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Response to: 'Comment on: 'How to defuse a demographic time bomb: the way forward?'

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We thank Professor Claoué for his letter regarding Immediate Sequential Bilateral Cataract Surgery (ISBCS).

Given the increasing mismatch between resources and demand, the national need to move to more efficient working practices has to be an inclusive, incremental, collective effort. By advocating a leap to a two-visit bilateral cataract pathway or any other unconventional efficiency measure, we would be concerned that we might lose the ear of the majority of departments whose pathway currently involves five visits for bilateral cataracts.

The October 2017 NICE guidelines [NG77] on adult cataract surgery recommend us to 'Consider bilateral simultaneous cataract surgery for people who are at low risk of complications during and after surgery'. While there was enough evidence to permit NICE to come to this conclusion, a recent systematic review and meta-analysis of ISBCS described the quality of evidence for this procedure as 'low to very-low' [1], and the very fact that ISBCS has been repeatedly proposed as a safe practice for over three decades [2, 3], but has gained little traction in the UK suggests that more work is needed to convince those providing cataract surgery to routinely offer ISBCS.

Prof Claoue expresses the belief that there is little risk from ISBCS, however, intuitively ophthalmic surgeons find this hard to comprehend [4]; the very-low risk of bilateral endophthalmitis notwithstanding, consideration might be given to the risk of bilateral cystoid macular oedema (CMO). Even excluding patients with risk factors the rate of clinical CMO in the largest study in the UK to date with 35563 low risk eyes was 1.17% [5], and first eye CMO is strongly predictive of second eye CMO with genetic factors at play [6], a risk that may not be amenable to reduction by topical NSAIDs in these low risk eyes [7].

The key to promoting ISBCS nationally is unlikely to lie in convincing surgeons that there is a lack of risk. The opportunity to save money for the NHS is also a poor motivator. Rather, we should purpose to demonstrate that there is the possibility of doing good to potentially tens of thousands of patients annually by providing faster visual rehabilitation and better quality of life through ISBCS. Evidence of improved quality of life would perhaps be more convincing to ophthalmologists, but would require a large national randomised controlled trial.

Thus convinced, surgeons would be able to enter into an honest and informed process of shared decision making with patients—some of whom will doubtless be delighted with the potential benefits of ISBCS, and some of whom will doubtless be wary of the potential risks, small as they are.

Compliance with ethical standards

Conflict of interest The authors declare that they have no competing interests.

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Foetal haemoglobin, blood transfusion, and retinopathy of prematurity

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Stutchfield et al. have recently demonstrated that low foetal haemoglobin (HbF) levels predict retinopathy of prematurity (ROP) [1]. There is an increasing awareness that red blood cell (RBC) transfusions are independent risk factors for all prematurity-associated diseases (PAD) [2]. Since adult haemoglobin (HbA) releases oxygen more efficiently than HbF, autologous cord blood (CB) transfusion has been attempted, with limited results due to the low volume of CB collected [3]. We have shown that allogeneic CB RBC concentrates obtained from healthy full-term babies can fulfil transfusion requirements of preterm neonates (PNs) with gestational age ≤30 weeks and/or birth weight ≤1500 g, in their first 28 days of life [4]. At first transfusion episode, PNs received ABO-Rh(D) matched CB-RBCs if available, or adult RBCs if CB units were not available. At subsequent transfusions, the same regimen was adopted, unless CB-RBCs were unavailable. Overall, 9 patients received CB-RBCs and 11 adult-RBCs; 6 patients (3 in each group) died before ROP assessment. Table 1 illustrates ROP findings in 14 surviving patients. All PNs receiving adult-RBCs developed ROP, while two of six patients in the CB-RBC group did not. Stage 3 ROP was observed in four heavily transfused extremely PNs: three of them were transfused only or mainly with adult-RBCs (patients 8,10 and 14, respectively; Table 1).

Transfusions contribute to the overwhelming oxidative burden caused by infections, oxygen therapy and inflammatory diseases in PNs. Unfortunately, to monitor in these patients lipid peroxidation products or other biomarkers of the oxidative stress, requires sophisticated methodologies and exceeding volume of biologic samples. Hence, these investigations are so far confined to the research field [5]. In this regard, the study of Stutchfield et al. suggests that monitoring HbF levels in PNs might be a feasible and reliable tool to figure out to what extent transfusions might favour PAD development.

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