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EDITORIAL

Hydrophobic versus hydrophilic acrylic intraocular lenses within public sector based on the type of funding contacts: the debate continues

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Ting et al. have published an important report from the National Ophthalmology Database (NOD) on the influence of funding models on the choice of intraocular lens (IOL) material in NHS England [1]. They looked into the two funding models of block contract (BC) and payment by results (PbR). Their report highlights two important messages: First, they concluded that the nature of the funding might influence the choice of the IOL material, and they found that more hydrophobic IOLs were used when the funding was a BC compared to PbR. The report also highlights the potential reasons behind the choice of the IOL material based on the type of funding (BC or PbR). Second, although not discussed in detail in their report, the findings also show no uniformity in the type/method of funding for a routine and commonly performed procedure like cataract surgery in England [1].

The differences between hydrophobic and hydrophilic IOL materials have already been widely published. There are several parameters where the hydrophobic acrylic materials have shown superiority over hydrophilic material, e.g., square edge profiles [2, 3], posterior capsule opacification [4–7], IOL opacification [8, 9], good quality of vision [10], etc. However, some reports show that hydrophilic IOLs did better with regards to glistening [11]. It is still debated whether the glistening impacts the quality of vision [11–13]. In order to address the inequality in the procurement process across the country United Kingdom Ophthalmology Alliance (UKOA) has published guidelines on the process which clearly show the benefits of using hydrophobic material in the NHS based on cost-effectiveness and safety (https://uk-oa.co.uk/wp-content/uploads/2019/02/Procuring-IOLs-1-December-2018.pdf). Moreover, several studies show the superiority of hydrophobic acrylic material over hydrophilic. The question is: why should we be using hydrophilic acrylic IOLs at all? Some reports have highlighted this issue [8, 14]. The reason why the choice between hydrophilic and hydrophobic still exist is due to the surgeon's preference of wanting the IOLs to fold or unfold quickly or slowly, the ease of explantation if required, the capsule adherence properties and rotational stabilities, the potential to cause dents and marks with forceps, etc [8, 14]. If the surgeons/centres are incentivised for an Nd:YAG capsulotomy procedure, then they may have a vested interest in choosing the lens which generates more patients for capsulotomies.

Cataract surgery is a very common procedure and the number of cataract surgeries performed in England has risen from 325,000 to nearly 450,000 from 2016 to 2021, forecasted to grow exponentially by 50% until 2035 (https://www.rcophth.ac.uk/news-views/rcophth-analysis-shows-independent-sector-cataract-capacity-surged-since-2016-amid-significant-regional-variation/). The pandemic has led to a significant rise in the number of independent sector providers (ISPs) for cataract surgery. In a report published by RCOphth, ISPs now provide over 45% of the cataract surgery capacity across England (https://www.rcophth.ac.uk/news-views/rcophth-analysis-shows-independent-sector-cataract-capacity-surged-since-2016-amid-significant-regional-variation/). Cataract surgery has a set of very well-recognised co-morbidities, intra and postoperative requirements based on these co-morbidities and management of complications. The funding for these procedures depends on coding for each co-morbidities, peri-operative variations in the procedure and complications with its management. However, the coding for such a routine and commonly performed procedure in the NHS is complex and less comprehensible to most, which may lead to inadequate and inefficient coding (https://digital.nhs.uk/developer/guides-and-documentation/building-healthcare-software/clinical-coding-classifications-and-terminology). Accurate coding for the procedure is more relevant in PbR than in BC contracts. The efficiency of accurate coding for the co-morbidities, intra and postoperative complications, etc., is also widely variable across the NHS and between the conventional NHS Trust and the ISP centres. This becomes even more complex when there are more than one funding contracts within the same conventional Trust (as seen in the report by Ting et al. [1]). The study by Ting et al. [1] highlights the need for simplifying the coding for cataract surgeries and co-morbidities to make it more comprehensible, simple, quick and effective. Decoupling routine and standard services such as cataract surgery from the variation of the funding streams for other procedures in Ophthalmology departments and perhaps having a separate & independent nationally agreed funding stream (either BC or PbR) for cataract services only may be the way forward to improve the efficiency and to ensure equity in remuneration for cataract surgery across the board.

In summary, although we see a general shift towards using hydrophobic material nationally and globally, the major factor controlling its use in public sector healthcare system seems to be how the services are funded, which governs the surgeon's/centres' preferences. Despite this, the growing literature seems to support hydrophobic over hydrophilic IOLs.

Mayank A. Nanavaty [1,2] ✉
[1]*Sussex Eye Hospital, University Hospitals Sussex NHS Foundation Trust, Eastern Road, Brighton, UK.* [2]*Brighton & Sussex Medical School, University of Sussex, Falmer, Brighton, UK.*
✉*email: Mayank.nanavaty@nhs.net*

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ADDITIONAL INFORMATION

Correspondence and requests for materials should be addressed to Mayank A. Nanavaty.