (coded), if available.