

# Intravenous immunoglobulin treatment for encephalitis in children aged 6 months to 16 years: the IgNiTE RCT

Mildred A Iro,<sup>1\*</sup> Manish Sadarangani,<sup>1,2,3,4</sup>  
Michael Absoud,<sup>5,6</sup> Liberty Cantrell,<sup>1</sup> Wui K Chong,<sup>7</sup>  
Christopher Clark,<sup>8</sup> Ava Easton,<sup>9,10</sup> Victoria Gray,<sup>11</sup>  
Matilda Hill,<sup>1</sup> Rachel Kneen,<sup>12,13</sup> Ming Lim,<sup>5,6</sup>  
Xinxue Liu,<sup>1</sup> Mike Pike,<sup>14</sup> Tom Solomon,<sup>12,15,16</sup>  
Angela Vincent,<sup>17</sup> Louise Willis,<sup>1</sup> Ly-Mee Yu<sup>18</sup>  
and Andrew J Pollard;<sup>1,2</sup> IgNiTE Study Team

<sup>1</sup>Oxford Vaccine Group, Department of Paediatrics, University of Oxford and NIHR Biomedical Research Centre, Oxford University Hospitals NHS Foundation Trust, Oxford, UK

<sup>2</sup>Department of Paediatrics, Oxford University Hospitals NHS Foundation Trust, Oxford, UK

<sup>3</sup>Vaccine Evaluation Center, BC Children's Hospital Research Institute, University of British Columbia, Vancouver, BC, Canada

<sup>4</sup>Department of Pediatrics, University of British Columbia, Vancouver, BC, Canada

<sup>5</sup>Department of Children's Neurosciences, Evelina London Children's Hospital at Guy's and St Thomas' NHS Foundation Trust, King's Health Partners Academic Health Science Centre, London, UK

<sup>6</sup>Department of Women and Children's Health, Faculty of Life Sciences and Medicine, King's College London, London, UK

<sup>7</sup>Department of Radiology, Great Ormond Street Hospital for Children, London, UK

<sup>8</sup>Institute of Child Health, University College London, London, UK

<sup>9</sup>The Encephalitis Society, Malton, UK

<sup>10</sup>Department of Clinical Infection, Microbiology and Immunology, University of Liverpool, Liverpool, UK

<sup>11</sup>Psychological services (Paediatrics), Alder Hey Children's NHS Foundation Trust, Liverpool, UK

<sup>12</sup>Institute of Infection, Veterinary and Ecological Sciences, University of Liverpool, Liverpool, UK

<sup>13</sup>Littlewoods Neuroscience Foundation, Department of Neurology, Alder Hey Children's NHS Foundation Trust, Liverpool, UK

<sup>14</sup>Department of Paediatric Neurology, Oxford University Hospitals NHS Trust, Oxford, UK

<sup>15</sup>National Institute for Health Research Health Protection Research Unit in Emerging and Zoonotic Infections, University of Liverpool, Liverpool, UK

<sup>16</sup>Walton Centre NHS Foundation Trust, Liverpool, UK

<sup>17</sup>Nuffield Department of Clinical Neurosciences, Weatherall Institute of Molecular Medicine, University of Oxford, Oxford, UK

<sup>18</sup>Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

\*Corresponding author [mildred.iro@nhs.net](mailto:mildred.iro@nhs.net)

## Disclosure of interests

**Full disclosure of interests:** Completed ICMJE forms for all authors, including all related interests, are available in the toolkit on the NIHR Journals Library report publication page at <https://doi.org/10.3310/YJWQ4299>.

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## Plain language summary

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## Plain language summary

**E**ncephalitis (inflammation of the brain) is a serious but rare condition affecting approximately 5 in 100,000 children in England. Encephalitis can have a big impact on affected children and their families. Approximately 12 out of 100 affected children will die and half of those that survive experience varying difficulties in the long term; these might include problems with memory, physical disabilities, seizures and changes in how they think and behave.

There is some evidence that a treatment called intravenous immunoglobulin may benefit people affected by encephalitis. Intravenous immunoglobulin contains antibodies obtained from blood donations by different people, which is used to treat some types of inflammation. However, there have been no research studies investigating the effect of intravenous immunoglobulin when used in large numbers of children with all types of encephalitis. Furthermore, although intravenous immunoglobulin is sometimes used to treat children with encephalitis, it is often given after other treatments have been unsuccessful. Outcomes from encephalitis are determined largely by the amount of brain inflammation; it would therefore seem logical that giving a treatment early in the illness to limit the inflammation would be beneficial.

In the Immunoglobulin in the Treatment of Encephalitis study, we aimed to find out whether giving intravenous immunoglobulin to children with encephalitis early in the illness can help them get better more quickly and reduce the difficulties they experience later on. Half of the children in the trial received intravenous immunoglobulin and the other half received an inactive medicine, known as placebo, in addition to the normal care they would receive in a hospital. We aimed to compare the recovery and outcomes between children in these two groups.

This trial was stopped early due to withdrawal of funding, as fewer children than expected were enrolled into the study. Too few children were enrolled for us to be sure whether intravenous immunoglobulin benefits children with encephalitis. However, the trial findings highlight the impact of encephalitis on affected children, with around half of children demonstrating ongoing difficulties 1 year after the illness.



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