

Congenital cytomegalovirus: the case for targeted infant screening in Australia

TO THE EDITOR: We write in response to Reid and colleagues¹ article on congenital cytomegalovirus (CMV). While many countries worldwide have established congenital CMV screening programs, Australia urgently needs to recognise the importance of targeted congenital CMV screening and tracking its outcomes.

Our 2019–2020 study tested the feasibility and acceptability of a parent-completed targeted congenital CMV saliva polymerase chain reaction (PCR) screening program in Victoria.² Parents of infants who did not pass their newborn hearing screening at four Victorian maternity hospitals completed their infants' saliva swabs in the hospital or at home. The program was feasible with a 76% participation rate, and all 96 swabs (100%) were completed within the required 21 days from birth, despite the majority being completed at home. Furthermore, more than 90% of families found the screen easy to do, thought it was a good idea, and were glad their baby had congenital CMV screening. However, there were challenges: false positive screens due to

CMV contamination in breast milk, and excessive time taken from completing the screen to return of results due to reliance on the only laboratory in the state accredited to process saliva CMV PCR.

We now have the means to overcome these challenges, determine whether universal congenital CMV screening in Australia is warranted, and systematically track outcomes of targeted congenital CMV screening. For 2 years from October 2021, Murdoch Children's Research Institute's Generation Victoria (GenV) is recruiting a whole-of-state infant–parent cohort, collecting over 110 000 saliva swabs from newborns to test for CMV using novel CRISPR technology at the Walter and Eliza Hall Institute of Medical Research.³ Our study, funded by the National Health and Medical Research Council, will determine the population prevalence of congenital CMV, develop a rapid bedside point-of-care test for congenital CMV screening, and establish whether universal congenital CMV screening is cost-effective. In addition, the Australasian Congenital CMV Registry has been recently established to track outcomes of congenital CMV.⁴ These initiatives will pave the way for Australia to emerge as a leader in congenital CMV screening, better recognise this

undetected condition of public health importance, and provide personalised care to affected children.

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- 1 Reid A, Bowen AC, Brennan-Jones CG, Kuthubutheen. Congenital cytomegalovirus: the case for targeted infant screening in Australia. *Med J Aust* 2022; 216: 167–171. <https://www.mja.com.au/journal/2022/216/4/congenital-cytomegalovirus-case-targeted-infant-screening-australia>
- 2 Webb E, Gillespie AN, Poulakis Z, et al. Feasibility and acceptability of targeted salivary cytomegalovirus screening through universal newborn hearing screening. *J Paediatr Child Health* 2022; 58: 288–294.
- 3 National Health and Medical Research Council. Clinical trials and cohort studies grant applications recommended for funding commencing in 2021. <https://protect-au.mimecast.com/s/72dUCxnMJ5s1lOj8kt85BWJ?domain=nhmrc.gov.au> (viewed June 2022).
- 4 Cerebral Palsy Alliance. cCMV Register, 2018. <https://cerebralpalsy.org.au/cmv/ccmv-register/> (viewed June 2022). ■