



News Release

War chest for Sheffield bronchitis pilot

*Includes list of grants award recipients from **Hatfield, London, Oxford and Sheffield***

Medics at Sheffield Children's Hospital have been given a small grant that could make a huge change to the way a common and severe chest condition is treated nationwide.

Protracted Bacterial Bronchitis (PBB) is a bacterial infection of the airways. It is the leading cause of chronic chesty coughs in young children and the most common reason for referrals to paediatric respiratory clinics across the UK. But there are no agreed guidelines on how to treat it, with doctors reliant on antibiotics used for complaints like middle ear infections and pneumonia. With Australian studies suggesting this treatment leads to patients with PBB developing antibiotic resistant bacteria – there is an urgent need for more data.

Which is why charity **Antibiotic Research UK (ANTRUK)** has awarded Sheffield Children's Hospital an 18-month £4000 grant to investigate further.

“Two groups of children will be involved in our unique pilot” revealed Dr Simon Hardman, Clinical Research Fellow and Paediatric Registrar at Sheffield Children's Hospital, “one will be given the preventative antibiotic Azithromycin over the winter months, the other not. We will then swab to see what the patterns of resistance are.”

Patients taking part in the study will be closely monitored by Dr Kelechi Ugonna, Consultant and lead clinician for Paediatric Respiratory Disease.

The symptoms of PBB include a nasty chesty cough for over four weeks. PBB can create permanent scars on the lungs and more likelihood of picking-up further infections, while continued use of antibiotics can leave patients unprotected against deadly superbugs. Since young children can be a portal for infections, those bugs can also be spread to family and friends. Dr Fiona Shackley (Consultant in Paediatric Infectious Diseases and Immune Deficiency) added: “Antibiotics might be good for the individual by reducing lung inflammation and infection, but could cause problems with antibiotic resistance for the child and also the rest of the community.”

Professor Alison Condliffe, Consultant in Respiratory Medicine hopes the research will reveal why some people are pre-disposed to lung conditions and whether factors like air pollution play a part. She said: “At this time we don't have studies on what

antibiotic resistance is caused or how much a benefit this antibiotic is for this condition. People have used it for other conditions therefore it seems like a good idea to use it for PBB. But nobody has followed it up in patients in the long-term to see if it actually makes a difference.”

Sheffield Children’s Hospital is one of just six projects in the UK to receive small grants from ANTRUK (*see list of grants recipients*). Designed to support everything from small equipment purchases to fostering collaborative projects, successful applicants were ratified by the charity’s Science Committee.

Professor Colin Garner, Founder and Chief Executive of ANTRUK said: “All of these exciting projects are attempting to find a solution to the world’s biggest health crisis, antibiotic resistance. As a charity we are donating what we can to protect the health of future generations. But clearly, pharmaceutical companies and government need to devote the type of serious resource to enable the proper research and development of treatments to replace our ageing antibiotics.”

To donate to ANTRUK, visit <https://cafdonate.cafonline.org/2680#/DonationDetails>

- Ends -

Pictured left to right, are: Dr Fiona Shackley (Consultant in Paediatric Diseases and Immune Deficiency), Dr Simon Hardman, (Clinical Research Fellow and Paediatric Registrar) and Professor Alison Condliffe, (Consultant in Respiratory Medicine, Sheffield Children’s Hospital).

For further information

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ANTRUK small grants recipients 2018

Applicant	From	Project	Award	Duration
Dr Pablo Alarcon	Royal Veterinary College, Hatfield	Antibiotic usage on dairy farms in GB: improving data capture and exploring drivers	£3969	1 October 2018 to 30 September 2019
Mr Eric Budgell	John Radcliffe Hospital, Oxford	The impact of reduced antibiotic use in hospital settings: an observational analysis of electronic health records and a novel application of causal statistical methods	£4,260 for each of the three years, total sum £12,780	1 October 2018 to 30 September 2021
Professor Alison Condliffe	University of Sheffield	Does prophylactic azithromycin include macrolide resistance in children with protracted bacterial bronchitis?	£4,000 over 18 months	1 October 2018 to 31 March 2020
Professor Paul Heath	St George's Hospital, London	Infections causing deaths on UK neonatal units	£4,000 over a period of three years	1 October 2018 to 30 September 2021
Ms Alice Tompson	London School of Hygiene and Tropical Medicine	Antibiotic use in cats and dogs: a qualitative study of pet owners' experiences	£3,835	1 October 2018 to 30 September 2019
Dr Oliver Van Hecke	University of Oxford	Parents' perceptions of antibiotic use and antibiotic resistance a qualitative interview study	£1,033	1 October 2018 to 30 September 2019