

National Competency Framework for Registered Nurses in Adult Critical Care

Specialist Competencies



Version 1 : August 2019



Learner Name	
PRINT	SIGNATURE
Lead Assesor/Mentor Name	
PRINT	SIGNATURE

Foreword

Competence is defined throughout this document as:

'The combination of skills, knowledge and attitudes, values and technical abilities that underpin safe and effective critical care nursing and interventions'

These competencies are intended to be used in addition to the Critical Care Network's (CC3N) Step Competencies for nurses working in a critical care environment that cares for and manages liver patients.

The CC3N Step One Competencies should be completed first as a pre requisite with the specialist liver competencies following these either before or after CC3N Step Two and Step Three competencies according to unit requirements.

These competencies are intended for use by all critical care facilities that receive liver patients.

There will be variance between different critical care facilities managing liver patients and therefore each individual facility should identify those competencies that are relevant (and thus potentially achievable) with those competencies identified as not relevant being marked 'Not Applicable' or being 'greyed out'.

Aims and Objectives

The aim of this document is to provide comprehensive addition to the National Competency Framework to cover those working in Specialist Liver Centres.

It is anticipated that these competencies will form the next steps in your development and provide you with the knowledge and skills to:

- support the specialist nursing care required by the liver patient
- understand the different needs of the liver injured patient
- understand the importance of involving other specialities and the team contribution to liver care
- refer to or work alongside appropriate regional services for ongoing care

Assessment and Assessors

These competencies are intended to be used in addition to the Critical Care Network's (CC3N) Step Competencies for nurses working in a critical care environment which provides care for patients with liver injury or post liver surgery. The CC3N Step One Competencies should be completed first as a pre-requisite with Specialist Liver Competencies following these either before or after CC3N Step Two and Step Three competencies according to unit requirements.

While these are recommendations from the Critical Care Nurse Education Forum it is also acknowledged that clinical environments and staffing arrangements may vary from unit to unit. This may require adaptation to how this document is operationalized. It is strongly advocated that adaptations to use of this document are approved by Nursing Leads and Unit Managers within the speciality.

This document is designed to be included into the National Competency Framework for Registered Adult Critical Care Nurses. Competencies can be signed by an Assessor who has undertaken post registration critical care specialist training in the relevant speciality and has relevant experience and qualification as a mentor / assessor preferably with an educational qualification.

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Learning Contract

The following Learning Contract applies to the Individual Learner, Lead Assessor/Mentor and Unit Manager/Lead Nurse and should be completed before embarking on this competency development programme.

- It will provide the foundations for:
- Individual commitment to learning Commitment to continuing supervision and support
- Provision of time and opportunities to learn

LEARNERS RESPONSIBILITIES

- As a learner I intend to:
- Take responsibility for my own development
- Form a productive working relationship with mentors and assessors
- Deliver effective communication processes with patients and relatives, during clinical practice
- Listen to colleagues, mentors and assessors advice and utilise coaching opportunities
- Use constructive feedback positively to inform my learning
- Meet with my Lead Assessor/Mentor at least 3 monthly
- Adopt a number of learning strategies to assist in my development
- Put myself forward for learning opportunities as they arise
- Complete all competencies in the agreed time frame
- Use this competency development programme to inform my annual appraisal, development needs and NMC Revalidation

• Report lack of mentorship/supervision or support directly to the Lead Assessor/Mentor, and escalate to the Clinical Educator/Unit Manager or equivalent if not resolved.

Learner Name (Print)

Signature	Date:

LEAD ASSESSOR RESPONSIBILITIES

As a Lead Assessor I intend to:

- Meet the standards of regularity bodies (NMC, 2015)
- Demonstrate ongoing professional development/competence within critical care
- Promote a positive learning environment
- Support the learner to expand their knowledge and understanding
- Highlight learning opportunities
- Set realistic and achievable action plans
- Complete assessments within the recommended timeframe
- Bring to the attention of the HEI, Education Lead and/or Manager concerns related to the individual nurses learning and development
- Plan a series of learning experiences that will meet the individuals defined learning needs
- Prioritise work to accommodate support of learners within their practice roles
- Provide feedback about the effectiveness of learning and assessment in practice

Lead Assessor Name (Print)

Signature

Date:

CRITICAL CARE LEAD NURSE/MANAGER

As a critical care service provider I intend to:

• Facilitate a minimum of 40% of learners' clinical practice hours with their mentor/assessor and/or Practice

Educator or delegated appropriate other within the multidisciplinary team

• Provide and/or support clinical placements to facilitate the learners' development and achievement of the core/ essential competency requirements

• Regulate and guality assure systems for mentorship and standardisation of assessment to ensure validity and transferability of the nurses' competence

Lead Nurse/Manager Name (Print)

Signature	Date:
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Authorised Signature Record

To be completed by any Lead Assessor/Mentor or Practice Educator.

Print Name	Sample Signature	Designation	NMC NUMBER	Organisation

Specialist Liver Competencies: Tracker Sheet

Competency Statement	Date Achieved	Mentor/Assessors Signature
1.1 Anatomy & Physiology		
1.1.1 Hepatobiliary Anatomy & Physiology		
1.2 Conditions		
1.2.1 Acute liver failure (ALF)		
1.2.2 Chronic liver failure (CLF)		
1.3 Interventions		
1.3.1 Transjugular intrahepatic portosystemic shunt (TIPSS)		
1.3.2 Endoscopic band ligation		
1.3.3 Sclerotherapy		
1.3.4 Biliary Interventions		
1.3.5 Balloon tamponade tube		
1.3.6 Plasma exchange		
1.4 Surgical procedures		
1.4.1 Local surgical procedures		
1.4.2 PPPD (Whipples)		
1.5 Transplantation		
1.5.1 Liver transplant programmes		
1.5.2 Care of the post-transplant patient		
1.5.3 Immunosuppression		
1.6 Considerations for referring units		

1:1 Anatomy & Physiology

1.1.1 Hepatobiliary Anatomy & Physiology You must be able to demonstrate through discussion essential Competency Fully Achieved knowledge of (and its application to your evidence based practice): Date/Sign • Liver o Gross anatomy o Structure of portal triad o Vascular anatomy • Gall Bladder & Common bile ducts o Anatomical position o Role and function Spleen o Anatomical position o Role and function • Hepatocyte role and function including: o Coagulation o Production of bile o Homeostasis o Glycaemic control o Storage o Metabolism (nutrient and drug) o Maintaining plasma volume o Detoxification o Regeneration • Kupffer cells o Role and function • Liver physiology o Physiological manifestations of liver dysfunction o Interpretation of abnormal liver biochemistry • Causes of Liver or biliary dysfunction: o Obstruction o Inflammation o Infection o Perforation o Cirrhosis

1:2 Conditions

1.2.1 Care and Management of a Patient with Acute Liver Failure (ALF) You must be able to demonstrate through discussion essential Competency Fully Achieved knowledge of (and its application to your evidence based practice): Date/Sign Definition of ALF Recognises common and un-common causes of ALF including obstetric aetiologies • Investigations involved in: o Diagnosis of ALF o Monitoring the progression of ALF o Provide rationale for the monitoring and management of coagulopathy in a patient with ALF • Choose a cause of ALF and describe the underlying pathophysiology e.g. Paracetamol overdose • Able to discuss the different grading of ALF o Potential aetiologies of different grades o Effects on patient outcomes Clinical manifestations in organs: o Brain o Lungs o Heart o Liver o Pancreas o Adrenal Gland o Kidneys o Bone Marrow You must be able to undertake the following in a safe and professional manner: • Discusses the initial management of a patient with ALF • Explain potential treatment options for a patient with ALF The role and action of N-Acetylcysteine • Discuss the role of plasma exchange • Demonstrates basic understanding of listing criteria for liver transplantation (see transplantation section) • Discusses the importance of prevention/ management of sepsis in patients with ALF • Discusses the longer-term effects of surviving ALF: o Physiological o Psychological

You must be able to undertake the following in a safe and professional manner:	Competency Fully Achieved Date/Sign
Assessment of neurological status in ALF	
 Using an A-E approach, identify nursing management strategies to prevent/ minimise /manage cerebral oedema in ALF 	
Discuss additional methods of monitoring cerebral perfusion in ALF	
 As per local policy, administer pharmacological therapy to reduce cerebral oedema in ALF 	
 Demonstrate/discuss how you would perform nursing care activities to minimise impact of cerebral oedema as a result of ALF 	
Assess haematological stability to evaluate deteriorating liver function in ALF	
Discuss specific additional nutritional requirements for patients with ALF	
Discuss specific considerations for patients with ALF requiring RRT	

1.2.1 Care and Management of a Patient with Acute Liver Failure (ALF) Continued

1.2.2 Chronic Liver Failure (CLF)		
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign	
Definition of CLF		
 Recognises common and un-common causes of CLF and their associated pathophysiology: Alcohol related Liver Disease Non-alcohol related fatty liver disease/ Non-alcohol related steatohepatitis Viral Hepatitis Cholestatic liver diseases Vascular liver diseases Metabolic causes Genetic causes 		
 Describe the presentations of CLF Acute de-compensation/acute-on-chronic 		
Complications associated with CLF and their treatments/interventions:		
 Jaundice Physiology of bilirubin production Liver's role in bilirubin clearance Causes of pre/intra/post hepatic jaundice Implications and risks for patient Treatment strategies 		
 Portal hypertension Explain splanchnic arterial vasodilation theory Manifestations of portal hypertension Implications and risks for patient Treatment strategies 		

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
 Ascites Discuss pathophysiology underlying the formation of ascites Implications and risks for patient Treatment strategies 	
 Variceal bleeding Discuss pathophysiology underlying the formation of varices Implications and risks for patient Treatment strategies (see section 3.0) 	
 Hepatic encephalopathy Discuss theories related to the pathophysiology of hepatic encephalopathy o Implications and risks for patient o Treatment strategies 	
 Susceptibility to infection Discuss pathophysiology underlying functional immunosuppression in liver disease o Implications and risks for patient o Treatment strategies 	
 Manifestations of extra-hepatic organ failure associated with CLF: o Brain o Lungs o Heart o Liver o Pancreas o Adrenal Glands o Kidneys o Bone Marrow 	
 Initial management/treatment of CLF: o Pharmacological o Surgical o Lifestyle o Psychosocial 	

1.3 Interventions	
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
1.3.1 Transjugular Intrahepatic PortoSystemic Shunt (TIPSS)	
 Definition of TIPSS Discuss the indications and contraindications for TIPSS Describe how the procedure is carried out Recognise the possible associated complications of TIPSS 	
1.3.2 Endoscopic Band Ligation	
 Definition of 'Banding' o Discuss the indications and contraindications for banding o Describe how the procedure is carried out o Recognise the possible associated complications of banding 	
1.3.3 Injecting (Sclerotherapy)	
o Define Sclerotherapy o Discuss the indications for Sclerotherapy o Recognise the possible associated complications of sclerotherapy	
1.3.4 Biliary Interventions	
o Describe the role of endoscopic (ERCP and EUS) and radiological interventions (PTC) o Recognise the complications of biliary interventions o Discuss/instigate appropriate management of complications	
1.3.5 Balloon Tamponade Tube	
o Definition o Discuss the indications/contraindications for the procedure o Describe how the procedure is carried out o Recognise the possible associated complications of balloon tamponade tube o Discuss the nursing management of a balloon tamponade tube	
1.3.6 Plasma Exchange (plasmapheresis)	
o Define Plasma exchange o Discuss the role of plasma exchange in patients with liver failure o Recognise the possible associated complications of plasma exchange	

1.4 Surgical procedures					
1.4.1 Surgical procedures					
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign				
 Discuss surgical procedures which are undertaken in your specialist centre including: Liver resection Associated Liver Partition and Portal Vein Ligation for staged hepatectomy (ALPSS) 					

1.4.2 Pylorus preserving pancreatoduodectomy (PPPD)/Whipples				
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign			
o Definition of PPPD/Whipples o Discuss the indications and contraindications for PPPD o Discuss the indications and contraindications for Whipples o Recognise the possible associated complications of PPPD o Recognise the possible associated complications of Whipples o Discuss local nursing management procedures				

The competencies below are to be achieved in centres which perform liver transplantation

1.5 Liver Transplantation	
1.5.1 Liver Transplantation	
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
Indications for Liver Transplantation-acute liver failure	
Indications for Liver Transplantation-chronic liver failure	
Assessing results of blood tests pre-transplantation	
 Categories for Super urgent Listing (acute liver failure) o Responsibilities of the bedside nurse for the listed patient 	
The role of Transplant Co-ordinators	
 Awareness of national liver offering scheme with consideration of donor and recipient characteristics 	
Living related donor programmes	
Ethical considerations in transplantation	
Contraindications to transplantation	

1.5.2 Assessment and Management of Post Liver Transplant Patient

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign			
Awareness of common post-operative complications				
• Considerations for patient monitoring as per local guidelines (A-E assessment)				
Considerations for results of post-transplant imaging				
Blood Results and assessment				
Assessment and management of haemostasis				
Anti-rejection Drugs (see 1.5.3 immunosuppression section)				
Nutritional considerations				
Implications of ABO mismatched donor liver				
Psychological Care				
Care of Relatives				

1.5.3 Immunosuppression				
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign			
Understand necessity for immunosuppressive therapy and methods of action				
• Discuss different types of immunosuppression with awareness of local policy and practices				
Awareness of alternate agents/regimes				
Adhere to local policy for monitoring of levels				
Adverse effects and risks to patient				

Liver patients can be unstable and unpredictable, below is a section intended to prepare the nurse for safe management of a critically ill liver patient outside a specialist liver centre, or to facilitate the safe transfer to a liver specialist centre

1.6 Considerations for referring units	
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
• The importance of timely nursing and medical advice from specialist liver centre	
 Have awareness of key considerations for patients suffering from acute and chronic liver dysfunction, specifically frequent monitoring of: Physiological manifestations of liver dysfunction Coagulopathy Neurological status/grading of hepatic encephalopathy Blood glucose levels 	
 On decision to transfer: Ensure specialist nursing and medical advice from receiving facility is in place o Adhere to local Critical Care Network guidelines for safe Transfer Have awareness of potential airway compromise related to worsening encephalopathy during transfer 	

Initial Assessment & Development Plan

Date I I I

This meeting between Learner and Lead Assessor should take place on commencement of these competencies. It is to identify the needs of the nurse and those competencies that should be attained within the first 3 months of commencing the competency development programme.

CURRENT CRITICAL CARE KNOWLEDGE, UNDERSTANDING AND SKILLS

COMPETENCIES TO BE ACHIEVED

SPECIFIC SUPPORTIVE STRATEGIES REQUIRED

Learners Signature:

Lead Assessors / Practice Educators Signature:

NEXT AGREED MEETING DATE: | | |

Ongoing Assessment & Development Plan	
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Date I I I
This meeting between Learner and Lead Assessor is to identify the progress made by the nurse in achieving competence in practice against those competencies identified in the initial/previous meetings. It is here further objectives will be set. Ongoing assessments should take place at least every 3 months. If the learner requires additional support a further action plan can be completed.
REVIEW OF COMPETENCIES ACHIEVED
ON TARGET: YES NO
IF NOT WHICH COMPETENCIES HAVE YET TO BE MET
REASONS FOR NOT ACHIEVING
SPECIFIC OBJECTIVES TO ACHIEVE COMPETENCE
KEY AREAS & ADDITIONAL COMPETENCIES TO BE ACHIEVED BEFORE NEXT MEETING
Learners Signature:
Lead Assessors / Practice Educators Signature:
NEXT AGREED MEETING DATE: I I

Additional Action Planning

Date I I I

This document is to be completed as required to set SMART objectives for the learner who requires additional support to achieve certain competencies (these will have been identified during the 3 monthly On-going Assessment & Development Plan).

AREAS FOR FURTHER ACTION PLANNING

Learners Signature:

Lead Assessors / Practice Educators Signature:

NEXT AGREED MEETING DATE: | | |

Final Competency Assessment

Date I I I

This meeting is to identify that all the competencies have been achieved and that the nurse is considered a safe competent practitioner

COMPETENCY STATEMENT:

The nurse has been assessed against the competencies within this document and measured against the definition of competence below by critical care colleagues, mentors and assessors and is considered a competent safe practitioner within the critical care environment:

"The combination of skills, knowledge and attitudes, values and technical abilities that underpin safe and effective critical care nursing care and interventions".

As part of quality assurance, the nurse is expected to maintain a portfolio of practice as part of NMC regulations to support on-going competence and declare any training development needs to their line manager or appropriated other.

Competency will be reviewed annually as part of staff personal development plans. Where necessary, objectives will be set to further develop any emerging competency required to work safely within the critical care environment.

LEAD ASSESSORS COMMENTS

LEARNERS COMMENTS

Learners Signature:

Lead Assessors / Practice Educators	Assessors / Practice Educators Signature:				
NEXT AGREED MEETING DATE:	I	I	I		

Annual Competency Review
Date I I This record is a statement between the nurse who has completed their Liver competencies successfully and their Assessor /Practice Educator and/or Appraiser. It should be used and reviewed alongside local appraisal systems annually to ensure that the nurse continues to demonstrate themselves as a safe competent critical care practitioner.
OVERALL COMPETENCY MAINTAINED YES NO
IF NOT WHICH COMPETENCIES REQUIRE FURTHER DEVELOPMENT
SPECIFIC OBJECTIVES TO ACHIEVE COMPETENCE
FURTHER COMMENTS
Learners ignature:
Lead Assessors / Practice Educators Signature:
NEXT AGREED MEETING DATE:

NMC	Revalid	ation Cł	necklist						
Date	Ι	I	(Please add d	ate to the Assess	sment Reco	ord Summa	ary)	
time activ	ity or asses	sment; how	ever, you v	will need to b	engage with th e able to provide art of your local	e evidence			
evidence	E OF COMP	PLETING 450	PRACTICE	e hours in c	RITICAL CARE	Y	ES	NO	
LIST EVIDI	ENCE PROE	DUCED BELC	W						
					ofessional de				NO
					T EVIDENCE PRO				
evidence	OF REFELE	ECTING ON	CPD	YES	NO	3			
LIST EVIDI	ENCE PROE	DUCED BELC	W						
		OPRIATE PRO		L INDEMNITY	' ARRANGEMEN	TS	YES	NO	
	ENCE PROL		700						

NMC Revalidation Checklist continued	
3rd PARTY CONFIRMATION	
LEARNERS NAME	
LEARNERS PIN	
CONFIRMERS NAME	
CONFIRMERS JOB TITLE	
CONFIRMERS PIN	
CONFIRMERS EMAIL ADDRESS	

Reflective Accounts to inform NMC Revalidation

You are required to record a minimum of five written reflections on the NMC Code and your Continuous Professional Development as well as gaining practice-related feedback, as outlined in 'How to revalidate with the NMC'.

You are advised to complete the following documents during your critical care development to inform your NMC Revalidation, you are required to discuss these reflections with your Mentor/Lead Assessor/ Mentor and/or Practice Educator at your on-going assessment reviews, your final assessment and/ or your annual progress review as part of your local appraisal process. Once you have discussed these reflections your Mentor/Lead Assessor/Mentor and/or Practice Educator will need to complete the relevant 'Professional Development Discussions' (PDD) documentation to provide evidence of this.

Reflective Account Da	Date I	
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Please fill in a page for each of your reflections, ensuring you do not include any information that might identify a specific patient or service user. You must discuss these reflections as part of a professional development discussion (PDD) with another NMC registrant who will need to complete the PDD document to provide evidence of this taking place.

WHAT WAS THE NATURE OF THE CPD ACTIVITY/ PRACTICE-RELATED FEEDBACK?

WHAT DID YOU LEARN FROM THE CPD ACTIVITY AND/OR FEEDBACK?

HOW DID YOU CHANGE OR IMPROVE YOUR WORK AS A RESULT?

HOW IS THIS RELEVANT TO THE CODE?

(Select a theme, Prioritise people - Practice effectively - Preserve safety - Promote professionalism and trust)

Learners Signature:

Ductoccional	Daviala				מסטי	\
Professional	Develo	pment	DISCUSS	sion (עשץ,)

Date I I I	
	rant covering your written reflections on the Code, your CPD leted by the registrant (Mentor/Lead Assessor/Mentor and/or on.
NAME	NMC PIN
EMAIL ADDRESS	
PROFESSIONAL ADDRESS (INCLUDING POSTCODE)	
NAME OF REGISTRANT (WITH WHOM YOU HAD A PDD	DISCUSSION)
NMC PIN OF REGISTRANT (WITH WHOM YOU HAD A PE	DD DISCUSSION)
NUMBER OF REFLECTIONS DISCUSSED:	

DECLARATION: I CONFIRM THAT I HAVE DISCUSSED THE NUMBER OF REFLECTIVE ACCOUNTS LISTED ABOVE, WITH THE ABOVE NAMED REGISTRANT, AS PART OF A PDD AND IN LINE WITH THE 'HOW TO REVALIDATE WITH THE NMC'

Signature:

Specialist Centres

There are seven hospitals in the UK with Adult Liver Transplant Units:

Hospital	Address	Contact Number:
London – Royal Free Hospital	Pond Street, Hamstead, London NW3 2QG.	General Enquiry – 020 3758 2000 Liver Unit - 020 7794 0500 x 36896
London – Kings College Hospital	Denmark Hill, London SE5 9RS.	General Enquiry – 0203 299 9000
Birmingham – Queen Elizabeth Hospital	Mindelsohn Way, Edgbaston, Birmingham B15 2WB.	General Enquiry – 0121 371 2000 ICU
		0121 371 6330
Leeds – St Jame's Univesity Hospital	Beckett St, Leeds, West Yorkshire LS9 7TF	General Enquiry – 0113 243 3144 Liver ICU - 0113 206 9154.
Newcastle – Freeman Hospital	Freeman Road, Leeds, High Heation, Newcastle upon Tyne NE7 7DN	General Enquiry – 0191 233 6161
Cambridge - Addenbrooke's Hospital	Hills Road, Cambridge, CB2 0QQ	General Enquiry – 10223 245151
Edinburgh Royal Infirmary	Little France Crescent, Edinburgh EH16 4SA	General Enquiry – 0131 242 3041

Abbreviations

ALF	Acute Liver Failure
ALPSS	Associated Liver Partition and Portal Vein Ligation for staged hepatectomy
CLF	Chronic Liver Failure
CNS	Central Nervous System
СТ	Computerised Tomography
CVP	Central Venous Pressure
CVS	Cardio Vascular System
ERCP	Endoscopic Retrograde Cholangio-Pancreatography
ETT	Endotracheal Tube
EUS	Endoscopic Ultrasound
GCS	Glasgow Coma Scale
MAP	Mean Arterial Pressure
MDT	Multi-disciplinary Team
PPPDS	Pylorus preserving pancreatoduodectomy
PTC	Percutaneous Transhepatic Cholangiogram
RRT	Renal Replacement Therapy
SMART	Specific, Measureable, Attainable, Relevant, Timely
TIPSS	Transjugular Intrahepatic PortoSystemic Shunt
VTE	Venous Thromboembolism

Acknowledgements

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Notes

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This document has been produced with support from these organisations and is available through the CC3N website: www.cc3n.org.uk. It has received interest internationally and may be available in the future in alternative languages, it has also be used to inform registered nurse competency development in specialities outside of critical care.