



Paediatric Life Support for Healthcare Workers

Program Structure and Governance Document



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INTRODUCTION

This document is intended to outline the standards and principles required for the delivery of the RESUS4KIDS (R4K) Paediatric Life Support for Healthcare Rescuers program.

The R4K Paediatric Life Support for Healthcare Rescuers program is a blended learning program comprising of e-Learning modules and a short practical course taught using scenario based teaching in a pause and discuss format. R4K Paediatric Life Support for Healthcare Rescuers program is designed to be used as a single or annual paediatric life support course for healthcare workers, following the guidelines of the Australian Resuscitation Council (ARC) with a focus on guideline 12.1. The e-Learning has been designed to allow participants to complete the modules both at work and home. The R4K Paediatric Life Support for Healthcare Rescuers Short Practical Course is a 90 minute course. Research, such as that from Reid (2012), indicates that teamwork, leadership and communication are essential to a positive outcome when Healthcare Rescuers are involved in paediatric resuscitation therefore the practical component is twofold. The first component is to enable review of the crucial aspects of teamwork. The second component ensures the practical aspects of managing a deteriorated paediatric patient are addressed. The rationale for this format is there is evidence to show that a breakdown in these components have resulted in a number of adverse events in health care settings around Australia.

The vision of RESUS4KIDS is to provide a standardised, evidence based paediatric life support program so that all healthcare professionals that care for acutely unwell children have the confidence, skills and knowledge to respond to a paediatric collapse. Ideally this training will be facilitated by local trainers, with initial training and ongoing support provided by the Sydney Children's Hospitals Network (SCHN).

RESUS4KIDS is a paediatric resuscitation program developed in 2010 by the Western Child Health Network (WCHN) with funding from the New South Wales (NSW) Ministry of Health. It was identified that there was a significant gap in

paediatric life support training for clinicians who work in acute care settings with infants and children.

Governance and management of RESUS4KIDS is currently held within the Sydney Children's Hospitals Network.

RESUS4KIDS EDUCATION STRUCTURE

e-Learning

The e-Learning modules are available online via My Health Learning for all NSW Health employees. For non NSW sites the RESUS4KIDS e-Learning modules are available from the RESUS4KIDS portal <http://www.resus4kids.com.au> or housed on facilities individual learning management systems.

The R4K Paediatric Life Support for Healthcare Rescuers program e-Learning provides paediatric life support training for health care workers and has been designed to be completed in stages. It is made up of a number of self-paced interactive modules incorporating audio and video segments to stimulate the learner. On completion of the RESUS4KIDS e-Learning component the learner will be able to:

- Respond to an emergency involving a child or infant using the Danger, Response, Send for help, Airway, Breathing, Circulation, Defibrillation (DRSABCD) steps
- Explain when and how to call for help
- Follow Paediatric Life Support procedures, including bag and mask ventilation and cardiac compression
- Respond to a choking child
- Apply a range of advanced airway life support devices including: self-inflating bag and mask, nasopharyngeal airway and oropharyngeal airway
- Correctly identify the three main cardiac arrest rhythms
- Follow Paediatric Life Support procedures using defibrillation and drugs

On completion of the e-Learning participants undertake a post course test. The pass mark for the Multiple Choice Questions (MCQ) is 19/22. In order to attend the RESUS4KIDS Short Practical Course participants must successfully complete the post course test and bring a copy of their certificate to the practical session.

The e-Learning for health care workers is recognised as 90 minutes of professional training.

RESUS4KIDS has also developed a number of additional e-Learning modules which participants can choose to complete. These extra modules are:

- Intraosseous Access (30 minutes)
- Advanced Paediatric Airway Management (2 hours)
- Paediatric Tracheostomy Emergency Management (30 minutes)
- 4 H's and 4 T's (30 minutes)
- Abnormal Cardiac Rhythms (30 minutes)
- Neopuff™ Infant T Piece Resuscitator (30 minutes)
- Train the Trainer refresher (30 minutes)

Short Practical Course

Following completion of the e-Learning health care workers will participate in a 90 minute experiential education session.

The R4K Paediatric Life Support for Healthcare Rescuers program Short Practical Course is taught at a ratio of 1 instructor to 6 participants and is comprised of two parts:

- 30 minutes on communication and teamwork
- 60 minutes of small group work using a pause and discuss format, working through scripted scenarios that the health professional may face in the clinical setting

By the end of the 90 minute practical course participants will be able to:

- Explain why good **TEAMWORK AND COMMUNICATION** are essential for optimal outcomes in resuscitation

- Manage an infant or child's **AIRWAY**
- Perform effective **BREATHING**
- Demonstrate effective minimal interruption cardiac **COMPRESSIONS**
- Recognise and provide initial management of shockable and non-shockable cardiac **RHYTHMS**
- Demonstrate knowledge of safe **DEFIBRILLATION**

The short practical course is recognised as 90 minutes of professional training.

Instructors provide continual assessment and feedback as each participant completes each of the different clinical skills throughout the course. The short practical course is not a 'pass/fail' course; participants will be offered feedback on their progress throughout the course. Participants who work within NSW Health can print their certificates of attendance from My Health Learning. Participants external to NSW Health may obtain their certificates of attendance from individual organisations.

Intraosseous Access and Paediatric Tracheostomy Emergency Management practical courses are optional sessions that build on the e-Learning component and are taught using *Round the Table* teaching. These supplemental courses will be facilitated by local experts following the lesson plans below.

Intraosseous Access Practical Course

The RESUS4KIDS Intraosseous practical course is an optional 40 minute face to face session.

By the end of the 40 minute practical course participants will be able to:

- Describe the common clinical indications for obtaining intraosseous access
- Identify the 4 potential landmarks with 8 target sites for intraosseous access
- Describe contradictions for intraosseous access
- Insert both an EZ IO and manual intraosseous needle
- Safely secure an intraosseous needle
- Describe important considerations for fluid and medication administration via intraosseous access

Paediatric Tracheostomy Emergency Management Practical Course

The RESUS4KIDS Paediatric Tracheostomy Emergency Management Practical course is an optional 30 minute practical session.

By the end of the 30 minute practical course participants will be able to:

- Set up and demonstrate safe suctioning of a tracheostomy including the discuss indications for installation of 0.9% sodium chloride for suctioning a tracheostomy
- Use the correct procedure for a controlled tracheostomy change
- Insert a 12F catheter if unable to insert a tracheostomy tube
- Bag and mask a tracheostomy patient in need of oxygen

Train the Trainer

In order to ensure the sustainability of the R4K Paediatric Life Support for Healthcare Rescuers program local educators in each healthcare facility have been trained to deliver the practical component. A 4.5 hour train the trainer workshop has been designed to provide new RESUS4KIDS instructors with the information and resources required to teach the 90 minute practical course. These workshops are targeted towards practitioners who display a keen interest in delivering paediatric resuscitation in a multidisciplinary training environment.

Potential instructors **MUST** have recently completed the R4K Paediatric Life Support for Healthcare Rescuers program (both the e-Learning and the short practical course) and be recommended and supported by their organisation or local health district (LHD) facility. By allowing staff to attend the train the trainer workshop the healthcare facility is acknowledging that the individual has the ability to teach the R4K Paediatric Life Support for Healthcare Rescuers program and will be supported by the facility to deliver the practical components of the program.

In recommending potential instructors, managers must ensure that recommended trainers are able to deliver resuscitation training to an interdisciplinary workforce and have the skills to provide facilitated small group discussion and clinical skills acquisition.

Potential instructors must attend a RESUS4KIDS Train the Trainer (TTT) course facilitated by the SCHN Network Simulation Coordinator External or a local and current Super Trainer available within NSW LHDs. Training provided by SCHN will incur a fee. To obtain costing and availability organisations need to contact the Network Simulation Coordinator External at SCHN-Resus4Kids@health.nsw.gov.au

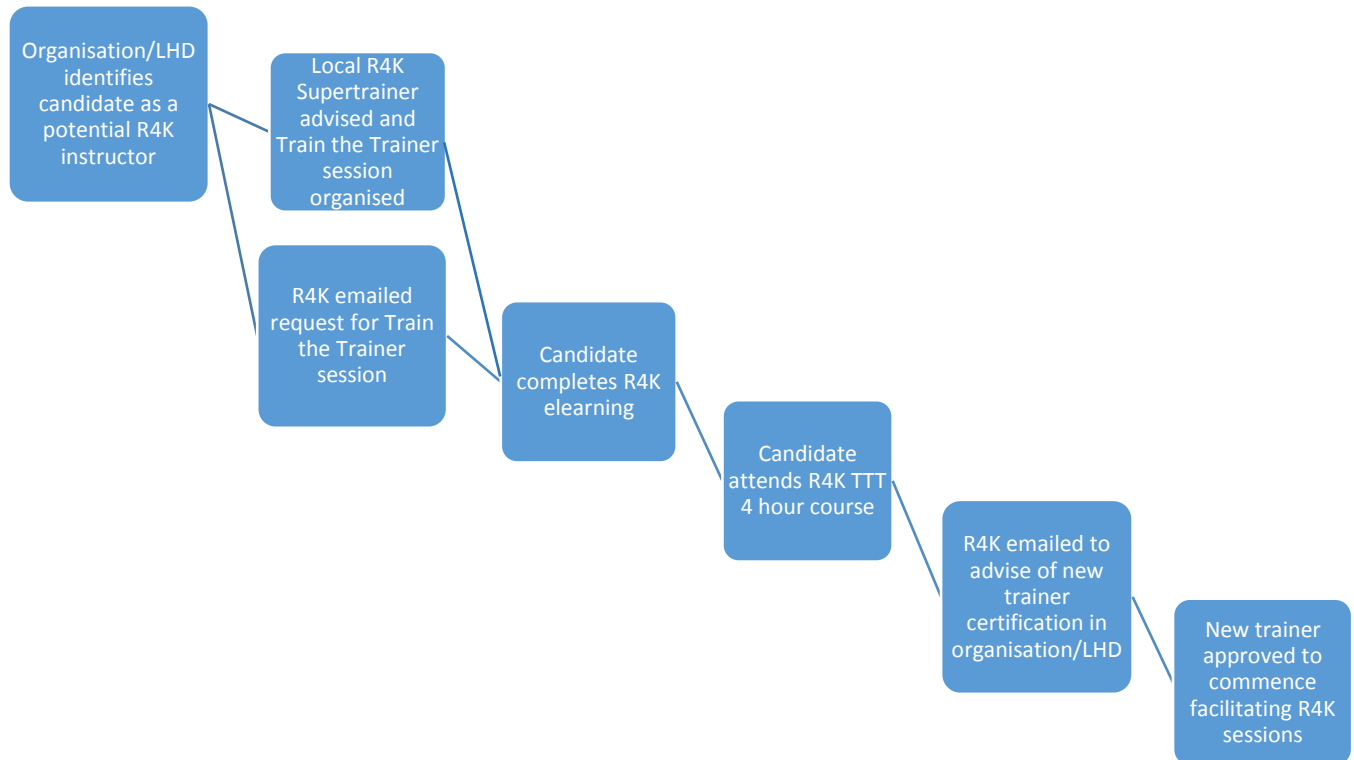
To maintain currency as a RESUS4KIDS Instructor, instructors must teach the course regularly. It is expected that the trainer facilitates a minimum of two RESUS4KIDS Resuscitation Short Practical Courses every 12 month period. All R4K trainers are strongly encouraged to facilitate at least four courses in a 12 month period in order to obtain optimal currency of practice.

If a minimum of two short practical courses are not delivered in a 12 month period, RESUS4KIDS will not recognise instructor status and the instructor will need to repeat the Train the Trainer Course. R4K instructors are required to keep local records to demonstrate number of courses facilitated in a 12 month period. RESUS4KIDS maintains the right to request evidence of currency of instructor status when required. Instructor status is not transferrable between organisations or to be used for financial gain.

On completion of the train the trainer workshop, the learner will be able to:

- Understand the different specific learning objectives within the R4K short practical course
- Develop a basic understanding of Crisis Resource Management and how to incorporate this knowledge into the teamwork and communication discussion
- Understand the requirements to be a R4K instructor and where to locate the resources required to run the short practical course
- Develop a basic understanding of adult education theory and how to use this knowledge to improve small group teaching
- Identify different types of challenging participants within small group teaching and how to approach each of these challenging learners in order to engage all participants attending the R4K short practical course

Pathway for RESUS4KIDS Instructor Certification



TRAIN THE TRAINER COURSE PARTICIPANT PREREQUISITES

E-Learning

- Access to an internet enabled computer

RESUS4KIDS Short Practical Course

To attend the course the candidate must have the following:

- Successful completion of the health care worker e-learning module
- To be able to attend the full 90 minute session

Train the Trainer Course

To become a RESUS4KIDS instructor the candidate must have the following:

- Successful completion of the RESUS4KIDS health care worker e-learning module
- Able to attend the full 4.5 hour train the trainer course
- Be recommended as a suitable trainer by their line manager/organisation
- Clinicians who are currently working in an environment involving the acute care of children **or** who are currently employed within a designated health care education role
- Be able to undertake teaching the RESUS4KIDS course at a minimum of two times per calendar year (with a best practice recommendation of four)
- Be committed to staying up to date with any course changes
- Undertake to teach the course as described by RESUS4KIDS
- Undertake to provide RESUS4KIDS with course information as described in this document or the course outline and to facilitate course evaluation
- Complete the RESUS4KIDS Train the Trainer refresher e-Learning annually

Super Trainer

In Local Health Districts (LHD) where staff have received Super Trainer Certification, these trainers may continue to conduct Train the Trainer courses within their LHD. To maintain Super Trainer status, trainers must conduct at least two Train the Trainer Courses and report annually to RESUS4KIDS detailing the monthly number of sessions and participants. If reports are not received, Super Trainer status will be withdrawn.

TRAINER REQUIREMENTS FOR CONDUCTING RESUS4KIDS COURSES

- Instructors are responsible for ensuring that all participants meet the course participant prerequisites outlined above, including recommendation by their line manager for new instructors if required

- Instructors must follow the course format, unless prior approval has been obtained from the RESUS4KIDS executive
- The instructor to student ratio must not exceed 1:6, unless prior approval has been obtained from the RESUS4KIDS executive
- Instructors may use a working defibrillator in place of the laminated cards. Instructors should be familiar with the safe use of a working defibrillator in a simulation environment and have a suitable rhythm generator and charge dump device, as well as permission from their line manager to use a live device
- Resources for setting up, running, evaluating and reporting courses are available at www.resus4kids.com.au under 'instructor resources'.
 - Instructors manual
 - Algorithm – Paediatric Life Support healthcare providers/ Choking Child
 - Defibrillation cards
 - Training video
 - List of equipment required for the practical course
 - Sound effects including choking child and defibrillation noises
 - Recommendation as instructor
 - Intraosseous Practical Course
 - Paediatric Tracheostomy Emergency Management Practical Course
 - Evaluation forms
- Registered instructors will be emailed the password to access the secure page when they complete the Train the Trainer course.
- On completion of instructing a R4K Short Practical Course or Train the Trainer session, the instructor must enter participant's attendance into My Health Learning or their local Learning Management System. Those not within NSW Health will also email a copy of participation attendance to RESUS4KIDS.

LEARNING MANAGEMENT SYSTEMS

NSW Government organisations have state-wide My Health Learning codes for each component:

- RESUS4KIDS e-Learning: 42456496
- RESUS4KIDS Short Practical Course: 42456504
- RESUS4KIDS Train the Trainer: 42455907
- RESUS4KIDS Paediatric Tracheostomy Emergency Management e-Learning: 46694838
- RESUS4KIDS Advanced Paediatric Airway Management e-Learning: 46694838
- RESUS4KIDS Advanced Optional e-Learning Modules: 43030439
- RESUS4KIDS Instructor Development Day: 42355399

Non NSW Government organisations will follow their local Learning Management Systems for recording purposes. Reporting, questions, access issues are all communicated through the RESUS4KIDS website www.resus4kids.com.au

GOVERNANCE

RESUS4KIDS is a NSW Child Health Network initiative and has been registered as a business name in NSW (NSW BN98432822 – registered 03/06/2009). Governance and management is now held by the Sydney Children’s Hospitals Network.

SCHN Executive Sponsors

Dr Michael Brydon – Chief Executive Officer SCHN

Debra Cutler – Director Nursing and Midwifery SCHN

RESUS4KIDS SCHN Management Team

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Network Simulation Coordinator External
nicole.mangion@health.nsw.gov.au

Any RESUS4KIDS enquiry can also be directed to
SCHN-Resus4Kids@health.nsw.gov.au

The SCHN Executive and RESUS4KIDS management team acknowledges the past executive sponsors and RESUS4KIDS executive team and their contributions to the successful instillation of the RESUS4KIDS program throughout Australia.

Past Executive Sponsors

Elizabeth Koff – Convenor, WCHN and GESCHN

Trish Davidson – Convenor, NCHN

The project has been signed off by the Chief Executives of all NSW LHDs

Past RESUS4KIDS Executive

Dr Fenton O’Leary – Project manager

Ms Karyn Fahy – WCHN Co-ordinator

Ms Leanne Crittenden – NCHN Co-ordinator

Ms Clare Godfrey – GESCHN Co-ordinator

Local Governance

RESUS4KIDS will report to the SCHN Simulation Advisory Committee, who provides local governance for the program. This committee reports to and provides recommendations to the SCHN Education and Training Committee.

RESUS4KIDS suggests that each partner organisation develop their own local policy document to encompass the following issues at local level:

- Local governance structure
- Local implementation plan
 - Allocation of instructor and participant release time
 - Allocation of training resources
 - Advocacy for the course to promote attendance

- Local Paediatric Resuscitation Policy
- Local policy for poorly performing candidates
- Local recording of completion – eg lessons in learning management systems

EVALUATION

Ongoing evaluation of the program will occur via data collection from the e-learning portals and My Health Learning. Additionally written feedback from participants and instructors will be obtained. On completion of each course, the instructor will issue participants evaluation forms for completion. This, along with instructor feedback, will be collated and reported to the SCHN Simulation Advisory Committee and the SCHN Education and Training Committee.

REPORTING

Reports will be compiled every 6 months with a yearly report completed at the end of each financial year. These reports will be provided to the Education and Training Committee.

RISK ANALYSIS

The Australian Resuscitation Council (ARC) updated it's guidelines in 2016 with RESUS4KIDS adopting these updates accordingly.

RESUS4KIDS is committed to adapting the e-learning and short practical course to new ARC guidelines when updates become apparent.

Depending on the number and depth of changes this may take several weeks or months to complete.

When the changes occur, this information will be disseminated to the trainers allowing them to update their participants.

INTELLECTUAL PROPERTY

All parts of the RESUS4KIDS course, including the e-learning, short practical course and course resources remain the property of RESUS4KIDS and must not be used in any other way without express permission.

RESUS4KIDS has permission from John Edwards of Southern Star to edit and distribute 'The Surgeon'. RESUS4KIDS also has permission from Edith Cowen University to use and distribute 'Met Call in Focus' and McElroy All Media for the use and distribution of Sea Patrol.