

First anti-seizure drug for newborns to be developed

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(PhysOrg.com) -- Researchers at the UCL Institute for Child Health are developing the first anti-seizure drug specifically for newborn babies, with the aim of reducing brain damage.

Seizures are more frequent during the neonatal period than at any other time, but there are currently no effective treatments suitable for <u>babies</u>, who are at an increased risk of epilepsy and <u>brain damage</u>.

The team at the UCL Institute of Child Health (ICH) and Great Ormond Street Hospital (GOSH) will work with partners across Europe to test how well a drug called bumentanide - commonly used as a diuretic in the US - prevents seizures that do not respond to standard therapy.



This study, known as the NEMO project (treatment of NEonatal seizures with Medication Off patent), will initially test the safety and efficacy of this drug, followed by a clinical trial involving nine hospitals in six countries.

Seizures in babies occur for different reasons than in adults and are usually due to acute causes, such as oxygen starvation at birth, or infection.

The current treatments have been developed for adults and their efficacy and safety has not been established in such a young age group. In the last 15 years only one new anti-seizure drug has been approved for children under two years of age, and no such drug has been developed specifically for newborns.

NEMO Principal Investigator Dr Ronit Pressler (UCL ICH & GOSH) said: "It is widely recognised that <u>clinical trials</u> tend to target adults and that there is hardly any focus at all on children, even less on newborn babies. Seizures affect between two and three per 1,000 newborn babies, most caused by hypoxia. This research could represent a major step forward in the treatment of neonatal seizures, by developing better antiseizure treatments and, we hope, improving the outcomes for these children."

Provided by University College London (<u>news</u>: <u>web</u>)

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