



COASTN SKILLS AND COMPETENCY FRAMEWORK

Update by COASTN committee February 2021

Our Vision: Leading in Care, Soaring in Practice.

Our Mission:

College of Air and Surface Transport Nurses (COASTN) is committed to ensuring that safe and effective care is provided to patients in need of transport or retrieval. This is provided by highly trained professional nurses specialising in the transport environment. Extending the principles of novice through to expert nursing practice into the transport environment, transport nurses will use their extended knowledge and understanding of the physiological effects of altitude and the stresses of flight and road transport to ensure optimal outcomes for patients in their care.

Acknowledgements:

COASTN would like to acknowledge and thank all those who have contributed to this competency document, the COASTN committee, COASTN members, Professional Nursing Advisors (PNA's) and our nursing colleagues from around the country who have shared their knowledge and skills to help develop and maintain the framework.

Introduction:

Transport Nursing in New Zealand is a complex role, practised in a high-risk environment, often in isolation and carries a high level of clinical skills knowledge and responsibility. These transport nurses represent many varied specialist areas such as adult medical and surgical, paediatric & neonatal intensive care, cardiac and emergency care. These nurses transfer patients both nationally and internationally in a variety of modes including fixed and rotary winged aircraft, pressurised and non-pressurised and road transport. The diversity of nursing skill and knowledge ensures that the development of a generic framework to meet all requirements would be complex and time consuming. Unlike Australia and other countries globally, most transport nurses in New Zealand are employed within a DHB clinical area and work either part-time or on-call to cover transport services. While this approach ensures base skill requirements such as airway management, cardiac acuity, assessment etc are practised and consolidated daily, the opportunity for full immersion in the transport environment is still restricted.

Transport services within New Zealand continue to be under national review in order to establish equitability and national application. Transport nurses and COASTN continue to maintain working links with the National Ambulance Sector Office (NASO) and relevant agencies involved in these reviews. This enables us to ensure patients are transported whilst maintaining standardised nursing care as per Nursing Council requirements and the care provided during transport is equal to that being received at the point of referral.

Specialty knowledge of the transport environment and the physiological stressors of transport on patient and crew, remain paramount in ensuring safe patient transport and retrieval. This knowledge and understanding of the environment ensure that nurses remain within their scope of practice while delivering expert care to those patients in their charge. Within this in mind, COASTN have developed national entry, education, training and maintenance criteria for aeromedical nurses in NZ. This

defines recommended entry criteria and minimal training requirements for employment in any New Zealand.

COASTN committee continues to review and amend national standards and requirements for entry, training and ongoing education for air and surface transport nurses in New Zealand, along with the skills and competency framework. COASTN committee will align these documents with the ongoing goal of defining and promoting the speciality practice of

This documents, the transport skills and competency framework provides a matrix that offers several core competencies under the New Zealand Nursing Councils Four Domains of Practice. This allows nurses and managers to confidently ensure application of the correct level for individual nurses on the framework.

Responsibilities:

Nurse:

Each nurse will be required to gather the evidence for each competency to demonstrate achievement.

Forms of evidence may include but are not limited to:

- Self-appraisal through reflective documentation
- Verification of practice and structured observation of practice
- Log books
- Assessment and clinical records
- Feedback forms
- Policy and procedure development
- Quality initiatives
- Published articles
- Evidence of tertiary study and qualifications e.g. NZRC CORE advanced rescuer, COASTN Flight Course, post graduate aviation papers
- Relevant other training e.g. HUET, EPCs, CRM, water and survival training
- Audits
- Presentations
- Incident reporting
- Evaluate and research nursing practice

Manager:

COASTN expected every new nurse should receive a service specific orientation pathway prior to practicing independently. Covering, but not limited to, those listed on the Air Ambulance standards, such as aviation physiology in relation to the patient and one's self, crew resource management, transport stressors, safety and survival.

Transport service managers will work with individual transport nurses to ensure support and opportunities are in place so that all transport nurses are able to work

safely and effectively within the defined competency matrix in a supportive and timely manner

- By ensuring training opportunities are supported
- Forums are provided to facilitate feedback opportunities
- Regular audits of documentation are undertaken
- Recognition of individual and team achievements is provided
- Forums for reflective practice are encouraged
- Supportive environment

This framework can subsequently be used as a standalone competency assessment tool or in conjunction with a services individual approved Professional Development Review Process (PDRP)

Objectives:

- To ensure safety for both nurses and patients in the transport environment
- To develop minimum standards of patient care for transport nurses
- To enhance and assist in the quality and standards of patient transport care throughout New Zealand
- To assist in the application of minimum training standards for transport nurses
- To identify gaps in knowledge, skills and competence and therefore be able to identify specific training, education and development needs
- To provide guidance and a basis for assessing competence for all transport nurses
- To ensure the development and delivery of education and training for transport nurses around the country

Domains of Practice as per Nursing Council NZ (2012):

Domain One: Professional Responsibility: Contains competencies that relate to professional, legal and ethical responsibilities and cultural safety. These include being able to demonstrate knowledge and judgement and being accountable for own actions and decisions, while promoting an environment that maximises patient safety, independence, quality of life and health

1.1 Accepts responsibility for ensuring that his/her nursing practice and conduct meet the standards of the professional, ethical and legislated requirements

1.2 Demonstrates the ability to apply the Treaty of Waitangi/Te Tiriti o Waitangi to nursing practice

1.3 Demonstrates accountability for directing, monitoring and evaluating nursing care provided by nurse assistants, enrolled nurses and others.

1.4 Promotes an environment that enables client safety, independence, quality of life and health.

1.5 Practices Nursing in a manner that the client determines as culturally safe.

Domain Two: Management of Nursing Care: This domain contains competencies related to client assessment and managing client care, which is responsive to the client/clients needs' and which is supported by nursing knowledge and evidence based research.

- 2.1 Provides planned nursing care to achieve identified outcomes
- 2.2 Undertakes a comprehensive and accurate nursing assessment of clients in a variety of settings.
- 2.3 Ensures documentation is accurate and maintains confidentiality of information.
- 2.4 Ensures the client has adequate explanation of the effects, consequences and alternatives of the proposed treatment options
- 2.5 Acts appropriately to protect oneself and others when faced with unexpected client responses, confrontation, personal threat or other crisis situations
- 2.6 Evaluates client's progress toward expected outcomes in partnership with clients
- 2.7 Provides health education appropriate to the needs of the client within a nursing framework
- 2.8 Reflects upon and evaluates with peers and experienced nurses, the effectiveness of nursing care.
- 2.9 Maintains Professional development

Domain Three: Interpersonal Relationships: This domain contains competencies related to interpersonal and therapeutic communication with clients, other nursing staff and interprofessional communication and documentation. Establishes, maintains and concludes therapeutic interpersonal interactions with others Practises nursing in a negotiated partnership with the client where and when possible. Communicates effectively with clients and members of the health team

Domain Four: Inter-professional Healthcare and Quality Improvement: This domain contains competencies related to interpersonal therapeutic communication with clients, other nursing staff and inter-professional communication and documentation

- 4.1 Collaborates and participates with colleagues and members of the health care team to facilitate and coordinate care.
- 4.2 Recognises and values the roles and skills of the health care team in the delivery of care, Crew Resource management, team component and skill mix
- 4.3 Participates in quality improvement activities to monitor and improve standards of nursing

“He kete korero nau te rourou, naku te rourou ka ora ai tatou.”

With your basket of knowledge and my basket of knowledge, we will ALL benefit.

Knowledge and Skills Framework

Please note the term 'patient' has been used. This includes any recipient of health care and/or services e.g. Clients, consumers, residents, turoro.

Competent: under minimal guidance and supervision of an expert nurse

Proficient: without guidance or support from an expert nurse

Expert: without guidance or supervision or acting in a lead or coordination role

Skills and Competency related to Domain 1 1.1 – 1.5 Domain One: Professional Responsibility: Contains competencies that relate to professional, legal and ethical responsibilities and cultural safety. These include being able to demonstrate knowledge and judgement and being accountable for own actions and decisions, while promoting an environment that maximises patient safety, independence, quality of life and health Evidence		
Competent: reactive	Proficient: proactive	Expert: interpretive
<ul style="list-style-type: none"> • Understands and demonstrates practical skills in the logistics of pre transfer, in-flight/during transfer, post flight/ transfer • Demonstrates an understanding of the transport environment and stresses of transportation as they affect/ relate to clinical conditions • Understands and complies with New Zealand aeromedical and air rescue standard v3.0 2018 	<ul style="list-style-type: none"> • Demonstrates the ability to risk assess transfers and recommend alternatives based on robust evidence and clinical parameters 	<ul style="list-style-type: none"> • Communicates and ensures all team members are appropriately skilled, develops, implements and audits evidence-based protocols and that care is accountable and appropriate for the mission.

<ul style="list-style-type: none"> • Demonstrates an understanding and adheres to written protocols and policies relevant to in transport care. 	<ul style="list-style-type: none"> • Ensures policies and procedures are followed to maintain patient care and safety in the aeromedical/transport environment. • Assists in the review of existing and the development of new polices/procedures. • Assists in the collation and development in the audit of transport care clinical practice 	<ul style="list-style-type: none"> • Develops and implements evidenced based policies and transport procedures with regard to patient care and safety appropriate to the transport environment. Undertakes clinical audits of transport practices and act on findings to develop and improve standards of care • Ensures that tools and protocols designed for patient assessment in the transport setting are evidenced-based and current • Benchmarks care against national or international indicators and standards and use findings to enhance care • Provides evidence for revision of policies and protocols on a regular basis in liaison with other transport health care providers and stakeholders • Demonstrates highly developed specialist knowledge of the whole range of the logistics of patient transfer. • Demonstrates how to apply this knowledge to highly clinical, and complex situations
--	---	---

<ul style="list-style-type: none"> Assesses, prioritises and plans care for the patient prior to repatriation or transfer Care should be appropriate to individuals and clinical needs recognising actual and potential problems. 	<ul style="list-style-type: none"> Conducts an assessment of the patient's treatment, accurately, undertakes a physical/mental health examination (as appropriate) interpret findings to an enhanced level and utilises resources to problem solving Demonstrates ability to initiate specific treatment prior to transfer Demonstrates accountability (unsupervised lead in certain areas) for all areas of practice 	<ul style="list-style-type: none"> Assesses, prioritises, plans, treats and safely discharges patients presenting for transport repatriation or transfer by evaluating clinical data to select and implement appropriate care Acts in an advisory capacity on whether patients and relatives are assessed suitable to transport whilst applying appropriate policy in the repatriation of patients.
<ul style="list-style-type: none"> Evaluates, anticipates, and performs ongoing patient assessment requirements in the aeromedical/transfer environment continuously throughout the transport 	<ul style="list-style-type: none"> Applies advanced clinical assessment and reasoning to anticipate and problem solve changes in the patient condition, utilising advanced aeromedical knowledge from the COASTN course and other available training 	<ul style="list-style-type: none"> Develops and evaluates tools and protocols to facilitate evidence-based patient assessment, working toward achieving a national standard of patient assessment
<ul style="list-style-type: none"> Reviews own work through reflective practice and debrief situations with others 	<ul style="list-style-type: none"> Supports junior nurses in dealing with complex patients and situations by sharing advanced knowledge. Demonstrates awareness of the advisory resources that are available Demonstrates the ability to assess critically the medico- legal aspects of own practice 	<ul style="list-style-type: none"> Teaches and develops the skills of team members to ensure effective, evidence-based care is provided that reflects up-to-date guidance relevant to in-flight/ transport nurse Ensures others work within their own sphere of practice

Skills and Competency related to Domain 2 2.1- 2.9

Domain Two: Management of Nursing Care: This domain contains competencies related to client assessment and managing patient care, which is responsive to the client/clients needs' and which is supported by nursing knowledge and evidence based research.

Evidence

Competent: reactive	Proficient: proactive	Expert: interpretive
<ul style="list-style-type: none"> Ensures self-assessment pre-transport – including own health, scope of practise i.e.: knowledge base, expertise, physical skills, legal requirements, rest, shift commitments 	<ul style="list-style-type: none"> Ensures self-assessment pre-transport – including own health, scope of practise i.e. knowledge base, expertise, physical skills, legal requirements, rest, shift commitments etc 	<ul style="list-style-type: none"> Ensures self-assessment pre-transport – including health, scope of practise i.e. knowledge base, expertise, physical skills, legal requirements, rest, shift commitments
<ul style="list-style-type: none"> Plans implements, monitors and evaluates applied interventions and patient care using an evidence based practice approach 	<ul style="list-style-type: none"> Demonstrates comprehensive assessment, monitoring skills and the ability to relate them to aviation medicine principles related to gas laws and stressors Challenges and suggests care practices if appropriate and determines care priorities Evaluates and adjusts nursing care and therapeutic interventions within own skill and competency level Integrates research evidence base into the continued development of their own clinical practice 	<ul style="list-style-type: none"> Assesses priorities, plan, treat and safely discharge patients presenting for in-flight repatriation or transfer Coordinates and allocates transfers/retrievals to transport nurses according to assessment, qualifications, expertise, skill and personal strengths Advocates to ensure that proposed interventions, planned transport and treatment plans are in the patients optimal interest Uses evidence based research to develop and implement policy and protocols relating to in- flight procedures Audits and actively leads research activities

		<ul style="list-style-type: none"> Evaluates data clinically to select and implement appropriate care
<ul style="list-style-type: none"> Provides a comprehensive handover, written and verbal to the appropriate receiving team including all medical documentation, flight record and history, investigations written and verbal etc Ensures appropriate documentation is accurate, fully completed and filed while maintaining appropriate confidentiality within all services Provides patient and whanau with a full explanation that outlines the proposed plan, procedures and outcomes of the proposed transport. 	<ul style="list-style-type: none"> Supports other team members in appropriate document management, appraises critically and supports record keeping within professional and legal boundaries Supports team members in appropriate document management, accuracy, appraises critically and supports record keeping within professional and legal boundaries Interprets care practices and processes in the care setting and evaluates them 	<ul style="list-style-type: none"> Advocates ensuring that proposed interventions, planned transport and treatment plans documented are in the patients' optimal interest. Organises relevant aspects of transport and nursing care for patient for repatriations, transfers or retrieval Receives and provides highly complex information to all members of the MDT

<ul style="list-style-type: none"> • Undertakes and achieves NZRC CORE advanced resuscitation training • Anticipates the effects to individuals of transport environment including time zones, stress and long haul transports • Demonstrates awareness of health and safety legislation around in-flight transfers and make appropriate risk assessments • Demonstrates a comprehensive understanding and knowledge of the gas laws, the effects of altitude and travel and the principles of aviation medicine in day-to-day practice 	<ul style="list-style-type: none"> • Undertakes and achieves NZRC CORE advanced resuscitation training • Integrates research evidence base into the continued development of their own clinical practice • Applies policies and procedures in practice to ensure that all care provided is patient-centred • Demonstrates an enhanced knowledge of gas laws and applies this to aviation medicine principles • Works within level of clinical competency to ensure clinical standards are maintained • Develops and acts on audit in the clinical setting to enhance in-transport practices 	<ul style="list-style-type: none"> • Undertakes and achieves NZRC CORE advanced resuscitation training • Develops policy and protocols for specialised aeromedical care • Actively leads on developments in flight nursing practice • Provides support for others as necessary and offers practical advice and information if required • Evaluates care provided by others and appraises critically as necessary • Uses expert knowledge to anticipate the likely effects of transport and act appropriately to limit risk to patient
---	---	---

Skills and Competency related to Domain 3 3.1 – 3.3

Domain Three: Interpersonal Relationships: This domain contains competencies related to interpersonal and therapeutic communication with patients, nursing staff, and transport services.

Establishes, maintains and concludes therapeutic interpersonal interactions with others during transfer

Practises nursing in a negotiated partnership with the patient, whanau, where and when possible within confines of the transport environment. Communicates effectively with other transport services and the MDT team involved in transport, patient's and whanau

Evidence

Competent: reactive	Proficient: proactive	Expert: interpretive
<ul style="list-style-type: none"> • Is aware of Crew resource management in relation to the aviation & transport environments and is able to demonstrate/ articulate the following aspects as outlined in the NZ Aeromedical & Air Rescue Standards 2018 (Must have completed CRM training) & NZS8156 2019. • Demonstrates communication and coordination inside and outside the transport vehicle • Describes a knowledge of human error and reliability, error chain, error prevention and detection 	<ul style="list-style-type: none"> • Demonstrates the ability to practice skills taught in CRM training • Describes communication and co-ordination inside and outside the transport vehicle • Monitors own stress, stress management, fatigue and vigilance; communicates and responds to findings appropriately • Disseminates information and processes • Demonstrates situation awareness 	<ul style="list-style-type: none"> • Demonstrates leadership and team behaviour synergy encouraging a culture of safety • Coordinates and makes judgement decisions relating to facilitation / relationships with other providers • Manages conflicting views where decisions affect safety in the transport environment

<ul style="list-style-type: none"> • Describes company safety culture, Safety Operation Procedures, organisational factors 	<ul style="list-style-type: none"> • Demonstrates an awareness of the responsibility of the registered transport practitioner to report any changes with known cultural, legislative and customs issues to junior and senior transport nurses, while balancing the confidentiality issues of care 	<ul style="list-style-type: none"> • Demonstrates the ability to build on existing competencies and experience and share knowledge through networking and communicates directly with junior and senior staff
<ul style="list-style-type: none"> • Demonstrates the ability to establish a rapid rapport with patients during the short duration of time spent with them, during the transfer and the conclusion of the relationship at the end of care and professional codes • Describes how you negotiate partnership with patient/ whanau and the MDT during transfer 	<ul style="list-style-type: none"> • Demonstrates and models therapeutic relationships and boundaries guided by organisational codes • Encourage development of less experienced transport nurses through peer group support • Demonstrates the ability to build on existing competencies and experience and share knowledge through networking and communicates directly with junior and senior staff 	<ul style="list-style-type: none"> • Mentoring staff and offering guidance to ensure therapeutic relationships and conclusions are met according to organisational codes.
<ul style="list-style-type: none"> • Gains knowledge of other service providers involved in transport e.g. air ambulance providers, road ambulance services. • Knows how to access relevant information regarding a patient and the appropriateness of communication of that information to other parties 	<ul style="list-style-type: none"> • Demonstrates the ability to coordinate retrieval/transfer requests, liaising with all service providers involved in the transport to undertake transfer with the most appropriate team available as & when applicable 	<ul style="list-style-type: none"> • Demonstrates the coordination process, including management fiscal responsibilities and risks involved in the coordination of transfers as applicable

Skills and Competency related to Domain 4 4.1 – 4.3 COMPETENT

Domain Four: Inter-professional Healthcare and Quality Improvement: This domain contains competencies related to interpersonal therapeutic communication with patients, other nursing staff and inter-professional communication and documentation

Collaborates and participates with colleagues and members of the health care team to facilitate and coordinate care.

Competent: reactive	Proficient: proactive	Expert: interpretive
<ul style="list-style-type: none"> • Follows procedures for patient assessment and develops skills and knowledge specific to transport nursing 	<ul style="list-style-type: none"> • Provides training and preceptorship to enhance and support competent nurse assessment skills and knowledge of the effects of altitude and principles of aviation medicine • Develops protocols for patient assessment • Assists in the development of care pathways relevant to in-transport nursing • Supports the development and appropriate use of drug policies and procedures for transports • Contributes toward development and appropriate use of in-transport documentation 	<ul style="list-style-type: none"> • Develops service policy and protocols for specialised care in the transport environment • Contributes and inputs into development of national rules and standards where possible • Develops and implements clinical and competency training and personal development opportunities

<ul style="list-style-type: none"> • Develops the appropriate skills to research and effectively apply that research to practice • Understands the importance of research evidence and application to the role of transport nursing • Recognises and communicates research findings to all team members 	<ul style="list-style-type: none"> • Contributes to the knowledge base of transport nursing practice by applying and critiquing research/innovations to practise • Ability to analyse research base for the continued development of both in-transport nursing and multidisciplinary practice • Instigates change to practice as a result of research • Conducts and assist in research in areas of in- transport clinical practice within appropriate legal and ethical codes for research 	<ul style="list-style-type: none"> • Is able to carry out research relevant to the transport environment and disseminate the findings amongst the aeromedical community • Identifies areas for research and undertake research activities contributing to knowledge in transport practice • Audits and evaluates documentation to ensure appropriate standards are maintained and appraises and supports team members as required • Develops educational tools and packages to present research evidence to the multidisciplinary team • Develops and appraise audit tools specifically for in-transport nursing care that reflects both international and national standards • Develops policies and procedures for specialist monitoring in the aviation and transport medicine field • Investigates, present and recommend equipment to support in-flight monitoring and practice.
--	---	--

<ul style="list-style-type: none">• Understands Crew Resource Management and its application to the aeromedical and transport environment	<ul style="list-style-type: none">• Applies CRM in the aeromedical and transport environment	<ul style="list-style-type: none">• Actively leads and role models CRM in the aeromedical and transport environment
---	--	---

Glossary

Definitions within the context of this document

Transport: conveyance of a patient/s to an appropriate receiving facility for further care

Retrieval: to collect a patient/s from an the initial health provision facility back to facility of origin for further care

Aeromedical environment: the environment in which an aircraft travels within

Aviation medicine: the special field of medicine which is related to the biological and psychological problems of flight

Pre-flight: the period before a flight

In-flight: the period during a flight

References:

Ambulance New Zealand. (2018). *New Zealand Aeromedical and Air Rescue Standard (NZAARS) (Version 3.0:2018)*. New Zealand. Retrieved from <http://www.ambulancenz.co.nz/standards/>

Ministry of Health, (2009). *Guide to the National Travel Assistance (NTA) Policy 2005*. Retrieved from <http://www.health.govt.nz/system/files/documents/publications/nta-policy-guide-v2-1-aug-2009.pdf>

Nursing Council of New Zealand. (2012). *Code of conduct for registered nurses*. Retrieved from https://www.nursingcouncil.org.nz/Public/Nursing/Code_of_Conduct/NCNZ/nursing-section/Code_of_Conduct.aspx

Nursing Council of New Zealand. (2009). *Competencies for registered nurses*. Retrieved from https://www.nursingcouncil.org.nz/Public/Nursing/Standards_and_guidelines/NCNZ/nursing-section/Standards_and_guidelines_for_nurses.aspx

Standards New Zealand. (2019). *NZS8156:2019: New Zealand Standards for Ambulance, Paramedicine, and Patient Transfer Services*. Wellington, NZ: Standards NZ.