

# CORRESPONDENCE Screening for sickle-cell retinopathy



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#### TO THE EDITOR:

We read with interest the editorial by Dinah et al. [1] calling for national screening guidelines for sickle cell retinopathy in the light of advances in imaging and licenced treatments becoming available

UK National Screening committee has issued clear guidance for a population screening programme [2]. The target population to be screened needs to be defined and a database set-up to hold all the incident and prevalent cases. The screening frequency and whether it needs to be varied depending on the genotype of sickle-cell disease, needs to be determined. The age for commencement of screening that has been suggested to be 10 years by the authors, is something that would also be influenced by the genotype. The "pre-symptomatic stage" is yet to defined in respect of when an intervention is likely to have the most impact. If the onset of stage 3 as per Goldberg's disease staging is taken to be the stage for intervention, it has been shown in a UK based longitudinal study over 20 years, that 36% of proliferative sickle retinopathy regressed spontaneously and a great majority of the remainder to show very little progression between visits [3].

The authors acknowledge the scarcity of licenced and effective treatment options. Promising developments are in the pipeline but crizanlizumab has been approved by NICE only for the treatment of recurrent vaso-occlusive crises [4] as have other treatments like red cell exchange transfusions or hydroxycarbamide as cited in their paper [1]. The risks associated with laser photocoagulation that exists in the literature needs to be revisited in the light of advancements in Argon laser photocoagulation with modern machines. A trial to identify the role of anti-VEGF is also needed.

In the light of the above, we believe that we are not yet at a level of scientific advancement in terms of our understanding of the disease process and management to proceed with national screening. We do however support the case for an image database under a national surveillance umbrella to aid research into the

impact of systemic and ocular treatments on the course of the disease.

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#### REFERENCES

- Dinah C, Greystoke B, Mueller I, Talks J. Action on sickle cell retinopathy: the time is now. Eye. 2022;36:1138–9.
- UK National Screening Programme. Criteria for a population screening programme. 2022. https://www.gov.uk/government/publications/evidence-reviewcriteria-national-screening-programmes/criteria-for-appraising-the-viabilityeffectiveness-and-appropriateness-of-a-screening-programme/.
- Downes SM, Hambleton IR, Chuang EL, Lois N, Serjeant GR, Bird AC. Incidence and natural history of proliferative sickle cell retinopathy: observations from a cohort study. Ophthalmology. 2005;112:1869–75.
- NICE Technology appraisal guidance [TA743]. Crizanlizumab for preventing sickle cell crises in sickle cell disease. 2021. https://www.nice.org.uk/guidance/ta743/ chapter/1-Recommendations/.

### **AUTHOR CONTRIBUTIONS**

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## **COMPETING INTERESTS**

The authors declare no competing interests.

# **ADDITIONAL INFORMATION**

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