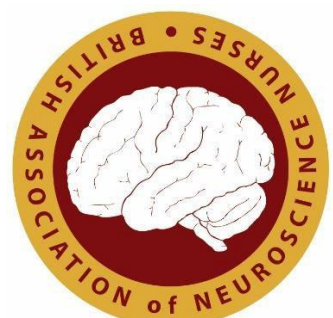


# Benchmark No. 1

## Neurological Observations



**British Association of  
Neuroscience Nurses**



# Benchmark No. 1

## Neurological Observations

Copyright © 2012 British Association of Neuroscience Nurses. All rights reserved.

First PDF edition printed 2017 in the United Kingdom (available online)

A catalogue record for this book is available from the British Library.

ISBN 978-1-911059-01-1

No part of this book shall be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information retrieval system without written permission of the publisher.

Published by the British Association of Neuroscience Nurses

For more copies of this book, please email: [info@bann.org.uk](mailto:info@bann.org.uk)

Designed and Set by the British Association of Neuroscience Nurses

[www.bann.org.uk](http://www.bann.org.uk)

Printed in the United Kingdom

***Although every precaution has been taken in the preparation of this publication, the publisher and authors assume no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of this information contained***



## History

The Neuroscience Nursing Benchmarking Group (NNBG) was established in the 1990`s as a result of increasing concerns over inconsistencies in practices as part of a subsidiary of BANN. The group aims to improve on the quality of care by comparing and sharing practice with each other, and set explicit standards for comparison of current practice against the ideal standard. The group is committed to searching for the best evidence related to specific areas of neuroscience practice. Membership of the group consists of representatives from neuroscience units within the UK and Ireland, together with educational colleagues from both the NHS/HSC and Higher Educational Institutes. The group is further subdivided into regions and this benchmark was developed by the national group of the NNBG in 2012.

In 2016, the NNBG consolidated back into BANN and further information about NNBG can be found on the BANN website [www.BANN.org.uk](http://www.BANN.org.uk) .

BANN would like to acknowledge the leadership and significant contribution made by the NNBG, and all its contributors, to neuroscience nursing over the years.

## Benchmark No.1 Neurological Observations

To achieve this benchmark, the following factors have been identified:

### Key points

- The fifteen point Glasgow Coma Scale should be used to assess the patient's neurological status.
- Written guidelines are available on how to perform and record neurological observations.
- Specific Instruction is given on how to apply painful stimuli appropriate to the physiological area being assessed.
- An individualised, documented care plan is available which meets needs of the patient and demonstrates evidence of on-going reassessment.
- Dots (•) not lines or ticks, must be used to fill out the GCS chart.
- On commencement of shift handover, one set of observations must be performed together by each staff member if the patient condition is causing concern
- A complete set of observations is carried out by the same person and wherever possible, continuity of observations should be maintained by the same person throughout the shift.
- A registered (competent) nurse or student nurse (under direct supervision), must perform the observations and be able interpret and act appropriately.
- A formal assessment of competence and knowledge is made and recorded in a competency manual or staff assessment procedure.
- Patients and clients have access to verbal and written information.

**FACTOR 1 – Documentation**

STATEMENT OF BEST PRACTICE	POOR ← LEVEL OF ACHIEVEMENT → EXCELLENT
1.0 All patients and clients identified as being 'at risk' of potential deterioration or change are assessed using the GCS assessment tool (Waterhouse, 2010)	
1.1 Written guidelines are available on how to perform and record neurological observations which includes details on how to apply painful stimuli (Barlow, 2012; Waterhouse, 2009; Jevon 2008 Edwards 2001, Ellis & Cavanagh, 1992, Frawley, 1990).	
1.2 Patient's documentation reflects the rationale for performing neurological observations (Ellis & Cavanagh, 1992).	
1.3 In the recording of vital signs, a method should be used which clearly distinguishes between pulse and BP recording.	
1.4 An individualised, documented care plan is available which meets needs of the patient and demonstrates evidence of on-going reassessment.	
1.5 All documentation is evidence based.	
1.6 All documentation has been reviewed within the last 2 yrs.	

**FACTOR 2 – Protocol**

STATEMENT OF BEST PRACTICE	POOR ← LEVEL OF ACHIEVEMENT → EXCELLENT
2.1 The fifteen point Glasgow Coma Scale should be used to assess the patient's neurological status. (Barlow, 2012; SIGN, 2009; Nice, 2007; Hughs, 2000;Teasdale et al., 1991; Shah, 1999; Addison and Crawford, 1999).	
2.2 All sections of the observation chart should be completed, as appropriate to the patient's condition. Any omissions or deviations in neurological status should be rationalised in the nursing records.	
2.3 Dots (•) not lines or ticks, must be used to fill out the GCS chart (Edwards 2001) Shah, 1999, Ingham, 1994).	
2.4 A registered who has completed a recognised competency programme or student nurse (under direct supervision), must perform the observations and be able to act appropriately.	
2.5 When giving verbal handover at the beginning of a new shift, the patient's neurological status is discussed and the method of painful stimuli used and the specific questions used to assess orientation).	
2.6 On commencement of shift handover, one set of observations must be performed together when the patient is causing concern and whenever possible. This would ensure accuracy throughout the patient's care (Edwards 2001).	
2.7 A complete set of observations is carried out by the same person and where ever possible, continuity of observations should be maintained by the same person throughout the shift (Edwards 2001).	

**FACTOR 3 – Education**

STATEMENT OF BEST PRACTICE	POOR ← LEVEL OF ACHIEVEMENT → EXCELLENT
3.1 All patients / clients are assessed by practitioners who have the required specific knowledge and expertise.	
3.2 Training and education should be provided in using the GCS chart (Palmer and Knight, 2006; SIGN, 2009 Edwards, 2001. Shah, 1999, Ingram. 1994).	
3.2 The ward/department has an evidence based education package available this should include: <ul style="list-style-type: none"> <li>• anatomy and physiology</li> <li>• assessment of consciousness</li> <li>• assessment of pupils and papillary reactions</li> <li>• central and peripheral painful stimuli</li> <li>• differing respiratory patterns and their implications</li> <li>• limb power and sensory assessment</li> <li>• indication for neurological observations</li> <li>• accurate documentation</li> </ul>	
3.3 Training sessions are available at ward level with opportunities for yearly up-dates.	
3.4A formal assessment of competence and knowledge is made and recorded in a competency manual or staff assessment procedure (Edwards, 2001. Ellis & Cavanagh, 1992, Rowley & Fields, 1991).	

**FACTOR 4 – Patient Information**

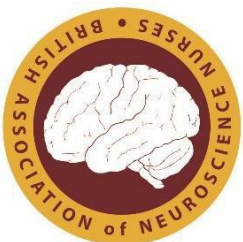
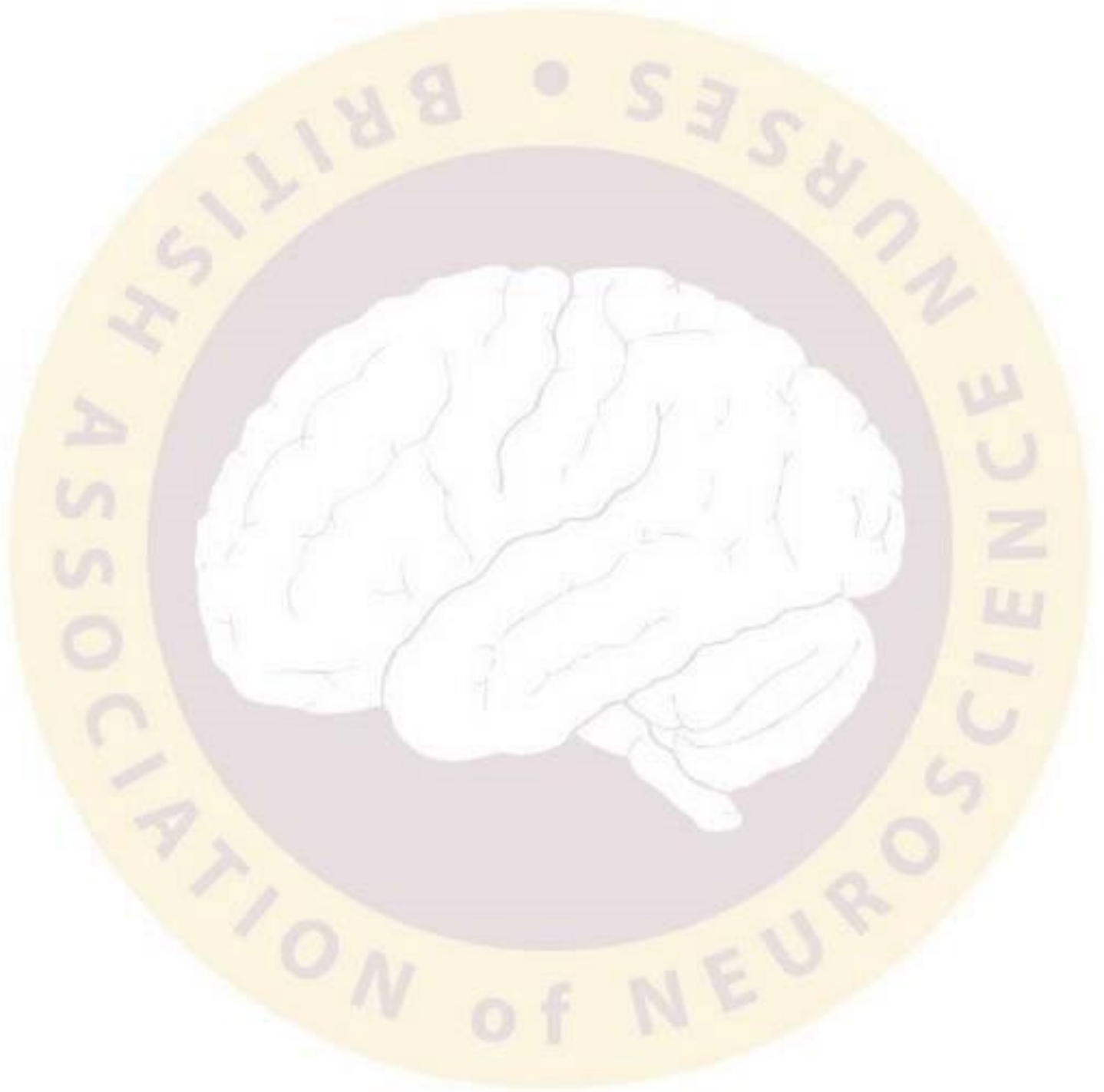
STATEMENT OF BEST PRACTICE	POOR ← LEVEL OF ACHIEVEMENT → EXCELLENT
4.1 Patient/carers are informed of the procedure and consent obtained.	
4.2 Patients and clients have access to verbal and written Information and should include the following: <ul style="list-style-type: none"> <li>• Purpose</li> <li>• Frequency</li> <li>• Rationale for noxious stimuli</li> <li>• Level of consciousness</li> </ul>	
4.3 Information given to patients / carers is documented in the patient's nursing records.	



## References

- Auken S. Crawford, B. (1998). Neurological Assessment. In Guerrero D. (Ed). Neuro-Oncology for Nurses. London, Whurr Publishers.
- Addison, C. Crawford, B. (1999). Not bad, just misunderstood. *Nursing Times*. Oct 27, Vol 95, No 43. pp. 52-53
- Arbabi S. Jurkovich GJ. Wahl WL. Franklin GA. Hemmila MR. Taheri PA. Maier RV. (2004) A comparison of prehospital and hospital data in trauma patients. *Journal of Trauma-Injury Infection & Critical Care*. 56(5): 1029-32, 2004 May
- Alan, D. (1986). Raised Intracranial Pressure. *Professional Nurse*. Dec. 78-80
- Barlow, P. (2012) A practical review of the Glasgow Coma Scale and Score. *The Surgeon* 10 pp114-119
- Cree, C. (2003). Acquired brain injury: acute management. *Nursing Standard*. 26. Vol 18, no. 11.
- Davis DP. Serrano JA. Vilke GM. Sise MJ. Kennedy F. Eastman AB. Velky T. Hoyt DB. (2006). The predictive value of field versus arrival Glasgow Coma Scale score and TRISS calculations in moderate-to-severe traumatic brain injury. *Journal of Trauma-Injury Infection & Critical Care*. 60(5): 985-90, 2006 May.
- Devlin JW. Boleski G. Mlynarek M. Nerenz DR. Peterson E. Jankowski M. Horst HM. Zarowitz BJ. (1999): Motor Activity Assessment Scale: a valid and reliable sedation scale for use with mechanically ventilated patients in an adult surgical intensive care unit. *Critical Care Medicine*. 27(7):1271-5, 1999 Jul.
- Ellis, A. Cavanagh, S. J. (1992). Aspects of Neurological Assessment using the Glasgow Coma Scale. *Intensive and Critical Care Nursing*. 8: 94-99
- Fairley, D. Cosgrove, J. (1999). Glasgow Coma Scale. Improving Nursing Practice through Clinical Effectiveness. *Nursing in Critical Care*. 4(6). 276-9. Nov-Dec.
- Fielding, K. Rowling G. (1990). Reliability of Assessment by Skilled Observers Using the Glasgow Coma Scale. *Australian Journal of Advanced Nursing*. 7. 4. 13-17.
- Fischer, J. and Mathieson, C. (2001): The History of the Glasgow Coma Scale: Implications for Practice. *Critical Care Nursing Quarterly*. 23(4):52-58, February 2001.
- Frawley, P. (1990). Neurological Observations. *Nursing Times*. August 29. Vol 86. No 35.
- Hickey, J.V (2003). The Clinical Practice of Neurological and Neurosurgical Nursing. (5<sup>h</sup> ed). Philadelphia: J.B Lippincott, Co.
- Jamieson, K.G, (1971) A First Notebook of Head Injury. London: Butterworth,
- Jennet, B. and Teasdale, G. (1977). Aspects of Coma After Severe Head-Injury. *The Lancet*. 8017. 878-881.
- Jevon (2008) Neurological Assessment Part 4 - Glasgow Coma Scale 2. *Nursing Times*; 104:30:24-25
- Juarez, V.J. Lyons, M. (1995). Inter-rater reliability of the Glasgow Coma Scale. *Journal of Neuroscience Nursing*. 27. 5. 283-286.
- Lower, J. (1992). Rapid Neuro Assessment. *American Journal of Nursing*. 92, 6, 38-45.
- Livingston BM. Mackenzie SJ. MacKirdy FN. Howie JC. (2000). Should the pre-sedation Glasgow Coma Scale value be used when calculating Acute Physiology and Chronic Health Evaluation scores for

- sedated patients? Scottish Intensive Care Society Audit Group. *Critical Care Medicine*. 28(2):389-94, 2000 Feb
- Lowry, M (1999). The Glasgow Coma Scale in Clinical practice: a critique. *Nursing Times*. June 2. Vol. 95, No 22.
- National Institute for Clinical Excellence. (2003). Head injury, Triage, Assessment, Investigation and Early Management of Head-injury in Infants, Children and Adults – Clinical Guidelines. London, NICE.
- North, B. Reilly, P. (1990). Raised Intracranial Pressure. Oxford. Heinemann Medical Books.
- Palmer, R., and Knight, J. (2006) Assessment of altered conscious level in clinical practice. *British Journal of Nursing* 15(22):1255-1259.
- Price, T., Miller, L and deScossa, M. (2000): The Glasgow Coma Scale in intensive care: a study. *Nursing in Critical Care* 5, 4: 170-173.
- Rowley, G & Fielding, K. (1991). Reliability and accuracy of the Glasgow Coma Scale with experienced and inexperienced users. *Lancet*, 337, 535-338.
- Royal College of Surgeons of England. (1999). Report of the working party on the management of patients with head injuries. London: Royal College of Surgeons of England. Recommendations for improving the management of head injury, focusing on accident and emergency departments and neuroscience units.
- Shah, S. (1999). Neurological Assessment. *Nursing Standard*. Vol 13. (22). 17-23. 49-56.
- SIGN (2009). *Neurological assessment using the Glasgow Coma Scale*. Edinburgh: SIGN
- Stewart, N. (1996). Neurological observations. *Professional Nurse*; 11: 6, 377-378
- Teasdale, G. Jennet, B. (1974). Assessment of Coma and impaired consciousness: A practical scale. *Lancet*. 2: 81-84.
- Teasdale, G. and Jennet, B. (1974): Assessment of coma and impaired consciousness. A practical scale. *Lancet* 2: 81-84, 1974.
- Teasdale, G.M (1995). Detailed review on management of head injury, including discussion of the Glasgow Coma Score. *Journal of Neurology & Neurosurgery, Psychiatry*. 58: 526-39.
- Udekwi P. Kromhout-Schiro S. Vaslef S. Baker C. Oller D. (2004) Glasgow Coma Scale score, mortality, and functional outcome in head-injured patients *Journal of Trauma-Injury Infection & Critical Care*. 56(5):1084-9, 2004 May.
- Waterhouse, C (2008) An audit of nurses' conduct and recording of observations using the Glasgow Coma Scale. *British Journal of Neuroscience Nursing* 4, (10) pp 492 - 499
- Waterhouse, C. (2009) A review of the use of painful stimuli in relation to the Glasgow Coma Scale. *British Journal of Neuroscience Nursing* 5, (5) pp 209-214
- Watson, M. Horn, S. Curl, J. (1992) Searching For Signs of Revival. *Professional Nurse*. July.
- Woodward, S. (1997). Neurological Observations. Practical Procedures for Nurses. *Nursing Times*. 93, 45-48.
- Zimmerman, J.E. and Knaus, W.A. (1999): Glasgow Coma Scale. In Webb, A.R. et al (eds) (1999): *Oxford Textbook of Critical Care*. Oxford: OUP.



**Benchmark No. 1**  
**Neurological Observations**

ISBN 9781911059011



9 781911 059011