

## NSW hospitals tackling sepsis to improve treatment and save lives

Sunday September 13, 2015

NSW Public hospitals are driving down response times for patients with sepsis and saving about 150 lives a year. The finding comes as the international clinical community warms up for World Sepsis Day 2015 this Sunday, September 13 2015.

Clinical Excellence Commission Medication & Deteriorating Patient Programs Director Dr Harvey Lander said NSW's strong sepsis response was set to be further bolstered by a new 'sepsis alert' in the electronic medical record system being piloted at Blacktown Hospital. The 'sepsis alert' is expected to further reduce response times when it rolls out across NSW public hospitals next year.

"NSW's sepsis pathway is underpinned by two programs from the Clinical Excellence Commission – SEPSIS KILLS and Between the Flags," Dr Lander said. "Each program aims to raise awareness among clinicians of patients who may be deteriorating and ensure people with sepsis begin appropriate antibiotic treatment within 60 minutes of recognition of symptoms.

"In early 2011 it took more than four hours for antibiotic treatment to begin on sepsis patients across NSW emergency departments. With the introduction of the pathways that reduced to less than 60 minutes by 2012.

"At Blacktown Hospital results are even more impressive. With the Sepsis Alert technology, the average time to starting antibiotics on the ward is now just 42 minutes."

Professor of Surgery Michael Edye said the technology is a support for busy doctors and nurses – combining known risk factors for sepsis, patient observations and laboratory results so the moment the algorithm detects a sepsis risk an alert is sent to the treating team.

"Recognising sepsis and beginning treatment early is crucial for good patient outcomes," he said.

"There are some people alive today because of this and there are some people who've spent less time in intensive care units and in our hospital because of this.

"Sepsis is the biggest killer in our hospitals and the fact is that even a few minutes can make a big difference in the future health and survival of patients."

The Sepsis Alert involves a co-ordinate approach from across health with the CEC, Western Sydney LHD, eHealth NSW and Health Infrastructure all contributing expertise to inform staff enabling the trial

Since the introduction of the CEC's SEPSIS KILLS program in 2011 the risk of a patient dying from sepsis in NSW public hospitals has dropped by more than 30%. In NSW there are about 6000 patients hospitalised due to Sepsis each year. In the three years before the program began, from 2009 to 2011, 3053 people died from sepsis in our hospitals, or around 1020 each year. In 2012 this figure dropped to 979, and in 2013 this dropped further to 870.

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# MEDIA RELEASE

## Sepsis Facts

### What is sepsis?

Sepsis is a time critical medical emergency resulting from an overwhelming inflammatory response to infection. In New South Wales, more than 6000 patients are hospitalised each year due to sepsis.<sup>1</sup> These patients represent a significant burden on health system resources, often require intensive care, and length of stay in hospital is significantly prolonged. Historically, around 18 per cent of these patients die from sepsis-related complications.<sup>2</sup>

### Quick simple treatment can save lives

Early recognition and rapid initiation of simple treatment can significantly reduce sepsis mortality rates.<sup>3</sup> The Clinical Excellence Commission's SEPSIS KILLS program started in 2011. It is an evidence-based quality improvement initiative to improve management and reduce harm to patients with sepsis.<sup>4</sup> Three key actions are required to manage sepsis as a medical emergency, in a similar way to stroke, acute coronary syndrome and trauma:

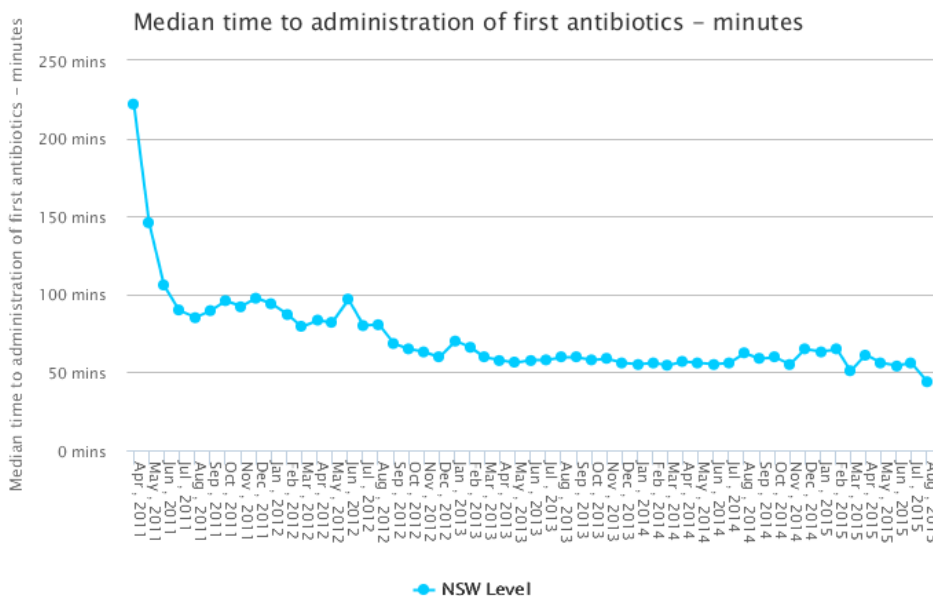
**RECOGNISE** the risk factors, signs and symptoms of sepsis

**RESUSCITATE** with rapid intravenous fluids and administration of antibiotics within the first hour of diagnosis

**REFER** to appropriate senior clinicians and teams with retrieval if appropriate

### NSW treats sepsis as a medical emergency

The SEPSIS KILLS pathway is used in hospitals throughout NSW and has greatly improved the process of care and clinical outcomes for more than 20,000 patients. Median time to start intravenous antibiotics has been reduced from more than 4 hours in 2011, to consistently less than 60 minutes 2013-2015.



### References

1. NSW Health Activity Based Management (ABM) Portal [http://internal.health.nsw.gov.au/abf\\_taskforce/abm\\_portal/main.html](http://internal.health.nsw.gov.au/abf_taskforce/abm_portal/main.html). Accessed 5 June 2015
2. NSW Admitted Patients Data Collection, Secure Analytics for Population Health Research and Intelligence (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health; Accessed 29 May 2015
3. Kumar A, Roberts D, Wood KE et al. Duration of hypotension before initiation of effective antimicrobial therapy is the critical determinant of survival in human septic shock. *Critical Care Medicine* 2006; 334:1589-1596
4. Commission, C.E. Clinical Excellence Commission. 2013; Available from: <http://www.cec.health.nsw.gov.au/programs/sepsis>