

The relief of poverty and distress caused by illness and disease

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MEDIA RELEASE

Dr urgently needs locals to help stop leading cause of childhood death

A Gold Coast paediatric doctor is appealing for the community to help his team prevent a leading cause of childhood mortality.

Dr Shane George, a Staff Specialist – Emergency Medicine and Paediatric Care at the Gold Coast University Hospital, is urging everyone to support recent research to help provide earlier diagnosis of sepsis (also known as septicaemia or blood poisoning).

Across Australia and New Zealand more than 500 children are put on life support due to this infection every year. Sadly, despite optimal care 50 children die from sepsis every year. These are children who [could be saved with improved diagnostic tests and treatment options](#). The World Health Organisation has recognised the urgent need for diagnosis and treatment for children with sepsis.

A specialised two-year study of acutely ill children presenting with suspected sepsis to Gold Coast Health Emergency Departments and Paediatric Intensive Care Units (PICU) has engaged a Queensland-wide team of hospitals, health staff and researchers to investigate the potential of gene-expression-based sepsis tests. The aim of the research is to provide more accurate diagnosis of sepsis in children, quicker test results and deliver improved treatment.

Dr George says initial results show that gene-expression tests can give faster and more accurate diagnosis of infection compared to conventional testing, improving the chances of saving children's lives.

"Every hour delay that occurs in administering antibiotics leads to a 6 per cent rise in mortality in children with infection. This means the most promising approach to improving health outcomes for children with sepsis infection relies on a rapid diagnosis. Sepsis, once detected, is easily treated. But sepsis seems to disguise itself as other illnesses, delaying diagnosis," Dr George said.

"Unfortunately one of the major limitations in sepsis management is the delay in obtaining accurate diagnosis. Current conventional tests take up to 48 hours to produce results often leading to inappropriate antibiotic administration, unnecessary hospitalisation, and increased risk of drug resistant bacteria if over-treated, and at worst, increased mortality. This is why medical research, funded by Gold Coast Hospital Foundation is vital."

When 18-month-old Gold Coaster Lily became ill, it was initially hard for doctors to identify the cause. Lily's mum Anita took Lily to the doctor twice and it was on her second hospital visit that it could be diagnosed. Sepsis often has symptoms similar to viruses that are common among children.

Mother Anita is relieved she listened to her "gut feeling" that something was not right and continued to query her Lily's illness.

"It all started with flu-like symptoms. I knew she wasn't well but she didn't have the words to tell me what was wrong," Anita said.

Dr Christa Bell at the university hospital was the clinician who diagnosed Lily's sepsis before it led to organ failure, or even death.

"Frighteningly, the infection had travelled into her bloodstream and attached to her tiny heart. Her condition was so serious that she was given a 2 per cent chance of survival and had to undergo open heart surgery to remove the infection," Dr Bell said.

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“Lily still visits the hospital to check her hip and heart condition.”

The Gold Coast Hospital Foundation is raising funds to continue this life-saving research, and appealing for the community to help raise the necessary \$100,000 to save lives.

“So far caring local donors and businesses have donated \$56,000 meaning that we are now asking generous Gold Coasters like you to help us raise a further \$44,000,” Foundation CEO Kim Sutton said.

“Please donate today and help Gold Coast children survive sepsis. With your donation our health researchers and health teams will recruit 550 acutely ill children presenting to our Emergency and PICU Units and test the feasibility, performance, time to diagnose and cost of applying the most advanced gene-expression-based sepsis diagnostic tools.”

Regional units at Lady Cilento Children’s Hospital, Townsville Hospital and Thursday Island Hospital have already secured the necessary funds to participate in this project. Gold Coast Hospital Foundation is confident once it secures the remaining funds it will ensure Gold Coast children treated at the university hospital will also be able to benefit from this landmark study.

The Gold Coast Hospital Foundation was established 24 years ago as the official charity for Gold Coast Health, which includes Gold Coast University Hospital and Robina Hospital. The Foundation raises funds to help medical professionals make a difference in the lives of sick and injured children and adults each year, delivering a range of vital programs, medical equipment and research funding. Gold Coast Hospital Foundation helps more than 95,000 patients each year in the local community.

Anybody can donate to the Gold Coast Hospital Foundation by visiting www.gchfoundation.org.au/donate

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