“The Glasgow Coma Scale: Improving practice in non-neurological speciality wards”

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Introduction

- My interest
- Honours research study
- Purpose
Background

- The cornerstone of neurological assessment (Ellis & Cavanagh, 1992)
- Designed with simplicity in mind for a wide range of clinical environments and by staff with no special training (Teasdale & Jennet, 1974)
- Used by the majority of neurological units both Australia & Internationally
- Assumed to be reliable and a reproducible measure of neurological function (Gill, Reiley & Green, 2004)
Variation in practice
- Between neuroscience units and other areas (Waterhouse, 2005)
- Two hours longer to detect change in non neurological areas (Rowley & Feilding, 1990; Crewe & Lye, 1990)

Inconsistencies in application
- Little known about pattern of errors made by nurses (Ellis & Cavanagh, 1992)
- Few nurses appreciate the mechanism underpinning assessment (Waterhouse, 2005)
- Patient deterioration not identified early enough (Waterhouse, 2008)
Problems with assessment

- Discrepancy & uncertainty in areas such as painful stimulus: how to apply & which type (Waterhouse, 2009)
- Lack of standard criteria universally (Fischer & Mathieson, 2001)

Inter-reliability was not high (Waterhouse, 2008)

- Differences noted in the way doctors and nurses perform GCS (Holdgate, Ching & Angonese, 2006)
- Nurses from NICU had higher accuracy levels (Heron, Davie, Gilles & Courtney, 2001)
Methodology

- Mixed Methodology
  - 2 Phases
  - Questionnaire
  - Semi structured Interviews

- Participants
  - Registered Nurses
Results: Phase one

- Lack of training
- Confusion associated with purpose of GCS
- Lack of understanding what constituted the GCS
- No standardisation in practice
- Difficulty in communication and documenting results
- Difficulty interpreting results which led to confusion in areas of application
Results Phase Two: Theme Skill development

- “I Didn’t use it at all last year...I don’t think I have seen the form”

- “I don’t even know on our ward where I would find it”

- “it wasn’t even something I would think of using...in retrospect of course you should. Its just if you don’t see it for that length of time you just don’t think about using it”

- “I would probably have more difficulty doing what would be assessing subtle differences in their condition”
Theme: Confusion

- “I really struggle with it”

- “Often most days I will start the shift and go ‘how the hell did they get a 15 or how the hell did they get a six’”

- “I’m a bit confused with the scoring too because of things like the reflexes and things”
Theme: Confidence

- “I still struggle with it. I keep asking because I am not convinced.. I find whenever I start my shift mine can be quite different to theirs”

- “I don’t feel confident in doing it definitely not”
“I heard my educator going through something’s with the new grads today and I was like I didn’t know this...I was like this is kind of scary. The educator said to me ‘you have missed out on a lot being chucked in the deep end’ it has forced me to ask other nurses things but I don’t know”

“Some say it’s right some say it’s not, so I don’t know”

“I would start with the peripheral and then move to central. I am not sure I haven’t been taught anything”
“when some of these things are routine that are standard people just go put down the same thing without thinking... that is what we are use to writing and I am just thinking it might be the same with the GCS that people are not really doing the assessments there not really putting any thought into it”. .. I am pretty sure most of them would do a good one at least at the start of their shift because you want to know if your patient is going to deteriorate... it depends on the patient but I do think it happens definitely “
Theme: Communication

- “if it is not there on paper kind of thing. You might be doing your own little assessment...but you’re not doing the specific ticking and crossing it kind of gets missed”
- “when I think back to when I was on the ward doing it but I think I was more unconsciously doing it...Like if you are really busy on the ward and they have started to get confused but they kind of go in and out of it, it could be a big deal but your just busy. I remember being really busy on the ward and you kind of miss it and then you forget to hand it over and then the next person the same thing like it can escalate. Giving it a number like the GCS could be quite helpful”
Theme: Communication

- “The thing that we don’t do is go and do it together and kind of align to get over that subjectivity” When this did not occur, participants felt very unsure of their assessment results and said “I got no one to compare it with it’s so isolated” and another
- “When you have had three days off and you come on an this patient has been there for four days but you just don’t happen not to get them.. So it’s quite a good one I think to say with handover and definitely every shift”
**Discussion**

- Skill development failure impacts on an individual's confidence and thus creates enduring confusion.

- May be related to:
  - minimal education and training
  - a lack of reinforcement
  - minimal repetition during the early years of practice

- This affects confidence with using the GCS to assess patients:
  - confused with their assessment
  - reinforces not using the GCS
  - This appears to be a cyclical process
Recommendations

- Review training (University & Hospital)
- Implementation of training and education guidelines
- Simple guidelines attached to GCS to aid in assessment
- Assessment as mandatory introduction to hospital
- Evaluation
Significance

- Forms the basis for future clinical decisions
- Important to early identification the deteriorating patient
  - Garling report (2008) where there was a priority on the detection of the deteriorating patient
- Consistency in nursing assessment
- Ultimately key to improving patient outcome
References


The Brain Trauma Foundation (2000). The American Association of Neurological Surgeons, the joint section on neurotrauma and critical care: Glasgow coma scale score. *Journal of Neurotrauma, 17*(6-7), 563-571.


