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## What Do You Know About Chest Compressions?

MOST NEWBORNS RESPOND TO EFFECTIVE VENTILATION WITH AN INCREASING HEART RATE. THIS MAKES CHEST COMPRESSIONS AN UNUSUAL EVENT FOR MOST NEONATAL RESUSCITATION TEAMS. DURING NRP<sup>®</sup> PROVIDER COURSES, WE PRACTICE CHEST COMPRESSIONS “JUST IN CASE” AND INSTRUCTORS ARE FAMILIAR WITH “ONE-AND-TWO-AND-THREE-AND-BREATHE-AND” BUT DO YOU KNOW THE ANSWERS TO THE QUESTIONS MOST ASKED BY LEARNERS IN NRP PROVIDER COURSES?

**Q** *When are chest compressions indicated?*

**A** Chest compressions are indicated when the heart rate remains below 60 bpm, despite at least 30 seconds of effective positive-pressure ventilation (PPV).

**Q** *Can you define effective positive pressure ventilation?*

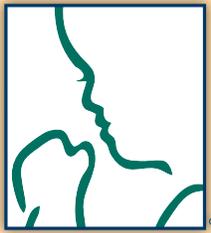
**A** According to the *Textbook of Neonatal Resuscitation*, 6th edition, effective PPV is defined by audible bilateral breath sounds and chest movement with ventilation.

IT IS A WELL-INTENTIONED ERROR TO START CHEST COMPRESSIONS PRIOR TO ACHIEVING EFFECTIVE VENTILATION. HOWEVER, CHEST COMPRESSIONS WILL NOT BE EFFECTIVE WITHOUT EFFECTIVE VENTILATION; THEREFORE, CHEST COMPRESSIONS ARE NOT INDICATED UNTIL YOU HAVE ACHIEVED CHEST MOVEMENT AND BREATH SOUNDS WITH VENTILATION ATTEMPTS.

**Q** *A term newborn is in critical condition with a heart rate of 40 bpm at 4 minutes of age. The resuscitation team has struggled with establishing effective ventilation. The corrective ventilation steps have been attempted through increasing pressure and there are still no breath sounds or chest movement. Now the provider in charge of the airway is attempting to intubate the newborn. One team member suggests starting chest compressions in light of the low heart rate and prolonged intubation. What is the team's correct response?*

**A** It is a well-intentioned error to start chest compressions prior to achieving effective ventilation. However, chest compressions will not be effective without effective ventilation; therefore, chest compressions are not indicated until you have achieved chest movement and breath sounds with ventilation attempts. When the newborn is intubated or a laryngeal mask has been placed, confirm placement by checking tip-to-lip depth, auscultate equal bilateral breath sounds, and observe chest movement. With correct placement of an alternative airway, it's possible that the heart rate will increase in response to effective ventilation, and chest compressions will become unnecessary. If the heart rate remains less than 60 bpm, increase the oxygen concentration to 100% and begin chest compressions.

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# NRP® Acknowledgements

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Statements and opinions expressed in this publication are those of the authors and are not necessarily those of the American Academy of Pediatrics or American Heart Association.

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# Use of Pulse Oximetry in the Delivery Room

Use of pulse oximetry in the delivery room still elicits “when” and “how” questions from NRP® instructors and providers. Following are two questions about pulse oximetry that are frequently directed to the Division of Life Support Programs.



**Q** Does every newborn need pulse oximetry at birth? It sure seems like we use it a lot. Doesn't clinical judgment count for anything?

**A** The *Textbook of Neonatal Resuscitation*, 6th edition, recommends pulse oximetry when:

- **Resuscitation is anticipated**

If you are attending a birth with significant perinatal risk factors (extreme prematurity, emergency c-section, category 3 fetal heart rate tracing, intrapartum abruption or intrapartum bleeding, shoulder dystocia, etc), expect to use pulse oximetry for resuscitation and/or stabilization.

- **Positive pressure ventilation is required for more than a few breaths**

Many newborns require only a few breaths with effective positive pressure ventilation. If the newborn responds to a few positive-pressure breaths with a lusty cry, good muscle tone, and improving color, you may not need pulse oximetry unless the newborn exhibits some aspects of difficult transition.

- **When central cyanosis is persistent and to confirm your perception of cyanosis**

Remember that acrocyanosis (blue hands and feet) does not indicate poor oxygenation. Central cyanosis in a newborn refers to blue lips, tongue, and torso. Visual assessment is not a reliable indicator and should not be used to guide oxygen therapy. “Persistent” cyanosis is a clinical judgment. Healthy babies may have central cyanosis for several minutes after birth. If a baby is term with good muscle tone and breathing without distress, you can delay pulse oximetry for several minutes, based on your assessment that the newborn is making steady progress toward normal transition. If the newborn remains cyanotic after several minutes and has prenatal risk factors or labored breathing or poor tone, your immediate and ongoing assessment should include oxygen saturation, which requires use of pulse oximetry.

- **When supplemental oxygen is administered**

Healthy newborns may take several minutes to increase their blood oxygen saturation from the fetal level of about 60% to the air-breathing newborn level of greater than 90%. The ideal oxygen saturation after birth is as yet unknown. The goal is to prevent hypoxia, which causes injury to multiple organs, and hyperoxia, which may also result in adverse outcomes (Kattwinkel J, Perlman JM, Aziz K et al. *Part 15: neonatal resuscitation: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care*. *Circulation*, 2010; 122:S909-S919).

**Q** Sometimes we apply pulse oximetry during neonatal resuscitation, and we can't get a reliable signal. What's the problem?

**A** Your pulse oximeter should be approved for newborn use and be motion tolerant. Wipe blood and fluid off the newborn's right hand or wrist and be sure you are applying the sensor correctly, i.e. according to the manufacturer directions. A velcro covering may help occlude light that could interfere with the signal. A reliable pulse oximetry reading should be obtainable within 1-2 minutes of birth.

If the newborn has a very low heart rate or poor perfusion, the oximeter may not function until these parameters improve. Consider monitoring heart rate in this case with an ECG monitor. Resuscitation of a critical term newborn will begin with room air and perhaps a slightly higher concentration for a preterm newborn. As soon as effective ventilation is established, it's likely that the heart rate will increase and the pulse oximeter will exhibit a reliable signal, enabling you to adjust the oxygen concentration to meet the newborn's targeted pre-ductal oxygen saturation range.

# Instructor/Mentor Partnership: How to “Debrief the Debriefers”

Novice NRP® instructors report that the most difficult part of the NRP Provider course is conducting a satisfying and useful debriefing after a scenario. To improve skills, the novice NRP instructor (and the instructor who would like to strengthen these skills) can do the following:

- Review the Instructor DVD scenarios and debriefings
- Observe a skilled debriefer and note what works well
- Video record their own scenario and debriefing and self-assess strengths and weaknesses
- Use every opportunity to debrief events at work – and with conversational modifications, practice more by debriefing family members about events of their day

Another more structured strategy for improving debriefing skills is to “debrief the debriefer.” This requires a skilled NRP instructor who agrees to mentor a novice instructor by videotaping the novice’s performance during a scenario and debriefing. Then the novice instructor and the mentor complete the ***NRP Simulation and Debriefing Checklist*** (see *Neonatal Resuscitation Instructor Manual* - Appendix F - pages 140 and 141) to help guide the mentor during the novice instructor’s debriefing. The video is valuable for reviewing interesting points during the discussion, just as video is used during a debriefing following a scenario and for allowing the trainee to identify for his/her self what needs to improve.

If more than one instructor/mentor team can work together at a Provider course, it is possible for a novice instructor to conduct the scenario and debriefing, then take the necessary time to discuss the event with the mentor while another instructor/mentor team conducts the next scenario and debriefing for learners. This method of taking turns permits an immediate “debrief the debriefer” session that allows the instructor to immediately use the feedback from the mentor for the next scenario and debriefing.

If taking turns with another instructor/mentor team is not possible (and learners should not be asked to wait until after a “debrief the debriefer” session to begin their next scenario) the mentor can use a few moments to debrief the novice after each scenario/debrief and focus on only the most obvious strengths and weaknesses of the novice’s performance. Because all of the scenarios and the debriefings are on film, the novice instructor and mentor can schedule time to go over the events in more detail after the NRP course.

Learners in an NRP course who are willing and able to put in a few extra minutes after each scenario and debriefing may be asked to evaluate the performance of their novice instructor. Structured written evaluations by anonymous reviewers are preferred over an open discussion in case the feedback is negative and to prevent any conflicting issues as the novice instructor and learners proceed to the next scenario in the course.

**The role of the instructor mentor is multi-faceted, but the mentor who is called upon to “debrief the debriefer” should be:**

- Knowledgeable about the concepts of skillful debriefing and capable of modeling these skills
- Nonjudgmental and capable of offering constructive feedback in a confidential setting
- Capable of withholding feedback until the novice instructor has finished his/her self-assessment
- Willing to spend a reasonable amount of time interacting with the novice instructor and providing encouragement and feedback

**The novice instructor also has responsibilities in this partnership. The instructor who is hoping to improve debriefing skills:**

- Prepares ahead of time for the simulation event by reviewing concepts of simulation and debriefing
- Engages fully in the experience and works toward steady improvement
- Accepts feedback and interacts with the instructor mentor in a respectful manner
- Helps build and strengthen the hospital Neonatal Resuscitation Program by mentoring novice instructors when experienced and skilled enough to do so

The instructor mentor uses the checklist to assess the performance of the NRP colleague who is seeking to improve simulation and debriefing skills. The instructor who conducts the scenario and debriefing should complete this checklist to self-assess skills and help guide the discussion with the instructor mentor.

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ANOTHER MORE STRUCTURED STRATEGY FOR IMPROVING DEBRIEFING SKILLS IS TO “DEBRIEF THE DEBRIEFER.” THIS REQUIRES A SKILLED NRP INSTRUCTOR WHO AGREES TO MENTOR A NOVICE INSTRUCTOR BY VIDEOTAPING THE NOVICE’S PERFORMANCE DURING A SCENARIO AND DEBRIEFING.

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## What Do You Know About Chest Compressions?

**Q** *An intubated newborn who needs chest compressions will most likely require placement of an emergency umbilical venous catheter for intravascular access. The person using the thumb technique needs to move to the head of the newborn to provide space for UVC insertion. How do you instruct your learners at an NRP Provider course where to position themselves?*

**A** The compressor must move from the side of the warmer to a position next to the person holding the ET tube or laryngeal mask at the head of the infant. The compressor's position will be different depending on whether the ventilator is holding the PPV device in his/her right or left hand. If the compressor does not know on which side of the ventilator to stand, and how to place his/her arms in relation to the ventilator's arms, time will be wasted as the compressor dances around trying to find the correct position. Instruct the compressor to always move to the side OPPOSITE the PPV device (T-piece resuscitator or bag). There is not room for both the PPV device and the compressor on the same side. When the compressor arrives at the correct side of the ventilator, the compressor slides her arm underneath the endotracheal tube and PPV device (unless the compressor is very tall compared to the ventilator) and over the ventilator's arm on the other side. In addition to opening up space for umbilical line placement, this position is less fatiguing for the compressor than standing at the side of the radiant warmer.

**Q** *Why does NRP use a compression:ventilation ratio of 3:1 instead of the PALS two-rescuer ratio of 15:2?*

**A** When compressions are required during neonatal resuscitation, severe respiratory compromise is a more likely cause than a primary cardiac problem. Optimal CPR in infants and children includes both compressions and ventilations. The 2010 AAP/AHA Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, the guideline from which 6th edition NRP is derived, recommends the 3:1 ratio of compressions to ventilations to maximize ventilation at an achievable rate. In addition, pausing compressions for the breath may maximize the efficacy of each ventilation. This approach has been supported by mathematical models, manikin studies, and international consensus opinion.

**Q** *What if a neonate requires resuscitation after the initial newborn period? How do we know when to use NRP and when to use PALS?*

**A** The cause of the cardiorespiratory arrest is a more important consideration than the baby's age. It is agreed that newborns and infants are more likely to become compromised from respiratory failure (e.g., apnea) than from a primary cardiac problem (e.g., arrhythmia). The NRP Committee and PALS oversight committee recommend that newborns who require CPR while inpatients in the nursery or NICU receive CPR according to NRP. However, it is reasonable to resuscitate a newborn in the NICU that has normal respiratory status and a primary cardiac problem (e.g., arrhythmia after heart surgery) using PALS. Outside of the nursery and NICU settings, it is reasonable to provide CPR according to PALS in order to simplify provider training. In either case, optimal CPR for newborns and infants includes both ventilation and compressions.



Recommended head of bed positioning for chest compressions after intubation.

For more information on this topic, go to:

**Neonatal Resuscitation: 2010 AAP/AHA Guidelines for CPR and ECC:**

<http://pediatrics.aappublications.org/content/126/5/e1400.full.pdf+html?sid=e7c27a9e-1d94-4fd4-89b9-de56f81202ca>

**Neonatal Resuscitation: 2010 International Consensus on CPR and ECC Science with Treatment Recommendations:**

<http://pediatrics.aappublications.org/content/126/5/e1319.full.pdf+html?sid=991ff5d8-df84-4970-8f6d-cc5af9b4c85a>

# Influential Articles in Neonatal Resuscitation

## Part 1 of 2

At the NRP® Current Issues Seminar on October 10, 2014, Henry Lee, MD and Steven Ringer, MD of the NRP Steering Committee reviewed influential or groundbreaking papers in four areas of neonatal resuscitation. The following is an annotated bibliography of some of these papers. The remaining papers will be featured in the next edition of the *NRP Instructor Update*.

*None of these articles imply any specific changes in practice.* The Neonatal Delegation of the International Liaison Committee on Resuscitation (ILCOR) is examining critical questions related to these areas of neonatal resuscitation and any evidence that will lead to treatment recommendations. Changes in practice related to neonatal resuscitation will be released by the American Heart Association in October 2015. Those practice changes will be reflected in 7th edition NRP materials due out in spring 2016.

### Neonatal Encephalopathy/Hypothermia Treatment

*Executive summary: Neonatal Encephalopathy and Neurologic Outcome, Second Edition, Report of the American College of Obstetricians and Gynecologists' Task Force on Neonatal Encephalopathy. OB&GYN, April 2014; 123(4):896-901. PMID: 24785633*

The first edition of this report outlined criteria to establish a causal link between intrapartum hypoxic events and cerebral palsy. This second edition acknowledges that much is unknown regarding causes and identification of neonatal encephalopathy. This report recommends replacing the term “hypoxic-ischemic encephalopathy” with “neonatal encephalopathy” because hypoxia and ischemia cannot be assumed to be the cause of encephalopathy. To determine the likelihood that a maternal event contributed to neonatal encephalopathy, the report recommends a multidimensional assessment of both neonatal and maternal factors, including:

- Determining if the neonate meets the definition of neonatal encephalopathy
- Assessing signs consistent with an acute peripartum or intrapartum event
- Delineating the type and timing of contributing peripartum or intrapartum factors
- Considering particular developmental outcomes

The paper also recognizes advancements in neuroimaging and its contribution to assessing the patterns of brain injury and determining the timing of the injury. In addition, the paper promotes a culture of health care delivery that prevents neonatal encephalopathy through patient safety efforts and learning from root cause analysis. The report includes an obstetric and neonatal data collection tool and a template for root cause analysis.

*Hypothermia and Neonatal Encephalopathy. Committee on Fetus and Newborn. Pediatrics 2014; 133(6):1146-1150. PMID: 24864176*

This AAP Clinical Report from the Committee on Fetus and Newborn reviews the outcomes from large clinical trials from 2005 – 2011. The report reviews what is still unknown about therapeutic hypothermia, such as the optimal time to initiate cooling, optimal temperature for cooling, how long to continue the intervention, and how to initiate cooling prior to transport from a community hospital to a tertiary care center. Because death and disability with cooling are still high at 40%, ongoing trials of adjuvant neuroprotective agents are discussed. This report concludes with recommendations for:

- Available services at centers offering therapeutic hypothermia
- Neonatal eligibility criteria
- Infrastructure that promotes standardized training and protocols to enhance patient safety
- Outreach education to community hospitals for timely identification of eligible neonates and prevention of extreme hypothermia and hyperthermia pending transport
- Therapeutic cooling and related interventions suited only to research settings and with parental consent

*Effects of Hypothermia for Perinatal Asphyxia on Childhood Outcomes. Azzopardi et al. (TOBY Study Group). NEJM, July 10, 2014; 371(2):140-149. PMID: 25006720*

This is a report of the Total Body Hypothermia for Neonatal Encephalopathy Trial (TOBY), a large randomized control trial in the United Kingdom. The study involved 325 newborns of at least 36 weeks gestation with asphyxial encephalopathy who were randomly assigned to receive standard care (control group) or standard care with hypothermia (rectal temperature of 33 to 34 degrees C for 72 hours within 6 hours of birth). The children who received hypothermic therapy had improved neurologic outcomes at 18 months of age. This article reports on these subjects who were re-evaluated at 6-7 years of age for neurocognitive function. In the hypothermia group, 52% (vs 39% in the control group) had an IQ score of 85 or more. Compared to the control group, the hypothermia group fared better when evaluated for neurologic abnormalities, risk of cerebral palsy, risk of moderate or severe disability, and the hypothermia group had better motor-function scores. This study “provides evidence that the benefits of moderate hypothermia after perinatal asphyxia persist into middle childhood.”

### Perivable Birth

Andrews B, Lagatta J, Chu A, Plesha-Troyke S, Schreiber M, Lantos J, Meadow W. *The nonimpact of gestational age on neurodevelopmental outcome for ventilated survivors born at 23-28 weeks of gestation*. *Acta Paediatr*, 2012;101(6):574-578. PMID: 22277021

This is a prospective cohort study of 199 ventilated infants between 23 and 28 weeks gestation. The researchers hypothesized that the youngest infants would be most likely to die (gestational age did influence survival) and of the survivors, most preterm infants would be most likely to experience neurodevelopmental impairment. Gestational age did influence survival; however, when 85% of the subjects were evaluated at age 24 months, the percentage of ventilated infants in the NICU who survived with neurodevelopmental impairment actually rose with increasing gestational age. This may have implications for parents and professionals whose concern is not only survival, but neurodevelopmental impairment of very low gestational age survivors. There were limitations to this study: the research was done in one NICU with a poor underserved population and only the 2-year follow-up is available. The study is not generalizable. However, researchers state that the premise that “neurodevelopmental impairment in survivors depends much less strongly on gestational age than does overall survival” is supported in 5 cited references.

Carlo WA , MacDonald SF, Fanaroff AA, et al. *Association of Antenatal Corticosteroids with Mortality and Neurodevelopmental Outcome among infants born at 22 to 25 weeks' gestation*. *JAMA*, December 7, 2011; 306(21):2348-2354. PMID: 22147379

National Institutes of Health (NIH) 1995 guidelines recommend antenatal corticosteroids for preterm labor at 24 to 34 weeks gestation. However, infants born before 24 weeks are now admitted to NICUs. This is a cohort study of data collected prospectively on a study population of 10,541 infants born at 22 to 25 weeks gestation between 1993 and 2009 at 23 academic perinatal centers in the United States. Researchers sought to determine if antenatal corticosteroids were associated with improved outcomes in this gestational age group. Of the study population, 74.1% of the infants' mothers received antenatal corticosteroids. Despite some limitation of the study, “This multicenter observational study cohort is larger than all other reported cohorts of infants born at 22 to 25 weeks gestation combined and documents that exposure to antenatal corticosteroids was associated with lower mortality or neurodevelopmental impairment at 18 to 22 months in infants born at each week from 23 to 25 weeks gestation, even after adjustment for multiple potential confounders.”

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CHANGES IN PRACTICE RELATED TO NEONATAL RESUSCITATION WILL BE RELEASED  
BY THE AMERICAN HEART ASSOCIATION IN OCTOBER 2015. THOSE PRACTICE CHANGES  
WILL BE REFLECTED IN 7TH EDITION NRP MATERIALS DUE OUT IN SPRING 2016.  
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# NRP® Database Tips and Tricks

**Q** *What are the requirements to maintain my instructor status? Do I need to check off skills with an instructor?*

**A** NRP Instructors are required to teach or co-teach two NRP courses, and complete the NRP Online Examination every two years prior to renewal date. You do not need to participate in a skills check off with another NRP Instructor to maintain your status.

**Q** *How can I tell my renewal date, and what requirements still need to be met before my renewal?*

**A** When you log in to your NRP database profile, you will see a screen indicating the number of courses taught during the renewal period. If you have not completed the NRP Online Examination, you will also see a red box, reminding you to complete the exam (Figure 1). If you have completed the exam, you can see the date you completed the exam by clicking on the “Update Info” tab. On the “Update Info” screen, there is a line stating, “Online Eval Completion Date” with the date the exam was completed. There is also a line noting your NRP Instructor DVD completion date.

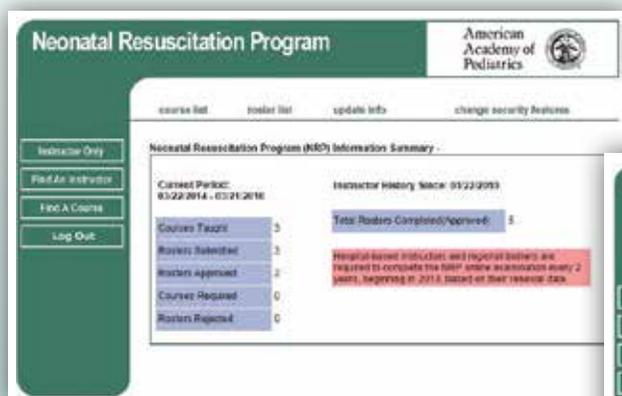


Figure 1: Instructor Profile summary screen.

**Q** *How can I see if I added an Assistant Instructor to a roster?*

**A** In your database profile, click on the “Roster list” tab at the top of the page. Select the button next to the course you would like to check, and select “View Roster.” On the “View Roster” screen, you will see any Assistant Instructors listed (Figure 2).

**Q** *How can I add or update an Assistant Instructor or Provider record once the roster is submitted?*

**A** Once a roster has been submitted, changes can only be made by Division of Life Support Programs Staff. Please e-mail [lifesupport@aap.org](mailto:lifesupport@aap.org) or call 800/433-9016, x4798. The Life Support Staff is happy to work with you to update your roster.

**Q** *How can I update my address in the NRP Database?*

**A** When you are logged in to your database account, select the “Update Info” tab at the top of the page. You will be able to update your contact information and select your preferred mailing address. For any name or credential changes, please e-mail or call the AAP Division of Life Support Programs. As a reminder, it is important keep your mailing address up to date in order to receive important NRP information and your NRP Instructor card.

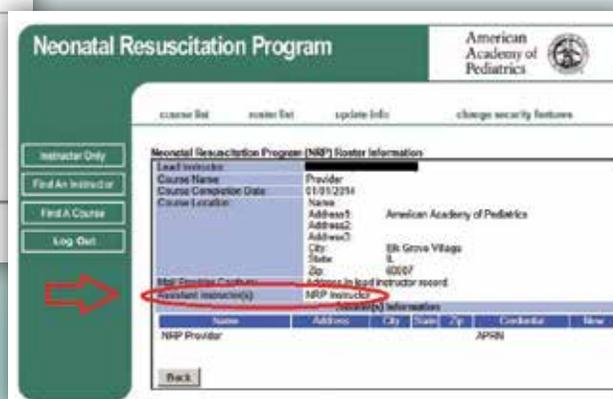


Figure 2: Roster history screen.

# Instructor Development Task Force Works to Improve NRP®

NRP Instructor Development Task Force (IDTF) members are busy working on the future of NRP. During the inaugural meeting in January 2014, members of the IDTF spent considerable time reviewing results from the 2013 NRP Instructor Survey and 2013 Instructor Focus Groups.



Several important themes appeared throughout both surveys. Among the most common were requests for

- Instructor development resources
- Standardized NRP education
- Additional guidance on debriefing (or “debriefing of the debriefer”)
- Networking opportunities with other NRP Instructors.

IDTF members continue to strategize new and innovative ways to incorporate the resources, tools, and support identified from the Survey and Focus Groups into the program.

At the conclusion of the meeting Dr Halamek, a former NRP Steering Committee cochair and IDTF member, identified four key points as a take home message for IDTF members to reflect upon from the meeting. These key points were:

1. Neonatal resuscitation is a serious matter. Instructors and trainees should be cognizant of the direct link between training and patient safety.
2. NRP instructors should always be professional in their approach during training programs.

3. NRP instructors are the key to NRP’s success, serve as the link between the NRP Steering Committee and the newborn, and, therefore, have a direct influence on the care of newborns. Thus, the NRP instructor assumes a critical role in providing an opportunity for trainees to acquire, refine, and maintain the cognitive, technical, and behavioral skills necessary to save lives. In return, the NRP Steering Committee is committed to providing instructors with the resources necessary to achieve this objective.
4. We should begin capturing the innovations that are being developed in forward thinking institutions and determine how we can share the lessons learned.

.....  
IDTF MEMBERS CONTINUE TO STRATEGIZE NEW AND INNOVATIVE WAYS TO INCORPORATE THE RESOURCES, TOOLS, AND SUPPORT IDENTIFIED FROM THE SURVEY AND FOCUS GROUPS INTO THE PROGRAM.  
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# New HealthStream® User Interface



Beginning in early 2015, HealthStream will introduce a fresh, new look-and-feel! Visual elements will make the learner experience more interesting and informative. Learners will also enjoy the convenience of completing tasks from their mobile devices, including tablets and smart phones with current versions of popular web browsers: Firefox, Safari, Chrome, and Internet Explorer.

## A Fresh and Modern Look

Users will be greeted with screens that have been updated with a fresh, new look-and-feel that is based on modern web standards and patterns.

## Simple, Streamlined Experience

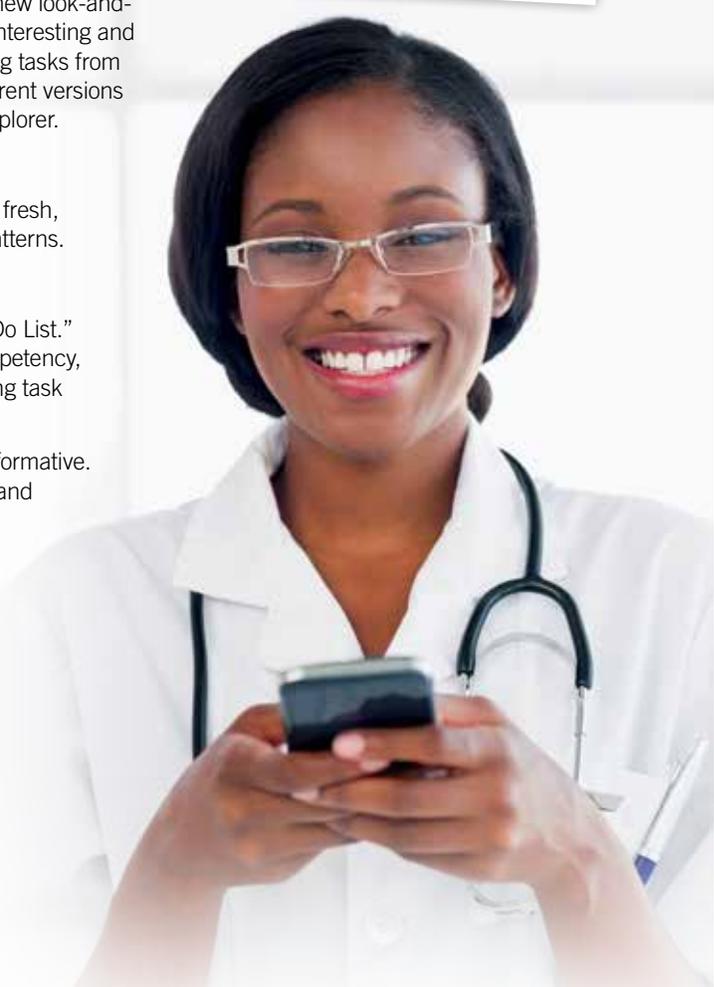
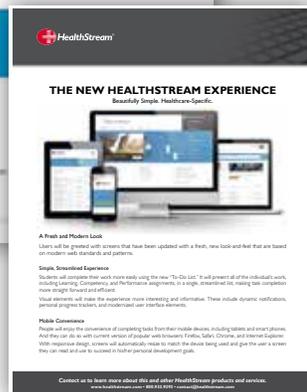
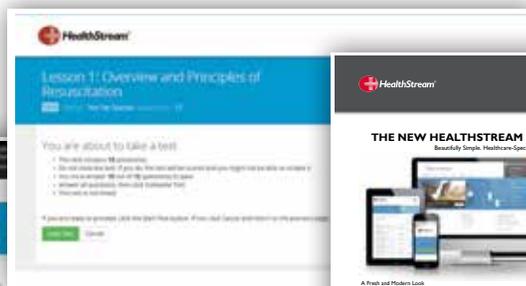
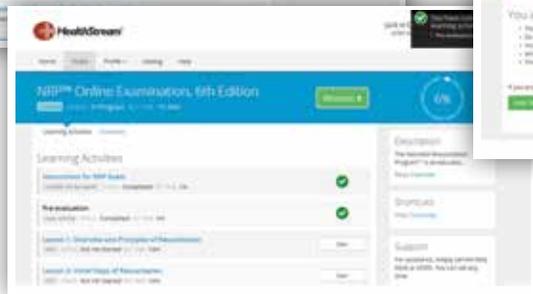
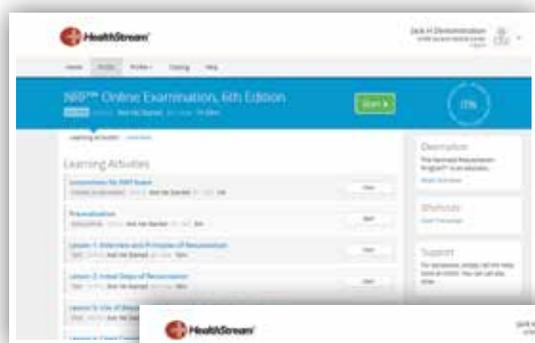
Students will complete their work more easily using the new "To-Do List." It will present all of the individual's work, including Learning, Competency, and Performance assignments, in a single, streamlined list, making task completion more straight forward and efficient.

Visual elements will make the experience more interesting and informative. These include dynamic notifications, personal progress trackers, and modernized user interface elements.

## Mobile Convenience

People will enjoy the convenience of completing tasks from their mobile devices, including tablets and smart phones. And they can do so with the current version of popular web browsers: Firefox, Safari, Chrome, and Internet Explorer.

With responsive design, screens will automatically resize to match the device being used and give the user a screen they can read and use to succeed in his/her personal development goals.



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# 2015 NRP® Research Grant and Young Investigator Award Call for Applications



The America Academy of Pediatrics (AAP) Neonatal Resuscitation Program (NRP) Steering Committee is pleased to announce the availability of the 2015 NRP Research Grant and Young Investigator Awards. The awards are designed to support basic science, clinical, or epidemiological research pertaining to the broad area of neonatal resuscitation.

Physicians in training or individuals within four years of completing fellowship training are eligible to apply for up to \$15,000 through the **NRP Young Investigator Award**. Any health care professional with an interest in neonatal resuscitation can submit a proposal for up to \$50,000 through the **NRP Research Grant Program**.

Grants are currently available to fund research projects in the United States and Canada. The NRP Steering Committee is particularly interested in the following research and pilot programs:

- Effective delivery of ventilation
- Use of oxygen
- Chest compressions in the newborn
- Optimization of NRP education

**For more details, please review:**

Perlman J, Kattwinkel J, Wyllie J, Guinsburg R, Velaphi S. Neonatal resuscitation: in pursuit of evidence gaps in knowledge. *Resuscitation*. May 2012; 83(5):545-550

The NRP Research Grant and Young Investigator Award Program Guidelines and Intent for Application will be available in January 2015. To obtain a copy of the guidelines, a list of potential research topics, or a list of previously funded studies, please visit the NRP website at [www.aap.org/nrp](http://www.aap.org/nrp) and select the "Science" tab.

# Simulation Scenarios... Just a Click Away

NRP offers simulation scenarios that are written by physician and nurse experts, vetted by the AAP, and pre programmed. And, the best part is, they are only a few clicks away on SimStore. The SimStore ([www.mysimcenter.com](http://www.mysimcenter.com)) is a growing community and marketplace for validated simulation content and quality educational materials. Developed by Laerdal and HealthStream, SimStore allows you to quickly download scenarios into your educational portfolio. SimStore covers NRP topics from placental abruption and persistent fetal bradycardia to complex congenital abnormalities are available. Each case scenario is based on the principles of the current *Textbook of Neonatal Resuscitation* and reflects the latest American Academy of Pediatrics and American Heart Association Guidelines for Emergency Cardiovascular Care of the Neonate. NRP simulation scenarios offer educators the ability to provide realistic and challenging scenario-based simulation to improve learners' critical thinking and decision-making skills.



[www.mysimcenter.com](http://www.mysimcenter.com)

## Keep in Mind...

- October 14, 2015 . . . . . The Guidelines Release Date
- October 23, 2015 . . . . . NRP Current Issues Seminar in Washington, DC
- Spring 2016 . . . . . Launch of new NRP Database and Learning Management System, NRP 7th Edition Materials Released
- October 21, 2016 . . . . . NRP Current Issues Seminar in San Francisco, CA
- January 1, 2017 . . . . . NRP 7th Edition Implementation Compliance Date

## We'd Like to Hear From You



Does your unit use a particularly good neonatal code sheet or system for documenting resuscitation events and response? We are interested in seeing it. Please send it via e-mail to [lifesupport@aap.org](mailto:lifesupport@aap.org) and we will contact you if we'd like to reproduce it or adapt it for others to consider.