ABSTRACT

**Background:** Hyperglycaemia immediately following acute stroke increases death rates, reduces neurological outcomes in comparison with normo-glycaemic levels Clement et al. [1] as well as increasing length of stay and additional hospitalisation costs, Leverton, [2]. The aim of this audit was to evaluate if current practice for the glycaemic management in the enterally fed stroke patients in our hospital met the standards published in the Joint British Diabetes Society guidelines 2012, JBDS [3].

**Methods:** This was a prospective audit which took place on days 7-10 of patient’s admission over three stroke rehabilitation wards in our hospital between November 2012 and April 2013. The following standards for all patients with diabetes on an enteral feed were audited:

1. Was the patient referred to the specialist diabetes nurse?
2. Was the patient referred to the diettian?
3. Were the patients’ blood glucose levels monitored (pre-feed, 4-6 hourly, monitored hourly if feed unexpectedly switched off).
4. Any actions taken if patients bloods glucose level were out of range (<6mmol/l or >12mmol/l).

We also audited if dietetic documentation included the carbohydrate content of feed because we wanted to evaluate dietitian’s practice at a ward level according to the JBDS recommendations.
Results: Eight patients with type 2 diabetes were included in the audit. There were no patients excluded from the audit as all eight were appropriate for inclusion (patients were excluded if they had been admitted established on enteral feeding with a suitable medication/insulin regimen). None of the patients were referred to the specialist diabetes nurse by the ward staff. Seven patients were appropriately referred to the dietitians. Only one patient had their blood glucose levels monitored as per standard number 3. Only one of the patients had their BGL’s within the target range (6-12mmol/L) over the previous 24 hours when the data was collected. All other patients had at least one blood glucose level out of range (2.8mmol/L - >30mmol/L). None of the dietitians documented the carbohydrate content of the feed in the medical notes and only one documented on the enteral feeding regimen.

Discussion: The results from this audit highlight that local practice across the stroke rehabilitation wards did not meet the standards of the JBDS (2012) guidelines. Recently Oyibo et al. [4] conducted an observational study into evaluating the effectiveness of twice daily injections in the enterally fed stroke patient and found that their tailored insulin regimen was safe and effective for most patients; this work highlighted the importance of good multidisciplinary working and glycaemic monitoring.

Conclusions: Although training was not looked at in this audit, and the sample size was only 8 patients, future audits could be used to assess the level of knowledge and education of the ward staff and decipher whether education or time was a barrier to appropriate monitoring of this patient group. Plans are to re-audit practice annually following further training of the appropriate staff to assess if this improves practice. The main conclusion drawn from this audit is that the results obtained did not meet the JBDS (2012) standards.

Keywords: Stroke; glycaemic control; enteral feeding; hyperglycaemia; carbohydrate; diabetes specialist nurse; blood glucose level; Joint British Diabetes Society.

REFERENCES


© 2014 Woods; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.