



Job Analysis Report

National Certification Corporation (NCC)

Low Risk Neonatal Intensive Care Nursing
(LRN)

June 2023

Submitted to:



Contents

- Executive Summary** **2**
- Introduction** **3**
- Job Analysis Committee Meeting** **4**
- Job Analysis Survey** **7**
- Development of Exam Specifications** **11**
- Appendix A – Subject Matter Experts** **12**
- Appendix B – Job Analysis Presentation** **14**
- Appendix C – Survey Text** **20**
- Appendix D – Survey Invitation Email** **27**
- Appendix E – Exam Content Outline** **28**



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) Low Risk Neonatal Intensive Care Nursing (LRN) 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 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 150-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
2. Assessment and Management of Pathophysiologic Conditions
3. General Management
4. Professional Issues

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) Low Risk Neonatal Intensive Care Nursing (LRN) 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*. Washington, DC: 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. New York, NY: John Wiley and Sons.

Job Analysis Committee Meeting

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, seven 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 19, 2023 and January 26, 2023.

PSI Services LLC (PSI) conducted a job analysis committee meeting on February 8, 2023 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 29 task statements, as follows:

1. Administer medications.
2. Assess gestational age.
3. Develop individualized plan of care.
4. Evaluate neurobehavioral cues.
5. Evaluate and modify plan of care.
6. Facilitate discharge.
7. Facilitate interdisciplinary care.
8. Identify and address change in neonatal status.
9. Identify and address ethical issues.
10. Identify and address legal issues.
11. Identify antepartum and intrapartum neonatal risk factors.
12. Interpret laboratory results.
13. Manage fluid balance.
14. Manage indwelling devices.
15. Manage monitors and equipment.
16. Manage neonatal environment.
17. Perform comprehensive assessment.
18. Perform or assist with procedures.
19. Provide bereavement care.
20. Provide cardiovascular support.
21. Provide education.
22. Provide nutritional support.
23. Provide palliative care.
24. Provide psychosocial support.
25. Provide respiratory support.
26. Provide transfer of care communication.
27. Review diagnostic findings.
28. Perform resuscitation measures.
29. Provide stabilization measures for the critically ill neonate.

The job analysis committee developed 20 knowledge statements across four content domains, as follows.

1. General Assessment

- A. Maternal risk factors and birth history
- B. Physical and gestational age assessment
- C. Laboratory and diagnostic data

2. Assessment and Management of Pathophysiologic Conditions

- A. Cardiovascular
- B. Respiratory
- C. Gastrointestinal and genitourinary
- D. Musculoskeletal and integumentary
- E. Neurological
- F. Hematology and hyperbilirubin
- G. Genetic, metabolic and endocrine

3. General Management

- A. Resuscitation and stabilization
- B. Nutrition and feeding
- C. Pharmacology, pharmacokinetics and pharmacodynamics
- D. Fluids, electrolytes and glucose homeostasis
- E. Oxygenation, non-invasive ventilation and acid-base balance
- F. Thermoregulation
- G. Neurodevelopmental care
- H. Infection and immunology
- I. Psychosocial support, grieving, family education and discharge planning

4. Professional Practice Issues

- A. Professional practice issues (e.g., legal, ethics, safety, 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.

Tasks	Knowledge																			
	K01	K02	K03	K04	K05	K06	K07	K08	K09	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20
T01	X	X				X						X	X	X				X		
T02		X			X		X				X	X				X				
T03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T04		X					X	X				X					X		X	
T05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T06	X		X		X				X			X	X			X	X		X	X
T07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T08		X	X	X	X	X	X	X	X	X		X		X	X	X	X	X		
T09	X	X						X		X	X								X	X
T10	X								X		X		X						X	X
T11	X		X						X		X	X		X			X	X		
T12	X		X			X			X	X				X	X			X		
T13		X	X			X			X		X	X	X	X						
T14			X	X	X	X	X				X	X	X	X	X	X	X	X	X	X
T15				X	X		X	X	X		X	X	X	X	X	X	X		X	X
T16	X	X					X	X	X		X					X	X	X	X	X
T17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T18		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
T19	X	X								X	X								X	X
T20		X	X	X					X		X		X	X	X				X	X
T21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T22		X	X		X	X			X	X		X	X	X			X		X	
T23	X	X									X	X	X						X	X
T24	X									X	X	X					X		X	X
T25	X	X	X		X		X				X		X		X				X	X
T26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T27	X		X	X	X	X	X	X	X	X	X	X	X	X	X			X		
T28	X	X	X	X	X			X	X		X		X	X	X	X			X	X
T29	X	X	X	X	X	X	X	X	X	X	X		X	X	X	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 task to your role as an LRN?

- 0 - Not Relevant
- 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 as an LRN?

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

Between February 27, 2023 and March 3, 2023, a pilot survey was conducted with the job analysis committee 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 2,958 individuals that was obtained from NCC. The list consisted of individuals who currently provide direct patient care to hospitalized neonates in Level II, III, or IV NICUs and hold the LRN certification. The number of individuals that responded to the survey (tasks and knowledge statements) was 249 (8.4%). The survey was opened on March 10, 2023 and closed on April 7, 2023. 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 provided responses lacking any variance (i.e., "straight-lining" or providing the same response to every task or knowledge). Responses from one respondent was removed from the data set, yielding a usable number of 248 completed 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 Administer medications	4.48	4.52
2 Assess gestational age	3.39	3.53
3 Develop individualized plan of care	3.66	4.23
4 Evaluate neurobehavioral cues	3.99	4.11
5 Evaluate and modify plan of care	3.59	4.11
6 Facilitate discharge	3.9	4.08
7 Facilitate interdisciplinary care	3.8	3.86
8 Identify and address change in neonatal status	4.65	4.56
9 Identify and address ethical issues	3.55	3.11
10 Identify and address legal issues	3.18	2.44
11 Identify antepartum and intrapartum neonatal risk factors	4.05	4.05
12 Interpret laboratory results	4.3	4.3
13 Manage fluid balance	4.08	3.9
14 Manage indwelling devices	4.07	3.7
15 Manage monitors and equipment	4.32	4.65
16 Manage neonatal environment	4.27	4.61
17 Perform comprehensive assessment	4.59	4.77
18 Perform or assist with procedures	4.01	3.92
19 Provide bereavement care	3.27	1.8
20 Provide cardiovascular support	4.12	3.12
21 Provide education	4.3	4.72
22 Provide nutritional support	4.33	4.62
23 Provide palliative care	2.93	1.54
24 Provide psychosocial support	3.9	4.12
25 Provide respiratory support	4.62	4.35
26 Provide transfer of care communication	4.06	3.77
27 Review diagnostic findings	3.95	3.84
28 Perform resuscitation measures	4.75	3.52
29 Provide stabilization measures for the critically ill neonate	4.62	3.52

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

Knowledge Statements		Importance	Frequency
1	Maternal risk factors and birth history	4.16	4.38
2	Physical and gestational age assessment	4.05	4.22
3	Laboratory and diagnostic data	4.3	4.33
4	Cardiovascular	4.33	4.1
5	Respiratory	4.61	4.66
6	Gastrointestinal and genitourinary	4.21	4.09
7	Musculoskeletal and integumentary	4.06	4.08
8	Neurological	4.22	4.05
9	Hematology and hyperbilirubin	4.28	4.53
10	Genetic, metabolic and endocrine	3.86	3.47
11	Resuscitation and stabilization	4.72	3.92
12	Nutrition and feeding	4.36	4.71
13	Pharmacology, pharmacokinetics and pharmacodynamics	4.06	3.84
14	Fluids, electrolytes and glucose homeostasis	4.34	4.33
15	Oxygenation, non-invasive ventilation and acid-base balance	4.44	4.17
16	Thermoregulation	4.44	4.7
17	Neurodevelopmental care	4.06	4.08
18	Infection and immunology	4.23	4.03
19	Psychosocial support, grieving, family education and discharge planning	4.13	4.27
20	Professional practice issues (e.g., legal, ethics, safety, quality improvement)	3.82	3.6

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. What is the highest level unit designation in which you provide direct patient care to hospitalized neonates in level II, III, or IV NICUs?	n	%
Level II	135	54.2
Level III	82	32.9
Level IV NICUs	19	7.6
Others	12	4.8
Missing	1	0.4
Total	249	100

Note. Others: II E; Level 2 and some level 3 until transport arrives; Level 2 E, we include care for 28-32 weeks gestation also with level 3 permission/consultation; Level 2, but also stabilize more critical babies for transport; Level II+; Newborn level 1,2; Normal newborn nursery. Float to Nicu [and] only take grower/feeders; Recently downgraded to regular nursery but this has not changed the level of care provided; we also are equipped to take care of 30 week neonates, and neonates that are intubated; We are labeled as a Level II but we take <32 weeks and <1500g; Well baby 35 wks or greater, 2000 g or greater with problems expected to resolve rapidly or who are convalescing from higher level of care; Well newborn 34 to 40+ weeks.

2. What is your highest level of nursing education?	<i>n</i>	%
Diploma	13	5.2
Certificate	2	0.8
Associate	36	14.5
Baccalaureate	164	65.9
Masters	30	12
Post Masters	2	0.8
Doctorate - DNP	1	0.4
Doctorate - PhD	0	0
Missing	1	0.4
Total	249	100

3. On average, how many hours per week do you provide direct patient care to hospitalized neonates in Level II, III, or IV NICUs?

Mean = 30.4 | Standard Deviation = 9.782 | Minimum = 0 | Maximum = 48

4. How many years of experience do you have as a nurse providing direct patient care to hospitalized neonates in Level II, III, or IV NICUs?

Mean = 21.49 | Standard Deviation = 11.068 | Minimum = 1 | Maximum = 47

5. Which of the following best describes your PRIMARY practice location?	<i>n</i>	%
Northeast	39	15.7
Midwest	58	23.3
South	104	41.8
West	46	18.5
Missing	2	0.8
Total	249	100

6. Do you precept, orient, or teach level II nurses?	<i>n</i>	%
Yes	211	84.7
No	37	14.9
Missing	1	0.4
Total	249	100

Development of Exam Specifications

The Job Analysis Committee met on June 1, 2023 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.

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
1 General Assessment				
1A Maternal risk factors and birth history	18.221	5.1	8	8
1B Physical and gestational age assessment	17.091	4.8	7	7
1C Laboratory and diagnostic data	18.619	5.3	8	8
2 Assessment and Management of Pathophysiologic Conditions				
2A Cardiovascular	17.753	5.0	8	8
2B Respiratory	21.483	6.1	9	9
2C Gastrointestinal and genitourinary	17.219	4.9	7	8
2D Musculoskeletal and integumentary	16.565	4.7	7	7
2E Neurological	17.091	4.8	7	7
2F Hematology and hyperbilirubin	19.388	5.5	8	11
2G Genetic, metabolic and endocrine	13.394	3.8	6	6
3 General Management				
3A Resuscitation and stabilization	18.502	5.2	8	8
3B Nutrition and feeding	20.536	5.8	9	9
3C Pharmacology, pharmacokinetics and pharmacodynamics	15.590	4.4	7	7
3D Fluids, electrolytes and glucose homeostasis	18.792	5.3	8	8
3E Oxygenation, non-invasive ventilation and acid-base balance	18.515	5.2	8	8
3F Thermoregulation	20.868	5.9	9	6
3G Neurodevelopmental care	16.565	4.7	7	5
3H Infection and immunology	17.047	4.8	7	8
3I Psychosocial support, grieving, family education and discharge planning	17.635	5.0	7	7
4 Professional practice issues				
4A Professional practice issues (e.g., legal, ethics, safety, quality improvement)	13.752	3.9	6	5

Appendix A

Subject Matter Experts

Job Analysis Committee

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/ AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Amanda Tooley	BSN, RNC-LRN	22	St. Marks Hospital, Salt Lake City, UT	RN	West Jordan, UT Region 4
Andrea LeRoy	BSN, RNC-LRN, PMH-C	14	Children's Minnesota, Children's Hospital Minneapolis	RN, Infant Apnea Program	Woodbury, MN Region 2
Colleen Chadwick	BSN, RNC-LRN	28	Newton Wellesley Hospital	Staff Nurse, Level 2B Special Care Nursery	Medfield, MA Region 1
Janna Dedman	MSN, RNC-LRN	18	Monroe Carell Jr. Children's Hospital at Vanderbilt	Nurse Manager Neonatal Services	Nashville, TN Region 3
Jasmin Osol	EJD, MSN, RNC-LRN, CBC	28	Meridian Health Care Ocean Medical Center, Brick, NJ and Clinical Instructor, The College of New Jersey, Ewing, NJ	Staff Nurse Special Baby Care	Brick, NJ Region 1
Jessica Caldwell	BSN, RNC-LRN	10	Comanche County Memorial Hospital	RN, Clinical Charge Nurse, Level II NICU	Lawton, OK Region 3
Natosha McEvers	MSN, RNC-LRN, RNC-INP	16	Memorial East Hospital, Shiloh, IL	Nurse Manager, Level IIe Nursery	Edwardsville, IL Region 2
Olivia Ochoa	BSN, RNC-LRN	3	Comanche County Memorial Hospital, Lawton, OK	RN-NICU	Fort Sill, OK Region 3
Paige Condon	BSN, RNC-LRN	12	Banner University Medical Center, Phoenix, AZ	Nursery RN/Charge RN, Women & Infant Services	Chandler, AZ Region 4

Interviewees

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/ AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Andrea LeRoy	BSN, RNC-LRN, PMH-C	14	Children's Minnesota, Children's Hospital Minneapolis	RN, Infant Apnea Program	Woodbury, MN
Colleen Chadwick	BSN, RNC-LRN	28	Newton Wellesley Hospital	Staff Nurse, Level 2B Special Care Nursery	Medfield, MA
Janna Dedman	MSN, RNC-LRN	18	Monroe Carell Jr. Children's Hospital at Vanderbilt	Nurse Manager Neonatal Services	Nashville, TN
Jasmin Osol	EJD, MSN, RNC-LRN, CBC	28	Meridian Health Care Ocean Medical Center, Brick, NJ and Clinical Instructor, The College of New Jersey, Ewing, NJ	Staff Nurse Special Baby Care	Brick, NJ
Jessica Caldwell	BSN, RNC-LRN	10	Comanche County Memorial Hospital	RN, Clinical Charge Nurse, Level II NICU	Lawton, OK
Olivia Ochoa	BSN, RNC-LRN	3	Comanche County Memorial Hospital, Lawton, OK	RN-NICU	Fort Sill, OK
Paige Condon	BSN, RNC-LRN	12	Banner University Medical Center, Phoenix, AZ	Nursery RN/Charge RN, Women & Infant Services	Chandler, AZ

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

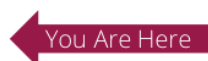
- Identify meaningful connections between the task and knowledge lists



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



Copyright 2019. PSI Services. All Rights Reserved.



Introduction



Copyright 2019, PSI Services. All Rights Reserved.

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



Copyright 2019, PSI Services. All Rights Reserved.

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

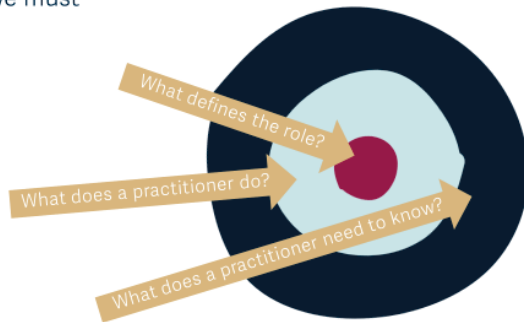


Copyright 2019, PSI Services. All Rights Reserved.

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



Knowledge

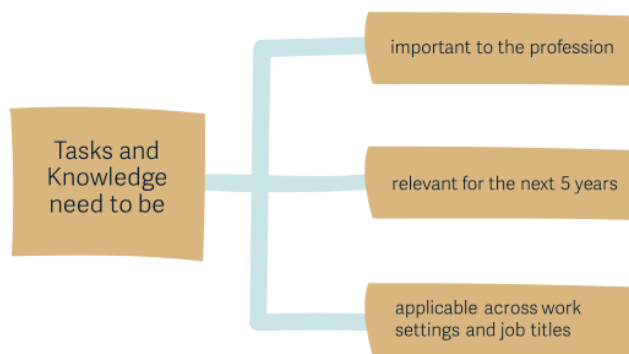


Content Domains (and subdomains)



Copyright 2019, PSI Services. All Rights Reserved.

Requirements for Tasks and Knowledge



Copyright 2019, PSI Services. All Rights Reserved.

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.

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.

Linkage Thought Process

Doesn't everything apply to everything?

- Not exactly

	Grilling	Baking
Knife Techniques	X	-

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.

Appendix C

Survey Text

NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey

Welcome

The purpose of this survey is to identify tasks and knowledge reflective of the Low Risk Neonatal Intensive Care Nursing (LRN) role. The results of this survey will be used to help develop the specifications for the LRN certification exam. Those who complete it will have a chance to win an Amazon gift card.

The survey will likely require 15 to 20 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 LRN certification exam.

Please direct all inquiries to: info@nccnet.org

The deadline for completion of the survey is April 7, 2023.

Do you agree to participate in the survey?

- Yes
 No

Are you currently providing direct patient care to hospitalized neonates in level II, III, or IV NICUs?

- Yes
 No

What is the highest level unit designation in which you provide direct patient care to hospitalized neonates in level II, III, or IV NICUs?

- Level II (Specialty care for newborns at 32 weeks gestation or more, weighing 1500 g or more with problems expected to resolve rapidly or who are convalescing from higher level care)
- Level III (Subspecialty care for high-risk newborns needing continuous life support and comprehensive care for critical illness. Includes infants weighing less than 1500 g or less than 32 weeks gestation at birth)
- 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)
- Other (please specify)

What is your highest level of nursing education?

- Diploma
- Certificate
- Associate
- Baccalaureate
- Masters
- Post Masters
- Doctorate - DNP
- Doctorate - PhD

On average, how many hours per week do you provide direct patient care to hospitalized neonates in level II, III, or IV NICUs?

How many years of experience do you have as a nurse providing direct patient care to hospitalized neonates in level II, III, or IV NICUs? (Select 0 for less than 1 year)

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

Do you precept, orient, or teach level II nurses?

- Yes
- No

NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey

Tasks

Please use the following rating scales to indicate how frequently you perform each task and how important it is to your professional role as a LRN.

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

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

Importance: How important is this task to your role as a LRN?

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

Task Ratings

	Frequency	Importance
Administer medications	<input type="text"/>	<input type="text"/>
Assess gestational age	<input type="text"/>	<input type="text"/>
Develop individualized plan of care	<input type="text"/>	<input type="text"/>
Evaluate neurobehavioral cues	<input type="text"/>	<input type="text"/>
Evaluate and modify plan of care	<input type="text"/>	<input type="text"/>
Facilitate discharge	<input type="text"/>	<input type="text"/>
Facilitate interdisciplinary care	<input type="text"/>	<input type="text"/>
Identify and address change in neonatal status	<input type="text"/>	<input type="text"/>
Identify and address ethical issues	<input type="text"/>	<input type="text"/>
Identify and address legal issues	<input type="text"/>	<input type="text"/>
Identify antepartum and intrapartum neonatal risk factors	<input type="text"/>	<input type="text"/>
Interpret laboratory results	<input type="text"/>	<input type="text"/>
Manage fluid balance	<input type="text"/>	<input type="text"/>
Manage indwelling devices	<input type="text"/>	<input type="text"/>

Manage monitors and equipment	<input type="text"/>	<input type="text"/>
Manage neonatal environment	<input type="text"/>	<input type="text"/>
Perform comprehensive assessment	<input type="text"/>	<input type="text"/>
Perform or assist with procedures	<input type="text"/>	<input type="text"/>
Provide bereavement care	<input type="text"/>	<input type="text"/>
Provide cardiovascular support	<input type="text"/>	<input type="text"/>
Provide education	<input type="text"/>	<input type="text"/>
Provide nutritional support	<input type="text"/>	<input type="text"/>
Provide palliative care	<input type="text"/>	<input type="text"/>
Provide psychosocial support	<input type="text"/>	<input type="text"/>
Provide respiratory support	<input type="text"/>	<input type="text"/>
Provide transfer of care communication	<input type="text"/>	<input type="text"/>
Review diagnostic findings	<input type="text"/>	<input type="text"/>
Perform resuscitation measures	<input type="text"/>	<input type="text"/>
Provide stabilization measures for the critically ill neonate	<input type="text"/>	<input type="text"/>

What critical task, if any, do you think is missing from this list?

NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey

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 as a LRN.

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

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

Importance: How important is this task to your role as a LRN?

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

General Assessment

	Frequency	Importance
Maternal risk factors and birth history	<input type="text"/>	<input type="text"/>
Physical and gestational age assessment	<input type="text"/>	<input type="text"/>
Laboratory and diagnostic data	<input type="text"/>	<input type="text"/>

Assessment and Management of Pathophysiologic Conditions

	Frequency	Importance
Cardiovascular	<input type="text"/>	<input type="text"/>
Respiratory	<input type="text"/>	<input type="text"/>
Gastrointestinal and genitourinary	<input type="text"/>	<input type="text"/>
Musculoskeletal and integumentary	<input type="text"/>	<input type="text"/>
Neurological	<input type="text"/>	<input type="text"/>
Hematology and hyperbilirubin	<input type="text"/>	<input type="text"/>
Genetic, metabolic and endocrine	<input type="text"/>	<input type="text"/>

General Management

	Frequency	Importance
Resuscitation and stabilization	<input type="text"/>	<input type="text"/>
Nutrition and feeding	<input type="text"/>	<input type="text"/>
Pharmacology, pharmacokinetics and pharmacodynamics	<input type="text"/>	<input type="text"/>
Fluids, electrolytes and glucose homeostasis	<input type="text"/>	<input type="text"/>
Oxygenation, non-invasive ventilation and acid-base balance	<input type="text"/>	<input type="text"/>
Thermoregulation	<input type="text"/>	<input type="text"/>
Neurodevelopmental care	<input type="text"/>	<input type="text"/>
Infection and immunology	<input type="text"/>	<input type="text"/>
Psychosocial support, grieving, family education and discharge planning	<input type="text"/>	<input type="text"/>

Professional Practice Issues

	Frequency	Importance
Application of Professional Issues (e.g., legal, ethics, safety, quality improvement)	<input type="text"/>	<input type="text"/>

What critical knowledge area, if any, do you think is missing from this list?

NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey

Thank You!

Thank you for completing the 2023 NCC LRN job analysis survey!

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

Those who complete the survey can enter a drawing for a chance to win a \$100 Amazon gift card. Your name and email address are requested for this drawing and will be used for this purpose only.

Do you agree to provide your name and email address in order to enter the drawing?

- Yes
- No



NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey

Drawing Information

Enter the drawing for a \$100 gift card.

Your name

Your email

Please re-enter your
email address

NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey

Comment Box

Thank you very much for your responses.

Please provide any additional comments in the text box below.

Please click on **Done** to complete the survey and submit your responses.

Please provide any additional comments here.

Appendix D

Survey Invitation Email

DATE:	Friday, March 10, 2023 12:00 PM
FROM:	frank.williams@psionline.com via SurveyMonkey
SUBJECT:	2023 NCC LRN Job Analysis Survey
BODY:	<div>A purple rectangular banner with the NCC logo (National Certification Corporation) at the top left. The logo consists of the letters 'NCC' in a stylized purple font, with 'National Certification Corporation' written in a smaller, sans-serif font to its right. Below the logo is a colorful, swooshing graphic in shades of blue, green, and yellow. The main text of the banner, 'NCC Low Risk Neonatal Intensive Care Nursing (LRN) Job Analysis Survey', is centered in a white, sans-serif font.</div> <p>NCC is conducting a survey regarding the knowledge and tasks needed for the Low Risk Neonatal Intensive Care Nursing (LRN) credentialing program and your input is vital. Share your expertise of the job role by clicking the button below to start the survey. Thank you for your participation!</p>

Appendix E

Exam Content Outline

1	General Assessment	23
A	Maternal risk factors and birth History	8
B	Physical and gestation age assessment	7
C	Laboratory and diagnostic data	8
2	Assessment and Management of Pathophysiologic Conditions	56
A	Cardiovascular	8
B	Respiratory	9
C	Gastrointestinal and genitourinary	8
D	Musculoskeletal and integumentary	7
E	Neurological	7
F	Hematology and hyperbilirubin	11
G	Genetic, Metabolic and Endocrine	6
3	General Management	66
A	Resuscitation and stabilization	8
B	Nutrition and feeding	9
C	Pharmacology, pharmacokinetics and pharmacodynamics	7
D	Fluid, electrolytes and glucose homeostasis	8
E	Oxygenation, non-invasive ventilation and acid-base balance	8
F	Thermoregulation	6
G	Neurodevelopmental Care	5
H	Infection and immunology	8
I	Psychosocial support, grieving family education and discharge planning	7
4	Professional Issues	5
A	Professional Issues (legal, ethical, safety, quality improvement)	5



© 2023. 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](https://www.psiexams.com) 

