Background Hearing loss from glue ear affects ~1 in 10 children starting school in UK/Europe. Of all children globally with a hearing loss, fewer than 10% of children have access to hearing aids: affordable solutions are needed. Studies showed children with OME hear better with bone conducting headsets. During COVID-19 we investigated whether children with glue ear (also known as Otitis Media with Effusion, OME) without access to audiology or grommet surgery during the Covid pandemic, could be aided remotely with £50 bone conduction kits and the HearGlueEar app.

Objectives
1. Could families pair and set up a product set (requiring Bluetooth connectivity) themselves
2. Could children’s quality of life be improved with remotely managed hearing support.
3. Can glue ear be successfully managed remotely.
4. Does this management affect the number of grommet operations required?

Methods Starting July 2020, during COVID-19, children aged 3–11 years with OME and on a grommet waiting list were invited to a single arm, prospective study. They received the kit, instructions and HearGlueEar app by post. By 3 weeks parents were asked to charge and pair the devices, attend a remote consultation and complete an OMQ-14 questionnaire. Remote follow-up lasted 3 months.

Results 82% (26 children) of those waiting for grommet operation list at the time of first lockdown in 2020 joined the study.

Children experienced more challenging listening situations during the pandemic with remote learning, social distancing and masks obscuring lip reading.

Families and the children felt empowered to manage their child’s condition at home and school.

100% of families set up the product set remotely without professional help. Although some families needed additional support through the study therefore contact with a professional to troubleshoot was important.

Quality of life (OMQ-14) responses were 90% positive. Comments included: ‘Other people have said, wow his speech is clearer’, ‘It is making a real difference at home’, ‘He said over and over again, I can hear everybody, wow’. ‘It is no exaggeration to say this has made an astronomical improvement to his quality of life’. ‘She is getting on really well with the headphones - pairing them with the iPad at home is simply brilliant’. One child said ‘I can hear my best friend again’. 20% of those in the study avoided grommet operations: either choosing this management option as an alternative or successfully supporting their child’s hearing until the glue ear self-resolved.

Conclusions Posting a bone conduction kit, HearGlueEar app and remote consultation is an effective management option for children with glue ear. This reduced the need for some grommet operations affording cost-savings and relieved hospital waiting lists. Children’s hearing was supported at home and at school as well as challenges experienced in the pandemic with on-line education, social distancing and communicating with face coverings.

https://medrxiv.org/content/short/2021.01.21.21249496v1

Association of Paediatric Emergency Medicine

Background Research during 2020 suggests UK Paediatric Emergency department (PED) attendances dropped by 30% at the start of the first National Lockdown (March 2020). Our PED (28,000 attendances (2019) vs 21,000 attendances (2020)) saw a similar drop in attendances but anecdotally noted babies under 1 month increased. Throughout 2020 many healthcare providers (including General practitioners (GP), Health Visitors (HV) and midwives) moved from routine ‘face to face’ (F2F) review to virtual contact, plus