

**Guideline on the attribution of surgical complications during cataract surgery**

It is not uncommon in a training environment that more than one surgeon can contribute to a single cataract operation hence two surgeons’ names are recorded with the operation record. These guidelines are intended to disambiguate the attribution of complications where there is more than one surgeon for the purpose of national audit.

**Postoperative complications**

For the purpose of audit, both local and national, postoperative complications, such as vision loss, endophthalmitis or corneal decompensation, would be attributed to the *primary surgeon*. The *primary surgeon* is also attributed with the case for uncomplicated cases so that it adds to their total case number, contributing therefore to the denominator in calculating complication rates.

The *primary surgeon* may be recorded as the surgeon that started the operation, or the surgeon that did the majority of the operation; this designation should be decided at the end of the procedure and is important both for fully trained surgeons as explained above, but perhaps more so for trainees for their surgical logbook case total*.*

**Intraoperative complications**

Intraoperative complications would largely be attributed to the surgeon operating at the time of the complication arising, and it is essential that the clinical record correctly identifies the surgeon to whom a complication is attributable. Currently, many electronic medical records (EMR) do not allow for assignation of an intraoperative complication to a particular surgeon; it is automatically assigned to the *primary surgeon*. For that reason, for significant complications, particularly posterior capsule rupture or zonule dialysis with vitreous loss (PCR), the surgeon responsible for this complication should be designated the *primary surgeon* on the EMR in order to ensure the complication is correctly attributed for the purpose of audit.

This may not be intuitive. Many trainers commence training of very junior ophthalmologists with the final parts of the surgery such as the insertion of the intra-ocular lens or removal of the viscoelastic. If a PCR or zonule dehiscence with vitreous loss occurs during these final stages performed by the junior trainee, the trainee would then need to be designated as the *primary surgeon* (despite their short-lived contribution to the operation), in order for the EMR to assign them responsibility for the complication.

Uncertainty about who is the *primary surgeon* may also arise where a senior surgeon takes over from a trainee in a cataract operation under circumstances that are far from ideal, even if the posterior capsule is intact at the point of handing over. (For example where the corneal incision has been poorly constructed, the pupil has come down, the anterior capsule rim has been torn and the patient is increasingly distressed due to discomfort or prolonged surgery).

If the senior surgeon proceeds with the operation and PCR occurs, it may be unclear whether this complication can reasonably be attributed to the trainee whose inexperience may have produced the non-ideal circumstances that led to the senior surgeon needing to take over, or should be attributed to the senior surgeon who actually produced the PCR.

The following guidelines are set out to help clarify the attribution of complications for the National Cataract Audit.

**The junior surgeon should be recorded as the primary operating surgeon**:

* where they have created an anterior capsular tear that then extends to the posterior capsule, even if the tear extends after a senior surgeon has taken over
* where the status of the posterior capsule is unclear at the point of handing over, but it becomes apparent that the capsule has been torn and the most likely timing of the tear being created was whilst the junior surgeon was operating
* where the zonules were unequivocally compromised prior to handing over to the senior surgeon, even if vitreous loss as a result of the zonular rupture had not yet occurred at the point of handing over.

**The senior surgeon should be recorded as the primary operating surgeon**:

* where the anterior capsulorhexis and posterior capsule were intact at the point of handing over, and the zonules were not overtly compromised, regardless of what else has occurred that made the surgery difficult.

Whilst some may feel that this is placing too much emphasis on the more senior surgeon taking over in very difficult circumstances, it is considered that being able to deliver safe surgical training, and to rescue the difficult situations that will inevitably arise during the cataract surgical learning curve, is part of the duty and skill-set required of an ophthalmologist providing cataract surgical training.

**July 2023: Guidelines formulated in consultation with NOD Cataract Advisory Group. Anyone wishing to comment on these guidelines, please email comments to @noa.project@rcophth.ac.uk.**