



An ETS Company

Job Analysis Report

National Certification Corporation (NCC)

Care of the Extremely Low Birth Weight
Neonate (C-ELBW)

July 2024

Submitted to:



Contents

Executive Summary	2
Introduction	3
Job Analysis Committee Meeting	4
Job Analysis Survey	7
Development of Exam Specifications	14
Appendix A. Subject Matter Experts	16
Appendix B. Job Analysis Presentation	18
Appendix C. Survey Text	24
Appendix D. Survey Invitation Email	39
Appendix E. Exam Content Outline	40

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) Care of the Extremely Low Birth Weight Neonate (C-ELBW) 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 National Certification Corporation (NCC) to serve as subject matter experts (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 four competency areas are:

1. General Assessment and Management
2. Developmental Care
3. Describe & Manage Pathophysiologic States
4. Psychosocial, Ethical, and Professional Issues and Outcomes with ELBW Neonates and Families



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) Care of the Extremely Low Birth Weight Neonate (C-ELBW) certification examination.

The job analysis was conducted in accordance with principles and practices outlined in the *Standards for Educational and Psychological Testing*¹, 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 successfully². 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

¹ American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). *Standards for Educational and Psychological Testing*. AERA.

² Sackett, P.R., Walmsley, P.T., Laczko, 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.



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, eight 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 March 4, 2024, and March 14, 2024.

PSI Services LLC (PSI) conducted a job analysis committee meeting on March 19, 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 11 task statements, as follows:

1. Identify antenatal risk factors and the potential implications for ELBW neonates.
2. Systematically assess all body systems of ELBW neonates utilizing physical examination, gestational age assessment and neurobehavioral assessment.
3. Apply knowledge of anatomy and physiology (fetal, transitional, neonatal), pathophysiology, pharmacology, and neuro-behavior to assess ELBW neonates and differentiate abnormal from normal.
4. Recognize normal values and deviations in clinical laboratory and diagnostic data and identify potential significance for ELBW neonates.
5. Identify life-threatening states in ELBW neonates and initiate appropriate, early intervention.
6. Develop an individualized plan of care for the maintenance and promotion of health for ELBW neonates and families during hospitalization and following discharge.
7. Implement diagnostic, therapeutic and educational plans in collaboration with the interdisciplinary team to provide care for ELBW neonates and families.
8. Identify the vulnerabilities of ELBW neonates across the continuum and implement strategies to reduce risks and optimize outcomes.
9. Apply knowledge of evidence-based data to guide and educate families and direct clinical practice to optimize outcomes (e.g., quality improvement, research).
10. Recognize the psychosocial impact and stressors on ELBW neonates and families related to birth, hospitalization, and life-long care.
11. Identify professional, legal, and ethical issues which impact the care of ELBW neonates.



The job analysis committee developed 30 knowledge statements across four content domains, as follows.

1. General Assessment and Management

- A. Physical, Gestational Age, Behavioral and Neurologic Assessment
- B. Delivery Room Management, Stabilization, and Transition
- C. Transport/Transfer
- D. Thermoregulation
- E. Fluid and Electrolytes
- F. Nutrition and Feeding
- G. Respiratory Management/Oxygenation (e.g., Blood gases, Ventilation)
- H. Skin Care
- I. Infection Risks (e.g., immaturity, prevention, bundles)

2. Developmental Care

- A. Neurodevelopment (e.g., structure, function, immaturity)
- B. Impact of NICU Environment
- C. Neuroprotective Intentional Caregiving, Promotion of Self-Regulation and Development
- D. Neurobehavioral Alterations and Responses (e.g., habituation, state and motor organization)
- E. Stress and Pain Assessment and Management

3. Describe & Manage Pathophysiologic States

- A. Antenatal Risk Factors, Obstetric Emergencies, and Perinatal Management Strategies that Impact ELBW neonates
- B. Cardiac
- C. Respiratory
- D. GI/GU
- E. Hematologic
- F. Infection
- G. Metabolic/Endocrine/Genetic
- H. Neurologic, Integumentary, and Musculoskeletal
- I. Renal
- J. Head, Eyes, Ears, Nose and Throat
- K. Pharmacology and Pharmacologic Interventions

4. Psychosocial, Ethical, and Professional Issues and Outcomes with ELBW Neonates and Families

- A. Family-Centered Care and Integration
- B. Trauma Informed Care/Parental Coping and Grieving Process
- C. End of Life Care/Palliative Care, Viability, and Legal/Ethical Issues
- D. Discharge Planning, Teaching, and Follow-up
- E. Professional Practice (Evidenced based practice, quality improvement and safety, and research) and Team communication along the continuum of care



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 during the examination content outline (ECO) meeting.

Table 1.
Linkages Among Knowledge and Task Statements.

	1	2	3	4	5	6	7	8	9	10	11
1											
A		X	X	X	X	X	X	X	X	X	X
B	X	X	X	X	X	X	X	X			X
C		X	X	X	X			X	X	X	X
D		X	X	X	X	X		X	X		
E		X	X	X	X	X	X	X	X		
F		X	X	X	X	X	X	X	X		
G		X	X	X	X	X	X	X	X		
H		X	X	X	X	X	X	X	X		
I	X	X	X	X	X	X	X	X	X		
2											
A	X	X	X			X	X	X	X	X	X
B				X		X	X	X	X	X	X
C	X	X	X			X	X	X	X	X	X
D	X	X	X			X	X	X	X	X	X
E		X	X	X	X	X	X	X	X	X	X
3											
A	X	X	X		X	X	X	X	X	X	X
B	X	X	X	X	X	X	X	X	X	X	X
C	X	X	X	X	X	X	X	X	X	X	X
D	X	X	X	X	X	X	X	X	X	X	X
E	X	X	X	X	X	X	X	X	X	X	X
F	X	X	X	X	X	X	X	X	X	X	X
G	X	X	X	X	X	X	X	X	X	X	X
H	X	X	X	X	X	X	X	X	X	X	X
I	X	X	X	X	X	X	X	X	X	X	X
J	X	X	X	X	X	X	X	X	X	X	X
K	X	X	X	X	X	X	X	X	X		X
4											
A	X					X	X	X	X	X	X
B	X					X	X	X	X	X	X
C	X			X	X	X	X	X	X	X	X
D	X		X			X	X	X	X	X	X
E	X							X	X	X	X

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.

Importance

How important is this knowledge area to your role?
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

Frequency

How frequently do you use this knowledge in your role?
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 April 3, 2024, and April 14, 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 15,445 individuals that was obtained from NCC. The list consisted of certified and noncertified neonatal providers. The number of individuals that responded to the survey was 1,438 (9%). The survey was opened on April 23, 2024, and closed on May 5, 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 641 respondents were removed from the data set, yielding a usable number of 797 completed responses. Of those respondents who were removed, 494 were removed due to not completing the survey, 126 were not caring for ELBWs, and 21 were removed due to a lack of variance in their responses.



An ETS Company

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 antenatal risk factors and the potential implications for ELBW neonates.	4.02	3.85
2	Systematically assess all body systems of ELBW neonates utilizing physical examination, gestational age assessment, and neurobehavioral assessment.	4.59	4.53
3	Apply knowledge of anatomy and physiology (fetal, transitional, neonatal), pathophysiology, pharmacology, and neuro-behavior to assess ELBW neonates and differentiate abnormal from normal.	4.61	4.54
4	Recognize normal values and deviations in clinical laboratory and diagnostic data and identify potential significance for ELBW neonates.	4.55	4.51
5	Identify life-threatening states in ELBW neonates and initiate appropriate, early intervention.	4.73	4.36
6	Develop an individualized plan of care for the maintenance and promotion of health for ELBW neonates and families during hospitalization and following discharge.	4.06	4.09
7	Implement diagnostic, therapeutic, and educational plans in collaboration with the interdisciplinary team to provide care for ELBW neonates and families.	4.16	4.19
8	Identify the vulnerabilities of ELBW neonates across the continuum and implement strategies to reduce risks and optimize outcomes.	4.29	4.22
9	Apply knowledge of evidence-based data to guide and educate families and direct clinical practice to optimize outcomes (e.g., quality improvement, research).	4.15	4.12
10	Recognize the psychosocial impact and stressors on ELBW neonates and families related to birth, hospitalization, and life-long care.	4.13	4.13
11	Identify professional, legal, and ethical issues which impact the care of ELBW neonates.	3.83	3.56



Table 3.***Frequency and Importance Ratings for Knowledge Statements.***

Knowledge Statements		Importance	Frequency
1	Physical, Gestational Age, Behavioral and Neurologic Assessment	4.51	4.60
2	Delivery Management, Stabilization, and Transition	4.44	3.92
3	Transport/Transfer	3.71	2.95
4	Thermoregulation	4.73	4.77
5	Fluid and Electrolytes	4.64	4.61
6	Nutrition and Feeding	4.57	4.65
7	Respiratory Management/Oxygenation (e.g., Blood gases, Ventilation)	4.78	4.72
8	Skin Care	4.37	4.53
9	Infection Risks (e.g., immaturity, prevention, bundles)	4.65	4.61
10	Neurodevelopment (e.g., structure, function, immaturity)	4.38	4.41
11	Impact of NICU Environment	4.23	4.28
12	Neuroprotective Intentional Caregiving, Promotion of Self-Regulation and Development	4.37	4.37
13	Neurobehavioral Alterations and Responses (e.g., habituation, state and motor organization)	4.13	4.14
14	Stress and Pain Assessment and Management	4.42	4.46
15	Antenatal Risk Factors, Obstetric Emergencies, and Perinatal Management Strategies that Impact ELBW neonates	4.06	3.79
16	Cardiac	4.39	4.12
17	Respiratory	4.69	4.70
18	GI/GU	4.41	4.42
19	Hematologic	4.31	4.15
20	Infection	4.54	4.40
21	Metabolic/Endocrine/Genetic	4.04	3.84
22	Neurologic, Integumentary, and Musculoskeletal	4.23	4.22
23	Renal	4.18	3.95
24	Head, Eyes, Ears, Nose and Throat	3.92	3.88
25	Pharmacology and Pharmacologic Interventions	4.40	4.39
26	Family-Centered Care and Integration	4.29	4.47
27	Trauma Informed Care/Parental Coping and Grieving Process	4.09	3.71
28	End of Life Care/Palliative Care, Viability, and Legal/Ethical Issues	4.17	3.17
29	Discharge Planning, Teaching, and Follow-up	4.23	4.07
30	Professional Practice (Evidenced based practice, quality improvement and safety, and research) and Team communication along the continuum of care	4.23	4.23



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 extremely low birth weight neonates? (Select one)	<i>n</i>	%
1-5 years (If less than 1 year experience please select 1-5 years)	68	8.53%
6-10 years	161	20.20%
11-15 years	124	15.56%
16-20 years	142	17.82%
21 plus years	301	37.77%
	796	

2. What is the highest level hospital/unit designation in which you primarily practice with ELBW Neonates?	<i>n</i>	%
Level I (Basic Care)	3	0.38%
Level II (Specialty care for newborns at 32 weeks gestation or more, weighting 1500 g or more with problems expected to resolve rapidly or who are convalescing from higher level care.)	9	1.13%
Level III (Subspecialty care for high-risk newborns needing continuous life support and comprehensive care for critical illness. Including infants weighing less than 1500 g or less than 32 weeks gestation at birth.)	372	46.68%
Level IV (Includes Level III care as well as on-site pediatric medical and surgical subspecialties to care for infants with complex congenital or acquired conditions, coordinate transport systems and outreach education.)	409	51.32%
Unknown or Not Applicable	0	0%
	793	

3. Which of the following best describes your PRIMARY practice setting?	<i>n</i>	%
Education/Faculty	14	1.76%
Level 1 (Newborn Nursery)	2	0.25%
Level 2 (Special Care)	13	1.63%
NICU - Level 3	413	51.82%
NICU - Level 4	315	39.52%
Management/Leadership	20	2.51%
Pharmacy	0	0.00%
Research/Quality Improvement	2	0.25%
Transport/Emergency	10	1.25%
Other (please specify)	7	0.88%
	796	



4. Which of the following BEST describes your professional primary role?	<i>n</i>	%
Administrator/Management	20	2.51%
Charge Nurse	75	9.41%
Clinical Nurse Specialist	20	2.51%
Educator	34	4.27%
Neonatal Dietitian	4	0.50%
Neonatal Therapist (Occupational Therapist(OT), Physical Therapist (PT))	8	1.00%
Nurse Practitioner	177	22.21%
Paramedic	0	0.00%
Physician (MD/DO)	2	0.25%
Physician Assistant (PA)	1	0.13%
Researcher	1	0.13%
Respiratory Therapist	9	1.13%
Speech and Language Pathologists (SLP)	2	0.25%
Staff Nurse/Bedside Nurse	388	48.68%
Transport	22	2.76%
Other (please specify)	33	4.14%
	796	

5. What is your highest level of education?	<i>n</i>	%
Diploma/Certificate	19	2.38%
Associate	45	5.65%
Baccalaureate	414	51.94%
Masters	242	30.36%
Post Masters/Doctorate	18	2.26%
Doctorate - DNP	36	4.52%
Doctorate - DPT/DOT	3	0.38%
Doctorate - MD/DO	2	0.25%
Doctorate - Other	1	0.13%
Doctorate - PhD	4	0.50%
Doctorate - PharmD	0	0.00%
Other (please specify)	11	1.38%
	795	

6. On average, how many hours per week do you work with extremely low birth weight neonates?
Mean = 28.09 | Standard Deviation = 19.65 | Minimum = 1 | Maximum = 80

7. Which of the following best describes your PRIMARY practice location?	<i>n</i>	%
Region 1: Northeast (ME, NH, VT, MA, RI, CT, NY, NJ, PA)	145	18.19%
Region 2: Midwest (WI, IL, MI, IN, OH, ND, SD, NE, KS, MN, IA, MO)	175	21.96%
Region 3: South (KY, TN, MS, AL, FL, GA, SC, NC, VA, WV, DC, MD, DE, TX, OK, AR, LA)	294	36.89%
Region 4: West (MT, ID, WY, NV, UT, CO, AZ, NM, WA, OR, CA, AK, HI)	169	21.20%
Canada	7	0.88%
Other	5	0.63%
	795	

8. Do you work in a small/tiny baby unit?	<i>n</i>	%
Yes	474	59.47%
No	275	34.50%
	749	

9. What is lowest gestation that your hospital resuscitates?	<i>n</i>	%
21 weeks	43	5.40%
22 weeks	515	64.62%
23 weeks	166	20.83%
24 weeks	17	2.13%
25 weeks or greater	11	1.38%
	752	

10. What is your knowledge level of epigenetics and how it impact the care of ELBW neonate?	<i>n</i>	%
NA - Not Applicable	1	0.13%
0 - Not familiar (don't know anything about it)	191	23.96%
1 - Fundamental Awareness (basic knowledge)	138	17.31%
2 - Novice (limited experience)	160	20.08%
3 - Intermediate (practical application)	182	22.84%
4 - Advanced (applied theory)	58	7.28%
5 - Expert (recognized authority)	20	2.51%
	750	

11. Is your unit utilizing point of care ultrasounds?	<i>n</i>	%
Yes	331	41.53%
No	351	44.04%
Unknown	69	8.66%
	751	

12. Is your unit utilizing a minimally invasive surfactant administration (i.e., other than through an endotracheal tube)?	<i>n</i>	%
Yes	277	34.76%
No	455	57.09%
Unknown	19	2.38%
	751	

Development of Exam Specifications

The Job Analysis Committee met on May 14, 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.

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. Weighting was adjusted in some areas to reflect a compromise with the current weights, criticality and depth of each knowledge area as well as testability.

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.

Knowledge Statements		Criticality	Percentage	Draft # Items	Final # Items
1A	Physical, Gestational Age, Behavioral and Neurologic Assessment	20.77	3.77%	4	4
1B	Delivery Management, Stabilization, and Transition	17.41	3.16%	3	4
1C	Transport/Transfer	10.95	1.99%	2	1
1D	Thermoregulation	22.54	4.09%	4	4
1E	Fluid and Electrolytes	21.40	3.88%	4	5
1F	Nutrition and Feeding	21.25	3.85%	4	4
1G	Respiratory Management/Oxygenation (e.g., Blood gases, Ventilation)	22.57	4.09%	4	4
1H	Skin Care	19.82	3.59%	4	2
1I 2A	Infection Risks (e.g., immaturity, prevention, bundles)	21.41	3.88%	4	2
2B	Neurodevelopment (e.g., structure, function, immaturity)	19.31	3.50%	4	3
2C	Impact of NICU Environment	18.11	3.28%	3	3
2D	Neuroprotective Intentional Caregiving, Promotion of Self-Regulation and Development	19.11	3.47%	3	4



Knowledge Statements		Criticality	Percentage	Draft # Items	Final # Items
2E	Neurobehavioral Alterations and Responses (e.g., habituation, state and motor organization)	17.11	3.10%	3	3
3A	Stress and Pain Assessment and Management	19.73	3.58%	4	3
3B	Antenatal Risk Factors, Obstetric Emergencies, and Perinatal Management Strategies that Impact ELBW neonates	15.41	2.79%	3	3
3C	Cardiac	18.05	3.27%	3	3
3D	Respiratory	22.05	4.00%	4	6
3E	GI/GU	19.49	3.53%	4	3
3F	Hematologic	17.90	3.25%	3	3
3G	Infection	19.97	3.62%	4	4
3H	Metabolic/Endocrine/Genetic	15.50	2.81%	3	3
3I	Neurologic, Integumentary, and Musculoskeletal	17.85	3.24%	3	4
3J	Renal	16.51	2.99%	3	4
3K	Head, Eyes, Ears, Nose and Throat	15.19	2.75%	3	2
4A	Pharmacology and Pharmacologic Interventions	19.33	3.51%	3	6
4B	Family-Centered Care and Integration	19.17	3.48%	3	3
4C	Trauma Informed Care/Parental Coping and Grieving Process	15.17	2.75%	3	2
4D	End of Life Care/Palliative Care, Viability, and Legal/Ethical Issues	13.22	2.40%	2	3
4E	Discharge Planning, Teaching, and Follow-up	17.22	3.12%	3	3



Appendix A.

Subject Matter Experts

Job Analysis Committee

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/ AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Caroline Maylock	MD, FAAP, C-ELBW	27	Ascension St. Vincent Women's Hospital	MD	Westfield, IN
Christina Baxter	DNP, APRN, NNP-BC, C-ELBW, C-NNIC	11	Shawn Jenkins Children's Hospital at the Medical University of South Carolina	NNP	Ladson, SC
Dawn Hager	BSN, RNC-NIC, C-NNIC, C-ELBW	9	Stanford Medical Center NICU; Rasmussen University	Clinical Care Leader; NICU Educator; ND and Adjunct Instructor	Horace, ND
Jennie Ellis	BSN, RNC-NIC, C-ELBW	19	Northern Light Eastern Maine Medical Center	Day Charge Nurse	Bangor, ME
Karen Kopischke	MSN, NNP-BC, C-ONQS, C-ELBW	43	Overland Park Regional Medical Center	NNP	Overland Park, KS
Laura Finlay	PharmD, MBA, C-ELBW	5	Washington Regional Medical Center	Women and Infants Pharmacy Clinical Coordinator	Fayetteville, AR
Mindy Morris	DNP, NNP-BC, CNS, RNC-NIC, C-ELBW	37	Vermont Oxford Network Quality Improvement Collaboratives	Consultant Faculty Member	Huntington Beach, CA
Rebekah Youngdahl	MSN, RNC-NIC, C-ELBW	14	Lehigh Valley Health Network	Staff Nurse	Bethlehem, PA
Sydney Stryker	BSN, RNC-NIC, RNC-LRN, C-ELBW, C-NNIC	5	Inova Fairfax Children's Hospital	RN	Spotsylvania, VA



NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Gabriel Hutson	MSN, RN, C-ELBW, C-NNIC	2	University Medical Center of Southern Nevada	Staff Nurse, NIC	Las Vegas, NV

Interviewees

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Caroline Maylock	MD, FAAP, C-ELBW	27	Ascension St. Vincent Women's Hospital	MD	Westfield, IN
Christina Baxter	DNP, APRN, NNP-BC, C-ELBW, C-NNIC	11	Shawn Jenkins Children's Hospital at the Medical University of South Carolina	NNP	Ladson, SC
Dawn Hager	BSN, RNC-NIC, C-NNIC, C-ELBW	9	Stanford Medical Center NICU; Rasmussen University	Clinical Care Leader; NICU Educator; ND and Adjunct Instructor	Horace, ND
Jennie Ellis	BSN, RNC-NIC, C-ELBW	19	Northern Light Eastern Maine Medical Center	Day Charge Nurse	Bangor, ME
Karen Kopischke	MSN, NNP-BC, C-ONQS, C-ELBW	43	Overland Park Regional Medical Center	NNP	Overland Park, KS
Rebekah Youngdahl	MSN, RNC-NIC, C-ELBW	14	Lehigh Valley Health Network	Staff Nurse	Bethlehem, PA
Sydney Stryker	BSN, RNC-NIC, RNC-LRN, C-ELBW, C-NNIC	5	Inova Fairfax Children's Hospital	RN	Spotsylvania, VA

Appendix B.

Job Analysis Presentation



Job Analysis

PSI Certification Psychometrics

Copyright 2019, PSI Services. All Rights Reserved.

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



Copyright 2019, PSI Services. All Rights Reserved.

Job Analysis Process

1. Prepare Draft Materials
2. Conduct Job Analysis Meeting
3. Conduct Pilot Survey
4. Conduct Live Survey
5. Perform Data Analysis
6. Create Exam Specifications
7. Develop Summary Report

← You Are Here



Copyright 2019, PSI Services. All Rights Reserved.



An ETS Company

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

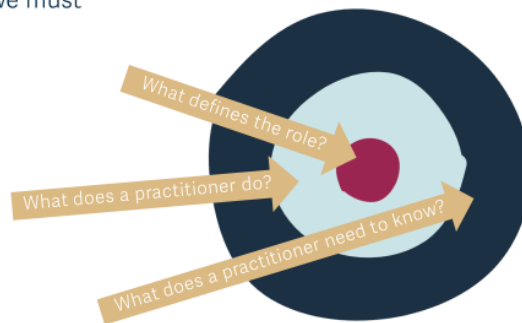


An ETS Company

Multiple Levels of Analysis

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

- Target Population
- Tasks Performed
- Knowledge Required



Copyright 2019, PSI Services. All Rights Reserved.

Terminology

Tasks

Specific work activities performed to fulfill job responsibilities

Knowledge

Information needed to fulfill job responsibilities

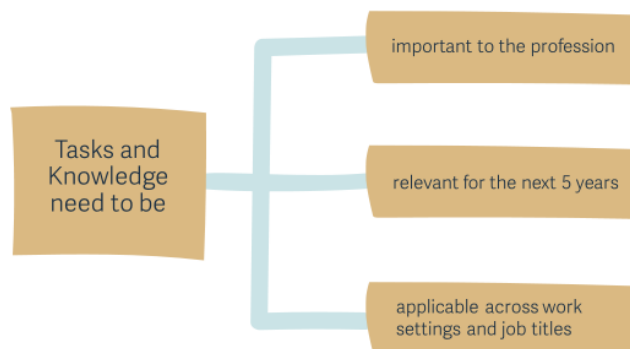
Content Domains (and subdomains)

Grouping of knowledge topics, required to create an outline format



Copyright 2019, PSI Services. All Rights Reserved.

Requirements for Tasks and Knowledge



Copyright 2019, PSI Services. All Rights Reserved.



An ETS Company

Rating Scales

Importance

How important is this
[task / knowledge]
to the job role?

- 0 - Not Relevant
- 1 - Minimally Important
- 2 - Somewhat Important
- 3 - Moderately Important
- 4 - Very Important
- 5 - Critically Important

Frequency

How frequently is this
[task performed /
knowledge used]
in the job role?

- 0 - Not Relevant
- 1 - Rarely
- 2 - Seldom
- 3 - Occasionally
- 4 - Frequently
- 5 - Very Frequently



Copyright 2019, PSI Services. All Rights Reserved.

Why Are You Here?

Subject Matter Experts (SMEs)

You are here to provide your content expertise and your professional experience

Facilitators

We are here to guide you through the process

Client Representatives

You are here to provide additional background information and the certifying body's perspective



Copyright 2019, PSI Services. All Rights Reserved.

Questions?



psionline.com

Copyright 2019, PSI Services. All Rights Reserved.



An ETS Company

Linkage Process



Copyright 2019, PSI Services. All Rights Reserved.



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



Copyright 2019, PSI Services. All Rights Reserved.

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	X				
1A2		X			
1A3		X		X	
1B1			X		
1B2			X		X
1C1				X	
1C2				X	
2A1	X		X		
2A2		X			
2B1			X	X	
2B2		X			
2B3			X	X	X
2B4		X	X		



Copyright 2019, PSI Services. All Rights Reserved.



An ETS Company

Linkage Thought Process

Doesn't everything apply to everything?
- Not exactly

	Grilling	Baking
Knife Techniques	✗	—

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**



Copyright 2019, PSI Services. All Rights Reserved.

Questions?



psionline.com

Copyright 2019, PSI Services. All Rights Reserved.



An ETS Company

Appendix C.

Survey Text



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company



An ETS Company

Appendix D.

Survey Invitation Email

DATE:	April 23, 2024
FROM:	NCC
SUBJECT:	NCC: Needs Your Input on the Care of Extremely Low Birth Weight Neonates (ELBW)!
BODY:	<p>This is your opportunity to be heard about the work YOU do in the care of Extremely Low Birth Weight Neonates (ELBW)!</p> <p>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 licensed professionals who specialize in caring for Extremely Low Birth Weight Neonates. Your input will shape the exam specifications for the Extremely Low Birth Weight Neonate (ELBW) certification program. It will only take 10-15 minutes to complete and completed entries will be entered in a gift card drawing.</p> <p>Please complete the survey by Sunday, May 5th, 2024.</p> <p>Link: https://www.research.net/r/FDVCQLD</p> <p>Questions about the survey or the certification can be directed to: info@nccnet.org</p>

Appendix E.

Exam Content Outline

10.00	1	General Assessment and Management	30
	A	Physical, Gestational Age, Behavioral and Neurologic Assessment	4
	B	Delivery Management, Stabilization, and Transition	4
	C	Transport/Transfer	1
	D	Thermoregulation	4
	E	Fluid and Electrolytes	5
	F	Nutrition and Feeding	4
	G	Respiratory Management/Oxygenation (e.g., Blood gases, Ventilation)	4
	H	Skin Care	2
	I	Infection Risks (e.g., immaturity, prevention, bundles)	2
11.00	2	Developmental Care	16
	A	Neurodevelopment (e.g., structure, function, immaturity)	3
	B	Impact of NICU Environment	3
	C	Neuroprotective Intentional Caregiving, Promotion of Self-Regulation and Development	4
	D	Neurobehavioral Alterations and Responses (e.g., habituation, state, and motor organization)	3
	E	Stress and Pain Assessment and Management	3
12.00	3	Describe & Manage Pathophysiologic States	41
	A	Antenatal Risk Factors, Obstetric Emergencies, and Perinatal Management Strategies that Impact ELBW neonates	3
	B	Cardiac	3
	C	Respiratory	6
	D	GI/GU	3
	E	Hematologic	3
	F	Infection	4
	G	Metabolic/Endocrine/Genetic	3
	H	Neurologic, Integumentary, and Musculoskeletal	4
	I	Renal	4
	J	Head, Eyes, Ears, Nose and Throat	2
	K	Pharmacology and Pharmacologic Interventions	6
13.00	4	Psychosocial, Ethical, and Professional Issues and Outcomes with ELBW Neonates and Families	13
	A	Family-Centered Care and Integration	3
	B	Trauma Informed Care/Parental Coping and Grieving Process	2
	C	End of Life Care/Palliative Care, Viability, and Legal/Ethical Issues	3
	D	Discharge Planning, Teaching, and Follow-up	3
	E	Professional Practice (Evidenced based practice, quality improvement and safety, and research) and Team communication	2

Secondary Classifications - Tasks

1. Identify antenatal risk factors and the potential implications for ELBW neonates.
2. Systematically assess all body systems of ELBW neonates utilizing physical examination, gestational age assessment, and neurobehavioral assessment.
3. Apply knowledge of anatomy and physiology (fetal, transitional, neonatal), pathophysiology, pharmacology, and neuro-behaviour to assess ELBW neonates and differentiate abnormal from normal.
4. Recognize normal values and deviations in clinical laboratory and diagnostic data and identify potential significance for ELBW neonates.
5. Identify life-threatening states in ELBW neonates and initiate appropriate, early intervention.
6. Develop an individualized plan of care for the maintenance and promotion of health for ELBW neonates and families during hospitalization and following discharge.
7. Implement diagnostic, therapeutic, and educational plans in collaboration with the interdisciplinary team to provide care for ELBW neonates and families.
8. Identify the vulnerabilities of ELBW neonates across the continuum and implement strategies to reduce risks and optimize outcomes.
9. Apply knowledge of evidence-based data to guide and educate families and direct clinical practice to optimize outcomes (e.g., quality improvement, research).
10. Recognize the psychosocial impact and stressors on ELBW neonates and families related to birth, hospitalization, and life-long care.
11. Identify professional, legal, and ethical issues which impact the care of ELBW neonates.





© 2024 NCC. All rights reserved.

No portion of this publication may be translated or reproduced in whole or in part, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the copyright owner. This publication may not be resold, rented, lent, leased, exchanged, given or otherwise disposed of to third parties. Neither the purchaser nor any individual test user employed by or otherwise contracted to the purchaser may act as agent, distribution channel or supplier for this publication.

PSI and the PSI logo are registered trademarks of PSI Services LLC.

PSI Services LLC

psiexams.com

