School of **Medicine**

Academic Child Health



Developing the next generation neonatal transport incubator to improve premature infant outcomes

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The Clinical Rationale

There are 16,000 babies transported between hospitals in the UK each year. For the more premature babies this improves survival. However, it is associated with more than double the risk of brain injury in the form of intraventricular haemorrhage increasing the risk of disabilities such as cerebral palsy, blindness and deafness.



Our Technological Solution

We have demonstrated that neonatal transport is associated with significant stress in the form of excessive mechanical vibration, noise exposure and poor safety restraint in the event of an accident. Our team of engineers and clinicians are working with industry to build the next generation, evidence-based neonatal transport incubator that will be safer, reduce vibration and noise for these vulnerable babies.



Benefits for Children

There are more than 60,000 babies born prematurely in the UK each year with more being cared for in specialist units. By improving the inter-hospital transfer of these babies we aim to reduce the excess brain injury observed in these babies compared to similar babies not requiring transfer. We will also develop new monitoring equipment to allow transport teams to ensure the transfer stresses are minimised.







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