



The Royal College of Ophthalmologists' National Ophthalmology Database

Data Dictionary for contributing suppliers to the RCOphth NOD

For questions about the RCOphth NOD database and how to
contribute data please contact the NOD team via

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Introduction:

The Royal College of Ophthalmologists' (RCOphth) National Ophthalmology Database (NOD) was established to collate nationally agreed ophthalmic datasets collected as part of routine care on electronic medical record (EMR) systems to establish benchmarks standards, for use with appraisal, revalidation, audit and research. For disease areas where nationally agreed datasets were not defined NOD has also extracted electronically available structured data.

The RCOphth NOD has received funding from the Healthcare Quality Improvement Partnership (HQIP) to perform national audits in Ophthalmology. There are three aspects of the HQIP funded work that centres can contribute data to:

1: Legacy analysis of retrospective data

2: Prospective audit of cataract surgery

3: Feasibility audits of data collected on EMR systems concerning: Age-related Macular Degeneration (AMD), Retinal Detachment (RD) and Glaucoma (both Trabeculectomy and visual field analysis).

The legacy analysis is currently in progress and through this it is hoped that methods of combining data from different sources can be refined along with information that will inform the prospective audit analysis which will start data collection in September 2015. Each feasibility audit has a different time schedule, thus providing the relevant information on what data would be needed for each feasibility study at this juncture may be beneficial to the RCOphth NOD projects.

Results produced from the data are and will be published in peer reviewed journals as well as on the RCOphth NOD website <https://www.nodaudit.org.uk>. For all HQIP funded work the data controller is HQIP but if data are supplied to the RCOphth NOD and used for non-HQIP funded work then the RCOphth is the data controller.

This document describes the structure of the RCOphth NOD database which contains data for surgeons, patients, eyes and operations and has different levels of linkage. In order to keep data extractions sufficiently small for practical storage purposes, text-based fields are converted to integers where feasible.

The RCOphth Nationally Agreed Datasets which are incorporated within this data dictionary can be found at: <https://www.rcophth.ac.uk/standards-publications-research/clinical-data-sets>

Information for contributing centres:

Any data transferred to the RCOphth NOD is stored on a dedicated server hosted by Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT) and is only accessible to the RCOphth NOD statisticians and the GHNHSFT IT department as the data hosting organisation. There are different ways that centres can contribute data to the RCOphth NOD:

Centres that use the Medisoft EMR

Medisoft developed an extraction programme to help facilitate the first iteration of the RCOphth NOD project in 2010. This has been updated to reflect the requirements of the National Cataract Audit funded by HQIP and it also supports feasibility studies in glaucoma, retinal detachment, age-related macular degeneration and other disease areas. Once a centre has provided the appropriate levels of consent the RCOphth NOD IT contractor can run this programme to remotely extract data to the NOD database.

Centres that use the Openeyes or other EMR suppliers

Data can be transferred to the RCOphth NOD team via the RCOphth NOD website. Contributing centres' EMR suppliers are asked to develop an extraction programme conforming to this data dictionary, particularly for the Cataract National Dataset subset of this data to support the National Cataract Audit. The RCOphth NOD IT contractor can give limited support or guidance.

Clinicians using the BEAVRS RD audit tool or the VITREOR EMR system;

The RCOphth NOD have previously received data from both the British and Eire Association of Vitreoretinal Surgeons (BEAVRS) RD online registry and the VITREOR database that is used in some vitreoretinal units in London, consequently methods of transferring this data to the RCOphth NOD statisticians have already been developed.

General aspects for the data;

- Please transfer any data as comma separated values (CSV) files.
- Format date fields as YYYY/MM/DD.
- Use a binary coding system for any yes/no variables where 0 = No and 1 = Yes.
- Where string data is recorded, please use structured strings with consistent spaces, symbols and casing.
- New options can be added to coded variables if required, use sensible coding and inform the RCOphth NOD of the options added.

Surgeon data:

This table will contain the only person identifiable data (surgeon's GMC number or national code) stored on the RCOphth NOD. This information will be used to match a surgeon to their own data on the RCOphth NOD website and in the prospective projects enable thematching of a surgeons' record if they move between centres. This was not done with the 'legacy' data already in NOD and therefore at present we do not have the ability to identify individual surgeons.

For extraction of legacy data we do not need a GMC number and instead a unique identifier can be created for each surgeon; this is consistent within the RCOphth NOD on all tables that the 'SurgeonId' variable appears. If the surgeon is a consultant then this unique identifier will appear in the 'ConsultantId' variable on the "EpisodeOperation" table and if a surgeon is recorded as an assistant during an operation this identifier will appear in the 'AssistantId' variable on the "EpisodeOperation" table.

Surgeon;

Note: GMC numbers are not required for legacy data extracts but will be required for the prospective part of the National Cataract Audit.

Variable name	Variable type	Additional information
Surgeonid	Integer	Identifier created during the data extraction
GMCnumber	Varchar	National code / GMC number
Title	Varchar	Not used in analysis, but used for surgeons to identify their datapoint on the web site
FirstName	Varchar	Not used in analysis, but used for surgeons to identify their datapoint on the web site
CurrentGradeId	Integer	Grade of surgeon

CurrentGraded;

Code	Description
1	Consultant
2	Locum Consultant
3	Associate Specialist
4	Fellow
5	Registrar
6	Staff Grade
7	Trust Doctor
8	Senior House Officer
9	Specialty trainee (year 1)
10	Specialty trainee (year 2)
11	Specialty trainee (year 3)
12	Specialty trainee (year 4)
13	Specialty trainee (year 5)
14	Specialty trainee (year 6)
15	Specialty trainee (year 7)
16	Foundation Year 1 Doctor
17	Foundation Year 2 Doctor
18	GP with a special interest in ophthalmology
19	Community ophthalmologist
20	Anaesthetist
21	Orthoptist
22	Optometrist
23	Clinical nurse specialist
24	Nurse
25	Health Care Assistant
26	Ophthalmic Technician
27	Surgical Care Practitioner
28	Clinical Assistant
29	RG1
30	RG2
31	ODP
32	Administration staff
33	Other

Patient data:

The extraction of patient data is psuedoanonymised. All tables prefixed with “Patient” link back to the “Patient” table via the ‘PatientId’ variable. Each patient on the RCOphth NOD will have one row in the “Patient” table.

Patient;

Variable name	Variable type	Additional information
PatientId	Integer	Identifier created during the data extraction
GenderId	Integer	Patients gender
EthnicityId	Integer	Patients ethnicity
DateOfBirth	Date	Date of birth, anonymised by ± 3 months
DateOfDeath	Date	Date of death
IMDScore	Float	IMD 2010 score
IsPrivate	Bool	Records if the patient was a private patient

GenderId**Code Description**

- 1 Male
- 2 Female
- 9 Not Known/ Not specified/ Not recorded

IsPrivate;

0 = No

1 = Yes

EthnicityId;

Code	Description
A	White – British
B	White – Irish
C	White – Other
D	Mixed – White and Black Caribbean
E	Mixed – White and Black African
F	Mixed – White and Asian
G	Mixed – Other
H	Asian or British Asian - Indian
J	Asian or British Asian – Pakistani
K	Asian or British Asian – Bangladeshi
L	Asian or British Asian – Other
M	Black or Black British Caribbean
N	Black or Black British – African
P	Black or Black British Other
R	Other – Chinese
S	Other
T	Other – European
Z	Not stated

PatientCVIStatus;

Variable name	Variable type	Additional information
PatientId	Integer	Identifier created during the data extraction
Date	Date	Date of CVI status
IsDateApprox	Bool	Is this date an approximation
IsCVIBlind	Bool	Does the CVI status indicate severe sight impairment
IsCVIPartial	Bool	Does the CVI status indicate sight impairment

IsDateApprox;

0 = No

1 = Yes

IsCVIBlind;

0 = No

1 = Yes

IsCVIPartial;

0 = No

1 = Yes

Episode data:

An “episode” on the RCOphth NOD database is a unique hospital visit or assessment and as patients can have multiple “episodes” the RCOphth NOD database contains an over-arching “Episode” table which enables unique “episodes” to be retained by the creation of an identifier variable (Episodeid). All tables prefixed with “Episode” link to the “Episode” table via the ‘Episodeid’ variable and then back to the “Patient” table via the ‘PatientId’ variable.

The idea behind this is not have to record the ‘PatientId’ and ‘Episode date’ variables on all tables prefixed by “Episode” as this can introduce a big increase in data due to the multiple episodes each patient can have.

If including the ‘PatientId’ and ‘Episode date’ variables on all tables prefixed by “Episode” conforms in an easier way to how data is stored on an a contributors EMR system and thus would be the preferred method of extraction and linkage for a contributing data supplier, then the RCOphth NOD can work with this approach and the “Episode” table would not be needed in the data extract.

Episode;

Variable name	Variable type	Additional information
PatientId	Integer	Identifier created during the data extraction
Episodeid	Integer	Identifier created during the data extraction
Date	Date	Date of Episode

EpisodeDiagnosis;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
Date	Date	Date of diagnosis
SurgeonId	Integer	Identifier created during the data extraction
ConditionId	Integer	Operative procedure categories
DiagnosisTermId	Integer	Patient/Eye diagnosis details

Eye;

L = Left

R = Right

B = Both

N = Neither, i.e. the diagnosis is systemic

DiagnosisTermId;

Please provide any of the following and label the variables appropriately;

- Structured string data with consistent casing, spacing and symbols
- Snowmed codes
- SnowmedCT codes
- Read codes
- ICD 10 codes

ConditionId;

Code	Description
1	Oculoplastic
2	Cataract
3	Cataract related
4	Corneal
5	Corneal / anterior segment
6	Corneal / Refractive
7	Eye casualty
8	Minor procedures
9	Urgent / Eye casualty
10	General
11	Glaucoma
12	Lacrimal, Orbital & Socket
13	Medical retina
14	Neuroophthalmology
15	Posterior segment laser
16	Pupil / Iris
17	Refractive
18	Strabismus & Paediatric
19	Vitreoretinal

EpisodeDiabeticDiagnosis;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
IsDiabetic	Bool	Patients diabetic status
DiabetesTypeId	Integer	Type of diabetes
DiabetesRegimeId	Integer	Diabetic regime
AgeAtDiagnosis	Integer	Age at diabetes diagnosis

IsDiabetic;

0 = Not diabetic

1 = Diabetic

DiabetesTypeId;

Code	Description
1	Type I
2	Type II
3	gestational
4	MIDD
5	MODY
9	Not specified / Unknown

DiabetesRegimeld;

Code	Description
1	Diet
2	Insulin
3	injections of incretin mimetic
4	Pancreatic transplant
5	Tablets
6	Tablets & Insulin
7	Tablets & injections of incretin mimetic
9	Unknown

EpisodeDrug;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
DrugId	Integer	Medication details
DrugRouteId	Integer	Route of medicine administration
StartDate	Datetime	Start date of medication
StopDate	Datetime	End date of medication
IsAddedByPrescription	Bool	Prescription given by the hospital
IsContinueIndefinitely	Bool	GP to continue indefinitely
IsStartDateApprox	Bool	Is the start date and approximation

Eye;

L = Left

R = Right

B = Both

N = Neither, i.e. the drug is for systemic conditions

IsAddedByPrescription;

0 = No

1 = Yes

IsContinueIndefinitely;

0 = No

1 = Yes

DrugRouteId;

Code	Description
1	Left eye
2	Right eye
3	Operated eye
4	Both eyes
5	Intracameral
6	Inhaled
7	Intramuscular injection
8	Intranasally
9	Intravenously
10	intravenous or intramuscular
11	intravenous or oral
12	Orally
13	oral or intramuscular
14	oral, intravenous or intramuscular
15	Per rectum
16	Sub-cutaneous
17	Subcutaneously
18	Subconjunctival
19	Sub-lingual
20	Sub-Tenon's
21	Transcutaneously
22	Trans-conjunctival
23	Topically
24	Trans-cutaneous

DrugId;

Due to the large amount of information accumulated in medication records, the RCOphth NOD anticipates that there is variation between potential data suppliers with regards to the recording and storage of medication data.

The RCOphth NOD analyses would benefit from the inclusion of medication records, so different formats of medication data are acceptable at present. The RCOphth NOD would like to work with potential data suppliers to extract this data in as efficient manners as possible, please provide either of the following;

- Structured string data with consistent casing, spacing and symbols
- Coded data with accompanying description of the codes

The information that is relevant is the medicine name and dose, where medicines can be recorded under their generic or brand names the consistent use of one of these names would be preferable, but the RCOphth NOD can work with the data if recorded under either generic or brand names.

If it is easier for the data to be extracted, formatted and stored as separate variables for the medicine name and dosage then this is very acceptable to the RCOphth NOD in terms of how the data would be used in analysis.

EpisodeBiometry;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
AxialLength	Float	Axial length measurements (mm)
BiometryAScanId	Integer	Biometry A Scan machine
BiometryKeratometerId	Integer	Biometry keratometer
BiometryFormulaId	Integer	Biometry formula
K1PreOperative	Float	Pre-operative K1 (Dioptres)
K2PreOperative	Float	Pre-operative K2 (Dioptres)
AxisK1	Float	Pre-operative K1 axis (Degrees 0 - 180)
AxisK2	Float	Pre-operative K2 axis (Degrees 0 - 180)
ACDepth	Float	Anterior Chamber Depth (mm)

Eye;

L = Left

R = Right

BiometryAScanId;

Code	Description
1	IOL master
2	Haag-Streit LensStar
3	Contact ultrasound
4	Immersion ultrasound
5	Ultrasound (not known if contact or immersion)
9	Other

BiometryKeratometerId;

Code	Description
1	IOL master
2	Haag-Streit LensStar
9	Other

BiometryFormulaid;

Code	Description
1	Haigis
2	Holladay
3	Holladay II
4	SRK/T
5	SRK II
6	Hoffer Q
7	Average of SRK/T + Holladay + Hoffer Q
9	Not recorded

EpisodeIOP;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
Type	Integer	IOP Type
GlaucomaMedicationStatusId	Integer	Glaucoma medication status
Value	Float	IOP measurement (mmHg)

Eye;

L = Left

R = Right

Type;**Code Description**

1	Air Puff
2	Appl
3	Rebound
4	Tono

GlaucomaMedicationStatusId;**Code Description**

0	On no glaucoma medication
1	Currently taking glaucoma medication
9	Not Known

EpisodePreOpAssessment;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
IsAbleToLieFlat	Bool	Is the patient able to lie flat
IsInabilityToCooperate	Bool	Is the patient able to cooperate

Eye;

L = Left

R = Right

IsAbleToLieFlat;

0 = No

1 = Yes

IsInabilityToCooperate;

0 = No

1 = Yes

EpisodeRefraction;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
RefractionTypeId	Integer	Type of refraction
Sphere	Float	Spherical power of the lens (Dioptres)
Cylinder	Float	Cylindrical power of the lens (Dioptres)
Axis	Float	Meridian (Degrees 0 - 360)
ReadingAdd	Float	Additional spherical power for reading (Dioptres)

Eye;

L = Left

R = Right

RefractionTypeId;**Code Description**

1	Auto
2	Cyclo
3	Focim
4	Focim2
5	Subj

EpisodeVisualAcuity;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
NotationRecordedId	Integer	Visual acuity notation
Best Measure	Decimal	Best measure LogMAR visual acuity
Unaided	Decimal	Unaided LogMAR visual acuity
Pinhole	Decimal	Pinhole LogMAR visual acuity
BestCorrected	Decimal	Best corrected LogMAR visual acuity

Eye;

L = Left

R = Right

NotationRecordedId;

Code	Description
1	Cycles per degree at 38cm
2	Letter Score
3	Log MAR
4	Log Mar 2DP
5	Log Mar 3DP
6	MAR
7	Snellen (Feet)
8	Snellen (Fraction)
9	Snellen (Metre)

For all measurements of visual acuity, the LogMAR values representing the categorised lower levels are replaced with the following.

CF = only the ability to count fingers = 2.10

HM = only the ability to distinguish hand movements = 2.40

PL = only the ability to perceive light = 2.70

NPL = no ability to perceive light = 3.00

EpisodeHospitalGrading;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
NscR	Varchar	NSC Retinopathy grade
NscM	Varchar	NSC Maculopathy grade
NscP	Varchar	NSC photocoagulation grade
SurgeonId	Integer	Identifier created during the data extraction
EtdrsR	Integer	ETDRS Retinopathy grade
EtdrsM	Integer	ETDRS Maculopathy grade
EtdrsNumber	Integer	ETDRS number
ResponseToTreatment	Integer	Response to treatment
IsScatterLaser	Bool	Scatter laser used
IsAdvancedDiabeticEyeDisease	Bool	Advanced diabetic eye disease present
IsAddedIrisNeovascularisation	Bool	Iris neovascularisation present
IsAddedAngleNeovascularisation	Bool	Angle neovascularisation present
IsAddedNeovascularGlaucoma	Bool	Neovascular glaucoma present
AddedTractionalDetachmentId	Bool	Tractional detachment
AddedOtherId	Integer	Is another element present
IsProliferativeDiabeticRetinopathy	Bool	Proliferative diabetic retinopathy present
IsPdrVitreousHaemorrhage	Bool	Proliferative diabetic retinopathy vitreous haemorrhages present
IsPdrPreRetinalHaemorrhage	Bool	Proliferative diabetic retinopathy pre retinal haemorrhages present
IsPdrNeovascularisationAtDisc	Bool	Proliferative diabetic retinopathy neovascularisation at the disc
IsPdrNeovascularisationElsewhere	Bool	Proliferative diabetic retinopathy neovascularisation elsewhere
PdrNewVesselsADiscElevationId	Integer	Proliferative diabetic retinopathy new vessels at disc elevation
PdrNewVesselsIsAtDiscAreald	Integer	Proliferative diabetic retinopathy new vessels at disc area
PdrNewVesselsElsewhereAreald	Integer	Proliferative diabetic retinopathy

		new vessels elsewhere area
NpdrIrmald	Integer	Non-proliferative diabetic retinopathy IRMA
NpdrVenousBleedingId	Integer	Non-proliferative diabetic retinopathy venous bleeding
IsNPDRVenousLoopsReduplication	Bool	Non-proliferative diabetic retinopathy venous loops reduction
NpdrHaemorrhagesId	Integer	Non-proliferative diabetic retinopathy haemorrhages
NpdrCottonWoolSpotsId	Integer	Non-proliferative diabetic retinopathy cotton wool spots
MacIOtherId	Integer	Other maculopathy
MacIPostLaserSignsId	Integer	Post macular laser signs
VisualImpairmentId	Integer	Visual impairment
RetinopathyViewId	Integer	Retinopathy view
MaculopathyViewId	Integer	Maculopathy view

Eye;

L = Left

R = Right

NscR;

R0 = No DR

R1 = Background DR

R2 = Pre-proliferative DR

R3 = Proliferative DR

RU = Retinopathy ungradable

NscM;

M0 = No maculopathy

M1 = Maculopathy

MU = Maculopathy ungradable

NscP;

P0 = No photocoagulation

P1 = Photocoagulation

EtdrsR;

0 = No DR

1 = Very mild NPDR

2 = Mild NPDR

3 = Moderate NPDR

4 = Severe NPDR

5 = Very severe NPDR

6 = Scatter (PRP) retinal laser scars visible

7 = Mild PDR

8 = Moderate PDR

9 = PDR with no HRC

10 = PDR with HRC

11 = Stable treated PDR

12 = Stable treated PDR

13 = Advanced PDR

DR = Diabetic Retinopathy

NPDR = Non-Proliferative Diabetic Retinopathy

PDR = Proliferative Diabetic Retinopathy

HRC = High Risk Characteristics

PRP = Pan Retinal Photocoagulation

EtdrsM;

0 = No clinically significant macular oedema

1 = Clinically significant macular oedema

ResponseToTreatment;

Code	Description
0	no previous treatment
1	NV still active
2	NV partially regressed
3	NV fully regressed
4	NV regressed to fibrosis
5	If treated for NPDR - deteriorated
6	if treated for NPDR - stable
7	if treated for NPDR - improved
8	no previous treatment for retinopathy

IsScatterLaser;

0 = No

1 = Yes

IsAdvancedDiabeticEyeDisease;

0 = No

1 = Yes

IsAdedIrisNeovascularisation;

0 = No

1 = Yes

IsAdedAngleNeovascularisation

0 = No

1 = Yes

IsAdedNeovascularGlaucoma;

0 = No

1 = Yes

AddedTractionalDetachmentId;

Code	Description
0	No
1	traction on fovea
2	detached fovea
3	fovea not threatened
4	combined TRD / RRD

AddedOtherId;

Code Description

- 1 entry site neovascularisation
- 2 anterior hyaloidal fibrovascular proliferation

IsProliferativeDiabeticRetinopathy;

0 = No

1 = Yes

IsPdrVitreousHaemorrhage;

0 = No

1 = Yes

IsPdrPreRetinalHaemorrhage;

0 = No

1 = Yes

IsPdrNeovascularisationAtDisc;

0 = No

1 = Yes

IsPdrNeovascularisationElsewhere;

0 = No

1 = Yes

PdrNewVesselsADiscElevationId;

Code	Description
1	NVD forward
2	NVD flat

PdrNewVesselsIsAtDiscAreald;

Code	Description
1	< 1/3 disc area
2	>=1/3 disc area

PdrNewVesselsElsewhereAreald;

Code	Description
1	< 1/2 disc area
2	>=1/2 disc area

NpdrIrmald;

Code	Description
0	none
1	> 8a in 1 quadrant
2	> 8a in 2 quadrants
3	> 8a in 3 quadrants
4	> 8a in 4 quadrants
5	< 8a in 1-4 quadrants

NpdrVenousBleedingId;

Code	Description
0	none
1	1 quadrant
2	2 or more quadrants

IsNpdrVenousLoopsReduplication;

0 = No
1 = Yes

NpdrHaemorrhagesId;

Code	Description
1	$\geq 2a$ in any quadrant
2	$> 2a$ in all quadrants
3	≥ 4 blot haems in any quadrants and ≥ 8 in total
4	H/Ma < next level
5	Ma only

NpdrCottonWoolSpotsId;

Code	Description
0	none
1	< 5
1	≤ 5
2	> 5

MaclOtherId;

Code	Description
1	no macular laser scars visible
2	macular laser scars visible
3	macular ischaemia
4	epiretinal membrane
5	vitreomacular traction
6	taut thickened posterior hyaloid
7	burn creep under fovea
8	diabetic macular oedema unresponsive to laser
9	diabetic macular oedema unresponsive to IVTA
10	diabetic macular oedema unresponsive to anti-VEGF drugs

MaclPostLaserSignsId;

Code	Description
1	no laser spots visible
2	laser scars visible
3	burn creep under fovea

VisualImpairmentId;

Code	Description
0	no visual impairment
1	Visual impairment not predominantly due to diabetic retinopathy
2	Visual impairment predominantly due to diabetic retinopathy

RetinopathyViewId;**Code Description**

- 0 no view
- 1 inadequate to assess DR
- 2 adequate to assess DR
- 3 good
- 4 ocular prosthesis
- 5 other pathology makes DR grading impossible / not relevant

MaculopathyViewId;**Code Description**

- 0 no view
- 1 inadequate to assess maculopathy
- 2 adequate to assess maculopathy
- 3 good
- 4 ocular prosthesis
- 5 other pathology makes DR grading impossible / not relevant

EpisodeMacExudates;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
MacExudatesId	Integer	Macular exudates

Eye;

L = Left

R = Right

MacExudatesId;**Code Description**

- 0 none
- 1 under fovea
- 2 < 500 microns from foveal centre
- 3 500 microns to 1 DD from foveal centre
- 4 >1DD from foveal centre
- 5 groups of exudates > 1DD from centre of fovea

EpisodeMacHaemorrhages;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
MacHaemorrhagesId	Integer	Macular haemorrhages

Eye;

L = Left

R = Right

MacHaemorrhagesId;**Code Description**

- 0 none
- 1 <= 500 microns from foveal centre
- 2 > 500 microns to 1 DD from foveal centre
- 3 > 1 DD from foveal centre

EpisodeMacRetinalThickening;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
MacRetinalThickeningId	Integer	Macular retinal thickening

Eye;

L = Left

R = Right

MacRetinalThickeningId;**Code Description**

0	none
1	cystoid macular oedema
3	at the centre of the fovea
4	< 500 microns of the centre of the macula
5	zone(s) > 1 disc area, any part < 1 DD of foveal centre
6	adjacent to exudates <500 microns from foveal centre
7	macular oedema but no CSMO

EpisodePachymetry;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
Eye	Char	Laterality
Value	Integer	Corneal thickness (microns)
CorrectionF	Decimal	Correction factor
StandardDeviation	Decimal	Standard deviation

Eye;

L = Left

R = Right

Episode operations:

All tables prefixed with “EpisodeOperation” link back to the “EpisodeOperation” table via the ‘OperationId’. This allows linkage back to the “Episode” table via the ‘EpisodeId’ variable, and to the “Patient” table via the ‘PatientId’ variable. Patients/eyes can have multiple operations recorded on the RCOphth NOD; each separate distinct operation with a different date of surgery will have a different ‘OperationId’.

If adopting the extraction and linkage system of including the ‘PatientId’ and ‘Episode date’ variables on all tables prefixed by “Episode” then this system would have to apply to the tables prefixed by “EpisodeOperation”.

EpisodeOperation;

Variable name	Variable type	Additional information
OperationId	Integer	A unique linkage key for all operation tables
EpisodeId	Integer	Identifier created during the data extraction
Description	Varchar	Structured string description of the operative procedures performed
IsHypertensive	Bool	Is the patient hypertensive
ListedDate	Date	Date of listing for surgery
SurgeonId	Integer	Identifier created during the data extraction
SurgeonGradeId	Integer	Grade of surgeon
AssistantId	Integer	Identifier created during the data extraction
AssistantGradeId	Integer	Grade of assistant
ConsultantId	Integer	Identifier created during the data extraction

IsHypertensive;

0 = No

1 = Yes

SurgeonGradeId;

See "Surgeon" table, page 5

AssistantGradeId;

See "Surgeon" table, page 5

ConsultantId;

See "Surgeon" table, page 5

EpisodeOperationComplication;

Variable name	Variable type	Additional information
OperationId	Integer	A unique linkage key for all operation tables
Eye	Char	Laterality
ComplicationTypeId	Integer	Operative complication

Eye;

L = Left

R = Right

ComplicationTypeId;

The intra-operative complications are divided into 'cataract specific' and 'non-cataract specific' complications. The primary focus of the RCOphth NOD work concerns cataract surgery and if a data supplier chooses to provide intra-operative complications just for cataract surgery this is currently acceptable. If providing data for both types of intra-operative complications this data can be supplied using one variable and the specified coding.

ComplicationTypeId;

Cataract operative complications (excluding combined procedures)

Code	Description
0	None
1	choroidal / suprachoroidal haemorrhage
2	corneal burn
3	corneal epithelial abrasion
4	corneal oedema
5	endothelial damage / Descemet's tear
6	epithelial abrasion
7	hyphaema
8	IOL into the vitreous
9	iris prolapse
10	iris trauma
11	lens exchange required / other IOL problems
12	nuclear / epinuclear fragment into vitreous
13	PC rupture - no vitreous loss
14	PC rupture - vitreous loss
15	phaco burn / wound problems
16	suprachoroidal haemorrhage
17	torn iris / damage from the phaco
18	vitreous loss
19	vitreous to the section at end of surgery
20	zonule dialysis
21	zonule rupture - vitreous loss
25	Not recorded
999	other

Non-cataract operative complications (excluding combined procedures)

Code	Description
50	antimetabolite spillage onto cornea
51	bubbles in AC
52	buttonhole flap
53	canalicular trauma
54	conjunctival burn
55	conjunctival buttonhole
56	corneal perforation
57	contaminated donor material
58	cut suture
59	damaged donor material
60	decentred flap
61	dense OBL preventing treatment
62	epistaxis
63	epithelial defect
64	eyelid haemorrhage / bleeding
65	flap tear
66	foveal burn
67	free flap
68	globe perforation
69	iatrogenic retinal trauma
70	iatrogenic tear
71	inadvertent SRF drain
72	incomplete flap
73	infusion cannula in subretinal/suprachoroidal space
74	irregular flap
75	lacrimal sac trauma
76	laser failure
77	lens burn
78	lens touch
79	lost muscle
80	nasal mucosa trauma
81	IOP spike
82	operation cancelled

- 83 orbital haemorrhage
- 84 pain
- 85 patient unable to tolerate adjustment
- 86 perforation of orbital septum
- 87 punctal trauma
- 88 retained Descemet's membrane
- 89 retinal haemorrhage
- 90 retinal incarceration
- 91 retinal slippage
- 92 rupture of Bruch's membrane
- 93 scleral flap buttonhole
- 94 scleral rupture
- 95 slipped muscle
- 96 snapped muscle
- 97 small flap
- 98 subretinal haemorrhage
- 99 subretinal heavy liquid
- 100 subretinal injection
- 101 subretinal silicone oil
- 102 suction break
- 103 suprachoroidal silicone oil
- 104 suture not adjustable
- 105 thin flap
- 106 torn scleral flap
- 107 torn muscle
- 108 variable burn intensity
- 109 vertical gas breakthrough
- 110 vitreous haemorrhage
- 111 wound leak
- 112 wrong size of donor (improper trephination)

EpisodeOperationIndication;

Variable name	Variable type	Additional information
OperationId	Integer	A unique linkage key for all operation tables
Eye	Char	Laterality
IndicationId	Integer	Indication for surgery

Eye;

L = Left

R = Right

IndicationId;

Please provide either of the following;

- Structured string data with consistent casing, spacing and symbols
- Coded data with accompanying description of the codes

EpisodeOperationCoPathology;

Variable name	Variable type	Additional information
OperationId	Integer	A unique linkage key for all operation tables
Eye	Char	Laterality
CoPathologyId	Integer	Ocular co-pathology

Eye;

L = Left

R = Right

CoPathologyId;

Code	Description
0	None
1	Age-related macular degeneration
2	Amblyopia
3	Corneal pathology
4	Diabetic retinopathy
5	Glaucoma
6	Glaucoma suspect
7	High myopia
8	Ocular Hypertension
9	Inherited eye diseases
10	Optic nerve / CNS disease
11	Stickler Syndrome
12	Uveitis / synechiae
13	Pseudoexfoliation / phacodonesis
14	Brunescent / white cataract
15	No fundal view / vitreous opacities
16	Other macular pathology
17	Other retinal vascular pathology
18	macular hole
19	epiretinal membrane
20	retinal detachment
21	Previous retinal detachment surgery
22	Vitreotomy
23	previous vitrectomy for FTMH / ERM / other reason
24	Previous laser refractive surgery
25	Previous trabeculectomy
26	Other

Episode Operation Anaesthesia:

Patients/eyes can have multiple operations recorded on the RCOphth NOD, thus can have multiple anaesthetic records, each separate distinct operation could involve anaesthesia so using the 'OperationId' as the linkage variable should enable the correct linkage of anaesthesia data.

EpisodeOperationAnaesthesia;

Variable name	Variable type	Additional information
OperationId	Integer	A unique linkage key for all operation tables
AnaesthesiaTypeId	Integer	Type of anaesthesia
AnaesthesiaNeedle	Integer	Needle used to administer local anaesthesia
Sedation	Integer	Sedation used
SurgeonId	Integer	Null if surgeon did not administer the anaesthesia
ComplicationId	Integer	Anaesthesia complications

AnaesthesiaTypeId;

Code	Description
0	No anaesthesia
1	General anaesthesia alone
2	Local anaesthesia alone
3	General + Local anaesthesia
4	Topical anaesthesia alone
5	Topical + Local anaesthesia
9	Unknown

AnaesthesiaNeedle;

Code	Description
0	N/A
1	Peribulbar
2	Retrobulbar
3	Sub-Tenon
4	Peribulbar + Retrobulbar
5	Peribulbar + Sub-Tenon
6	Retrobulbar + Sub-Tenon
7	Peribulbar + Retrobulbar + Sub-Tenon
9	Unknown

Sedation;

Code	Description
0	No sedation
1	Sedation alone (no anaesthesia)
2	Sedation + anaesthesia
9	Unknown

ComplicationId;

Code	Description
0	None
1	Conjunctival chemosis
2	Eyelid haemorrhage / bruising
3	Excessive eye movement
4	Globe / optic nerve perforation
5	Patient discomfort / pain mild;
6	Patient discomfort / pain moderate;
7	Patient discomfort / pain severe;
8	Retrobulbar / peribulbar haemorrhage
9	Sub-conjunctival haemorrhage
10	Systemic problems (bradycardia / hypotension / apnoea etc.)
11	Operation cancelled due to complication
12	Other
99	Not recorded

Episode Treatment:

All tables prefixed with “EpisodeTreatment” link back to the “EpisodeOperation” table via the ‘OperationId’, this then allows linkage back to the “Episode” table via the ‘EpisodeId’ variable, which can then be linked back to the “Patient” table via the ‘PatientId’ variable. Patients/eyes can have multiple treatments recorded on the RCOphth NOD; each separate distinct treatment will have a different ‘TreatmentId’.

If adopting the extraction and linkage system of including the ‘PatientId’ and ‘Episode date’ variables on all tables prefixed by “Episode” then this system would have to apply to the tables prefixed by “EpisodeTreatment”.

EpisodeTreatment;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
OperationId	Integer	A unique linkage key for all operation tables
Eye	Char	Laterality
TreatmentTypeId	Integer	Treatment/Operative procedures

Eye;

L = Left

R = Right

TreatmentTypeId;

Please provide this data using any of the following;

- Structured string data with consistent casing, spaces and symbols
- Coded data with accompanying description of the codes
- OPCS codes - If OPCS codes are recorded along with one of the above ways to record data, please provide this data as this will assist with matching to the RCOphth NOD data.

EpisodeTreatmentRetinopexy;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
RetinopexyId	Integer	Type of retinopexy

RetinopexyId;

Code	Description
0	none
1	cryotherapy
2	indirect laser
3	endolaser
4	transcleral diode laser
5	other

EpisodeTreatmentCataract;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
IsFirstEye	Bool	Is the operation in the patients first eye
PreparationDrugId	Integer	Preparatory medication
IncisionSiteId	Integer	Incision site
IncisionLengthId	Float	Incision length
IncisionPlanesId	Integer	Incision planes
IncisionMeridianId	Integer	Incision meridian (degrees)
PupilSizeId	Integer	Pupil size
IOLPositionId	Integer	IOL position
IOLModelId	Integer	IOL model
IOLPower	Float	IOL power (Dioptres)
PredictedPostOperativeRefraction	Float	Predicted post-operative refraction (Dioptres)
WoundClosureId	Integer	Wound closure method

IsFirstEye;

0 = No

1 = Yes

PupilSizeId;**Code Description**

1 Small

2 Medium

3 Large

PreparationDrugId;

Code	Description
1	povidone
2	povidone-iodine 5% + chloramphenicol drops
3	povidone-iodine 5% + levofloxacin drops
4	povidone-iodine 5% + ofloxacin drops
5	sodium chloride
6	Aserbine cream
7	chlorhexidine

IncisionSiteId;

Code	Description
1	Corneal Hinge
2	Corneal Stab
3	Corneoscleral tunnel
4	Clear corneal
5	Limbal
6	Open sky
7	Pars plana
8	Scleral

IncisionPlanesId;

Code	Description
1	One plane incision
2	Two plane incision
3	Three plane incision
4	Unknown

IOLPositionId;

Code	Description
0	no IOL inserted
1	Aphakic
2	AC IOL
3	AC IOL - angle supported
4	AC IOL - iris supported
5	Iris clip IOL
6	IOL in ciliary sulcus
7	IOL in ciliary sulcus - optic thurhexis
8	IOL in the bag
9	IOL partly in the bag
10	piggy back, bag and sulcus
11	PC ICL
12	Sutured PC IOL
13	Not recorded

IOLModelId;

Please provide this data in which ever format it is stored as we anticipate variations in the recording of the data between different sources.

WoundClosureId;

Code	Description
1	10.0 vicryl
2	10/0 polypropylene
3	10/0 Polyglycolic Acid
4	Interrupted 10/0 Polyglactin
5	Continuous 10/0 nylon
6	11/0 Mersiline
7	Sutureless + Hydration
8	Sutureless

EpisodeTreatmentVR;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
ACParacentesis	Integer	AC Paracentesis
ConjunctivalSuturesId	Integer	Conjunctival sutures
ConjunctivalSuturesNumber	Integer	Number of conjunctival sutures
DrainageOfSRFatNumber	Integer	Drainage of SRF number (Clock hours)
DrainageOfSRFatId	Integer	Drainage of SRF
PostureId	Integer	Post-op posture position
PostureNumber	Integer	Posture time period (hours or days). If only have options of 1,2, 3 then likely to be the 'Time of day field'
RetinectomyFrom	Integer	Clock hours
RetinectomyTo	Integer	Clock hours
ScleralBuckleId	Integer	Type of scleral buckle
ScleralBuckleIndentId	Integer	Scleral buckle indent
ScleralBuckleMaterialId	Integer	Scleral buckle material
ScleralBuckleAt	Integer	degrees
ScleralBuckleFrom	Integer	Clock hours
ScleralBuckleTo	Integer	Clock hours
ScleralBuckleSutures	Integer	Scleral buckle sutures
SclerostomyNumber	Integer	Number of scleral buckle sutures
SclerostomySuturesId	Integer	Sclerostomy sutures
SclerostomySuturesNumber	Integer	Number of sclerostomy sutures
TamponadeId	Integer	Tamponade used
TamponadePercent	Decimal	Tamponade percent
TamponadeVolume	Decimal	Tamponade volume (ml)
CRAid	Integer	Central retinal artery
HeavyLiquidsId	Integer	Heavy liquids used
HyaloidStatusId	Integer	Hyaloid status

HyaloidTreatmentId	Integer	Hyaloid treatment
IncisionId	Integer	Incision details
PreparationDrugId	Integer	Preparatory medications
PriorRetinopexy	Bool	Previous retinopexy
DurationOfSymptoms	Integer	Duration of symptoms (days)
DurationOfCentralVisionLoss	Integer	Duration of central vision loss (days)
SystemicConditionId	Integer	Systemic condition
LensStatusId	Integer	Lens status
VitreousHaemorrhageId	Integer	Vitreous haemorrhages
FovealAttachmentId	Integer	Foveal attachment
ExtentOfDetachmentST	Integer	In clock hours
ExtentOfDetachmentIN	Integer	In clock hours
ExtentOfDetachmentIT	Integer	In clock hours
ExtentOfDetachmentSN	Integer	In clock hours
Chronic	Bool	Signs of chronicity
Pvrypeld	Integer	Grade of PVR according to the 1991 classification
CP	Integer	Extent of PVR CP in clock hours
CA	Integer	Extent of PVR CA in clock hours
SubRetinalBands	Bool	Sub retinal bands
PathologicalMyopia	Bool	Pathological Myopia
Choroidals	Bool	Choroidals present
ClockHoursOfLattice	Integer	Clock hours of lattice
BreaksInDetachedRetina	Integer	Breaks in detached retina
BreaksInAttachedRetina	Integer	Breaks in attached retina
LargestBreakTypeld	Integer	Type of largest break
LargestBreakSize	Float	Size of largest break (clock hours)
LargestBreakPosition	Integer	Position of largest break (clock hours)

ConjunctivalSuturesId;

Code	Description
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1	fornix-based
2	limbal-based
9	other

DrainageOfSRFatId;

Code	Description
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0	none
1	through break (to flat)
2	through break (partial)
3	through retinotomy (to flat)
4	through retinotomy (partial)
5	scleral prang drain (to flat)
6	scleral prang drain (partial)
7	scleral cut down (to flat)
8	scleral cut down (partial)
9	scleral laser drain (to flat)
10	scleral laser drain (partial)
11	scleral needle drain (to flat)
12	scleral needle drain (partial)

PostureId;

Code	Description
0	none
1	no posture
2	avoid lying on back
3	strict face down
4	face down
5	face down first night
6	prone left cheek to pillow
7	prone right cheek to pillow
8	prone alternate cheek to pillow
9	supine
10	upright
11	right side
12	left side
13	not flat on back
14	other

ScleralBuckleId;

Code	Description
1	2 mm encircling band
2	2.5 mm encircling band
3	3 mm radial sponge
4	3 mm circumferential sponge
5	4 mm circumferential sponge
6	4 mm radial sponge
7	5 mm radial sponge
8	5 mm circumferential sponge
9	5.5 mm radial sponge
10	5.5 mm circumferential sponge

- 11 7 mm radial sponge
- 12 7 mm circumferential sponge
- 13 Oval sponge circumferential
- 14 Oval sponge radial
- 15 40 band
- 16 240 band
- 17 276 circumferential
- 18 276 circumferential + 240 encirclement
- 19 276 encirclement
- 20 277 circumferential
- 21 277 circumferential + 240 encirclement
- 22 277 encirclement
- 23 278 circumferential
- 24 278 circumferential + 240 encirclement
- 25 278 encirclement
- 26 279 circumferential
- 27 279 circumferential + 240 encirclement
- 28 279 encirclement
- 29 280 circumferential
- 30 280 circumferential + 240 encirclement
- 31 280 encirclement
- 32 287 circumferential
- 33 287 circumferential + 240 encirclement
- 34 287 encirclement
- 35 289 circumferential
- 36 289 circumferential + 240 encirclement
- 37 289 encirclement

ScleralBuckleIndentId;

Code	Description
1	low indent
2	medium indent
3	high indent

ScleralBuckleMaterialId;

Code	Description
1	5/0 vicryl
2	5/0 nylon
3	5/0 Mersilene
4	5/0 Surgidac
5	5/0 ethibond
6	6/0 vicryl
7	6/0 ethibond

SclerostomySuturesId;

Code	Description
0	none
1	5/0 vicryl
2	6/0 vicryl
3	7/0 vicryl
4	8/0 vicryl
5	9/0 vicryl
6	10/0 vicryl

Tamponadeld;

Code	Description
0	none
1	Air
2	C2F6
3	C3F8
4	SF6
5	silicone oil
6	silicone oil 2000cs
7	silicone oil 3000cs
8	silicone oil 5000cs
9	silicone oil 1000cs
10	silicone oil 1300cs
11	5700 CS
12	OXANE HD
13	heavy liquids
14	perfluoro-n-octane
15	perfluorodecalin

CRAid;

Code	Description
1	perfused
2	pulsating
3	occluded

HeavyLiquidsId;

Code	Description
1	perfluoro-n-octane
2	perfluorodecalin

HyaloidStatusId;

Code	Description
1	detached
2	partially detached
3	attached
4	vitrectomised eye

HyaloidTreatmentId;

Code	Description
1	core vitrectomy only
2	core & peripheral gel removed
3	core & peripheral vitrectomy
4	core vity & indented trim of vitreous base
5	hyaloid raised, core vitrectomy only
6	hyaloid raised, core & peripheral gel removed
7	PVD induced, core vitrectomy only
8	PVD induced, core & peripheral vitrectomy
9	PVD induced - core vity & indented trim of vitreous base
10	previous PPV, no addition vitrectomy
11	previous PPV, peripheral gel trimmed
12	previous PPV - indented trim of vitreous base

IncisionId;

Code	Description
0	None
1	1 localised peritomy
2	2 localised peritomies
3	3 localised peritomies
4	180° peritomy
5	270° peritomy
6	360 peritomy
7	transconjunctival
8	TSV

PreparationDrugId;

Code	Description
1	chlorhexidine
2	povidone-iodine
3	povidone-iodine 5% + chloramphenicol drops
4	povidone-iodine 5% + levofloxacin drops
5	povidone-iodine 5% + ofloxacin drops

PriorRetinopexy;

0 = No

1 = Yes

SystemicConditionId;**Code Description**

0	none
1	Stickler
2	Marfan
3	ROP

FovealAttachmentId;**Code Description**

1	on
2	off
3	bisected

Chronic;

0 = No

1 = Yes

LensStatusId;**Code Description**

1	phakic cataract
2	phakic
3	phakic IOL
4	aphakic
5	aphakic Soemmerring ring
6	PC IOL
7	AC IOL
8	angle supported IOL
9	iris clip IOL

VitreousHaemorrhageId;

Code	Description
-------------	--------------------

1	Grade 0 (no blood in vitreous)
2	Grade 1 (1-5 clock hours)
3	Grade 2 (haemorrhage obscures 5-10 clock hours or large haemorrhage posterior to equator)
4	Grade 3 (red reflex present, no retinal detail seen)
5	Grade 4 (dense VH, no red reflex present)

Pvrypeld;

Code	Description
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0	none
1	A
2	B
3	C

SubRetinalBands;

0 = No

1 = Yes

PathologicalMyopia;

0 = No

1 = Yes

Choroidals;

0 = No

1 = Yes

LargestBreakTypeId;

Code	Description
0	not found
1	'U' tear
2	operculated tear
3	round hole
4	dialysis
5	GRT
6	macular hole
7	outer leaf break
8	peripapillary break
9	iatrogenic break

EpisodeTreatmentTrabeculectomy;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
Position	Integer	Position of trab (degrees)
PreparationDrugId	Integer	Preparatory medication
TractionSutureId	Integer	Traction suture (structure)
SutureThicknessId	Integer	Suture grade
SutureMaterialId	Integer	Suture material
ConjIncisionId	Integer	Conjunctival incision details
Paracentesis	Bool	Paracentesis
ParacentesisDegrees	Integer	Paracentesis degrees
ViscoElasticId	Integer	Viscoelastic used
ViscoElasticInSituId	Integer	Amount of viscoelastic left in situ
FlapShapeId	Integer	Flap shape
FlapWidth	Decimal	Flap width (mm)
FlapHeight	Decimal	Flap height (mm)
FlapThicknessId	Integer	Flap thickness (fraction)
SclerostomyTechniqueId	Integer	Sclerostomy technique
SclerostomyHeight	Decimal	Sclerostomy height (mm)
SclerostomyWidth	Decimal	Sclerostomy width (mm)
AntiMetaboliteApplicationId	Integer	Anti-metabolite applied
AntiMetaboliteId	Integer	Anti-metabolite details
AntiMetaboliteMinutes	Integer	Anti-metabolite minutes
AntiMetaboliteSeconds	Integer	Anti-metabolite seconds
AntiMetaboliteVolume	Decimal	Anti-metabolite concentration (mg/ml)
PeripheralIridectomy	Bool	Peripheral Iridectomy
ACMaintainer	Bool	AC maintainer
ScleralFixedNumber	Integer	Number of fixed scleral sutures
ScleralFixedGradeId	Integer	Grade of fixed scleral sutures

ScleralFixedMaterial	Integer	Suture material
ScleralReleasableNumber	Integer	Number of releasable sutures
ScleralReleasableGradeId	Integer	Grade of releasable sutures
ScleralReleasableMaterialId	Integer	Suture material
ConjunctivalNumber	Integer	Number of conjunctival sutures
ConjunctivalGradeId	Integer	Grade of conjunctival sutures
ConjunctivalMaterialId	Integer	Suture material
Previous	Integer	Number of previous trabeculectomy operations

PreparationDrugId;

Code	Description
1	chlorhexidine
2	povidone-iodine 5%
3	povidone-iodine 5% + chloramphenicol drops
4	povidone-iodine 5% + ofloxacin drops
5	sodium chloride

TractionSutureId;

Code	Description
0	none
1	corneal
2	superior rectus
3	inferior rectus
4	other

SutureThicknessId; ConjunctivalGradeId; ScleralFixedGradeId; ScleralReleasableGradeId

Code Description

1	3/0
2	4/0
3	5/0
4	6/0
5	7/0
6	8/0
7	9/0
8	10/0
9	11/0
10	other

SutureMaterialId; ScleralFixedMaterial; ScleralReleasableMaterialId;

ConjunctivalMaterialId;

Code Description

1	Silk
2	Vicryl
3	Nylon
4	Polypropylene
5	Prolene
6	Vicryl rapide
7	other

ConjIncisionId;**Code Description**

1	fornix-based
2	limbal-based
3	other

ViscoElasticId;

Please provide this data using any of the following;

- Structured string data with consistent casing, spaces and symbols
- Coded data with accompanying description of the codes

ViscoElasticInSituId;**Code Description**

0	none
1	small amount in AC
2	AC 1/2 full
3	AC completely full
9	N/A

FlapShapeld;**Code Description**

1	triangular
2	square
3	rectangular
4	parabolic
5	other

FlapThicknessId;

Code	Description
1	One quarter
2	One third
3	One half
4	Two thirds
5	Three quarters

SclerostomyTechniqueId;

Code	Description
1	Kelly punch
2	Crozafon punch
3	diamond knife
4	Khaw punch (0.5mm)
5	Luntz-Dodick punch (0.5mm)
6	other

AntiMetaboliteApplicationId;

Code	Description
0	n/a
1	scleral
2	sub-conjunctival

AntiMetaboliteId;

Code	Description
0	none
1	5FU 25 mg/ml
2	5FU 50 mg/ml
3	MMC 0.1 mg/ml
4	MMC 0.2 mg/ml
5	MMC 0.3 mg/ml
6	MMC 0.33 mg/ml
7	MMC 0.4 mg/ml
8	MMC 0.5 mg/ml

Prepherallridectomy;

0 = No

1 = Yes

ACMaintainer;

0 = No

1 = Yes

EpisodeTreatmentInjection;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
InjectedDrugId	Integer	Injected medication

InjectedDrugId;**Code Description**

1	Actilase+Altiplase
2	amikacin 0.4 mg/0.1 ml
3	amphotericin 5-10 mcg/0.1 ml
4	Avastin 1.25 mg/0.05 ml
5	Avastin 2 mg/0.08 ml
6	Avastin 2.5 mg/0.10 ml
7	ceftazidime 2.2 mg/0.1 ml
8	dexamethasone 400 mcg
9	dexamethasone 700 mcg
10	dexamethasone 800 mcg
11	Eylea 2 mg/0.05ml (aflibercept)
12	foscarnet 2.4 mg/0.10 ml
13	ganciclovir 2 mg/0.10 ml
14	ganciclovir 4 mg/0.10 ml
15	ganciclovir 5 mg/0.10 ml
16	Iluvien 190 mcg implant (fluocinolone acetonide)
17	Jetrea 125 mcg (ocriplasmin)
18	Lucentis 0.3 mg
19	Lucentis 0.5 mg
20	Macugen 0.3 mg/0.09 ml
21	methotrexate 400 mcg/0.1 ml
22	Sirolimus 880 mcg

- 23 Triamcinolone 1 mg
- 24 Triamcinolone 2mg
- 25 Triamcinolone 4 mg
- 26 Triamcinolone 10 mg
- 27 Triamcinolone 25 mg
- 28 Triesence 1 mg (triamcinolone)
- 29 Triesence 2 mg (triamcinolone)
- 30 Triesence 4 mg (triamcinolone)
- 31 vancomycin 1 mg/0.1 ml
- 32 vancomycin 2 mg/0.1 ml
- 33 Ophthalmic Study Drug
- 34 Clinical-trial drug (Avastin or Lucentis)
- 35 Clinical trial drug (Ozurdex 700 mcg or Lucentis 0.5 mg)
- 36 Clinical trial drug (Sirolimus)
- 37 LEAVO trial drug
- 38 TANDEM trial drug

EpisodeTreatmentLaser;

Variable name	Variable type	Additional information
TreatmentId	Integer	A unique linkage key for all treatment tables
LaserType	Integer	Type of laser used
LensId	Integer	Type of lens
NumberOfBurns	Integer	Number of burns
BeamDiameter	Integer	Beam Diameter (microns)

LaserType;

Code	Description
1	Macular laser
2	PRP laser
3	PRP Endolaser
4	PRP Indirect laser
5	Retinopexy Endolaser
6	Retinopexy Indirect laser
7	PRP Endolaser & Indirect laser
8	Sector laser
11	Retinopexy Endolaser & Indirect laser

LensId;

Code	Description
1	Area Centralis
2	Transequator
3	Quadraserphic
4	Equator Plus
5	Superquad 160
6	PDT (volk)

- 7 Supermacula 2.2
- 8 Quad Paediatric
- 9 Reichel-Mainster 1X
- 10 Reichel-Mainster 2X
- 11 Mainster PRP 165
- 12 Mainster Widefield
- 13 PDT 165 (Ocular)
- 14 Mainster Standard Focal/grid (1.05)
- 15 Mainster High Mag
- 16 Proretina 120
- 17 Three mirror universal
- 18 Karcikhoff (4 mirror)
- 19 Ocular Fundus
- 20 Ocular Fundus no fluid
- 21 Yannuzzi Fundus
- 22 Indirect ophthalmoscope
- 23 Endolaser
- 24 2.2 D
- 25 20 D
- 26 28 D
- 27 30 D
- 28 60 D
- 29 78 D
- 30 90 D
- 31 PASCAL
- 32 Super Field

EpisodePostOpComplication;

Variable name	Variable type	Additional information
EpisodeId	Integer	Identifier created during the data extraction
OperationId	Integer	A unique linkage key for all operation tables
Eye	Char	Laterality
ComplicationTypeId	Integer	Post-operative complications

Eye;

L = Left

R = Right

ComplicationTypeId;

The post-operative complications are divided into 'cataract specific' and 'non-cataract specific' complications. The primary focus of the RCOphth NOD work concerns cataract surgery and if a data supplier chooses to provide post-operative complications just for cataract surgery this is currently acceptable to the RCOphth NOD. If providing data for both types of post-operative complication this data can be supplied using one variable and the specified coding.

Cataract specific post-operative complications (excluding combined procedures)

Code	Description
0	none
1	Anterior capsulophimosis
2	choroidal effusion / detachment
3	corneal decompensation
4	corneal epithelial defect
5	corneal oedema / striae / Descemet's folds
6	cystoid macular oedema
7	endophthalmitis
8	epithelial ingrowth
9	floaters after operation
10	globe perforation
11	hyphaema
12	hypotony
13	External eye infection
14	IOL decentred
15	IOL in vitreous cavity
16	iris prolapse
17	iris to wound
18	leaking wound (Seidel +ve)
19	phthisis
20	posterior capsule opacification - YAG indicated
21	posterior capsule opacification
22	post-operative eyelid bruising
23	post-operative eyelid oedema
24	post-operative ptosis
25	post-operative uveitis
26	progression of diabetic retinopathy
27	pupil block

- 28 raised IOP (>21 mmHg)
- 29 reduction in vision
- 30 retained soft lens matter
- 31 retinal detachment
- 32 retinal tear
- 33 ruptured section
- 34 suture granuloma
- 35 suture induced corneal abscess
- 36 suprachoroidal haemorrhage
- 37 unexpected refractive outcome
- 38 vitreous in the AC
- 39 vitreous to the section
- 40 vitreous prolapse
- 41 wound dehiscence
- 42 wrong operation performed
- 43 other
- 999 not recorded

Non-cataract specific post-operative complications (excluding combined procedures)

Code	Description
51	accommodative difficulty
52	angle closure glaucoma
53	anterior segment ischaemia
54	bleb dysaesthesia
55	blebitis
56	bleb leak
57	burn creep under fovea
58	cataract
59	central toxic keratopathy
60	cheesewiring of tubes
61	conjunctival recession
62	choroidal neovascular membrane
63	chronic fistula
64	corneal epithelial staining
65	corneal graft rejection
66	corneal haze
67	corneal scarring
68	decentred ablation
69	dellen
70	diffuse lamellar keratitis
71	dilated pupil
72	diplopia
73	displaced tubes
74	dry cornea
75	dry eye
76	early loss of tubes
77	ectasia
78	encapsulated bleb / Tenons cyst

79	epistaxis
80	exposed scleral buckle
81	exposed suture
82	exposed Tenon's
83	failure
84	flap dislocation
85	flap folds
86	flap infection
87	flat AC: lens-cornea touch
88	foveal burn
89	giant bleb
90	glare
91	graft shrinkage
92	haloes
93	heavy liquid in the anterior chamber
94	hyperoleon
95	hypotonous maculopathy
96	iris incarceration in sclerostomy
97	implant or tube exposure
98	injected bleb
99	interface debris
100	loss of field of vision
101	lost / damaged corneal flap
102	lost muscle
103	macular fold
104	malignant glaucoma
105	micro-striae
106	night vision problems
107	nyctalopia
108	onset or progression of diabetic maculopathy (within 6 months of operation)

- 109 overcorrection
- 110 pain
- 111 peripheral anterior synechia
- 112 poor cosmetic result
- 113 posterior synechia
- 114 precipitation of exudate
- 115 progressive rapid optic neuropathy (wipe out)
- 116 punctate keratitis
- 117 recurrence of initial problem
- 118 reduced colour vision
- 119 retained antimetabolite sponge fragment
- 120 retinal detachment - non rhegmatogenous
- 121 rhinostomy fibrosis
- 122 rupture of choroidal neovascular membrane
- 123 scarring
- 124 scleritis
- 125 shallow AC: iris-cornea touch
- 126 silicone oil filling anterior chamber
- 127 slipped muscle
- 128 sterile ulcers
- 129 sympathetic ophthalmia
- 130 topical glaucoma medication introduced postoperatively
- 131 tube misdirection
- 132 tumour recurrence
- 133 under correction
- 134 visual loss (worse than 6/60 within 6 months of operation)
- 135 vitreous haemorrhage
- 136 webbing of surgical scar
- 137 wound infection