

# RESUS4KIDS - Responding to clinical deterioration. Implementing the National Safety & Quality Health Service Standards

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# Acknowledgements

- Karyn Fahy – Western Child Health Network Coordinator
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- Phase 1 (Jan – June 2009) project team – Marino Festa, Julie Howse
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- Phase 1 and 2 Steering Committees
- New South Wales Child Health Network Clinical Nurse Consultants
- **RESUS4KIDS instructors (the enthusiastic experts) and their managers**
- The Ministry of Health – Trish Boss

# Conflict of Interest

RESUS4KIDS is a Child Health Network project funded by The New South Wales Ministry of Health

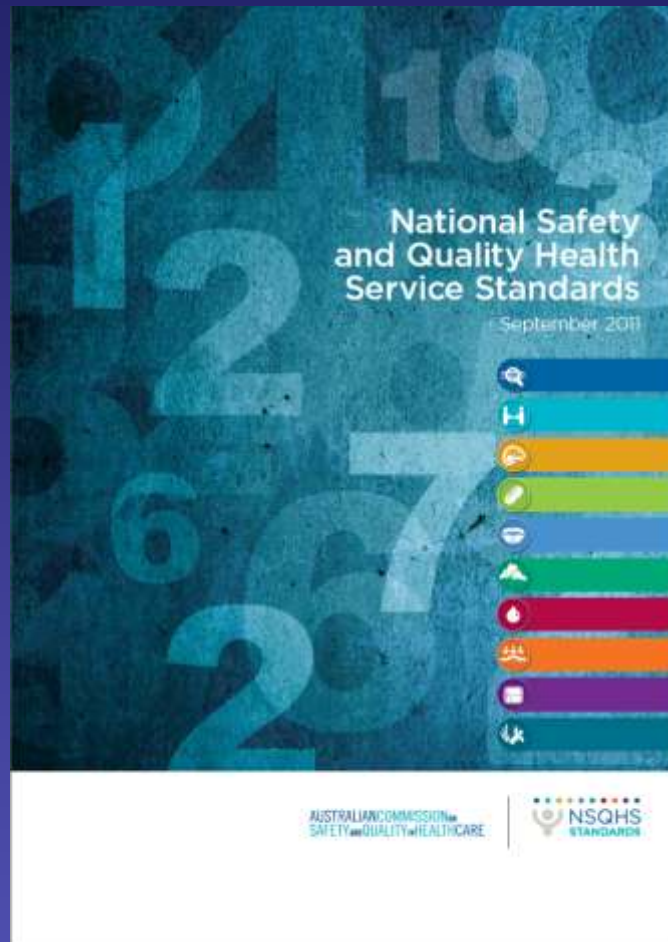
No financial interest by any of the team

Courses are free to attend for participants

No cost to facilities in New South Wales



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# National Safety and Quality Health Service Standards

- 10 standards
- Primary aims of the standards are to protect the public from harm and to improve quality of health service provision

<http://www.safetyandquality.gov.au/our-work/accreditation/nsqhss>



9.6 Having a clinical workforce that is able to respond appropriately when a patient's condition is deteriorating

9.6.1 The clinical workforce is trained and proficient in basic life support

All clinicians must be capable of implementing basic life support measures while awaiting emergency assistance. Poor-quality resuscitation has been reported both in and out of hospital.<sup>30-32</sup> If internal training is not available there are many external training agencies who offer certification in basic life support skills.

Improving non-technical skills such as leadership, teamwork, task management and structured communication is also recommended to help improve patient care and the performance of resuscitation providers.<sup>32</sup> Simulation training can assist in improving both technical and non-technical skills, which may help to improve patient survival and reduce potential for error.<sup>30</sup>

#### RELEVANT SECTIONS OF THE GUIDE TO IMPLEMENTATION OF THE NATIONAL CONSENSUS STATEMENT

*Essential element 6: Education*

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<p>9.6 Having a clinical workforce that is able to respond appropriately when a patient's condition is deteriorating</p>	<p>9.6.1 The clinical workforce is trained and proficient in basic life support</p>	<p>All clinicians must be capable of implementing basic life support measures while awaiting emergency assistance. Poor-quality resuscitation has been reported both in and out of hospital.<sup>30-32</sup> If internal training is not available there are many external training agencies who offer certification in basic life support skills.</p> <p>Improving non-technical skills such as leadership, teamwork, task management and structured communication is also recommended to help improve patient care and the performance of resuscitation providers.<sup>32</sup> Simulation training can assist in improving both technical and non-technical skills, which may help to improve patient survival and reduce potential for error.<sup>30</sup></p> <p>RELEVANT SECTIONS OF THE GUIDE TO IMPLEMENTATION OF THE NATIONAL CONSENSUS STATEMENT</p> <p><i>Essential element 6: Education</i></p> <p><i>Task 1: Provide education to the clinical and nonclinical workforce to support</i></p>	<p>RESPONDING TO CLINICAL DETERIORATION</p>
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### critterion 3 ▶ CONTINUED

THIS CRITERION WILL BE ACHIEVED BY	ACTIONS REQUIRED	IMPLEMENTATION STRATEGIES
9.6 Having a clinical workforce that is able to respond appropriately when a patient's condition is deteriorating	9.6.2 A system is in place for ensuring access at all times to at least one clinician, either on-site or in close proximity, who can practise advanced life support	Facilities need to ensure that rapid response systems give access to a clinician who can provide advanced life support. All facilities will need to develop and maintain rosters or systems to enable access to this clinician at all times. The clinician should be either on-site or in close proximity to the acute care facility. Where clinicians with advanced life support skills are located off-site, response times need to be rapid so that patient safety and care is not compromised. This may require early contact of the clinician during episodes of

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### critterion 3 ▶ CONTINUED

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<p>9.6 Having a clinical workforce that is able to respond appropriately when a patient's condition is deteriorating</p>	<p>9.6.2 A system is in place for ensuring access at all times to at least one clinician, either on-site or in close proximity, who can practise advanced life support</p>	<p>Facilities need to ensure that rapid response systems give access to a clinician who can provide advanced life support. All facilities will need to develop and maintain rosters or systems to enable access to this clinician at all times. The clinician should be either on-site or in close proximity to the acute care facility. Where clinicians with advanced life support skills are located off-site, response times need to be rapid so that patient safety and care is not compromised. This may require early contact of the clinician during episodes of patient deterioration, or if response times are prolonged, the capacity to have the clinician on-site.</p> <p>Additional nurses and doctors may require training in advanced life support in order to ensure rapid response systems can provide this level of care 24 hours per day and during periods of staff absences. Facilities may need to consider accessing external training programs if training in advanced life support skills cannot be provided locally. Advanced life support competency must be maintained with regular updates.</p> <p>RELEVANT SECTIONS OF THE GUIDE TO IMPLEMENTATION</p>

## *Essential element 6: Education*

Task 1: Provide education to the clinical and nonclinical workforce to support recognition and response systems (p 264)



# What is RESUS4KIDS?

Paediatric Life Support for Healthcare Rescuers

- The first 5 -10 minutes of a paediatric collapse in a healthcare setting with the use of equipment by trained rescuers

Basic Life Support occurs in the community by lay people with no or little equipment

# What is RESUS4KIDS?

## Not a 'mandated' course

- A course participants want to attend
- A course trainers want to teach
- A course managers want their staff to attend and teach
- A course that will benefit the care of children when they are critically ill and in need of practitioners who are knowledgeable, confident and technically able



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# RESUS4KIDS – E-Learning



**EStats** **NSW HEALTH**

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**Paediatric Life Support for Healthcare Rescuers Menu**

Welcome to the RESUS4KIDS Paediatric Life Support for Healthcare Rescuers e-learning program. It is the intention of RESUS4KIDS that Health Care Workers complete this program before attending the practical course. Please select a lesson from the list below.

Introduction	Completed on - 11/01/2012
Pre-Course Test	Completed on - 12/01/2011
Paediatric Life Support	Completed on - 12/01/2011
Cardiac Compression Techniques	Completed on - 12/01/2011
The Choking Child	Completed on - 02/05/2012
Advanced Airway Support	Completed on - 01/08/2011
Advanced Cardiac Support	Completed on - 24/06/2011
Cardiac Arrest Rhythms	Completed on - 12/01/2011
Shockable Rhythms - Pulseless VT & VF	Completed on - 24/06/2011
Non-shockable Rhythms - Asystole & PEA	Completed on - 24/06/2011
Reversible Causes	Completed on - 24/06/2011
Post-Course Test	Completed on - 20/01/2011

The remaining advanced lessons are optional

**Advanced - Intraosseous Access**  
Advanced - Intraosseous Access - Test

**Advanced - The 4 Hs and 4 Ts**  
Advanced - The 4 Hs and 4 Ts - Test

**Advanced - Abnormal Cardiac Rhythms**  
Advanced - Abnormal Cardiac Rhythms - Test

- Essential pre-learning
- New knowledge
- Revise knowledge
- Simple skill practice
- Interactivity
- Knowledge test
- Recent optional lessons
  - EZ-IO Drill
  - 4Hs and 4Ts
  - Abnormal rhythms

# Paediatric Life Support for Healthcare Rescuers Paediatric Life Support



## Open Airway

Infants (less than 1 year old) and children (1 to 14) have very different airways compared to adults.

It is particularly important to remember that tilting an infant's head back, as you would in an adult or older child, will actually close the infant's airway.



➤ Move the arrow up and down the bar to see how a slight head tilt of an infants head can affect the airway.

When you are ready to move on, click Next.

Step 15 of 34

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Paediatric Life Support for Healthcare Rescuers  
**Paediatric Life Support**



**Open Airway**



Step 17 of 34



▶ When you finish watching the video you can review it again by clicking the Play button on the video controls.

When you are ready to move on, click Next.

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# Further E-Learning

- Tracheostomy emergencies
- Intubation and Laryngeal mask airway
- Train the Trainer module



# The short practical course

## Two components

- Team work and communication (30 mins)
- Pause and discuss scenario based teaching (60 mins)



# Team work and Communication

## Specific learning points

- Display and use names
- Recognisable team leader
- Team members participation
- Allocate / accept roles
- Concise, clear communication, closed loop communication





# Pause and discuss scenario based teaching

## Specific learning points

- Managing an infants or child's airway
- Performing effective breathing
- Demonstrate effective cardiac compressions
- Recognise and initial treatment of shockable and non-shockable cardiac rhythms
- Perform safe defibrillation



# Governance

- Participant courses
- Train the trainer courses
- Super trainer courses

# Barriers

- Knowing who to engage
- Releasing staff for courses
- Competition with 'mandated' courses
- Model for sustainability



# John Hunter Children's Hospital – Newcastle NSW



- Paediatric tertiary referral hospital
- 113 tertiary beds
- One of three children's hospitals in NSW, the only children's hospital in Australia located outside of a capital city.

# Implementation

- RESUS4KIDS mandatory for all paediatric nursing staff
- Managerial support – DON, NUM's, medical
- Rapid implementation
- Opportunistic sessions
- Staff allocated and notified of the session they were expected to attend

# Opportunistic education

- Hunter Paediatric Society – Kings Canyon conference, 2012
- 3 trainers
- 25 staff specialists



# Kings Canyon - 2012



# Results

- Commenced February 2012
- Over 40 RESUS4KIDS sessions
- 160 nursing staff (85% compliance)
- 74 medical staff
- 10 active trainers
- 2 supertrainers



# The Maitland Hospital - NSW



- Rural referral hospital
- 12-16 paediatric beds

# The University of Newcastle

- 2013 - compulsory part of the undergraduate nursing degree
- Compulsory component of 4<sup>th</sup> year medical student requirements



# RESUS4KIDS Results

- As of June 2012:
- 6468 completed e-learning
- 2917 completed short practical course
- 406 trainers
- Uptake from NSW Ambulance, NSW local health districts, ACT, University of NSW, University of Sydney, University of Newcastle, Sunshine Coast Health, University of Tasmania paramedic Practice

# The Future - Elsewhere

- RESUS4KIDS is available to other Australian jurisdictions for public health employees for minimal set up costs.
- Commercial arrangements for private healthcare facilities and overseas institutions

# Questions ?



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