

Queensland
Trauma Education

TRAUMATIC BRAIN INJURY

Glasgow Coma Scale Procedural skill

Participant resource kit

CSDS



Clinical Skills Development Service

Metro North
Health



Queensland
Government

Developed by

Dr Frances Williamson
Emergency Staff Specialist - Metro North Hospital and Health Service

Tracey McLean
Simulation Educator - Clinical Skills Development Service

Reviewed by

Kimberly Ballinger
Simulation Educator - Clinical Skills Development Service

Designed by

Rebecca Launder
Product Designer - Clinical Skills Development Service

Queensland Trauma Education
Traumatic Brain Injury - Glasgow Coma Scale: Procedural skill - Participant resource kit
Version 1.0

Published by the Clinical Skills Development Service
Herston, Queensland, Australia

csds.qld.edu.au/qte

Phone +61 7 3646 6500

Email CSDS-Courses@health.qld.gov.au

© Metro North Hospital and Health Service through the Clinical Skills Development Service (CSDS) 2003 - 2021.
All rights reserved.

Disclaimer: The content presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations or warranties about the accuracy, completeness or reliability of any information contained in this publication. The State of Queensland disclaims all responsibility and all liability (including without limitation for liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason reliance was placed on such information.

Queensland Trauma Education

The resources developed for Queensland Trauma Education are designed for use in any Queensland Health facility that cares for patients who have been injured as a result of trauma. Each resource can be modified by the facilitator and scaled to the learners needs as well as the environment in which the education is being delivered, from tertiary to rural and remote facilities.

National Safety and Quality Health Service (NSQHS) Standards



About this training resource kit

This package is designed to highlight the importance of and how to perform a structured approach Glasgow Coma Scale (GCS) in the assessment of a trauma scenario.

It is intended to provide guidance to a facilitator on the instruction of participants in the use of the Glasgow Coma Scale following trauma using case examples.

Learning objectives

By the end of this session the participant will be able to:

- Demonstrate an understanding of the elements of the Glasgow Coma Scale.
- Discuss the challenges with each part of the scale.
- Perform a GCS assessment using a structured approach.

Supporting resources

- GCS: Do it this way - infographic poster.

Overview of Glasgow Coma Scale

The Glasgow Coma Scale (GCS) is a commonly utilised scoring system to objectively assess a patient's level of consciousness following a traumatic brain injury (TBI). It is a reliable tool to categorise the severity of TBI:

- Mild = GCS 13-15
- Moderate = GCS 9-12
- Severe = GCS 8 or less

Further reading

Glasgow Coma Scale explained. Mehta Rhea, Chinthapalli Krishna (2019) *BMJ Simulation & Technology Enhanced Learning*. <https://www.bmj.com/content/365/bmj.l1296>

The Glasgow Structured Approach to Assessment of the Glasgow Coma Scale
<https://www.glasgowcomascale.org/>

Statewide Neurological Assessment (Adult)
https://qheps.health.qld.gov.au/__data/assets/pdf_file/0026/2416922/sw977.pdf



CHECK

For factors Interfering with communication, ability to respond and other injuries



OBSERVE

Eye opening , content of speech and movements of right and left sides



STIMULATE

Sound: spoken or shouted request
Physical: Pressure on finger tip, trapezius or supraorbital notch



RATE

Assign according to highest response observed

Eye opening

Criterion	Observed	Rating	Score
Open before stimulus	✓	Spontaneous	4
After spoken or shouted request	✓	To sound	3
After finger tip stimulus	✓	To pressure	2
No opening at any time, no interfering factor	✓	None	1
Closed by local factor	✓	Non testable	NT

Verbal response

Criterion	Observed	Rating	Score
Correctly gives name, place and date	✓	Orientated	5
Not orientated but communication coherently	✓	Confused	4
Intelligible single words	✓	Words	3
Only moans / groans	✓	Sounds	2
No audible response, no interfering factor	✓	None	1
Factor interfering with communication	✓	Non testable	NT

Best motor response

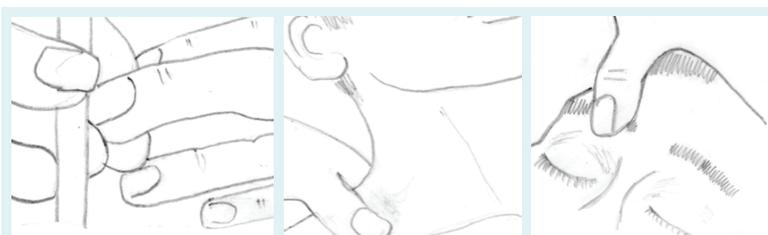
Criterion	Observed	Rating	Score
Obey 2-part request	✓	Obeys commands	6
Brings hand above clavicle to stimulus on head neck	✓	Localising	5
Bends arm at elbow rapidly but features not predominantly abnormal	✓	Normal flexion	4
Bends arm at elbow, features clearly predominantly abnormal	✓	Abnormal flexion	3
Extends arm at elbow	✓	Extension	2
No movement in arms / legs, no interfering factor	✓	None	1
Paralysed or other limiting factor	✓	Non testable	NT

Sites For Physical Stimulation

Finger tip pressure

Trapezius Pinch

Supraorbital notch



Features of Flexion Responses

Modified with permission from Van Der Naalt 2004
Ned Tijdschr Geneeskd

Abnormal Flexion

Slow Stereotyped
Arm across chest
Forearm rotates
Thumb clenched
Leg extends



Normal flexion

Rapid
Variable
Arm away from body

References

1. Teasdale G, Maas A, Lecky F, Manley G, Stocchetti N, Murray G. The Glasgow Coma Scale at 40 years: standing the test of time. *Lancet Neurol* 2014;13:844-54.
2. Laureys S, Bodart O, Gosseries O. The Glasgow Coma Scale: time for critical reappraisal. *Lancet Neurol* 2014;13:755-7.
3. Matis G, Birbilis T. The Glasgow Coma Scale - a brief review. Past, present, future. *Acta Neurol Belg* 2008;108:75-89. e.

Share your feedback

**Please complete our survey to help make
Queensland Trauma Education better.**

The survey should take no more than 5 minutes to complete.

Scan the QR code or visit this link:

<https://www.surveymonkey.com/r/3FWL3ZD>



Queensland Trauma Education

Traumatic Brain Injury - Glasgow Coma Scale: Procedural skill - Participant resource kit

Published by the Clinical Skills Development Service

Herston, Queensland, Australia

csds.qld.edu.au/qte

Phone +61 7 3646 6500

Email CSDS-Courses@health.qld.gov.au