

UKOA Cataract Coding Handbook

This handbook is to support teams of clinicians, coders and managers involved in cataract care to better understand each other's area of expertise and to facilitate working together and using existing national coding resources effectively.

The main source of information remains the detailed and extensive national resources available to guide coding:

[Delen](#) is NHS Digital's specialist collaboration and information sharing platform for the national terminology and classifications standards. You will be able to find detailed content relating to: dm+d, ICD-10, ICD-11, OPCS-4 and SNOMED CT as well as links to useful resources that will help you to make best use of the standards. You will also be able to see collaborations that are taking place and find out about opportunities to collaborate on future developments.

The [Classifications Main Publications](#) page is the easiest place to locate the standards and guidance associated with clinical coding, such as the [National Clinical Coding Standards OPCS-4.8 Reference book 2018](#), with the [OPCS-4.8 Supplementary information](#) and the [National Clinical Coding Standards ICD-10 5th Edition Reference book 2018](#).

The Clinical Classifications Product Support Service provides resolutions to clinical coding and classifications queries, queries can be submitted using the [Submit a Classifications Query](#) Delen page, which outlines the Clinical Coding Query Mechanism and provides guidance on how to submit your query. The majority of the resolutions provided are also published in the fully searchable [Query Resolution Database](#).

Cataract and cataract surgery

Cataract is a clouding of the natural clear focusing lens inside the eye, usually associated with age (senile). Other causes include diabetes and other metabolic diseases, drugs, congenital lens birth defects, genetics (familial, inherited), trauma and other eye diseases or syndromes. Symptoms of cataracts include blurred vision, glare, double vision and difficulties driving at night. Cataract is diagnosed by a visible loss of transparency or opacity by a clinician on a slit lamp. Cataracts are often described by which part of the natural lens has become cloudy, and the following are some of the more common terms used:

- Nuclear sclerosis – opacity usually yellow/brown of the central part (nucleus) of the lens
- Cortical – opacity in the outer part of the lens, often spoke like or radial pattern of opacities
- Posterior subcapsular – opacity in a thin sheet on the back surface of the lens

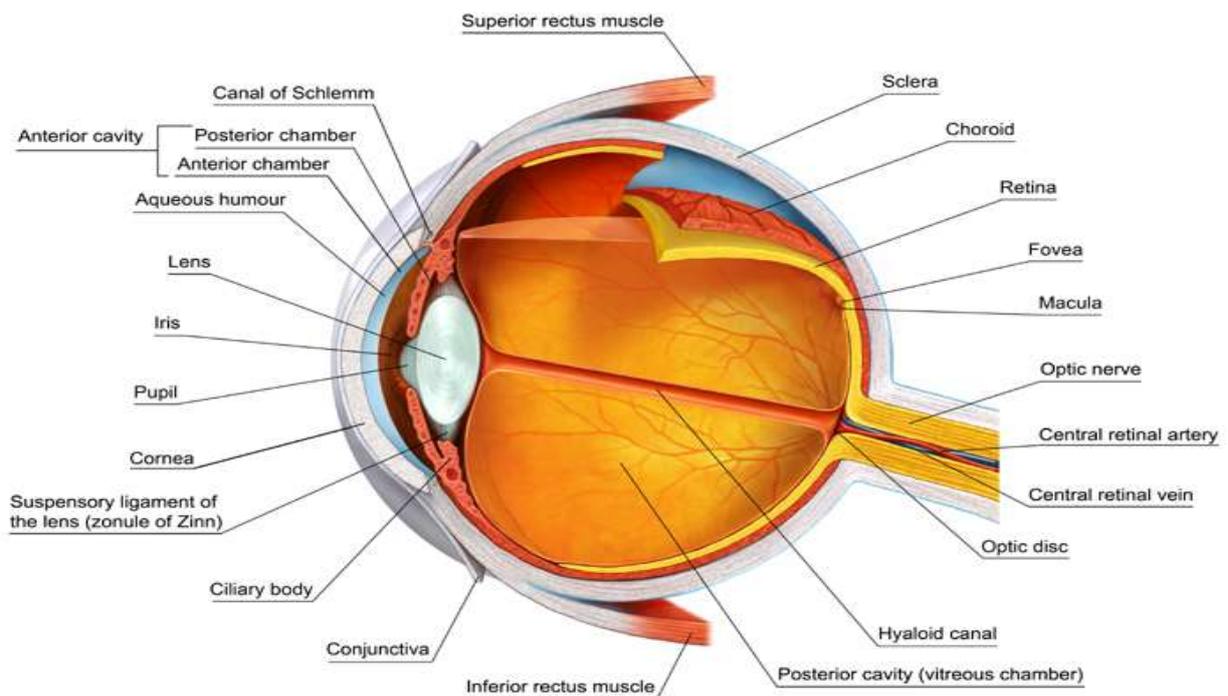
- Polar – opacity limited to the centre or apex of the front (anterior polar) or back (posterior polar) surface of the lens – uncommon and often congenital
- Punctate – small spots of cataract, uncommon, often congenital or associated with other conditions

Cataracts can also be described by terms used for advanced cataract, which are technically more challenging to operate on, such as:

- Brunescant or brown – dense hard brown nuclear sclerosis
- White – total opacity of the lens
- Hypermature or Morgagnian – very advanced cataract where lens starts to liquefy.

A cataract is usually operated on only when the patient decides their symptoms warrant the risks associated with the surgery. More than 90% are done under local anaesthetic.

The standard cataract operation involves phacoemulsification of the lens, in which the lens is removed with instruments including an ultrasound probe, which emulsifies (liquidises) the lens. The lens is reached via an incision in the wall of the eye and a small opening (capsulotomy, capsulorrhexis) in the anterior lens capsule (capsular bag), which is a thin, transparent film which surrounds the lens. Every effort is made to not rupture the posterior capsule (posterior capsular rupture, PCR, commonest complication) and to prevent the vitreous jelly behind it from coming forward (vitreous prolapse, vitreous loss), as these interfere with inserting the artificial intraocular lens implant (IOL), may require more surgical intervention and increase the risk of postoperative complications such as retinal problems. The IOL, which replaces the focusing power of the lens material the surgeon has removed, is inserted after removal of the cataract. Standard IOLs need to be supported by an intact and stable capsule.



Diagnostic codes for cataract: ICD-10 diagnosis codes classifying cataract

Code Description	Includes	ICD-10 Code
<i>Senile (age related) incipient cataract</i>	Senile cataract: coronary, cortical, punctuate; Subcapsular polar senile cataract (anterior) (posterior); Water clefts	H25.0
<i>Senile (age related) nuclear cataract</i>	Cataracta brunescens; Nuclear sclerosis cataract	H25.1
<i>Senile (age related) cataract, morgagnian type</i>	Senile hypermature cataract	H25.2
<i>Other senile (age related) cataract</i>	Combined forms of senile cataract	H25.8
<i>Senile cataract, unspecified</i>		H25.9
<i>Infantile, juvenile and presenile cataract</i>		H26.0
<i>Traumatic cataract</i>		H26.1
<i>Complicated cataract</i>	Cataract in chronic iridocyclitis; Cataract secondary to ocular disorders; Glaucomatous flecks (subcapsular)	H26.2
<i>Drug-induced cataract</i>		H26.3
<i>After-cataract</i>	Secondary cataract; Soemmerring ring	H26.4
<i>Other specified cataract</i>		H26.8
<i>Cataract, unspecified</i>	Includes any unspecified cataract, includes cortical cataract where no other 'essential' modifiers are present	H26.9
<i>Diabetic cataract</i>		H28.0
<i>Cataract in other endocrine, nutritional and metabolic diseases</i>	Cataract in hypoparathyroidism; Malnutrition-dehydration cataract	H28.1
<i>Cataract in other diseases classified elsewhere</i>	Myotonic cataract	H28.2
<i>Congenital cataract</i>		Q12.0

Advice for common queries

- Any cataract without more description = **H26.9 Cataract, unspecified**.
- Mature cataract/Advanced cataract/White cataract = **H26.9 Cataract, unspecified** unless specified as senile. If specified as senile = *Senile cataract, unspecified* **H25.9**.

- Nuclear cataract = nuclear sclerosis = NS: This should be coded as **H25.1 Senile nuclear cataract**.
- Brown or brunescant cataract is simply an advanced nuclear cataract = **H25.1 Senile nuclear cataract**.
- If there is mixed type cataract (e.g. nuclear sclerotic and posterior subcapsular cataract)
 - Where it is documented that the mixed type cataract is senile, use **H25.8 Other senile (age related) cataract**
 - Where senile not documented, each type should be coded separately e.g. **H25.1 Senile nuclear cataract** and **H26.8 Other specified cataract**.
- Where “senile” or “age related” is not recorded, it is not correct to record the senile code. Some units have taken a decision to classify cataracts not otherwise specified in the over 50 years age group as senile in a local policy. This is permitted but is not considered good practice.
- Where “diabetic cataract” is not recorded, it is not correct to record diabetic cataract in all patients with diabetes. Diabetes may hasten senile or other cataracts, but diabetic cataract pertains to those where diabetes is the main causative factor.
- For cortical cataract, the word cortical is not an “essential modifier” for codes and the word “cortical” is clearly found within the coding guidance as falling under **H26.9 Cataract, unspecified** unless another essential modifier e.g. “age related” or “senile” is clearly specified.
- For posterior subcapsular cataract, the words posterior and subcapsular are not essential modifiers but also are not stated as falling under the unspecified code. NHS Digital have confirmed that, if no other modifier e.g. “senile” or “age related” or “diabetic” are found, this should be coded as **C26.8 Other specified cataract**.

Co-morbidities

There is a long list of possible co-morbidities but it is likely that this will be amended and simplified in the near future. Advice is therefore simply to ensure all relevant co-morbidities are recorded, and most units approach this via a detailed pre-operative assessment process and form, often completed by nursing staff. If the same pre-operative form is used for the second eye, it is important to record briefly that things have been reassessed and unchanged (or simply note as per previous form plus record any changes. The same form can then be used for both operations to code co-morbidities.

Codes for cataract surgery

The vast majority of cataract surgery is coded using two codes sequenced in a specific order: **C75.1 Insertion of prosthetic replacement for lens** followed by **C71.2 Phacoemulsification of lens**. This is the correct way round to code, although it does not follow the usual way round that clinicians record it, which is with the phacoemulsification part first. It does not matter if

the clinician records the operation as phacoemulsification followed by IOL as long as the coding is performed in the correct, counterintuitive, order.

Other types of cataract surgery, often using techniques which were previously the norm before phaco, or cataract-related surgery are sometimes performed. The following table shows some of the more common ones but there are several more possible codes:

Code Description	OPCS-4 Code
<i>Insertion of prosthetic replacement for lens</i>	C75.1
<i>Phacoemulsification of lens</i>	C71.2
<i>Other specified prosthesis of lens</i>	C758
<i>Phacoemulsification of lens</i>	C71.2
<i>Unspecified extracapsular extraction of lens</i>	C71.9
<i>Unspecified intracapsular extraction of lens</i>	C72.9
<i>Mechanical lensectomy (Includes Pars plana lensectomy)</i>	C74.3
<i>Insertion of prosthetic replacement for lens using suture fixation (Includes Suture fixation of lens implant)</i>	C75.4
<i>Revision of prosthetic replacement for lens</i>	C75.2

Complex Surgery

It is not uncommon to undertake other procedures at the same time as cataract surgery.

This may be:

- in a planned way because the eye/operation is obviously, or very likely, going to require more intervention;
- in a planned way as an adjunct because of another condition (e.g. intravitreal injection for co-existing retinal disease);
- because the operation becomes technically more complex than expected during the procedure;
- because of a complication.

Just because an operation is complex or another procedure has been undertaken during the same patient episode, it does NOT necessarily mean there has been an unplanned /unexpected complication.

Advice on additional procedures undertaken primarily to support the cataract surgery

Vitrectomy may be anterior or posterior. Posterior vitrectomy (pars plan vitrectomy/PPV, 3 port vitrectomy) is a specialist vitreoretinal (VR) procedure in which three openings are made in the sclera and specialist VR instruments are used to clear out most of the vitreous jelly. Anterior vitrectomy can be undertaken by a cataract surgeon, in which a small amount

of the front part of the vitreous jelly is removed, entering through the front of the eye. Most, but not all, anterior vitrectomies are due to a complication during cataract surgery.

- Anterior vitrectomy is coded using **C79.1** *Vitrectomy using anterior approach*.
- When both a posterior vitrectomy and a cataract procedure are performed within the same operation, the vitrectomy procedure is classified using **C79.2** *Vitrectomy using pars plana approach*.

Kenalog intravitreal injection or Triamcinolone intravitreal injection. Kenalog is a brand name for a steroid called triamcinolone. This steroid is often used during an anterior vitrectomy following complications or in complex surgery to make the normally transparent vitreous visible to ensure all vitreous protruding forward is removed. In most cases, the drug is introduced into the anterior chamber via a cannula and should be coded as **C69.3** *Injection into anterior chamber of eye*; Only if the drug is introduced as a proper intravitreal injection (ie through the pars plana via sharp needle injection) should it be coded as **C79.4** *Injection into vitreous body NEC*. It should NOT be coded using the additional X38.1 Injection of triamcinolone for local action which applies to skin injections. It should also NOT be coded as **C89. 2** *Injection of steroid into posterior segment of eye*.

Pupil and iris problems. There may be extra procedure requirements because of a small pupil, floppy iris syndrome, or adhesions of the iris (synechiae) to tissue in front of the iris (anterior synechiae) or tissue behind the iris (posterior synechiae). These can cause problems because the pupil needs to be large to see and access the cataract for removal, as the cataract is located behind the iris. If there are adhesions they may make the pupil small or physically obstruct the view or the removal of the cataract. If the iris is floppy, the pupil may be too small, and the iris may start to protrude out of the wounds (iris prolapse) and interfere with the surgery.

The following pupil and iris-related procedures may be used during cataract surgery alone or in combination with each other:

- Pupil stretch/iris stretch: The pupil may be surgically stretched to widen it = **C64.6** *Stretching of iris*.
- Intracameral phenylephrine: An injection into the anterior chamber of the eye (intracameral injection, IC injection) of a phenylephrine- or a phenylephrine-containing compound may be undertaken to widen the pupil medically or to prevent it from getting smaller in higher risk or complex cases = **C69.3** *Injection into anterior chamber of eye*.
- Iris hooks: Multiple small iris hooks can be used to hold the pupil open or to tighten floppy iris tissue and these are removed at the end of the operation = **C64.7** *Insertion of iris hooks*.

- Malyugin ring: A flexible Malyugin ring can be inserted to stretch the pupil and hold it open, and it is removed at the end of the operation. NHS Digital recommends this should be coded without the use of *Y02.2 Insertion of prosthesis into organ NOC* as the definition of a prosthesis in coding is a device which is left in situ at the end of the procedure. So Malyugin ring = **C64.6 Stretching of iris**.
- Synechiolysis: This procedure is undertaken to separate or open adhesions (synechia) of the iris = **C64.8 Other specified other operations on iris plus Y18.1 Freeing of adhesions of organ NOC**.
- Iridectomy/peripheral iridectomy: This procedure involves a section of iris being removed. An iridectomy may be performed to widen the pupil, reduce iris prolapse, control eye pressure or for another reason = **C59.2 Surgical iridectomy**.

Other

- Capsular tension ring: A rigid Morcher ring or capsular tension ring can be inserted to stabilise the capsular bag when the zonules are weak = **C77.6 Insertion of capsule tension ring**. The capsular bag needs to be stable to allow safe manipulation of the cataract in the eye and to provide a stable support for the IOL.
- Sutured IOL: If an IOL is sutured, which is unusual, this should be coded not as separate sutures and IOL but using code **C75.4 Insertion of prosthetic replacement for lens using suture fixation**.
- Intracameral Vision Blue: The drug "Vision Blue" may be injected into the anterior chamber (IC injection) in complex cases for better visualisation. It temporarily stains the capsule which allows better visualisation to perform the capsulotomy, e.g. with a dense or white cataract or a corneal scar obscuring the view. Code as **C69.3 injection into anterior chamber of eye**.
- Intracameral Miochol: The drug Miochol may be injected into the anterior chamber (IC injection) in complex cases to reduce the size of the pupil or to tighten the iris towards the end of the operation, e.g. to insert an anterior chamber IOL or help with iris prolapse = **C69.3 injection into anterior chamber of eye**.

Advice on additional procedures undertaken for other disorders

It is not uncommon where there are retinal problems co-existing to combine an intravitreal injection of some sort with the phaco at the beginning or end of the procedure. Some high cost drugs are specifically coded:

- Intravitreal injection = **C79.4 Injection into vitreous body NEC**.
- Note that, for intravitreal steroid injection NHS Digital advise DO NOT use **C89.2 Injection of steroid into posterior segment of eye** but instead DO use **C79.4 Injection into vitreous body NEC**.
- Avastin intravitreal injection = **C79.4 Injection into vitreous body NEC plus X93.1 Subfoveal choroidal neovascularisation drugs Band 1**.

- Aflibercept (Eyelea) intravitreal injection = **C79.4** *Injection into vitreous body NEC* plus **X93.1** *Subfoveal choroidal neovascularisation drugs Band 1*.
- Ranibizumab (Lucentis) Intravitreal Injection = **C79.4** *Injection into vitreous body NEC* plus **X93.1** *Subfoveal choroidal neovascularisation drugs Band 1*.
- Ozurdex Intravitreal Dexamethasone injection. = **C89.1** *Insertion of sustained release device into posterior segment* plus **X93.2** *Macular oedema drugs Band 1*. It should NOT be **C79.4** *Injection into vitreous body NEC*.
- Fluocinolone acetonide intravitreal implant (Iluvien) = **C89.1** *Insertion of sustained release device into posterior segment* plus **X93.2** *Macular oedema drugs Band 1*.

Complications

When using bespoke EPRs such as OpenEyes and Medisoft, it is important where possible to use the specific field to record complications using standard and consistent terminology. Where staff identify what sounds like a complication in the operation note details, but there is a “none” recorded in the complication field, they should seek senior clinical advice. It may not be a complication, or it may be, in which case it might need to be transferred to the correct field with the surgical note taker receiving feedback.

Care is required in coding operative complications, as the complication diagnoses are often not directly or intuitively translatable into existing ICD-10 codes. If a complication does occur during or after surgery the complication diagnosis should be recorded using the appropriate ICD-10 code followed by the appropriate external cause code. Code assignment would depend on where the alphabetical index directs the coder. Where additional procedures are required these must be recorded using the appropriate OPCS-4 code(s) and this is usually straightforward.

Complications during surgery

When coding complications during surgery NHS Digital recommend that coders follow the 4-step coding process and assign codes based on the index trails and how the condition is documented in the medical record. The recommendations given further down for the common intraoperative complications are for those clinical situations in isolation and may not be applicable in every single patient’s case.

When there is more than one complication, if the complications have a clear code e.g. T81.2 or T81.5 then use both codes rather than a T81.8 to cover both.

Each complication will require coding for the complication itself and also a supplementary cause code, depending on whether the complication was caused by equipment or device malfunction:

- **Y60** *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care* is assigned as a supplementary code if an accidental injury or harm to

patient is caused during the procedure and the harm was NOT due to malfunction or breakdown of a device.

- **Y77** *Ophthalmic devices associated with adverse incidents* is assigned as a supplementary code if the harm IS due to malfunctioning or breakdown of a device. **Y77** then requires the assignment of one of the following fourth characters, depending on the device that caused the tear:
 - .2 *Prosthetic and other implants, materials and accessory devices*
 - .3 *Surgical instruments, materials and devices (including sutures)*
 - .8 *Miscellaneous devices, not elsewhere classified.*
- If the records do not specify that the complication was caused by a device or equipment malfunction or breakdown, then the default is to use **Y60**.

Posterior capsular rupture = Posterior capsular tear = posterior capsular break = PCR and no vitreous loss (or no vitreous loss or anterior vitrectomy recorded)

In this complication, there is a breach in the posterior capsule, but the vitreous jelly remains in its normal place behind the capsule which means that an anterior vitrectomy is not required. It is the commonest intraoperative complication. Technically it would be possible to try and distinguish between (and then code differently) depending on whether the rupture seemed to occur without accidental surgical touch of the capsule (not surgeon's fault) vs accidental touch of the capsule by a surgical instrument or lens fragment (surgeon's fault). In reality this would be extremely difficult to do and is not recommended.

No ICD-10 index trails exist for '*intraoperative posterior capsular rupture*' (either with or without vitreous loss), '*intraoperative posterior capsular tear*' or '*intraoperative posterior capsular break*'.

As from a clinical perspective all these conditions are considered accidental intraoperative punctures or lacerations during cataract surgery (as the terms suggest), then there is nothing to prohibit the use of **T81.2** *Accidental puncture and laceration during a procedure, not elsewhere classified* which is typically used to identify the accidental instrumental perforation/laceration of a body structure during a procedure (e.g. accidental perforation of the bowel during a colonoscopy), rather than a spontaneous complication. **T81.2** can be directly indexed using terms such as '*perforation, accidental, during procedure*', '*laceration, accidental, complicating surgery*'.

So the advice is to code PCR as:

- **T81.2** *Accidental puncture and laceration during a procedure, not elsewhere classified*
Plus either
- **Y60.0** *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care: During surgical operation* if not due to a device problem

Or

- **Y77.- Ophthalmic devices associated with adverse incidents**(if due to malfunctioning or breakdown of a device).
 - .2 *Prosthetic and other implants, materials and accessory devices*
 - .3 *Surgical instruments, materials and devices (including sutures)*
 - .8 *Miscellaneous devices, not elsewhere classified.*

Vitreous loss = vitreous prolapse = unplanned vitrectomy = PCR with vitreous loss

In this complication, there is a breach of the capsule (or sometimes the zonules) and the vitreous comes forward into the front of the eye, usually requiring anterior vitrectomy. It is very important for clinicians to clearly document, if there is vitreous loss or prolapse, whether it was caused by PCR or zonular dehiscence. If not the coding can become complicated.

If vitreous loss or prolapse is clearly documented as caused by or in conjunction with posterior capsular rupture, it should be coded as for PCR above; and, in addition, also code any relevant extra procedure e.g. anterior vitrectomy, triamcinolone injection etc.

If “vitreous loss” is written without any indication as to the presence of PCR or recorded alone, this is a more complicated. The term ‘vitreous loss’ is not indexable in ICD-10 and the term does not clearly imply any type of instrumental perforation or laceration (unlike the terms such as ‘tear’, ‘break’ and ‘rupture’). NHS Digital recommends using:

- **T81.8** *Other complications of procedures, not elsewhere classified.*

followed by one of the external cause codes:

- **Y60-Y69** *Misadventure to patients during surgical and medical care* if not due to malfunctioning or breakdown of a device

OR

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device:

- .2 *Prosthetic and other implants, materials and accessory devices*
- .3 *Surgical instruments, materials and devices (including sutures)*
- .8 *Miscellaneous devices, not elsewhere classified*

If “vitreous prolapse” is written without again any clear indication of a rupture, break or tear of the capsule, things are different as there is a specific code **H43.0** *Vitreous prolapse* and use:

- **H43.0** *Vitreous prolapse* followed by one of the external cause codes:
- **Y60-Y69** *Misadventure to patients during surgical and medical care* if not due to malfunctioning or breakdown of a device)

OR

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device.
 - .2 *Prosthetic and other implants, materials and accessory devices*
 - .3 *Surgical instruments, materials and devices (including sutures)*
 - .8 *Miscellaneous devices, not elsewhere classified.*

If there is no indication of a PCR or vitreous loss and prolapse and only written “unplanned vitrectomy” then strictly speaking this is not classifiable with ICD-10 diagnostic codes.

For all of the above, all extra surgical procedures e.g. vitrectomy should be coded in the usual way.

Dropped Nucleus = retained lens fragments in vitreous: This is when there is a PCR or a zonule rupture and part of all of the cataract drops backwards into the vitreous jelly. It is a serious complication and often requires either additional surgical steps at the time of the original operation or another operation to remove the cataract from the vitreous jelly, and often requires specialist VR surgery.

Neither ‘dropped nucleus’ or “retained lens fragments” are terms indexable in ICD-10. If dropped nucleus or retained lens fragment(s) in vitreous is recorded clearly with PCR, capsular break, tear etc, record as for PCR.

If dropped nucleus or retained lens fragment(s) is recorded without clearly recording a rupture, break or tear, then NHS Digital recommend using:

- **T81.8** *Other complications of procedures, not elsewhere classified.*

followed by one of the external cause codes:

- **Y60-Y69** *Misadventure to patients during surgical and medical care* if not due to malfunctioning or breakdown of a device

OR

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device.
 - .2 *Prosthetic and other implants, materials and accessory devices*
 - .3 *Surgical instruments, materials and devices (including sutures)*
 - .8 *Miscellaneous devices, not elsewhere classified*

Code extra procedures performed as normal.

Zonular dialysis/zonular rupture. This is when the supporting fibres at the periphery of the capsular bag give way. It may or may not be associated with vitreous loss and need for vitrectomy. ‘Zonular dialysis’ and ‘zonular rupture’ are not indexable in ICD-10. However, as these are usually occurring in the same way as for posterior capsular rupture, and are

clinically aligned to PCR in that it can be described as an accidental intraoperative perforation or laceration, we recommend coding as for PCR.

Iris Trauma/iris tear/iris damage

Code as:

- **T81.2** *Accidental puncture and laceration during a procedure, not elsewhere classified*

Plus either

- **Y60.0** *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care: During surgical operation*

or

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device.
 - .2** *Prosthetic and other implants, materials and accessory devices*
 - .3** *Surgical instruments, materials and devices (including sutures)*
 - .8** *Miscellaneous devices, not elsewhere classified*

Strictly speaking, Iris damage is not indexable and vague. Ideally the exact damage should be recoded. However in practice this is likely to be the same as the definition above and we suggest this coding is used.

Iris Prolapse

In this situation the iris protrudes from the surgical wounds, which makes the operation more technically challenging. It is not in itself a complication which needs coding. If it leads to iris damage, code as above.

Anterior Capsular Tear

This is damage to the anterior capsule which is not as serious as PCR and often does not require any more procedures. Code as:

- **T81.2** *Accidental puncture and laceration during a procedure, not elsewhere classified*

Plus either

- **Y60.0** *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care: During surgical operation*

or

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device.
 - .2** *Prosthetic and other implants, materials and accessory devices*
 - .3** *Surgical instruments, materials and devices (including sutures)*

.8 Miscellaneous devices, not elsewhere classified

Hyphaema

This is when bleeding occurs from the iris into the anterior chamber of the eye. The term 'hyphaema' is directly indexable in ICD-10 as H21.0 *Hyphaema* but this is only for a spontaneous hyphaema and should NOT be used for intraoperative hyphaema.

For intraoperative hyphaema there are two scenarios, one in which the hyphaema is caused by accidental instrument cut or trauma and one where not caused by accidental instrument cut or trauma.

If hyphaema is recorded as caused by accidental touch or trauma by surgical instruments, this should be coded as:

- **T81.2** *Accidental puncture and laceration during a procedure, not elsewhere classified*

Plus

- **Y60.0** *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care, during surgical operation.* As **T81.2** includes accidental puncture/laceration of a blood vessel or organ, haemorrhage is implied within the code.

If the hyphaema occurs without touch or direct trauma, ie spontaneously, or direct touch/cut/trauma not clearly recorded during the operation, code as:

- **T81.0** *Haemorrhage and haematoma complicating a procedure not elsewhere classified.* Unless the records specify that the hyphaema was due to touch/cut/trauma, the code should default to this T81.0.

Making assumptions

Some units use an anterior vitrectomy or using a different IOL (e.g. different brand, or AC IOL) as a proxy to identify and code for PCR or vitreous loss. This is not acceptable. If these are recorded without a clearly recorded complication, the notes need to be discussed with the surgeon and/or a consultant or clinical lead. If a complication has occurred and not been recorded, the records should be amended to show the complication before coding completed.

Descemet's Membrane Detachment

The term 'Descemet's membrane detachment' is not indexable in ICD-10. However, 'rupture' of the Descemet's membrane is classifiable to H18.3 *Changes in corneal membrane*. It is clinically appropriate to consider these terms as synonymous but the H code would normally not be used for an intraoperative complication but only from other aetiologies including traumatic cause. If Descemet's membrane detachment or other physical damage occurs during cataract surgery, NHS Digital has confirmed that it is

acceptable to use the T81.2 code and we recommend the following code combination as for the other complications above, ie code as:

- **T81.2** *Accidental puncture and laceration during a procedure, not elsewhere classified*

Plus either

- **Y60.0** *Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care: During surgical operation*

or

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device.
 - .2** *Prosthetic and other implants, materials and accessory devices*
 - .3** *Surgical instruments, materials and devices (including sutures)*
 - .8** *Miscellaneous devices, not elsewhere classified*

OR

- **Y77** *Ophthalmic devices associated with adverse incidents* if due to breakage or malfunction of a device. With
 - .2** *Prosthetic and other implants, materials and accessory devices*
 - .3** *Surgical instruments, materials and devices (including sutures)*
 - .8** *Miscellaneous devices, not elsewhere classified.*

Complications post cataract surgery

Coders must follow ICD-10 Clinical Coding Standard **DCS.XIX.7: Postprocedural complications and disorders**. The code assignment for postprocedural complications is dependent on where the alphabetical index directs the coder.

- Complications diagnosed post surgery but that occurred during surgery are coded as described above in “Complications during surgery”.
- If the harm/injury is noted at the time of the operation/operative admission, but is treated during a later admission, the same code is used for both the admission in which the surgery occurred and the later admission using the codes described above in “Complications during surgery”.

This means that, for the vast majority of complications diagnosed or requiring further surgery postop (e.g. dropped nucleus), the coding will be as described above in “Complications during surgery”.

For postoperative complications that are a result of the procedure but NOT due to inadvertent harm or injury during the procedure, (e.g. a postoperative wound infection, postoperative, corneal oedema, cystoid macular oedema, uveitis, retinal detachment, even a deep vein thrombosis etc) use external cause code **Y83 Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or later complication, without misadventure at the time of the procedure** together with the appropriate H code for the specific diagnosis.

It is worth noting that if complications are diagnosed in outpatients post surgery and do not require a further procedure, they do not usually get coded given we do not routinely code in outpatients. However the direction of travel for the future is thought to be towards outpatient diagnostic coding, so it is good practice to still record accurately. The key to identifying a complication or problem as related to the operation (ie a postoperative complication) in outpatients is to specifically record it as such. So if cystoid macular oedema, uveitis etc occurs due to the surgery, clinicians should write 'postoperative uveitis' rather than just 'uveitis'.

Common queries for particular situations post procedure:

- Prosthetic retained lens = **T85.2 Mechanical complication of intraocular lens**
- Retained natural/crystalline lens fragments/matter in anterior chamber or angle = **H59.8 Other post procedural disorders of eye and adnexa**
- Retained natural/crystalline lens fragments/matter in vitreous codes as for dropped nucleus as per 'Complications during surgery' section above.
- Retained viscoelastic: do NOT code as a complication.
- Posterior capsule opacification must be coded using **H26.4 After-cataract**.

Anaesthesia

These codes are available for Trusts that wish to collect this data for local purposes. With the exception of radiotherapy performed under general anaesthetic, there is no mandatory requirement to code anaesthetics.

Codes in category **C90 Local anaesthetic for ophthalmology procedures** must only be assigned in a secondary position.

Useful abbreviations and terms used by clinicians in cataract, including some ocular co-morbidities

Please note that in this table, the codes are what is commonly used when these occur in isolation but coders should always follow the standard coding process based on what is written in the medical records.

Abbreviations	Description	Code	
		ICD-10	OPCS-4.8
AC	Anterior Chamber = fluid cavity between cornea and lens		
AC IOL	IOL in unusual place in front of iris. Implies complex surgery or a complication		
AMD = ARMD	Age-Related Macular Degeneration. Age-related degeneration of the central part of the retina, used for detailed vision	H35.3	
Aphakia	Absence of a lens	H27.0	
AS	Anterior segment = front half of the eyeball		
Asteroid hyalosis	Benign vitreous jelly degeneration causing visible flecks in vitreous	H43.2	
Astigmatism	Type or glasses prescription (refractive error) caused by oval shape of cornea or lens	H52.2	
BDR	Background Diabetic Retinopathy	E1.-D, H36.0 A	
BRAO	Branch Retinal Artery Occlusion	H34.2	
Blepharitis	Chronic low-grade irritation of the eyelid edges, could raise the risk of endophthalmitis if severe	H01.0	
BRVO	Branch Retinal Vein Occlusion	H34.8	
CF	Counting Fingers vision		
CMO	Cystoid Macular Oedema, fluid in central retina, potential postop complication	H35.8	
CNV = CNVM	Choroidal Neovascular Membrane (wet AMD)	H31.8	
Cortical cataract	Cataract in spoke like shape in periphery of the lens	H26.9 unless includes other modifiers e.g. senile	
CRVO	Central Retinal Vein Occlusion	H34.8	
CSMO	Clinically Significant Macular Oedema (fluid in central retina due to retinovascular disease eg diabetic retinopathy)	H35.8	
DR	Diabetic Retinopathy		
ECCE	ExtraCapsular Cataract Extraction, previously most common technique before phaco, occasionally still used		C71.9
ERM	Epiretinal Membrane aka macular pucker aka cellophane maculopathy, degeneration of the central retina on its surface	H35.3	

Fragmatome Lensectomy	This is a specialised ultrasonic cataract removal technique usually performed through the pars plana to approach the cataract or retained lens fragments from behind the iris through the vitreous by VR surgeons; it may be combined with using a large bore (gauge) vitrectomy cutter for very dense lens.		C74.3 Mechanical lensectomy; Y11.5 Ultrasonic destruction of organ NOC
FTMH	Full Thickness Macular Hole, degeneration of the central retina with total loss small area of tissue	H35.3	
Fuchs corneal dystrophy	Inherited disorder of the inner layer of cornea, worse with age, can cause corneal oedema/clouding especially after cataract surgery	H18.5	
Hyperature Cataract	So advanced a cataract that some liquefies, makes cataract surgery very risky.	H25.2 Senile cataract, morgagnian type	
ICCE	IntraCapsular Cataract Extraction, technique even older than ECCE. Removal of whole lens and capsular bag.		C72.9
IC injection	Intracameral injection, injection of drug into the AC		
IFIS = floppy iris	Intraoperative floppy iris syndrome – lax iris can cause intraoperative problems including iris prolapse and small pupil, increased the risk of serious complications. rare unless taking certain systemic drugs	H21.8	
IOL	IntraOcular Lens (Prosthetic) implant	Z96.1	
IOP	IntraOcular Pressure		
Lamellar hole	degeneration of the central retina with partial loss small area of tissue	H35.3	
LO	Lens Opacity ie cataract		
MGD	Meibomian Gland Disease = Blepharitis		
MH	Macular Hole, degeneration of central part of retina. Can be lamellar or full thickness.		
NPDR	NonProliferative Diabetic Retinopathy	E1.-D, H36.0 A	
NPL	No Perception of Light vision		
NS (+,++,+++; 1-5)	Nuclear sclerosis, commonest age related (senile) cataract change, clouding in central part (nucleus) of lens ++ and 1-5 is grading of degree from little to total opacity of the lens centre	H25.1	
NTG	Normal Tension Glaucoma – open angle glaucoma where IOP is in “normal” range.	Codes as POAG H40.1	
NVG	NeoVascular Glaucoma, severe form of	H40.5	

	glaucoma which complicates eye disease		
OCT	Optical Coherence Tomography, a scan imaging test of the eye		
OD	Right Eye		
OHT	Ocular Hypertension – raised IOP without glaucoma damage to nerve and vision		H40.0
OS	Left Eye		
PACG	Primary Angle Closure Glaucoma	H40.2	
PAS	Peripheral Anterior Synechiae adhesions iris to the front at its edge	H21.5	
PCIOL	Posterior Chamber IntraOcular Lens. Usual form of IOL in the capsular bag	Z96.1	
PCLO	Posterior Capsular Lens Opacification – cataract clouding primarily at back of the lens, more commonly seen in diabetics, younger patients and those caused by steroids, but can be senile. More likely to be rapidly progressive	H26.8	
PCO	Posterior Capsular Opacification aka After Cataract – haziness of clear capsule behind the IOL, treated by laser	H26.4	
PDR	Proliferative Diabetic Retinopathy	E1.-D, H36.0A	
PDS	Pigment Dispersion Syndrome a risk factor for glaucoma	H21.2	
Phaco or PE	Phacoemulsification, usually taken to mean phaco and IOL even though IOL not written		
PI	Peripheral Iridotomy		C62.2
POAG	Primary Open Angle Glaucoma	H40.1	
PPV	Pars Plana Vitrectomy, VR procedure to remove vitreous jelly		C79.2
PS	Posterior Synechiae, adhesions of iris to tissue behind it ie lens	H21.5	
PSC = PSCO	Posterior Subcapsular Cataract or Posterior Subcapsular Opacity, cataract clouding primarily at back of the lens, more commonly seen in diabetics, younger patients and those caused by steroids, but can be senile. More likely to be rapidly progressive	H26.8	
PVD	Posterior Vitreous Detachment, usually benign shrinkage of vitreous jelly causing floaters and flashes, can lead to retinal detachment	H43.8	
PXF	Pseudoexfoliation Syndrome – flakes of material deposited inside eye raise the risks of glaucoma and serious phaco complications	H26.8	
RP	Retinitis Pigmentosa, inherited degeneration of the retina	H35.5	
SLM	Synthetic Lens Material ie IOL material		
Synechiae	Adhesions of the iris to other tissue in eye	H21.5	

Sulcus IOL	IOL placed behind the iris but in front of the capsular bag. Usually used if a complication in surgery has occurred		
Vity	Vitrectomy, removal or some or all of the vitreous jelly.		

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