

Title	Demonstrate knowledge of the management of patients with acute neurological presentations in an ambulance context		
Level	5	Credits	12

Purpose	<p>This unit standard is intended for people who are working in an ambulance context, and who are responsible for developing management plans for patients, making appropriate decisions and who need to be able to do this independently.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – demonstrate knowledge of the structures and functions of the neurological system, head, and spine, for an ambulance context; – demonstrate knowledge of common acute neurological conditions, common traumatic, head and spinal injuries their signs, symptoms, and differential diagnoses, for an ambulance context; – develop a management plan for a patient with a traumatic brain injury and a patient with a spinal injury in an ambulance context; and – develop a management plan for a patient with neurological symptoms in an ambulance context.
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Classification	Emergency Services > Ambulance
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Available grade	Achieved
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Prerequisites	Unit 29323, <i>Gather and record information to support patient assessment</i> , or demonstrate equivalent knowledge and skills.
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Guidance Information

1 Definitions

Ambulance context – situations where emergency care is delivered in a variety of out-of-hospital environments. Out-of-hospital environments refer to any situation in which people require medical assistance outside of a controlled medical environment, such as a medical centre. These out-of-hospital environments include situations both in and away from an ambulance vehicle.

Best practice – for the purposes of this standard, a clinical technique or methodology that has proven to be most effective at delivering a desired outcome and is actively promoted across the ambulance and/or emergency care sector.

Clinical procedures and guidelines – the written procedures particular to each ambulance service and endorsed by Ambulance New Zealand.

Standing orders – written instructions issued by a medical practitioner that authorise individuals engaged in the delivery of health services to supply and administer certain medicines without a prescription in circumstances specified in the instruction.

2 References

Health and Disability Commissioner (Code of Health and Disability Services Consumers' Rights) Regulations 1996;
and all subsequent amendments and replacements.

3 Range

Performance in relation to the outcomes in this unit standard is to comply with current clinical procedures and guidelines and/or standing orders and/or current best practice and be appropriate to the patient's condition.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the structures and functions of the neurological system, head and spine, for an ambulance context.

Performance criteria

- 1.1 Describe the location and structure of parts of the neurological system, head, and spine according to their functions.
- Range includes but is not limited to – brain (cerebrum, cerebellum, brain stem), spinal cord, cerebrospinal fluid, neurons, skull, vertebrae.
- 1.2 Describe the gross structure of a neuron according to the function of each major part.
- Range cell body, dendrite, axon, myelin sheath.
- 1.3 Describe the role of action potential in the transmission of neurological processes.
- Range limited to the movement of potassium and sodium across a cell membrane.
- 1.4 Describe functions of the neurological system according to physiological processes.
- Range may include but is not limited to – sensory, motor, visual, auditory, taste, smell.
- 1.5 Describe sympathetic and parasympathetic nervous systems according to transmitter substances, receptor types, and physiological effects of stimulation.

Outcome 2

Demonstrate knowledge of common acute neurological conditions, common traumatic,

head and spinal injuries, their signs, symptoms, and differential diagnoses, for an ambulance context.

Performance criteria

- 2.1 Describe common neurological conditions according to their pathophysiology.
Range includes but is not limited to – stroke, seizures, syncope.
- 2.2 Describe common traumatic brain injuries according to their pathophysiology.
Range includes but is not limited to – compression, concussion, primary and secondary brain injury.
- 2.3 Describe common spinal injuries.
Range includes but is not limited to – paraplegia, quadriplegia.
- 2.4 Describe signs and symptoms of common neurological conditions according to the pathophysiology.
Range may include but not limited to – increasing intracranial pressure, dysphasia, ataxia.
- 2.5 Describe signs and symptoms of common chemical substances that may cause an altered neurological function.
Range includes but is not limited to – stimulants, depressants, hallucinogens, alcohol.
- 2.6 Describe signs and symptoms of common traumatic brain injury according to the pathophysiology.
Range may include but not limited to – increasing intracranial pressure, paresthesia, paralysis, dysphasia, ataxia.
- 2.7 Describe signs and symptoms of spinal injury according to the pathophysiology.
Range may include but not limited to – spinal shock, dermatomes, paresthesia, paralysis, ataxia.
- 2.8 Describe traumatic maxillofacial injury according to the pathophysiology.
- 2.9 Describe signs and symptoms of maxillofacial injury.
- 2.10 Describe differential diagnoses for common neurological conditions and traumatic brain/spinal injury.

Outcome 3

Develop a management plan for a patient with a traumatic brain injury and a patient with a spinal injury in an ambulance context.

Performance criteria

- 3.1 Describe the general management steps for a patient with traumatic brain injury.
- 3.2 Describe the general management steps for a patient with spinal injury.
- 3.3 Describe specific therapies used in the management of a patient with traumatic brain injury.
- 3.4 Describe specific therapies used in the management of a patient with spinal injury.
- 3.5 Develop, explain, and justify a management plan for a patient with traumatic head injury.
- 3.6 Develop, explain, and justify a management plan for a patient with spinal injury.

Outcome 4

Develop a management plan for a patient with neurological symptoms in an ambulance context.

Range includes but is not limited to – stroke, seizures, overdose.

Performance criteria

- 4.1 Describe the management steps for patients with neurological conditions.
- 4.2 Describe specific therapies used in the management of patients with neurological conditions.
- 4.3 Develop, explain, and justify a management plan for a patient with neurological symptoms.

Replacement information	This unit standard replaced unit standard 24859 and unit standard 24860.
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Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	5 May 2016	N/A
Revision	2	25 July 2019	N/A

Consent and Moderation Requirements (CMR) reference	0121
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.