

2023 Critical Care Obstetrics

Course Title	Objectives	Description	Nursing Contact HOURS	NCC Codes								
Module: Cardiac Disease and Pregnancy	<ul style="list-style-type: none"> •Review normal hemodynamic changes in pregnancy and the effect on pregnant people with heart disease. •Utilize a pregnancy risk prediction tool to identify pregnant people at highest risk for long-term cardiovascular events. •Review antepartum, intrapartum, and postpartum management protocols for the pregnant and postpartum people with cardiac disease. •Apply the concepts of nursing assessment and interventions to the plan of care in a case scenario format. 	<p>Obstetric units should establish a multidisciplinary pregnancy heart team/consultation network, establish protocols for rapid identification of potential pregnancy-related cardiac conditions, and develop patient education plans based on individual cardiac condition risk. Clinicians should obtain a focused pregnancy and cardiac history, use standardized cardiac risk assessment tools, and recognize imminent cardiac event warning signs. In addition, clinicians use protocols to manage cardiac events, provide education to the patient that includes early warning signs of postpartum complications, and schedule follow-up visits with primary care and cardiologist. Each OB unit should have an established multidisciplinary planning huddles, and post event debriefs. All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making, and dignity.</p>	2.25	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">RNC-IAP-Inpatient Antepartum Nursing</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-OB – Inpatient Obstetric Nursing</td><td style="padding: 2px;">Code 3</td></tr> <tr><td style="padding: 2px;">RNC-WHNP – Women’s Health Care Nurse</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-MNN – Maternal Newborn Nursing</td><td style="padding: 2px;">Code 2</td></tr> </table>	RNC-IAP-Inpatient Antepartum Nursing	Code 2	RNC-OB – Inpatient Obstetric Nursing	Code 3	RNC-WHNP – Women’s Health Care Nurse	Code 2	RNC-MNN – Maternal Newborn Nursing	Code 2
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Module: Maternal Sepsis	<ol style="list-style-type: none"> 1. Discuss the definition and pathophysiology of maternal sepsis. 2. Identify key risk factors for maternal sepsis. 3. Recognize signs and symptoms of sepsis respective of physiologic changes in pregnancy. 4. Integrate key management strategies for maternal sepsis based on evidence-based guidelines. 	<p>Each OB unit should establish a response team to manage a patient with suspected sepsis and provide multidisciplinary education to all obstetric healthcare members and include emergency departments, intensive care units, and outpatient clinics.</p> <p>Clinicians should:</p> <ul style="list-style-type: none"> recognize and treat infection early to prevent progression to sepsis. provide patient education on sepsis signs and symptoms. establish facility-wide standard protocols with checklists and escalation policies for management of people with sepsis or suspected sepsis conduct multidisciplinary reviews to assess compliance and utilization of sepsis screening tools and adherence to sepsis response protocols. establish a culture of multidisciplinary planning, huddles, and post-event debriefs <p>All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making, and dignity.</p>	1.25	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">RNC-IAP-Inpatient Antepartum Nursing</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-OB– Inpatient Obstetric Nursing</td><td style="padding: 2px;">Code 3</td></tr> <tr><td style="padding: 2px;">RNC-WHNP – Women’s Health Care Nurse</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-MNN – Maternal Newborn Nursing</td><td style="padding: 2px;">Code 2</td></tr> </table>	RNC-IAP-Inpatient Antepartum Nursing	Code 2	RNC-OB– Inpatient Obstetric Nursing	Code 3	RNC-WHNP – Women’s Health Care Nurse	Code 2	RNC-MNN – Maternal Newborn Nursing	Code 2
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Module: Preeclampsia and Severe Hypertension	<ol style="list-style-type: none"> 1. Define hypertensive disorders of pregnancy. 2. Summarize the most common maternal complications of preeclampsia. 3. Outline evidenced-based management for pregnant people with severe hypertension. 4. Apply concepts of nursing assessment and interventions to the plan of care in a case scenario. 	<p>OB Units should:</p> <ul style="list-style-type: none"> Establish multidisciplinary teams to respond to severe hypertension, preeclampsia, and eclampsia Educate teams upon hire and every 2 years at minimum Conduct regular in-situ drills to identify gaps and promote team performance in response to persistent, severe hypertension and eclampsia Establish standard protocols with checklists and escalation policies Initiate treatment for persistent severe-range BP within 30–60 minutes Administer magnesium sulfate Consider birth based on gestational age and maternal/fetal status Establish a culture of multidisciplinary planning, huddles, and post-event debriefs Conduct multidisciplinary reviews to identify strengths and opportunities that promote optimal team performance and patient outcomes <p>All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making, and dignity.</p>	1.25	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">RNC-IAP-Inpatient Antepartum Nursing</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-OB – Inpatient Obstetric Nursing</td><td style="padding: 2px;">Code 3</td></tr> <tr><td style="padding: 2px;">RNC-WHNP – Women’s Health Care Nurse Practitioner</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-MNN – Maternal Newborn Nursing</td><td style="padding: 2px;">Code 2</td></tr> </table>	RNC-IAP-Inpatient Antepartum Nursing	Code 2	RNC-OB – Inpatient Obstetric Nursing	Code 3	RNC-WHNP – Women’s Health Care Nurse Practitioner	Code 2	RNC-MNN – Maternal Newborn Nursing	Code 2
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Module: Postpartum Hemorrhage	<ul style="list-style-type: none"> •Identify risk factors for obstetric hemorrhage through risk screening assessments. •Prioritize the appropriate steps in the management of obstetric hemorrhage, including administration of uterotonics, surgical intervention, blood product 	<p>To prepare for and reduce errors associated with PPH, OB Units should:</p> <ul style="list-style-type: none"> •Quantify rather than estimate blood loss •Set effective rules and practice these rules by running drills •Debrief and perform simulation drills based on what you have learned <p>A PPH risk assessment should be completed on admission, pre-birth, upon transfer to postpartum, and as needed when there is a change in the patient’s condition.</p> <p>When PPH occurs, perinatal teams can significantly reduce maternal morbidity and mortality by</p>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">RNC-IAP-Inpatient Antepartum Nursing</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-OB– Inpatient Obstetric Nursing</td><td style="padding: 2px;">Code 3</td></tr> <tr><td style="padding: 2px;">RNC-WHNP – Women’s Health Care Nurse Practitioner</td><td style="padding: 2px;">Code 2</td></tr> <tr><td style="padding: 2px;">RNC-MNN – Maternal Newborn Nursing</td><td style="padding: 2px;">Code 2</td></tr> </table>	RNC-IAP-Inpatient Antepartum Nursing	Code 2	RNC-OB– Inpatient Obstetric Nursing	Code 3	RNC-WHNP – Women’s Health Care Nurse Practitioner	Code 2	RNC-MNN – Maternal Newborn Nursing	Code 2
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transfusions, and post-event care.
 ● Explain the importance of readiness, recognition, response, and respectful care in preparation for an obstetrical hemorrhage.

performing a rapid and coordinated response to treat the underlying condition, manage blood loss, and minimize the risk to the patient.
 Debriefing after a postpartum hemorrhage allows the team an opportunity for reflection, which can lead to improved performance. A debrief should be conducted as soon as possible after the event, should provide fast, facilitated feedback and the opportunity to support each member of the team and for them to ask questions. All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making, and dignity.

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Module: Hemodynamic Function and Assessment

● Identify the physiologic changes during pregnancy for the cardiovascular, respiratory, and hemodynamic systems.
 ● Recognize assessment parameters that indicate potential compromise in the pregnant person.
 ● Provide the appropriate interventions based on assessment findings for the pregnant person.

Providing quality patient care is based on knowledge and understanding of normal physiology and assessment. During pregnancy, the cardiovascular system is in a high-flow, low-resistance state. The pulmonary system is in a compensated respiratory alkalosis, and hematologic adaptations are in a hypercoagulable state. Interventions provided to the obstetric patient should focus on clinical signs and symptoms and the cause of those symptoms.
 Clinicians must recognize early warning signs or changes in condition and call for additional support. Activating the rapid response team allows for critical care experts to facilitate the management and care of the critical patient. Initiating prompt interventions and provider notification is important for optimal patient outcomes. Reviewing data from critical situations is essential in evaluating team functioning and system process. All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making, and dignity.

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Module: Maternal Venous Thromboembolism

● Understand the mechanisms and pathogenesis of maternal venous thromboembolism.
 ● Identify the signs and symptoms of thromboembolic events during pregnancy and postpartum.
 ● Outline the pharmacologic and non-pharmacologic treatments for patients with thromboembolic disorders in pregnancy and postpartum.

Each facility should have written protocols for the prevention and treatment of thromboembolic events.
 It is important to differentiate between signs and symptoms of a thromboembolic event, which may be similar to normal physiologic changes of pregnancy, especially in the second and third trimesters. Management of thromboembolic disorders focuses on clinician assessment of the respiratory system and cardiovascular system, as well as establishing a plan for adequate pain management. The timing of clinician assessments should be frequent and based on the patient’s condition and facility protocol. Debriefing is a teaching and learning method to provide as interactive process for the team to achieve positive outcomes. It can be used to effectively evaluate how key behaviours were implemented during an actual or simulated event. All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making, and dignity.

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Module: Diabetic Ketoacidosis

● Identify incidence and causes of DKA.
 ● Review pathophysiology of DKA.
 ● Review lab values and other objective assessment data used to identify DKA.
 ● Summarize treatment of DKA., and
 ● Review prevention of DKA recurrence.

All birthing facilities must have a plan for managing patients experiencing obstetric DKA:
 *Assessing history of diabetes and screening accordingly
 *Availability of an interdisciplinary team to determine appropriate patient care processes
 *Evidence based protocols and staff education
 *Established protocol for expedited transfer if needed
 The potential for obstetric DKA should be recognized early:
 Organized treatment protocols based on best practices are integral in the care of obstetric DKA
 Improve patient outcomes, quality improvement should include
 * A process to identify events that should be reviewed
 * Debriefing protocols with the multidisciplinary team
 * An interdisciplinary review team to evaluate the interventions provided and to provide feedback as needed
 * Administrative support to facilitate identified changes
 *Utilization of outcomes metrics for DKA related QI projects
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•Summarize the pathophysiology of DIC., DIC is a complex condition. Multiple disciplines will be involved in stabilizing the patient.
 •List at least three predisposing conditions for DIC in pregnancy., and Effective management requires coordination of care between all disciplines.
 •Prioritize interventions when pregnancy is complicated by DIC. A better understanding of the pathophysiology of DIC and the interventions presented in this course will prepare the clinician to take an active role in caring for the patient in DIC.
 DIC may progress to multi-organ system failure and death if hemodynamic stability and acid-base balance are not achieved by intravascular volume expansion and aggressive replacement of RBCs and coagulation factors. The ability to identify and correct the underlying cause of DIC is key for successful treatment and resolution of the coagulopathy. Establish a culture of multidisciplinary planning, huddles, and post-event debriefs to promote efficient team response and optimal patient outcomes. Participation in quality care collaboratives with confidential sharing of data is also helpful in promoting improved care and outcomes for the obstetrical community at large. All clinicians should provide respectful maternity care that includes awareness, informed consent, mutual respect, autonomy, accountability, shared decision making.

Module: Disseminated Intravascular Coagulation

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The codes listed are based on the NCC coding books. Please check to ensure codes are correct before submitting for maintenance.

NCC Certification Legend

Core Nursing:	Abbreviation
Inpatient Antepartum Nursing	RNC-IAP
Inpatient Obstetric Nursing	RNC-OB
Low Risk Neonatal Intensive Care Nursing	RNC-LRN
Maternal Newborn Nursing	RNC-MNN
Neonatal Intensive Care Nursing	RNC-NIC

Subspecialty:	Abbreviation
Care of the Extremely Low Birth Weight Neonate	C-ELBW
Electronic Fetal Monitoring	C-EFM
Neonatal Neuro-Intensive Care	C-NNIC
Neonatal Pediatric Transport	C-NPT
Obstetric and Neonatal Quality and Safety	C-ONQS
Nurse Practitioner	
Neonatal Nurse Practitioner	NNP-BC
Women’s Health Care Nurse Practitioner	WHNP-BC