Cataract surgery is the most frequently undertaken NHS surgical procedure with approximately 390,000 cataract operations undertaken in England and 16,000 in Wales during 2015 - 2016.

This report is a snapshot of cataract surgery quality from 56 NHS funded centres in England and Wales.

Two primary indicators of surgical quality are audited.

1. **Posterior capsular rupture (PCR):** a break in the posterior capsule of the lens, can be a complication of cataract surgery. It allows vitreous (a transparent substance with the consistency of uncooked egg-white which occupies the space inside the eye behind the lens) to move forward into the anterior chamber of the eye. PCR is the most powerful, and only potentially modifiable, predictor of visual harm from surgery.

2. **Visual Acuity (VA) Loss (visual harm from surgery):** for cataract surgery, the most important outcome is vision; this is what matters most to patients. Vision which is worse after the operation than before is identified as an adverse outcome.

This is the first prospective national annual report and includes data on 120,722 eligible cataract operations for the period 01 September 2015 to 31 August 2016, from 97,908 patients.
Key findings

The operations were performed by 1,391 surgeons.

1,5% of operations were affected by Posterior Capsular Rupture, slightly below the current benchmark of 2.0%.

0.81% Visual Acuity loss rate was considerably lower than expected from previous reports and the current benchmark of 1.5%.

494 (1.0%) patients were recorded as being unable to lie flat.

431 (0.9%) patients were recorded as being unable to cooperate during the operation.

147 patients had simultaneous bilateral cataract surgery.

55,895 (57.1%) patients were women; 41,830 (42.7%) patients were men; gender was not recorded for 183 (0.2%) patients.

The operations were performed by 1,391 surgeons.

Operations performed

<table>
<thead>
<tr>
<th></th>
<th>Left Eyes</th>
<th>Right Eyes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>59,471</td>
<td>61,251</td>
</tr>
<tr>
<td>Percentage</td>
<td>49.3%</td>
<td>50.7%</td>
</tr>
</tbody>
</table>

This sample comprises approximately 30% of all NHS funded cataract surgery in England and Wales.

First treated eye cataract surgery

<table>
<thead>
<tr>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>71,970</td>
<td>(59.8%)</td>
</tr>
</tbody>
</table>

76.1 years median age at the time of first eye cataract surgery (range: 18.1 – 114.9).

19,935 (27.7%) patients were recorded as having diabetes mellitus at the time of their first cataract operation.

935 (1.3%) patients were recorded to be unable to lie flat.

Second treated eye cataract surgery

<table>
<thead>
<tr>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>48,458</td>
<td>(40.2%)</td>
</tr>
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</table>

77.2 years median age at the time of second eye cataract surgery (range: 18.3 – 103.7).

13,968 (28.8%) patients were recorded as having diabetes mellitus at the time of their second cataract operation.

833 (1.2%) patients were recorded as being unable to cooperate during the operation.

Visual Acuity loss rate was considerably lower than expected from previous reports and the current benchmark of 1.5%.

147 patients had simultaneous bilateral cataract surgery.
For Providers and Surgeons

- Care providers and surgeons should be familiar with their performance
  - Centres and surgeons are encouraged to view their performance in regard to outcomes and data completeness
  - Where opportunities for quality improvements are found these should be acted upon to enhance the quality of the patient care being provided
  - Care providers should be open and transparent regarding their audit participation and outcomes and provide relevant information to their patients and the populations they serve

- Care providers and surgeons are encouraged to maximise quality improvement opportunities through making best use of the audit tools that allow real time tracking of adverse event rates locally

- Information should be made easily accessible to the general public
  - Patients, carers and those with an interest in cataract surgery are encouraged to access and view data regarding their local services. Information about the quality of cataract surgery can be viewed online on the National Ophthalmology Audit Database website (www.nodaudit.org.uk) and the HQIP website (www.hqip.org.uk). In addition, data can be accessed on the NHS Choices website (www.nhs.uk/pages/home.aspx), Care Quality Commission website (www.cqc.org.uk) and https://data.gov.uk/
  - Patients should ensure they discuss and understand the risks and outcomes of any eye surgery with their consultant

- Monitoring of adverse events in real time is valuable for the early detection of a rising adverse event rate to ensure timely remedial action can be instituted. This will potentially avoid unnecessary harm to patients through avoidable surgical complications
  - An emphasis on continuous quality monitoring will, in addition, lessen the risk of a centre or surgeon being identified as an outlier in national reports.

- Care providers are reminded that all NCAPOP audits are mandated as a requirement of the NHS Standard Contract and a timely response to the audit providers and their sub-contractors is expected in regard to arrangements for participation in the audit
  - Care providers are encouraged to adhere to the requirements of the NHS standard contract through participation in the national audit

- Surgeons and centres are encouraged to ensure accurate and complete data collection for each operation
  - Risk adjustment can only be successfully applied if the risk indicator data are recorded in the audit data collection tool

For Patients

- Information should be made easily accessible to the general public

  - Patients, carers and those with an interest in cataract surgery are encouraged to access and view data regarding their local services. Information about the quality of cataract surgery can be viewed online on the National Ophthalmology Audit Database website (www.nodaudit.org.uk) and the HQIP website (www.hqip.org.uk). In addition, data can be accessed on the NHS Choices website (www.nhs.uk/pages/home.aspx), Care Quality Commission website (www.cqc.org.uk) and https://data.gov.uk/
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Recommendations

For Commissioners

- Commissioners should be familiar with the quality of services which they are commissioning on behalf of the populations they serve.
  - Commissioners are encouraged to view the performance of all providers of the care which they purchase in regard to outcomes and data completeness

- Where outcomes, data completeness or participation are not satisfactory providers should be asked to provide explanations together with their plans for improvements

- Commissioners should ensure all existing or new contracts with NHS funded providers including independent sector treatment centres include quality assurance for the well-being of the population they serve, through participation in the national audit
  - Commissioners are encouraged to incentivise in quality assurance through participation in the national audit via provider contracts

- Commissioners are in a key position to influence VA data returns through appropriate contracting and surgical providers should engage with commissioners and local optometrists to develop such ‘enhanced community services’.
  - Commissioners are encouraged to commission services which reward quality assurance in regard to visual acuity outcome

For the Regulator

- When inspecting NHS organisations, national audit commissioning, participation and performance should be routinely requested from commissioners and providers of cataract care
  - Regulators should expect participation in national audits with audit results made available to them when inspecting NHS organisations

- All providers of care should be expected to be in a position to provide quality assurance regardless of whether they are traditional NHS centres or independent providers

Next Steps

- The audit will extend coverage to include more centres in the next audit period, 01 September 2016 - 31 August 2017. Currently 113 centres have indicated that they wish to participate in the audit going forward

- Centres will be encouraged to improve data completeness in terms of proportion of operations being reported and the VA Loss outcome

The full annual report is available on the NOD audit website www.nodaudit.org.uk/resources/publications-annual-report