# NRP 7th Edition: Are You Prepared?

Jeanette Zaichkin, MN, RN, NNP-BC Linda McCarney, MSN, APRN, NNP-BC Gary Weiner, MD, FAAP

Editor's Note. This article is intended to update neonatal health care professionals on the upcoming NRP changes for the seventh edition. To that end, this article has been written by authors closely involved in the NRP updating process, and the article has not been beer reviewed. It is being reprinted simultaneously in this issue of Neonatal Network and the July/August 2016 issue of Advances in Neonatal Care to ensure that as many care providers as possible receive this information. For more information about the seventh edition NRP, visit http://www2.aap.org/nrp/.

#### Disclosure

Jeanette Zaichkin has contractual relationships to produce AAP/Laerdal co-branded educational materials. She is a compensated editor and consultant for the AAP/NRP and receives no financial benefit from the sale of these materials. Gary Weiner is a compensated editor and consultant for the AAP/ NRP and receives no financial benefit from the sale of these materials. Linda McCarney is an appointed liaison to the NRP Steering Committee representing the National Association of Neonatal Nurses. She is a volunteer and receives no financial benefit from the sale of NRP materials.

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#### Abstract

The seventh edition of the American Academy of Pediatrics/American Heart Association Neonatal Resuscitation Program (NRP) materials must be in use by January 1, 2017. As in previous editions, changes in resuscitation science are based on an international review and consensus of current resuscitation science. The seventh edition NRP materials also include enhancements to training materials aimed at improving the quality of NRP instruction and providing the opportunity for ongoing education. A standardized approach to instructor training, an online Instructor Toolkit, eSim cases, and a new learning management system are among the new resources.

**Keywords:** Neonatal Resuscitation Program (NRP); neonatal resuscitation; newborn resuscitation; cardiopulmonary resuscitation; American Academy of Pediatrics (AAP); American Heart Association (AHA)

HE NEONATAL RESUSCITATION Program (NRP) began in 1987 and has since become the training and education standard in the United States for health care professionals who manage newborns in the hospital setting.<sup>1</sup> As of January 25, 2016, over 3.7 million health care professionals have been trained/retrained in NRP, and the program currently has 23,380 active instructors.<sup>2</sup>

The sixth edition (2011) curriculum changed from a lecture format to simulationbased learning and shifted the instructor from teacher to learning facilitator.<sup>3</sup> Because most NRP instructors were unfamiliar with how to conduct simulation and debriefing, this shift required instructors to learn new skills and required learners to take more responsibility for learning new concepts and practice recommendations.

The seventh edition (2016) NRP curriculum continues to follow a simulationbased model. The program continues to make progress toward improving the quality of NRP instruction through standardized training, increasing access to tools and resources for provider course planning and implementation and providing opportunities for continuous and ongoing education for instructors and providers.<sup>4</sup>

#### WHERE DOES NRP COME FROM?

Every five years, the International Liaison Committee on Resuscitation (ILCOR) coordinates a forum for developing an international consensus on resuscitation science for newborns, children, and adults.<sup>5</sup> Key issues are identified and the literature is reviewed, debated, and the level of evidence is rated and classified. Finally, based on public comment and consensus of the ILCOR delegates, a document is generated known as the International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (CoSTR).<sup>6</sup> From this document, resuscitation councils around the world develop specific resuscitation guidelines appropriate for their country or region. In the United States, members of the NRP Steering Committee who participated in ILCOR, along with American Heart Association (AHA) volunteers, wrote the most recent AAP/AHA Guidelines for Emergency Cardiovascular Care (ECC) of the

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#### TABLE 1 ■ Lessons in the *Textbook of Neonatal Resuscitation*, Seventh Edition<sup>5</sup>

- 1. Foundations of Newborn Resuscitation
- 2. Preparing for Resuscitation
- 3. Initial Steps of Newborn Care
- 4. Positive-pressure Ventilation
- 5. Alternative Airways: Endotracheal Tubes and Laryngeal Masks
- 6. Chest Compressions
- 7. Medication
- 8. Post-resuscitation Care
- 9. Resuscitation and Stabilization of Babies Born Preterm
- 10. Special Considerations
- 11. Ethics and Care at the End of Life

*Neonate*, released on October 15, 2015.<sup>7</sup> These guidelines are reprinted in the *Textbook of Neonatal Resuscitation*. The American Academy of Pediatrics (AAP) and the AHA jointly own the guidelines, and the NRP Steering Committee uses the guidelines to create the education materials for revised editions of NRP.<sup>5</sup>

# THE REVISED TEXTBOOK OF NEONATAL RESUSCITATION

The textbook content has been reorganized and two new lessons focus on "Preparing for Resuscitation" and "Post-resuscitation Care" (Table 1).<sup>8</sup> Readers of previous editions will notice that the intubation lesson now precedes the chest compression lesson and many figures and drawings have been replaced with color photographs.<sup>8</sup>

New sections in each lesson include the following:

- *Focus on Teamwork*: integrates emphasis on teamwork and communication with lesson content, highlighting the NRP Key Behavioral Skills
- *Frequently Asked Questions*: addresses common questions and points of controversy
- *Ethical Considerations*: highlights questions to consider in context of each lesson's content<sup>8</sup>

# WHAT ARE THE PRACTICE CHANGES IN SEVENTH EDITION NRP?

The sixth and seventh edition NRP flow diagrams are compared side by side (Figure 1).<sup>8,9</sup> Although they appear similar, there are important changes in practice that affect interventions and team behavior in the delivery room.

# PREPARING FOR RESUSCITATION

The seventh edition NRP emphasizes the importance of preparing for resuscitation in a standardized manner.<sup>8</sup> Preparation begins by determining the answers to the four prebirth questions. The answers to these questions help you assess the degree of perinatal risk and enable you to assemble a team of qualified personnel:

- 1. What is the gestational age?
- 2. Is the amniotic fluid clear?
- 3. How many babies are expected?
- 4. Are there additional risk factors?<sup>8</sup>

Every birth should be attended by at least one person whose only responsibility is caring for the newborn and who can perform the initial steps of resuscitation and positive pressure ventilation (PPV). A qualified team with full resuscitation skills should be immediately available if resuscitation is required.<sup>7</sup>

#### Implications

Clinical implications of the earlier recommendations include the following:

- Use the NRP Quick Equipment Checklist or a checklist customized for use in your birth setting.
- Ensure that you have enough qualified personnel present at the birth based on the identified risk factors.
- Know how your neonatal resuscitation team is called and how additional personnel and resources can be summoned.
- After assembling a qualified team (including a recorder if PPV is anticipated), determine the team leader, delegate tasks, and perform the equipment check using a standardized checklist. Conduct a team briefing and discuss possible complications and how they will be managed. If possible, meet with parents before the baby's birth if resuscitation is anticipated or if decisions need to be made about treatment options.<sup>8</sup>

#### DELAYED CORD CLAMPING

Delayed cord clamping (for more than 30 seconds) may be practiced for most vigorous preterm and term newborns with intact placental circulation.<sup>7</sup> Benefits for preterm infants include higher blood pressure and blood volume, less need for blood transfusions, fewer brain hemorrhages, and a lower risk of necrotizing enterocolitis.<sup>7</sup> Delayed cord clamping for term newborns may decrease development of iron deficiency anemia, although there may be an increased risk of jaundice.<sup>7</sup> Delayed cord clamping may also improve neurodevelopmental outcomes.<sup>10</sup> More research is needed before a definitive statement can be made about delayed cord clamping and the nonvigorous newborn.<sup>7</sup>

#### Implications

Clinical implications of delayed cord clamping may include the following:

- Consider delaying cord clamping for 30–60 seconds in most vigorous term and preterm newborns with intact placental circulation.
- Start the Apgar timer when the last fetal part emerges from the mother, not when the umbilical cord is clamped and cut.
- Consider developing a standardized protocol for delayed cord clamping so that all members of the obstetrical

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Abbreviations: HR = heart rate; bpm = beats per minute; PPV = positive-pressure ventilation;  $SpO_2 = oxygen saturation$ ; CPAP = continuous positive airway pressure; ECG = electrocardiogram; ETT = endotracheal tube.

and neonatal team know their roles and responsibilities. If not previously determined, communication between the obstetric (OB) provider and neonatal team regarding delayed cord clamping should include such topics as follows: Will the vigorous term newborn be placed skinto-skin with the mother during this time or be covered or held by the OB provider in a towel or blanket? Who will determine whether the nonvigorous newborn should be moved to the radiant warmer?

- A preterm newborn may be covered or held in a warm towel or blanket or, if <32 weeks gestation, covered in polyethylene plastic during delayed cord clamping.
- If the term or preterm newborn is not immediately vigorous, it is reasonable to delay cord clamping while the OB provider gently clears the mouth and nose with a bulb syringe and stimulates the baby to breathe. If the newborn does not respond to this stimulation, the OB provider should clamp and cut the cord immediately, and the newborn should be moved to the radiant warmer.<sup>8</sup>
- There is not enough evidence to evaluate the safety of delayed cord clamping in the setting of multiple gestation

birth, intrauterine growth restriction, abnormal umbilical artery Doppler measurements, or abnormal placentation.<sup>8</sup>

#### INITIAL STEPS OF NEWBORN CARE

The initial steps of newborn care may be initiated during the interval between birth and umbilical cord clamping and should be completed within approximately 30 seconds of birth.<sup>8</sup> The initial steps are unchanged from 2010; however, there is emphasis on maintaining normal body temperature through resuscitation and stabilization to help optimize birth outcome. It is recommended that the temperature of newborn nonasphyxiated babies be maintained between 36.5°C and 37.5°C.<sup>7</sup>

#### Implications

Additional strategies may be helpful for reducing the risk of hypothermia in preterm newborns because hypothermia is associated with serious morbidities.<sup>7</sup>

 Increase the temperature in the room where preterm newborn resuscitation will take place to approximately 23°-25°C (74°-77°F).<sup>7</sup> Determine who has responsibility

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for increasing the temperature in the delivery room or operating room and when this should be done.

- For a preterm newborn <32 weeks' gestation, do not dry the infant; rather, cover the newborn in food-grade polyethylene plastic wrap or a bag and use a hat and thermal mattress.<sup>7</sup>
- After birth, consider applying the temperature sensor and sensor cover and changing the radiant warmer to servo control mode to maintain normal body temperature (36.5°-37.5°C).<sup>8</sup>

# MECONIUM-STAINED AMNIOTIC FLUID

Routine intubation and tracheal suction immediately after birth are no longer recommended for nonvigorous newborns with meconium-stained amniotic fluid.<sup>7</sup> If the newborn is not vigorous (poor muscle tone and inadequate respiratory effort), the initial steps of newborn care should be provided at the radiant warmer. If the newborn is vigorous, suction the mouth and nose with a bulb syringe and conduct the initial steps of newborn care without separating the baby from the mother.<sup>7</sup>

#### Implications

Clinical implications of attending the birth of a newborn with meconium-stained amniotic fluid include the following:

- Meconium-stained amniotic fluid is a perinatal risk factor that requires at least 2 team members at the birth. A person with intubation skills should be immediately available. If additional risk factors increase the likelihood of an extensive resuscitation, a team with full resuscitation skills should attend the birth.
- The meconium aspirator remains on the NRP Quick Equipment Checklist. Even when the amniotic fluid is clear, thick secretions may obstruct the airway. If the heart rate does not increase or if the chest does not move with assisted breaths and the neonatal team suspects airway obstruction, the meconium aspirator or suction catheter may be used to clear meconium or thick secretions from the trachea.<sup>8</sup>

# ASSESSMENT OF HEART RATE

Your initial assessment of heart rate (HR) in the nonvigorous newborn is made by auscultation with a stethoscope because palpation of the base of the umbilical cord is less accurate than auscultation.<sup>7</sup> During resuscitation of the newborn, a III-lead ECG may display a reliable HR more quickly than pulse oximetry.<sup>7</sup> Pulse oximetry is still used to evaluate the newborn's oxygenation.<sup>7</sup>

#### Implications

Clinical implications of the recommendations for assessing the newborn's HR in the delivery room include the following:

- If the newborn is not vigorous, and you cannot determine the HR by auscultation, attach the pulse oximeter.
- Use a cardiac monitor for accurate assessment of HR when the HR is low, or when the pulse oximetry does not function, and when the newborn has poor perfusion.

- Consider using a cardiac monitor when PPV begins.
- An electronic cardiac monitor is the preferred method for assessing HR during chest compressions.
- Determine how you will readily obtain a cardiac monitor for the newborn in the delivery room.<sup>8</sup>

# POSITIVE-PRESSURE VENTILATION

The central component of neonatal resuscitation is PPV.<sup>8</sup> For any apneic newborn, administration of PPV is recommended.<sup>7</sup> When delivering PPV to preterm newborns, approximately 5 cm  $H_2O$  positive end-expiratory pressure is suggested.<sup>7</sup>

# Implications

Implications for the suggested recommendations for providing PPV include the following:

- If an infant is apneic after initial steps, begin PPV immediately. Assess HR in the first 15 seconds of PPV (Figure 2).
- It is preferable to use a T-piece resuscitator or flow-inflating (anesthesia) bag to provide PPV for a preterm newborn.
- Prompt increase in the baby's HR, within 15 seconds of starting PPV, is the primary indication of successful lung inflation with PPV.
- For the most accurate assessment of HR, consider using a cardiac monitor when PPV begins.
- If the baby's HR increases with PPV, you do not have to see chest movement. However, if the baby's HR does not promptly increase and the chest is not moving with assisted breaths, perform ventilation corrective steps until you see chest movement.<sup>8</sup>

# OXYGEN USE

There is no apparent benefit to starting PPV with high oxygen concentrations, and it may delay the onset of spontaneous breathing.<sup>7</sup> PPV for newborns  $\geq$ 35 weeks' gestation should begin with room air (21 percent) oxygen.<sup>7</sup> Preterm babies <35 weeks' gestation may achieve target oxygen saturations faster with a slightly higher oxygen concentration (between 21 percent and 30 percent oxygen).<sup>7</sup> Pulse oximetry is used to assess oxygenation.

#### Implications

Implications for the recommendations for oxygen use include the following:

- Free-flow oxygen concentration may begin at 30 percent and is titrated with pulse oximetry to meet the target oxygen saturation range for the newborn's age in minutes.
- The resuscitation setting for newly born infants should have access to blended oxygen.
- The target oxygen saturation table has been added to the NRP Quick Equipment Checklist. The table should be visible during resuscitation.
- Free-flow oxygen may not be given through the mask of a self-inflating bag, but some self-inflating bags are designed so that free-flow oxygen may be given through the open reservoir or "tail" of the bag.<sup>8</sup>

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Abbreviations: PPV = positive-pressure ventilation; HR = heart rate.

From Weiner G. Textbook of Neonatal Resuscitation. 7th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2016. Reprinted by permission.

# ENDOTRACHEAL INTUBATION

Although endotracheal intubation is often required to assist preterm infants at birth, consider using continuous positive airway pressure for a preterm newborn with spontaneous respirations immediately after birth as an alternative to routine intubation and prophylactic surfactant administration. This may avoid the risk of intubation and mechanical ventilation.<sup>7</sup>

A prompt increase in HR is the best indicator of successful intubation.<sup>7</sup> Exhaled  $CO_2$  detection is the most reliable method of confirming proper placement of the endotracheal tube in a newborn with adequate cardiac output.<sup>7</sup>

chest compressions.

#### Implications

Implications for ventilating the newborn through an endotracheal tube and revised information about size and placement of the endotracheal tube are in the following text:

• Consider using a cardiac monitor during resuscitation for the most accurate assessment of HR and use

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a  $CO_2$  detector when ventilating the newborn with an endotracheal tube.

- For a newborn >2 kg and >34 weeks' gestational age, use a size 3.5 endotracheal tube. The size 4.0 endotracheal tube is no longer listed on the NRP Quick Equipment Checklist.
- Estimate the tip-to-lip insertion depth of the endotracheal tube by using the nasal-tragus length (NTL) measurement or the new initial endotracheal tube insertion depth table (in the textbook). The method of using the estimated newborn weight in kilograms and adding "6" is no longer recommended.
- A tape measure has been added to the NRP Quick Equipment Checklist for those who wish to use the NTL measurement method. Measure from the middle of the baby's nose (septum) to the small bump at the front of the baby's ear (tragus) and add 1 cm. Otherwise, it is recommended that you post or have immediate access to the initial endotracheal tube insertion depth table from the *Textbook of Neonatal Resuscitation*, seventh edition.

# CHEST COMPRESSIONS

Intubation is strongly recommended prior to beginning chest compressions. If intubation is not successful or not feasible, a laryngeal mask may be used.<sup>7</sup> The two-thumb method with hands encircling the chest is the preferred method for delivering chest compressions, which eliminates the two-finger technique.<sup>7</sup>

### Implications

Implications for administering chest compressions include the following:

- Use the two-thumb method, and administer chest compressions from the head of the infant after placing an endo-tracheal tube or laryngeal mask.
- Continue chest compressions for 60 seconds before pausing compressions to assess HR.
- Determine how you will access a cardiac monitor for the newborn receiving chest compressions in the delivery room.<sup>8</sup>

# MEDICATIONS

The indications and dosage recommendations for epinephrine and volume expander are unchanged from the 2010 recommendations.<sup>7</sup> The *Textbook of Neonatal Resuscitation*, seventh edition recommends that

- If chest compressions are needed, a member of the team should start obtaining central vascular access in anticipation of medication administration. Either an emergency umbilical venous catheter or intraosseous needle can be used.
- For neonatal resuscitation, use 0.1 mg/mL epinephrine (1:10,000 epinephrine). If volume expansion is needed, use 0.9 percent normal saline (NaCl). If severe fetal anemia is suspected, use type O Rh-negative blood.<sup>8</sup>

# ETHICS

The previous edition of the *Textbook of Neonatal* Resuscitation stated that, if the confirmed gestational age was <23 weeks at birth, initiation of resuscitation should not be offered.<sup>9</sup> The seventh edition of the textbook moves this gestational age down to 22 weeks' gestation. In addition, the seventh edition textbook lists additional factors to consider when making difficult ethical decisions related to newborn resuscitation and prognostics, such as maternal health, OB complications, and genetic factors. The learner is cautioned that "each situation is unique, and decision making should be individualized."<sup>11(p269)</sup> Parents should be involved in making these decisions whenever possible.

# Implications

- Prepare simple visual aids, written materials, and national and local outcome data for qualified team members to present to parents.
- Your hospital protocol may include your resources for legal questions and ethical dilemmas and staff resources for care of the dying baby and support for grieving parents.<sup>8</sup>

# THE NEW NRP LEARNING MANAGEMENT SYSTEM

The AAP has partnered with HealthStream to develop the new NRP learning management system (LMS). The new LMS replaces a 30-year-old roster processing system and is the first significant update in 15 years. The new LMS streamlines and standardizes the education process and provides improved services and resources by automating many aspects of the administrative portion of NRP. Course roster management and electronic NRP card access will save NRP instructors hours of valuable time before and after every course.<sup>12</sup>

- The Online Instructor Exam, Online Provider Exam, eSim cases, and Instructor Toolkit will all be web based and housed within the LMS.
- Institutions that are not HealthStream customers can continue to access NRP materials using their existing LMS.
- NRP sixth edition courses can be taught until December 31, 2016. Any sixth edition courses should be recorded using the existing NRP Database, not the new HealthStream LMS. The existing NRP Database will remain open through January 2017 for instructors to enter any remaining sixth edition rosters and then close to instructors on February 1, 2017.<sup>12</sup>
- All seventh edition courses should be recorded in the new seventh edition LMS.

# ADMINISTRATIVE CHANGES TO SEVENTH EDITION NRP

The NRP Strategic Plan, results of the NRP Instructor Survey and Focus Groups, and recommendations from the

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Instructor Development Task Force were used to make significant changes in seventh edition NRP processes, as outlined in the following text.<sup>12</sup> The new materials and learning management system became available in spring 2016. The materials and learning management system must be in use by January 1, 2017.<sup>12</sup>

# The NRP Online Exam

The following information may be helpful as you prepare for your seventh edition NRP Provider Course:

- Learners will have unlimited attempts to successfully complete the NRP Online Exam.
- The exam will not be divided into individual lessons; rather, the single exam will cover all 11 lessons of the textbook.
- Learners will be required to complete all 11 lessons. There is no longer an option for a minimal course requirement that allows learners to complete selected lessons. The NRP Steering Committee, along with liaisons from the National Association of Neonatal Nurses, American Association for Respiratory Care, and the American College of Obstetricians and Gynecologists, decided that familiarity with all course material serves the best interests of newborn safety.

#### eSim Practice Cases

eSim is a new addition to the blended learning environment of NRP training for instructors and providers.

- eSim is a computer-based online neonatal resuscitation simulation exercise.
- Each learner is required to complete the Baby Jai practice case and at least two additional eSim cases of their choice prior to attending their NRP Provider Course.
- This virtual environment allows the participant to assemble supplies and equipment and resuscitate the newborn by following the NRP Flow Diagram.
- The learner receives feedback after completing each scenario. Although the exercises are given percentage scores, eSim is a learning opportunity for participants and is not used for evaluation.
- After the participant completes the eSim exercise, the eSim cases will be available to the learner anytime during the two-year provider period for practice and review.<sup>12</sup>

# CHANGES FOR NRP INSTRUCTORS

Instructors across the country have noted increasing dissimilarity in the role of the Regional Trainer. This is largely because the original concept of perinatal regional care has changed dramatically since its inception in the late 1980s, and roles and responsibilities within a region can no longer be clearly defined.<sup>4</sup> Therefore, the Regional Trainer role will be retired effective January 1, 2017, and all Regional Trainers will become Hospital-Based Instructors.<sup>4</sup> For Regional Trainers who function in pivotal roles, such as NRP resources and experts, this title change should not affect those job descriptions. All instructors will retain their current renewal date.<sup>4</sup> If you are currently an NRP instructor in good standing, you will remain an NRP instructor for as long as you complete the requirements required to retain your status every two years. Eligibility criteria for *becoming* an instructor after December 31, 2016 are as follows:

- An NRP instructor candidate must be a physician, registered nurse/nurse practitioner, respiratory care practitioner, or physician assistant with experience in the hospital care of newborns in the delivery room.
- The NRP instructor candidate must have current maternalchild educational or clinical responsibility within a hospital setting.
- It is recommended that NRP instructors and instructor candidates have ongoing delivery room experience.<sup>12</sup>

# NRP Instructor Education

The seventh edition NRP will introduce a new process for becoming an NRP Hospital-Based Instructor.<sup>12</sup> NRP providers who wish to become NRP instructors will submit an application to the AAP. Before attaining NRP instructor status, the instructor candidate will:

- Identify/designate one or more eligible NRP instructor mentors. All NRP instructors who have taught at least four NRP provider courses can become an instructor mentor. Mentors are required to affirm an instructor candidate's application, coteach at least two courses with a candidate, and facilitate a "debrief the debriefer" session.
- Complete the NRP online instructor learning activity.
- Pass the online NRP Instructor Exam, which combines key elements of "performing resuscitation" and "facilitating learning."
- Complete eSim cases.
- Coteach two provider courses with guidance from their designated instructor mentor(s).
- Facilitate scenarios and conduct debriefings during a provider course and participate in at least one "debrief the debriefer" session managed by that mentor.

# How to Maintain NRP Instructor Status

The NRP Instructor Toolkit replaces the *Instructor Manual for Neonatal Resuscitation* and *NRP Instructor DVD*. NRP instructors must maintain Instructor Toolkit access, renewable every two years.<sup>12</sup> The Instructor Toolkit includes the following:

- All instructor resources in a single, keyword-searchable location
- Continuing education credits for the Instructor Exam and eSim cases
- Downloadable, customizable PDFs of commonly used documents and checklists for the NRP Provider Course
- Videos, webinars, and podcasts delivered by neonatal resuscitation and education experts
- Continually updated education material and resources

Beginning in 2017, all NRP instructors are required to purchase access to the Toolkit before the renewal date on their card.<sup>12</sup> For example, if your NRP instructor status expires on April 14, 2017, the Instructor Renewal Bundle (including the Toolkit) should be purchased before April 14, 2017. Institutions can purchase Toolkit access for their instructors; however, Toolkit access is not transferable or proratable. If an instructor leaves the institution, Toolkit access will remain with the instructor.<sup>12</sup> If an instructor chooses not to renew their Toolkit access before their expiration date, their instructor status will become inactive.<sup>12</sup>

Beginning January 1, 2017, NRP instructors maintain their status by:

- Teaching or coteaching two courses during the two-year renewal period
- Maintaining Instructor Toolkit access
- Completing the NRP Instructor Exam<sup>12</sup>
- Completing NRP eSim cases

#### CONCLUSION

The AAP NRP Steering Committee is dedicated to providing a comprehensive educational program that is responsive to the needs of learners and instructors based on the best available neonatal resuscitation science. With the seventh edition NRP, several enhancements to the curriculum are aimed at improving the quality of NRP courses as well as supporting instructors. A high-quality education program is essential in the implementation of delivery room practices that promote optimal care and resuscitation of all newborns.

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#### About the Authors

Jeanette Zaichkin, MN, RN, NNP-BC, is a consultant for the American Academy of Pediatrics Neonatal Resuscitation Program Steering Committee, editor of the Instructor's Manual for Neonatal Resuscitation, and associate editor of the Textbook of Neonatal Resuscitation.

Linda McCarney, MSN, APRN, NNP-BC, is the NNP education coordinator for Children's Hospital Colorado in Aurora, Colorado.

Gary Weiner, MD, FAAP, is an associate clinical professor for the Department of Pediatrics at the University of Michigan. He is a consultant for the American Academy of Pediatrics Neonatal Resuscitation Program Steering Committee and the editor of the Textbook of Neonatal Resuscitation.

For further information, please contact: American Academy of Pediatrics 141 Northwest Point Blvd. PO Box 927 Elk Grove Village IL, 60007-0927 E-mail: lifesupport@aap.org

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