

# Job Analysis Report

National Certification Corporation (NCC)
Obstetrical Emergencies

July 2024

## Submitted to:



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## **Executive Summary**

This report describes the methodology and procedures used to conduct a job analysis and develop the exam specifications for the National Certification Corporation (NCC) Obstetrical Emergencies certification examination.

The three major activities that comprise the job analysis process described in this report are as follows:

- 1. **Job Analysis Committee Meeting** A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
- 2. **Job Analysis Survey** A large-scale survey of practitioners not involved with the SME panel to validate the task and knowledge statements developed by the committee
- 3. **Development of Examination Specifications** The development of an Examination Content Outline by the committee based on the results of the survey

Several practitioners were assembled by NCC to serve as SMEs. The individuals selected represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty. This helps in developing a scope of practice that is reflective of the roles and responsibilities of the job role and is relatively free from bias. By analyzing the experiences and expertise of current practitioners, the results from the job analysis become the basis of a validated assessment that reflects the competencies required for competent job performance.

The job analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The resultant Examination Content Outline (Appendix E) indicates a 100-item examination with content distribution requirements at the competency area (content domain) level as well as topic (content subdomain) level. The three competency areas are:

- 1. Assessment and Prevention
- 2. Identification, Management, and Treatment of Obstetric and Postpartum Emergencies
- 3. Professional Practice



## Introduction

This report describes the methodology and procedures used to conduct a job analysis and develop the exam specifications for the National Certification Corporation (NCC) Obstetrical Emergencies certification examination.

The job analysis was conducted in accordance with principles and practices outlined in the Standards for Educational and Psychological Testing<sup>1</sup>, which describe principles and guidelines for all aspects of test development, including content validation.

A job analysis (sometimes referred to as a practice analysis, job task analysis, role delineation study, work analysis, or competency profiling) is a scientific inquiry conducted to identify the tasks and work activities conducted, the context in which those tasks and activities are carried out, and the competencies (knowledge areas, skills, and abilities) required to perform a job role successfully<sup>2</sup>. Different methods can be used which may differ in the levels of specificity in analyzing and describing different work elements, with the choice of method largely dependent on the intended purpose and use of the results. The methodology of the current analysis was tailored to the creation of exam specifications for test development.

When completed, the job analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The job analysis is typically performed every 5 to 7 years so that the content outline represents the current scope of practice. Because it serves as the primary basis for content validity evidence, as required by the aforementioned standards, the job analysis is a primary mechanism by which a certifying body or regulatory board can ensure the accuracy and defensibility of an exam. It serves as the foundation of the certification exam and is critical to the success of the entire exam development process. All necessary documentation verifying that the validation process has been implemented in accordance with professional standards is included in this report.

This report is divided into the major activities of the job analysis process, which are:

- 1. **Job Analysis Committee Meeting** A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
- 2. **Job Analysis Survey** A large-scale survey to practitioners not involved with the SME panel to validate the task and knowledge statements developed by the committee
- 3. **Development of Examination Specifications** The development of an Examination Content Outline by the committee based on the results of the survey

<sup>&</sup>lt;sup>2</sup> Sackett, P.R., Walmsley, P.T., Laczo, R.M. (2012). Job and work analysis: Industrial and Organizational Psychology. In N. Schmitt, S. Highhouse (Eds.), Comprehensive Handbook of Psychology, Volume 12. John Wiley and Sons.



<sup>&</sup>lt;sup>1</sup> American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). Standards for Educational and Psychological Testing. AERA.

## **Job Analysis Committee Meeting**

National Certification Corporation (NCC) selected subject matter experts (SMEs) to represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty to develop a scope of practice that is reflective of the roles and responsibilities of the job and is relatively free from bias. See Appendix A for a complete list of the SMEs and their qualifications.

Prior to the job analysis committee meeting, five SMEs were interviewed to help provide background information on the job role, the history of the credential, and the anticipated future of the job role. These interviews were conducted between January 17 and 18, 2024.

PSI Services LLC (PSI) conducted a job analysis committee meeting on January 23 and 24, 2024 with SMEs to discuss the scope of practice and develop a list of tasks and knowledge areas that reflect the job role. PSI led the SMEs in refining task and knowledge statements, and organizing them into a domain and subdomain structure. The outgoing exam content outline was used as a resource when developing the knowledge and tasks. See Appendix B for the presentation used to orient the job analysis committee at the beginning of the meeting.

The job analysis committee developed 10 task statements, as follows:

- 1. Identify risk factors, signs and symptoms for a potential emergency.
- 2. Apply clinical judgement and knowledge to treat obstetric emergencies.
- 3. Assess labs and diagnostics for potential emergency and/or risk factors with the knowledge of the expected physiological changes of pregnancy.
- 4. Identify fetal heart rate tracings associated with maternal emergencies.
- 5. Apply knowledge of pathophysiologic changes associated with obstetric emergencies.
- 6. Utilize obstetric emergency bundles.
- 7. Recognize and respond to clinical deterioration.
- 8. Recognize modifications for resuscitative, surgical, and critical care protocols in an obstetric patient.
- 9. Identify how social determinants of health and implicit bias impact care and maternal morbidity and mortality.
- 10. Demonstrate effective interdisciplinary teamwork in obstetric emergencies.



The job analysis committee developed 11 knowledge statements across 3 content domains, as follows.

#### 1. Assessment and Prevention

- A. Pre-Existing Conditions
- B. Risk Assessment (including Social Determinants and Clinical Risk Factors)
- C. Physical Exam and Diagnostic Studies

# 2. Identification, Management, and Treatment of Obstetric and Postpartum Emergencies

- A. Medical Emergencies
- B. Intrapartum and Postpartum Emergencies
- C. Infection and Sepsis
- D. Maternal Resuscitation
- E. Hypertension
- F. Hemorrhage

#### 3. Professional Practice

- A. Social Determinants of Health, Bias, Maternal Morbidity and Mortality
- B. Interdisciplinary Teamwork, Ethical Issues, and Quality Improvement

Following the creation of the task and knowledge lists, the committee members were tasked with identifying linkages between the task and knowledge statements. This was done to provide evidence that the knowledge areas were indeed required to perform the tasks identified. This was also done to ensure that each task was covered by at least one relevant knowledge area and that each knowledge area had at least one relevant task identified. Table 1 shows a matrix of knowledge-task linkages identified.

Table 1.

Linkages Among Knowledge and Task Statements.

	1	2	3	4	5	6	7	8	9	10
1										
Α	Х	Х	Х		Χ	Χ	Χ	Χ	Χ	Х
В	Х	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Х
C	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х
2										
Α	Х	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Х
В	Х	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Х
С	Х	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Х
D	Х	Х	Х	Χ	Χ		Χ	Χ	Χ	Х
Е	Χ	Х	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х
F	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х
3										
1	Х	Х	Х			Х	Х	Х	Χ	Х
2		Х	Х	Χ	Х	Χ	Х	Х	Χ	Х



## **Job Analysis Survey**

PSI developed, administered, and monitored a survey to validate the tasks and knowledge areas developed by the job analysis committee and to help determine content weighting. To this end, the survey collected respondents' ratings of the importance and frequency for each task and knowledge area. The importance and frequency scale were used to evaluate the appropriateness of the inclusion of each knowledge statement and task.

0 – Not applicable

1 – Minimally important

2 – Somewhat important

3 – Moderately important

4 - Very important

5 – Critically important

#### **Frequency** How frequently do you perform this task in your role?

0 - Never

1 – Very rarely

2 - Seldom

3 – Occasionally

4 - Frequently

5 - Very frequently

Between February 20, 2024 and March 3, 2024, a pilot survey was conducted with the job analysis committee, the interviewees, and NCC staff members to ensure that the survey was operating correctly, and any modifications or corrections were made address the pilot survey reviewers' comments. See Appendix C for a copy of the final job analysis survey.

The live survey was sent using online survey software to a list of 69,423 individuals by NCC. The list consisted of certified and noncertified neonatal and perinatal/obstetrical providers (including MDs, RNs, APRNs, PAs, CMs). The number of individuals that responded to the survey (tasks and knowledge statements) was 5,501 (8%). The survey was opened on March 13, 2024, and closed on April 14, 2024. See Appendix D for the email sent to potential respondents.

Following the close of the survey, the data were analyzed to identify any respondents who did not complete the survey or provided responses lacking any variance (i.e., "straight-lining" or providing the same response to every task or knowledge). Responses from 1,952 respondents were removed from the data set, yielding a usable number of 3,549 completed responses. Of those respondents who were removed, 1,296 were removed due to not completing the survey, 24 declined to participate, 593 didn't meet the practitioner description, and 39 were removed due to a lack of variance in their responses.



Table 2 shows the mean ratings provided for frequency and importance of the task statements. Table 3 shows the mean ratings provided for the frequency and importance of the knowledge statements.

Table 2.

Frequency and Importance Ratings for Task Statements.

Task	Statements	Importance	Frequency
1	Identify risk factors, signs and symptoms for a potential	4.63	4.42
	emergency		
2	Apply clinical judgement and knowledge to treat obstetric	4.64	4.16
	emergencies		
3	Assess labs and diagnostics for potential emergency and/or	4.37	4.16
	risk factors with the knowledge of the expected		
	physiological changes of pregnancy		
4	Identify fetal heart rate tracings associated with maternal	4.46	4.03
	emergencies		
5	Apply knowledge of pathophysiologic changes associated	4.40	3.98
	with obstetric emergencies		
6	Utilize obstetric emergency bundles	4.06	3.34
7	Recognize and respond to clinical deterioration	4.61	3.77
8	Recognize modifications for resuscitative, surgical, and	4.20	3.35
	critical care protocols in an obstetric patient		
9	Identify how social determinants of health and implicit bias	3.86	3.60
	impact care and maternal morbidity and mortality		
10	Demonstrate effective interdisciplinary teamwork and	4.59	4.19
	communication in obstetric emergencies		

Table 3.

Frequency and Importance Ratings for Knowledge Statements.

Know	ledge Statements	Importance	Frequency
1	Pre-Existing Conditions	4.22	4.32
2	Risk Assessment and Clinical Risk Factors (including Social	4.00	4.19
	Determinants and Clinical Risk Factors)		
3	Physical Exam and Diagnostic Studies	4.42	4.38
4	Medical Emergencies	4.44	3.49
5	Intrapartum and Postpartum Emergencies	4.59	3.72
6	Infection and Sepsis	4.37	3.13
7	Maternal Resuscitation	4.51	1.82
8	Hypertension	4.64	4.50
9	Hemorrhage	4.71	3.77
10	Social Determinants of Health, Bias, Maternal Morbidity	3.89	3.70
	and Mortality		
11	Interdisciplinary Teamwork, Ethical Issues, and Quality	4.12	3.93
	Improvement		



The survey included demographic questions regarding professional characteristics relevant to the job role. Table 4 shows a summary of the demographic questions in the survey.

Table 4.

Results of the Demographic Questions in the Job Analysis Survey.

1. How many years of experience do you have working with obstetric patients? (Select one)	n	%
1-5 years	417	12%
6-10 years	717	20%
11-15 years	552	16%
16-20 years	579	16%
21 plus years	1284	36%

2. What is the highest level hospital/unit designation in which you practice?	n	%
Birth Center (Peripartum care of low-risk pregnant patients with uncomplicated singleton term pregnancies with a vertex presentation who expect an uncomplicated birth).	22	1%
Level I (Basic Care) Uncomplicated pregnancies with ability to detect, stabilize and initiate management of unanticipated maternal-fetal or neonatal problems and transfer as needed.	387	11%
Level II (Specialty Care) Level I facility plus care of appropriate high-risk antepartum, intrapartum or postpartum conditions both directly admitted or transferred in.	833	23%
Level III (Subspecialty Care) Level II facility plus care of more complex maternal conditions, obstetric complications and fetal conditions.  Advanced imaging.	924	26%
Level IV (Regional Perinatal Health Care Centers) Level III facility plus on-site medical and surgical care of the most complex maternal conditions and critically ill pregnant patients and fetuses throughout antepartum, intrapartum and postpartum. Onsite ICU care, maternal referral and transport, outreach.	1164	33%
Do not know	125	4%
Not applicable	91	3%

3. Which of the following best describes your PRIMARY practice setting?	n	%
Antepartum	95	3%
Critical Care	25	1%
Emergency Department	391	11%
Family Medicine Practice Clinic/Private Practice	7	0%
Labor and Delivery	2212	62%
OB ED/OB Triage	189	5%
OB/GYN Practice Clinic/Private Practice	103	3%
Postpartum	195	5%
Other (please specify)	332	9%



4. In which setting do you PRIMARILY provide emergency care for Obstetric patients?	n	%
Antepartum	129	4%
Critical Care	32	1%
Emergency Department	394	11%
Labor and Delivery	2172	61%
OB ED/OB Triage	474	13%
Postpartum	182	5%
Other (please specify)	161	5%

5. Which of the following BEST describes your professional primary role?	n	%
Administrator/Management	195	5%
Certified Midwife (CNM/CM)	83	2%
Clinical Nurse Specialist	62	2%
CRNA	0	0%
Educator	239	7%
Medical Doctor (DO, MD)	75	2%
Nurse Midwife	29	1%
Nurse Practitioner	53	1%
Physician Assistant	29	1%
Registered Nurse	2702	76%
Researcher	6	0%
Other (please specify)	76	2%

6. What is your highest level of education?	n	%
Diploma/Certificate	45	1%
Associate	375	11%
Baccalaureate	2012	57%
Masters	866	24%
Post Masters/Doctorate	27	1%
Doctorate - MD/DO	79	2%
Doctorate - DNP	92	3%
Doctorate - PhD	28	1%
Other (please specify)	20	1%

7. On average, how many hours per week do you provide care to Obstetric (OB) patients?

Mean = 29.13 | Standard Deviation = 13.36 | Minimum = 0 | Maximum = 90



8. Which of the following best describes your PRIMARY practice location?	n	%
Region 1: Northeast (ME, NH, VT, MA, RI, CT, NY, NJ, PA)	670	19%
Region 2: Midwest (WI, IL, MI, IN, OH, ND, SD, NE, KS, MN, IA, MO)	795	22%
Region 3: South (KY, TN, MS, AL, FL, GA, SC, NC, VA, WV, DC, MD, DE, TX,	1290	36%
OK, AR, LA)		
Region 4: West (MT, ID, WY, NV, UT, CO, AZ, NM, WA, OR, CA, AK, HI)	767	22%
Canada	4	0%
Other (please specify)	20	1%

9. Are you familiar with Jada?	n	%
Yes	2896	82%
No	649	18%

10. Are you familiar with uterine tamponade devices (e.g., Bakri)?	n	%
Yes	3255	92%
No	290	8%

11. Are you using a maternal triage index?	n	%
Yes	1804	51%
No	1707	49%



## **Development of Exam Specifications**

The Job Analysis Committee met on May 20, 2024, to review the results of the survey, finalize the tasks and knowledge that would comprise the next Examination Content Outline, and finalize the content weighting for the examination.

The committee reviewed the demographic results and confirmed that the results matched expectations and impressions of the practitioner population, suggesting that the respondent sample is reflective of the target population.

New 1B. Risk Assessment and Clinical Risk Factors

• Removed (including Social Determinants and Clinical Risk Factors)

The committee then reviewed the draft content weighting, discussing any adjustments necessary to align the number of items per content area for adequate content coverage on the assessment. The draft content weighting was developed by calculating the criticality value (mean importance rating multiplied by the mean frequency rating) and then determining a percentage weight based on the relative weight of the criticality value for each content area.

After discussing the importance of domains 1 and 2 as core concept and the impact to care these areas the job analysis committee decided to adjusted knowledge areas to address the importance and depth of knowledge need to respond to obstetric emergencies. Domain 2 was prioritized over domain 1 since domain 2 is more application and domain 1 is more recall.

#### Weighting Changes:

- 1A. Pre-existing Conditions reduced from 10 to 8
- 1B. Risk Assessment and Clinical Risk Factors reduced from 9 to 5
- 1C. Physical Exam and Diagnostic Studies reduced from 11 to 7
- 2A. Medical Emergencies increased from 9 to 24
- 2B. Intrapartum and Postpartum Emergencies decreased from 10 to 6
- 2C. Infection and Sepsis decreased from 8 to 6 items
- 2D. Maternal Resuscitation increased from 5 to 6 items
- 2E. Hypertension increased from 12 to 15 items
- 2F. Hemorrhage increased from 10 to 18 items
- 3A. Social Determinants of Health, Bias, Maternal Morbidity and Mortality decreased from 8 to 3 items
- 3B. Interdisciplinary Teamwork, Ethical Issues and Quality Improvement decreased from 9 to 2 items



See Table 5 for a summary of the content weighting determination. The final Examination Content Outline can be found in Appendix E.

Table 5.

Content Weighting Determination.

Know	edge Statements	Criticality	Percentage	# Items
1A	Pre-Existing Conditions	18.21	10%	8
1B	Risk Assessment and Clinical Risk Factors	16.77	9%	5
1C	Physical Exam and Diagnostic Studies	19.35	11%	7
2A	Medical Emergencies	15.48	9%	24
2B	Intrapartum and Postpartum Emergencies	17.08	10%	6
2C	Infection and Sepsis	13.69	8%	6
2D	Maternal Resuscitation	8.20	5%	6
2E	Hypertension	20.90	12%	15
2F	Hemorrhage	17.75	10%	18
3A	Social Determinants of Health, Bias, Maternal	14.39	8%	3
	Morbidity and Mortality			
3B	Interdisciplinary Teamwork, Ethical Issues,	16.18	9%	2
	and Quality Improvement			



# Appendix A.

## **Subject Matter Experts**

Job Analysis Committee

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	JOB TITLE	GEOGRAPHIC LOCATION	EXPERTISE
Candice Black	MSN, RNC-OB	9	Labor & Delivery Senior Clinical Nurse 1, University of Maryland Medical Center	Frederick, MD Region 3	<ul><li>High-risk OB</li><li>Charge Nurse</li><li>Triage Efficiency</li></ul>
Christopher Goodier	MD, C-EFM	16	Assistant Professor, Department of Obstetrics and Gynecology, Division of Maternal Fetal Medicine, MUSC, Charleston, SC	Mount Pleasant, SC Region 3	High Risk OB     Medical School Professor     OB/GYN Fellow     Researcher
Claudia Melani Reed	DNP, WHNP-BC, RNC-OB, SANE	20	Nurse Manager and WHNP, L&D and OBGYN Evaluation Center, University of South Alabama Children's & Women's Hospital (Travel Assignment in Seattle, WA)	Semmes, AL Region 3	High-risk OB     Patient Safety and Quality Improvement     Leadership
Cyndy Krening	MS, RC-OB, C-EFM, FAWHONN	43	Perinatal Clinical Nurse Specialist, Saint Joseph Hospital, Denver, CO	Centennial, CO Region 4	<ul> <li>High Risk OB</li> <li>Education and Clinical Instruction</li> <li>AWHONN Maternal Mortality Task Force</li> </ul>



NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	JOB TITLE	GEOGRAPHIC LOCATION	EXPERTISE
Danette Schloeder	DNP, RNC-OB, C-EFM, C-ONQS	29	Senior Clinical Specialist, The Providence Alaska Children's Hospital, Anchorage, AK and Associate Professor/Program Director (aBSN), University of Providence, Great Falls, MT	Anchorage, AK Region 4	<ul> <li>Level III Maternity Center</li> <li>Quality &amp; Safety</li> <li>Educator (aBSN)</li> <li>AWHONN Morbidity &amp; Mortality Task Force</li> <li>National Council of State Boards of Nursing NCLEX Exam Committee</li> <li>State of Alaska Maternal Child Death Review Committee</li> <li>State of Alaska Pregnancy Risk Assessment Monitoring System</li> </ul>
Heather Denlinger	MSN, CNM, C-EFM	24	CNM, Drs May Grant Associates and Associate Professor of Nursing and Course Coordinator, Harrisburg Area Community College, Lancaster Campus	Manheim, PA Region 1	<ul><li>Staff educator</li><li>Student Advisor</li><li>High-fidelity Simulation</li></ul>
Kandis Mclean	FNP-C, MSN-Ed, RNC-OB, C-EFM	10	Assistant Director of Maternal Child Nursing Education, NYC Health & Hospitals, Woodhall Medical Center, Brooklyn, NY and Director Health Care Program Analysis in Simulation, Bronx, NY	Huntington, NY Region 1	<ul> <li>Staff Educator</li> <li>Simulation education</li> <li>High-risk OB</li> <li>Quality Improvement</li> <li>OB Emergencies</li> </ul>
Lauren Snyder	DO, C-EFM	DO, The Ohio St University, Fam Medicine with Obstetric Physic		Powell, OH Region 2	Family Medicine     Obstetrics Quality     Committee     L&D for Vaginal     Deliveries/Family     Medicine/Urgent Care     Resident Advisor     Medical Education Lead     for Family Medicine Clinic



	NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	JOB TITLE	GEOGRAPHIC LOCATION	EXPERTISE
	LaVone Simmons	MD, C-EFM	19	Clinical Assistant Professor, Maternal- Fetal Medicine, Department of Obstetrics and Gynecology, University of Washington, Seattle, WA and Medical Director, UWMC- Montlake Labor & Delivery, Antepartum and Postpartum Unit	Seattle, WA Region 4	OB Emergency Simulation Educator Perinatal Service Inpatient Rotations Antepartum SI Rotations Quality & Safety Mentor Hypertensive Disorders of Pregnancy
i	Mary Beth Ruckman	MSN, RNC-OB	40	Clinical Support Nurse & Maternal Transport Nurse, Labor & Delivery, St. Mary's Hospital	Hazelwood, MO Region 2	Maternal Transport Nurse     Simulation Instructor     OB Clinical Instructor     NRP Instructor
	Melissa Holland	MSN, RNC-OB, C-EFM, CNL, CPPS	15	Perinatal Safety Nurse, Rush University Medical Center, Chicago, IL	Chicago, IL Region 2	<ul> <li>OB Quality and Safety</li> <li>High Risk OB</li> <li>Data Driven review process</li> <li>L&amp;D and Antepartum/Postpartum</li> <li>Maternal Hypertension/Hemorrhag e Simulation Program</li> </ul>
	Nicole Weber	MD, MMM, FACOG, MIGS, C-EFM	20	OB Hospitalist, Yale New Haven Health System, Bridgeport Hospital, Bridgeport, CT and OB Hospitalist, Overlook Medical Center, Summit, NJ	Milford, CT Region 1	<ul> <li>Urogynecology</li> <li>OB Quality &amp; Safety Committee</li> <li>ABOG Specialty Exam Writer/Reviewer</li> <li>IUGA, Social Media Committee</li> </ul>



#### Interviewees

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	JOB TITLE	GEOGRAPHIC LOCATION	EXPERTISE
Cyndy Krening	MS, RC-OB, C-EFM, FAWHONN	43	Perinatal Clinical Nurse Specialist, Saint Joseph Hospital, Denver, CO	Centennial, CO	High Risk OB     Education and Clinical Instruction     AWHONN Maternal Mortality Task Force
Danette Schloeder	DNP, RNC-OB, C-EFM, C-ONQS	29	Senior Clinical Specialist, The Providence Alaska Children's Hospital, Anchorage, AK and Associate Professor/Program Director (aBSN), University of Providence, Great Falls, MT	Anchorage, AK	Level III Maternity     Center     Quality & Safety     Educator (aBSN)     AWHONN Morbidity &     Mortality Task Force     National Council of     State Boards of Nursing     NCLEX Exam Committee     State of Alaska Maternal     Child Death Review     Committee     State of Alaska     Pregnancy Risk     Assessment Monitoring     System
Kandis McLean	FNP-C, MSN-Ed, RNC-OB, C-EFM	10	Assistant Director of Maternal Child Nursing Education, NYC Health & Hospitals, Woodhall Medical Center, Brooklyn, NY and Director Health Care Program Analysis in Simulation, Bronx, NY	Huntington, NY	<ul> <li>Staff Educator</li> <li>Simulation education</li> <li>High-risk OB</li> <li>Quality Improvement</li> <li>OB Emergencies</li> </ul>
Laurie MacLeod	CNM, MSN, RN, C-EFM, C-ONQS	21	CNM, Yale New Haven Hospital, New Haven, CT	Branford, CT Region 1	<ul> <li>Co-management of high-risk pregnancies</li> <li>Clinical faculty</li> <li>Preceptor</li> <li>Resident/Medical Student Supervisor</li> </ul>



NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	JOB TITLE	GEOGRAPHIC LOCATION	EXPERTISE
Nicole Weber	MD, MMM, FACOG, MIGS, C-EFM	20	OB Hospitalist, Yale New Haven Health System, Bridgeport Hospital, Bridgeport, CT and OB Hospitalist, Overlook Medical Center, Summit, NJ	Milford, CT	<ul> <li>Urogynecology</li> <li>OB Quality &amp; Safety Committee</li> <li>ABOG Specialty Exam Writer/Reviewer</li> <li>IUGA, Social Media Committee</li> </ul>



## **Appendix B.**

#### **Job Analysis Presentation**



# Job Analysis PSI Certification Psychometrics

## **Objectives**



Develop a description of the profession

- Define the relevant tasks
- Define the relevant knowledge



Develop all other elements for a survey

- Develop background information questions
- Review rating scales



#### Establish linkages

- Identify meaningful connections between the task and knowledge lists



### **Job Analysis Process**

- 1. Prepare Draft Materials
- 2. Conduct Job Analysis Meeting

You Are Here

- 3. Conduct Pilot Survey
- 4. Conduct Live Survey
- 5. Perform Data Analysis
- 6. Create Exam Specifications
- 7. Develop Summary Report





## Introduction



# Purpose of Credentialing Examinations

- To protect the public from harm caused by incompetent professional practice
- To assess professional competence in terms of the knowledge and skills required to successfully perform the tasks associated with the job role
- To establish and apply a consistent standard that reflects the competency level required of practitioners who meet the eligibility requirements
- To provide a valid and reliable means of identifying those who are competent to practice in the profession





## What is a Job Analysis?

Procedure to identify the content of a job in terms of activities involved and attributes or requirements needed to perform the activities.

This is the primary source of content validity for a credentialing assessment

This is the process by which the Examination Specifications are created A representative list of knowledge and tasks associated with the job is developed

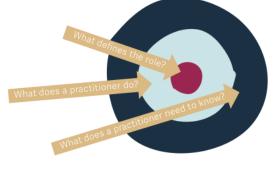




## **Multiple Levels of Analysis**

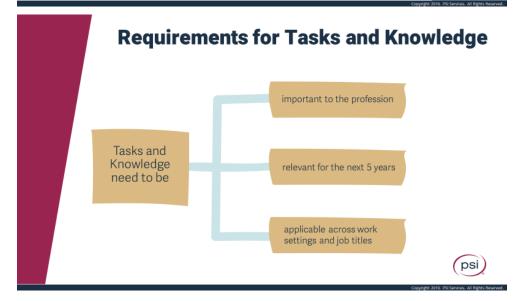
To create a comprehensive and accurate representation of the job role, we must identify:

- > Target Population
- > Tasks Performed
- > Knowledge Required



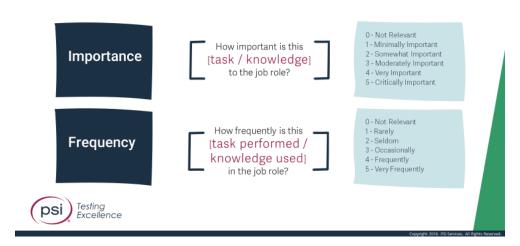


# Tasks Knowledge Specificwork activities performed to fulfill job responsibilities Linformation needed to fulfill job responsibilities Content Domains (and subdomains) Grouping of knowledge to pics, required to create an outline format psi





## **Rating Scales**



## Why Are You Here?





# **Linkage Process**





## **Linkage Analysis**

#### Knowledge vs. Task

- The list of Knowledge areas is used to delineate what content will be directly assessed by the exam
- Tasks provide additional context for the application of those knowledge and skills

#### Purpose of Linkage Analysis

- To establish evidence that the Knowledge areas are applicable to the Tasks
- To determine any potential gaps in either inventory

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## **Linkage Matrix**

We will identify connections among tasks and knowledge

The Outcome Looks Something Like This

Each linkage represents that the knowledge is required in order to complete the task

	T1	T2	T3	T4	T5
1A1	Χ				
1A2		Χ			
1A3		Χ		Х	
1B1			Х		
1B2			Х		X
1C1				Χ	
1C2				Х	
2A1	Χ		Х		
2A2		Χ			
2B1			Х	Х	
2B2		Χ			
2B3			Х	Х	Х
2B4		Χ	Х		
			•	•	





## **Linkage Thought Process**

Doesn't everything apply to everything?

- Not exactly



#### Consider this example:

- I need knowledge of Knife Techniques to Prepare Ingredients For Grilling
- I don't need knowledge of Knife Techniques to Mix Baking Ingredients



## Questions?



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## Appendix C.

#### **Survey Text**



NCC Obstetric Emergencies (OBE) Job Analysis Survey

#### Welcome

The purpose of this survey is to identify tasks and knowledge reflective of the licensed professional who provides care for patients experiencing obstetric emergencies. The results of this survey will be used to help develop the specifications for the OBE certification exam. Those who complete it will have a chance to win an Amazon gift card.

The survey will likely require 10 to 15 minutes to complete. You can complete each part of the survey in separate sittings at the same computer. Please be aware that you must completely finish a page before clicking on "Next" to save your responses up to that point. If you need to review your responses, you can use the "Prev" button to move back through the survey. There is no limit on the number of times you can use the link to go back to the survey before clicking on "Done" to submit your survey.

Your individual responses will be kept confidential and will be combined with those of other respondents. Only staff persons from PSI Services and NCC will have access to the data collected. Aggregated data from this survey will be published in a report that summarizes the process used to develop the specifications for the OBE certification exam. For more information about PSI's privacy and data protection policy, please click <a href="https://example.com/heres/be

Please direct all inquiries to: info@nccnet.org

The deadline for completion of the survey is end of day April 14, 2024.

Do you agree	to p	participat	te in	the	survey	?
O Yes						
○ No						





### NCC Obstetric Emergencies (OBE) Job Analysis Survey

#### **Currently Working**

For the purposes of this survey, the role of a practitioner who is specializing in caring for obstetric patients is defined as follows:

A licensed professional with specialized knowledge and skills caring for patients who may experience an obstetric emergency, including but not limited to clinical practice, or employed as an administrator, educator, or a researcher. A licensed professional who interacts with the obstetric population including in the following settings: postpartum, antepartum, labor and delivery, ICU, and Emergency Department/OB Triage.

Are you	currently	working	with	obstetric	patients	(described	above)?
O Yes							
O No							



#### Demographics

# Please answer the following demographic questions before proceeding to the next page to start the survey.

How	many years of experience do you have working with obstetric patients? (Select one)
$\circ$	1-5 years
$\circ$	6-10 years
$\circ$	11-15 years
$\circ$	16-20 years
0	21 plus years
Wha	at is the highest level hospital/unit designation in which you practice?
0	Birth Center (Peripartum care of low-risk pregnant patients with uncomplicated singleton term pregnancies with a vertex presentation who expect an uncomplicated birth).
0	Level I (Basic Care) Uncomplicated pregnancies with ability to detect, stabilize and initiate management of unanticipated maternal-fetal or neonatal problems and transfer as needed.
0	Level II (Specialty Care) Level I facility plus care of appropriate high-risk antepartum, intrapartum or postpartum conditions both directly admitted or transferred in.
0	Level III (Subspecialty Care) Level II facility plus care of more complex maternal conditions, obstetric complications and fetal conditions. Advanced imaging.
0	Level IV (Regional Perinatal Health Care Centers) Level III facility plus on-site medical and surgical care of the most complex maternal conditions and critically ill pregnant patients and fetuses throughout antepartum, intrapartum and postpartum. Onsite ICU care, maternal referral and transport, outreach.
0	Do not know
0	Not applicable
Whi	ch of the following best describes your PRIMARY practice setting?
$\circ$	Antepartum
$\circ$	Critical Care
$\circ$	Emergency Department
$\circ$	Family Medicine Practice Clinic/Private Practice
$\circ$	Labor and Delivery
$\circ$	OB ED/OB Triage
$\circ$	OB/GYN Practice Clinic/Private Practice
$\circ$	Postpartum
$\circ$	Other (please specify)



In w	nich setting do you PRIMARILY provide emergency care for Obstetric patients?
$\circ$	Antepartum
0	Critical Care
0	Emergency Department
0	Labor and Delivery
0	OB ED/OB Triage
0	Postpartum
0	Other (please specify)
Whi	ch of the following BEST describes your professional primary role?
$\circ$	Administrator/Management
$\circ$	Certified Midwife (CNM/CM)
$\circ$	Clinical Nurse Specialist
0	CRNA
0	Educator
0	Medical Doctor (DO, MD)
$\circ$	Nurse Midwife
$\circ$	Nurse Practitioner
$\circ$	Physician Assistant
$\circ$	Registered Nurse
$\circ$	Researcher
$\circ$	Other (please specify)
Wha	t is your highest level of education?
$\circ$	Diploma/Certificate
$\circ$	Associate
$\circ$	Baccalaureate
$\circ$	Masters
$\circ$	Post Masters/Doctorate
$\circ$	Doctorate - MD/DO
$\circ$	Doctorate - DNP
$\circ$	Doctorate - PhD
$\circ$	Other (please specify)
- 1	



On average, how many hours per week do you provide care to Obstetric (OB) patients?
Which of the following best describes your PRIMARY practice location?
Region 1: Northeast (ME, NH, VT, MA, RI, CT, NY, NJ, PA)
Region 2: Midwest (WI, IL, MI, IN, OH, ND, SD, NE, KS, MN, IA, MO)
Region 3: South (KY, TN, MS, AL, FL, GA, SC, NC, VA, WV, DC, MD, DE, TX, OK, AR, LA)
Region 4: West (MT, ID, WY, NV, UT, CO, AZ, NM, WA, OR, CA, AK, HI)
Canada
Other (please specify)

NCC Obstetric Emergencies (OBE) Job Analysis Survey

Additional Questions

re you familiar with Jada?
Yes
○ No
re you using a maternal triage index?
Yes
○ No
so, which one?
re you familiar with uterine tamponade devices (e.g., Bakri)?
Yes
○ No



#### Knowledge

Please use the following rating scales to indicate how frequently you use each knowledge area and how important it is to your professional role providing care for patients experiencing obstetric emergencies.

Frequency: How frequently do you perform this task in your role?

- 0 Never
- 1 Very rarely
- 2 Seldom
- 3 Occasionally
- 4 Frequently
- 5 Very frequently

Importance: How important is this task to your role?

- 0 Not applicable
- 1 Minimally important
- 2 Somewhat important
- 3 Moderately important
- 4 Very important
- 5 Critically important

#### Assessment and Prevention





#### Identification, Management, and Treatment of Obstetric and Postpartum Emergencies

	Frequency	Importance
Medical Emergencies	<b>‡</b>	
Intrapartum and Postpartum Emergencies	<b>\$</b>	<b>\$</b>
Infection and Sepsis	<b>\$</b>	
Maternal Resuscitation	<b>‡</b>	<b>\$</b>
Hypertension	<b>‡</b>	
Hemorrhage	<b>‡</b>	<b>\$</b>
Professional Practice	Frequency	Importance
Social Determinants of Health, Bias, Maternal Morbidity and Mortality	<b>\$</b>	=
Interdisciplinary Teamwork, Ethical Issues, and Quality Improvement	\$	<b>\$</b>
What critical knowledge area, if any, do you think is missing from this list?		





Tasks

Please use the following rating scales to indicate how frequently you perform each task and how important it is to your professional role providing care for patients experiencing obstetric emergencies.

Frequency: How frequently do you perform this task in your role?

- 0 Never
- 1 Very rarely
- 2 Seldom
- 3 Occasionally
- 4 Frequently
- 5 Very frequently

Importance: How important is this task to your role?

- 0 Not applicable
- 1 Minimally important
- 2 Somewhat important
- 3 Moderately important
- 4 Very important
- 5 Critically important



#### Task Ratings

	Frequency	Importance
Identify risk factors, signs and symptoms for a potential emergency	<b>*</b>	•
Apply clinical judgement and knowledge to treat obstetric emergencies	<b>\$</b>	•
Assess labs and diagnostics for potential emergency and/or risk factors with the knowledge of the expected physiological changes of pregnancy	*	•
Identify fetal heart rate tracings associated with maternal emergencies	<b>\$</b>	•
Apply knowledge of pathophysiologic changes associated with obstetric emergencies		•
Utilize obstetric emergency bundles	\$	•
Recognize and respond to clinical deterioration	\$	•
Recognize modifications for resuscitative, surgical, and critical care protocols in an obstetric patient	<b>\$</b>	•
Identify how social determinants of health and implicit bias impact care and maternal morbidity and mortality	<b>‡</b>	•
Demonstrate effective interdisciplinary teamwork and communication in obstetric emergencies	<b>‡</b>	•
What critical task, if any, do you	think is missing from this list?	



#### Thank You!

#### Thank you for completing the 2023 NCC OBE job analysis survey!

If you need to review your answers, you can use the "Prev" button below to move back through the survey.

If you would	like to be notified when this exam is available, please provide your email.
If you would email?	like to join the Content or Item Writing Team, please provide your name and
Name	
Email	
	omplete the survey can enter a drawing for a chance to win a \$100 Amazon gift card. You d email address are requested for this drawing and will be used for this purpose only.
Do you ag	ree to provide your name and email address in order to enter the drawing?
Yes	
○ No	



# Appendix D.

## **Survey Invitation Email**

DATE:	March 13, 2024
FROM:	NCC
SUBJECT:	NCC Need Your Input on Obstetric Emergencies!
BODY:	This is your opportunity to be heard about the work YOU do in the field of obstetric emergencies.
	The National Certification Corporation (NCC), together with its certification testing vendor PSI Services, is conducting a job analysis study to identify tasks and knowledge reflective of the role of a licensed professional in obstetric emergencies for a new certification program. Your input will shape the exam specifications for the new certification program. It will only take 10-15 minutes to complete and completed entries will be entered in a gift card drawing.
	Please complete the survey by <b>Sunday, April 14<sup>th</sup>, 2024.</b>
	Link: https://www.research.net/r/3QYFDYP
	Questions about the survey or the certification can be directed to: info@nccnet.org



## Appendix E.

#### **Exam Content Outline**

1	Assessment and Prevention	20
1A	Pre-Existing Conditions	8
1B	Risk Assessment and Clinical Risk Factors	5
1C	Physical Exam and Diagnostic Studies	7
2	Identification, Management, and Treatment of Obstetric and Postpartum	75
	Emergencies	/5
2A	Medical Emergencies	24
2B	Intrapartum and Postpartum Emergencies	6
2C	Infection and Sepsis	6
2D	Maternal Resuscitation	6
2E	Hypertension	15
2F	Hemorrhage	18
3	Professional Practice	5
3A	Social Determinants of Health, Bias, Maternal Morbidity and Mortality	3
3B	Interdisciplinary Teamwork, Ethical Issues, and Quality Improvement	2

#### **Secondary Classifications - Tasks**

- 1. Identify risk factors, signs and symptoms for a potential emergency.
- 2. Apply clinical judgement and knowledge to treat obstetric emergencies.
- 3. Assess labs and diagnostics for potential emergency and/or risk factors with the knowledge of the expected physiological changes of pregnancy.
- 4. Identify fetal heart rate tracings associated with maternal emergencies.
- 5. Apply knowledge of pathophysiologic changes associated with obstetric emergencies
- 6. Utilize obstetric emergency bundles.
- 7. Recognize and respond to clinical deterioration.
- 8. Recognize modifications for resuscitative, surgical, and critical care protocols in an obstetric patient.
- 9. Identify how social determinants of health and implicit bias impact care and maternal morbidity and mortality.
- 10. Demonstrate effective interdisciplinary teamwork and communication in obstetric emergencies.





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