THE S.T.A.B.L.E. Program

PROGRAM INFORMATION, AGENDA, AND OUTLINE
Full Length Learner Course

Course Title **The S.T.A.B.L.E. Program Learner Course (Full Length)**

Target Audience: Nurses, Physicians, and Respiratory Therapists who work with neonates (sick or well); and other maternal child health care providers including nursing assistants, corpsmen, pre-hospital providers – Emergency Medical Technicians and Paramedics

Program Description:

The S.T.A.B.L.E. Program is designed for the period following resuscitation of the newborn or neonate until care is transferred to the neonatal transport team or members of the neonatal or pediatric ICU team. The Program is also useful for maternal/child healthcare providers who care for well newborns or newborns who may become ill. This **mnemonic based tool** focuses on the post-resuscitation care of sick neonates including physical assessment, problem recognition and patient management. The S.T.A.B.L.E. Program is a concise, directive tool to assist healthcare providers to organize the myriad of details and interventions necessary to provide care to a sick and/or premature infant. The program has also evolved to serve as an orientation tool for the neonatal ICU and neonatal transport teams.

S.T.A.B.L.E. Program Goals:

This program is designed to provide important information about neonatal stabilization for maternal/infant healthcare providers in all settings – from community hospitals and birth centers, to emergency rooms and more complex hospital environments, including level 4 neonatal intensive care units.

Goal 1: Organize this information using a mnemonic to assist with retention and recall of stabilization activities that are important for the post-resuscitation / pre-transport stabilization care of sick infants.

Goal 2: Improve patient care and safety for vulnerable neonates by (a) standardizing processes and approach to care, (b) encouraging teamwork, (c) identifying areas where medical errors can and do occur, and (d) reducing and eliminating preventable adverse events.

S.T.A.B.L.E. Course Objectives, Outline & Approved Agenda

As evidenced by completion of all 32 module quiz questions and a passing score (greater than 75%) on the mixed module post-test, the participant will be able to:

1. **S**ugar – Identify neonates at risk to become hypoglycemic; and initial steps to treat hypoglycemia (i.e. with IV fluids, initial IV therapy and safe use of umbilical lines).
2. **T**emperature – Describe the normal response to cold stress and at least one of the detrimental effects of hypothermia; list at least one technique to prevent hypothermia; identify appropriate candidates for therapeutic/neuro-protective hypothermia.
3. **A**irway – Recognize at least one sign and one cause of neonatal respiratory distress and/or respiratory failure; list the supplies required to assist with endotracheal intubation and securing an ET tube; interpret blood gases and identify at least one appropriate treatment option for an abnormal blood gas.

4. **Blood pressure** – List one cause and one treatment for each of the following - hypovolemic, cardiogenic and septic shock; describe at least one abnormal feature of the physical exam that may be indicative of shock.
5. **Lab work** – List at least one bacterial and/or viral pathogen that may infect the neonate; describe two or more signs of neonatal sepsis; discuss one significant finding on a CBC for an infant suspected of sepsis; and list at least one antibiotic therapy that could be used to treat a suspected neonatal infection.
6. **Emotional support –** Identify potential emotions that parents might experience when their newborn requires intensive care or transport; and list at least one intervention to support parents during a crisis.
7. **Quality improvement** – Identify at least two elements of effective "SBARR" communication; describe one or more ways that simulation training can help to create expert teams; describe how to use the PSSAT (pre-transport stabilization self-assessment tool).

S.T.A.B.L.E. Program: Full-Length Learner Course – Approved Agenda

This course is approved for 9.6 Contact Hours of Nursing Continuing Education Credit by gRN NICU Consulting, Inc – CA BRN CEP#15417

Note: breaks are not included in cumulative teaching time

Time	Topic / breaks / adjournment	TEACHING TIME (minutes)	CUMULATIVE TIME (minutes)
0800	Self-grade pre-test[a,b]	15 min	15 min
0815	Introduction to the S.T.A.B.L.E. Program	15 min	30 min
0830	**S**ugar and **S**afe Care Module	60 min	90 min
0930	Morning break	15 min	---
0945	Administer and review – Sugar Module Quiz questions (in PowerPoint)	15 min	105 min
1000	**T**emperature Module	60 min	165 min
1100	Administer and review – Temperature Module Quiz questions (in PowerPoint)	15 min	180 min
1115	**A**irway Module	45 min	225 min
1200	Lunch break	45 min	---
1245	**A**irway Module (continues)	45 min	270 min
1330	Administer and review – Airway Module Quiz questions (in PPT)	15 min	285 min
1345	**B**lood pressure Module	25 min	310 min
1415	Afternoon break	10 min	---
1425	**B**lood pressure Module (continues)	25 min	335 min
1450	Administer and review – Blood pressure Module Quiz questions (in PPT)	10 min	345 min
1500	**L**ab work Module	60 min	405 min
1600	Administer and review – Lab work Module Quiz questions (in PPT)	15 min	420 min
1615	**E**motional support and Quality improvement Modules	30 min	450 min
1645	Administer mixed module post-test questions and review answers	30 min	**480 min = 9.6 CNEs**
1715	Complete evaluations, collect test answers sheets[c] / Adjourn	15 min	---

[a] The pre-test answer slide is in the Practice Session and Case Studies slide folder. Launch this slide before opening the Sugar and Safe care module. Remind students to not change any answers, but make a mark over any questions answered incorrectly. Ask students to review any incorrectly answered questions, then collect their pre-test and answer sheet.

[b] If the pre-test was not completed before the course, then there will not be enough time to give the test on the day of the course, unless an additional 45 to 60 minutes is allowed for testing.

[c] The answer sheet needs to be fully completed. This includes the Quiz questions (administered throughout the course) and the mixed module questions. Students are permitted to change their answers on the quiz questions, as it is expected they will more fully understand the material as the questions are discussed during class.

Sugar and Safe Care

1. Issues of patient safety and error reduction in the delivery of health care to infants.
2. Infants at increased risk for developing hypoglycemia, including preterm and small for gestational age infants, infants of diabetic mothers, and sick, stressed infants.
3. The impact of late-preterm birth on increased morbidity and mortality.
4. Screening recommendations for gestational diabetes.
5. The physiologic basis of aerobic and anaerobic metabolism.
6. The initial intravenous fluid therapy to provide to sick infants.
7. Recommendations for monitoring the blood glucose.
8. Signs of hypoglycemia, IV glucose treatment of hypoglycemia and post-treatment reassessment.
9. Indications for placement of umbilical catheters.
10. The principles for safe use of umbilical catheters.
11. Surgical and medical abdominal conditions that present as bowel obstruction.

Temperature

1. Infants at increased risk for hypothermia.
2. The normal physiologic response to cold stress for term infants.
3. Mechanisms of heat gain and loss.
4. The physiologic response to hypothermia for term and preterm infants.
5. Candidates for therapeutic neuroprotective hypothermia.
6. Methods to rewarm hypothermic infants and how to monitor hypothermic infants during rewarming.

Airway

1. Labs and tests to obtain during the post-resuscitation / pre-transport period.
2. Signs of neonatal respiratory distress and how to distinguish between mild, moderate, and severe distress.
3. Blood gas interpretation and treatment of respiratory and metabolic acidosis.
4. Signs of respiratory failure.
5. Principles of assisted ventilation, including candidates for continuous positive airway pressure (CPAP), bag and mask or T-piece resuscitator positive pressure ventilation (PPV), assisting with endotracheal (ET) intubation, securing the ET tube, chest x-ray evaluation for ET tube position, and initial ventilatory support.
6. Respiratory illnesses and airway challenges that present in the neonatal period.
7. Identification and treatment of pneumothorax.
8. How to safely use analgesics to treat pain.

Blood Pressure

1. The difference between compensated and uncompensated shock.
2. The principles of cardiac output and heart rate as they relate to shock and factors that can impair cardiac output.
3. The physical examination to evaluate for shock.
4. The causes and initial treatment of the three major types of shock seen in infants: hypovolemic, cardiogenic, and septic shock.

Lab Work

1. Perinatal and postnatal risk factors that predispose infants to infection.
2. The clinical signs of neonatal sepsis.