LGG-18. BEVACIZUMAB: GOOD FOR EYES AND MRI'S! A NATIONAL UK ASSESSMENT OF VISUAL AND RADIOLOGICAL OUTCOMES OF BEVACIZUMAB THERAPY IN PAEDIATRIC LOW-GRADE GLIOMA (PLGG)

Katie L Green¹, Paraskevi Panagopoulou¹, Felice D’Arco¹, Patricia O’Hare¹, Richard Bowman¹, Bronwen Walters¹, Mette Jorgensen¹, Olga Slater², Rehana Ahmed²,³, Simon Bailey⁴, Fernando Carceller⁴, Elizabeth Corley⁴, Martin English⁴, James Hayden⁴, Ahmed Kama³, JP Kilday¹, Stephen Lowis⁴, Blanche Lumb⁵, Erika Pace⁶, Susan Picton¹¹, Barry Pizer⁷, Ayad Shafiq⁷, Lena Uzunova¹⁰, Shaun Wilson¹², Harriet Wayman¹⁰, Darren Hargrave¹, Enrico Opochara¹¹; ¹Great Ormond Street Hospital, London, United Kingdom, ²Southampton Children’s Hospital, Southampton, United Kingdom, ³Nottingham University Hospital, Nottingham, United Kingdom, ⁴Great North Children's Hospital, Newcastle upon Tyne, United Kingdom, ⁵Southampton Children’s Hospital, Southampton, United Kingdom, ⁶Great Ormond Street Hospital, London, United Kingdom, ⁷Alder Hey Children’s Hospital, Liverpool, United Kingdom, ⁸Great Ormond Street Hospital, London, United Kingdom, ⁹University College London Hospitals, London, United Kingdom, ¹⁰Great Ormond Street Hospital, London, United Kingdom, ¹¹Great Ormond Street Hospital, London, United Kingdom, ¹²Great Ormond Street Hospital, London, United Kingdom.

Abstracts
INTRODUCTION: Bevacizumab (BEV) is increasingly used for PLGGs in varying manners despite limited evidence. The potential for BEV to preserve or rescue vision in OPGs has not yet been explored. We performed a nationwide UK evaluation of BEV use for PLGG to provide large cohort safety & efficacy (radiological & visual) data. METHODS: A retrospective UK multi-centre analysis of patients treated with BEV for PLGG 2009-2020. Clinical patient, tumour, treatment and toxicity data were analysed from medical records. Age-adjusted LOGMAR visual acuity and radiological MRI assessments (RANO) were reviewed from initiation of BEV until latest follow-up. Standardized radiological & visual criteria assessed efficacy and clinical-radiological correlation. RESULTS: 88 PLGG patients from 11 PTCs received BEV either 3rd-line with irinotecan (83%) or alongside 1st/2nd line chemotherapy (15%) at median age 6 years (0.65-17). Median duration from diagnosis to BEV was 38 months. PLGGs included:15% Non-OPGs, 85% OPGs. Cohort OS 92% at median follow-up 34 months (3-106). Toxicity was limited and minimal. 8% stopped BEV for CTCARE grade 2+ toxicities, & 3 patients had SAEs (2 intracranial haemorrhages, 1 thrombosis) after stopping BEV without obvious alternative cause. Overall radiological response (SD/POR/CR) was 88%; median duration to best response 3 months. Overall visual response (stable/improved) was 72%; median duration to best response 3-6 months. Superior visual outcomes were seen in NF1-OPGs (p=0.02). Concordance between visual and radiological responses was 36%; 48% using best eye only visual responses. 65% patients with treatment response had tumour progression (all-cause) within 8 months of BEV cessation. Visual responses endured significantly longer than radiological responses (p=0.03). CONCLUSIONS: BEV is a generally safe and effective treatment for PLGG. Most patients demonstrated on-treatment radiological and visual response. Preservation of response after BEV was limited, though visual responses endured better than radiological responses. BEV may have a unique role as a sight-saving strategy in OPG.