Nutrition & Hydration Assessment, Monitoring & Nursing Care of a Critically III Adult in Intensive Care - Full Clinical Guideline

Reference no.: CG-CRITCARE/4509/24

These are nursing guidelines for use within critical care to support best practice. They are not prescriptive and as with all nursing practice should be utilised in conjunction with the registrant's clinical judgement

Introduction

Critically ill patients are often unable to maintain their own nutrition or hydration requirements due to the nature of their illness or injury or as an unavoidable consequence of the intensive therapies they require.

Aim and Purpose

The purpose of this guideline is to ensure that the patient's nutrition and hydration status is assessed, monitored and optimally managed and that associated care is delivered in a safe and effective way.

It aims to promote the maintenance of a safe environment for patients, relatives and the multidisciplinary team, to direct the delivery of excellent and informed nursing care and to ensure the nurse acts as patient advocate. (NMC. 2018)

Keywords - Nutrition, Hydration, Critically III Adult, Intensive Care Unit

Main Body of Guidelines

Nutrition & Hydration Assessment, Monitoring & Nursing Care

- 1. Maintain an accurate hourly fluid balance on the 24-hour observation chart along with a record of the previous days fluid balance and the cumulative fluid balance since admission. Report significant fluid deficit or overload as even small fluctuations can have a significant impact on patient outcome (Naldrett 2022).
- 2. Where clinically indicated and as directed by a Medical Practitioner, administer prescribed intravenous maintenance fluid OR a fluid bolus at the prescribed rate via the prescribed route and record the amount on the 24-hour observation chart.
- 3. Assess the patient for bowel sounds at least once per shift / prn and record their presence or absence in the appropriate health care record.
- 4. Ensure the patient is referred for Dietetic review and where clinically indicated administer prescribed enteral feed via the available enteral route as directed by the Trust Policy & Procedure for Enteral Feeding (2017) in conjunction with the local ICU enteral feeding algorithm.
- 5. Record the type of enteral feed and hourly rate delivered on the 24-hour fluid balance chart and record gastric aspirate volume 4 hourly. Where aspirate is discarded and not

replaced included this amount as part of the fluid balance.

- 6. Report repeatedly large gastric aspirates as an indicator of feeding intolerance and to facilitate the timely prescription of prokinetic therapy if required.
- 7. Where clinically indicated and as directed by a Medical Practitioner, administer prescribed prokinetic agents to encourage gut motility and improve gastric emptying to minimise the risk of paralytic ileus, abdominal distension and vomiting and to promote absorption of enteral feed (Lewis *et al* 2016).
- 8. Where clinically indicated and as directed by a Medical Practitioner, administer prescribed gut ulceration prophylaxis via the prescribed route unless enteral feeding is fully established or contraindications apply. (DoH 2011, Hellyer *et al* 2016).
- 9. Deliver all care associated with the individual enteral feeding tube as directed by the Trust Policy & Procedures for Enteral Feeding (2017)
- 10. Where the patient has a nasogastric tube in situ, secure this using the Authbert Hammock technique noting the length of the tube at the nares and documenting this on the 24-hour observation chart at least once per shift. Compare the tube length with baseline at insertion and report and recheck the tube tip placement should significant movement occur.
- 11. Change the fixation tape at least once per shift / prn and ensure the nares are cleaned and assessed for redness / pressure damage at least 4 hourly. At the same time move the position of the nasogastric tube carefully within the nostril and record in appropriate local documentation.
- 12. Record the patient's blood glucose on the 24-hour observation chart as a minimum of 6 hourly and report if hypoglycaemia / hyperglycaemia occurs. Increase frequency of blood glucose recording to hourly until blood glucose returns to within patients' target range.
- 13. Where clinically indicated for hypoglycaemia and as directed by a Medical Practitioner, administer prescribed dextrose via the prescribed route and assess its effectiveness. Record the amount and dose on the 24-hour observation chart.
- 14. Where clinically indicated for hyperglycaemia and as directed by a Medical Practitioner, administer prescribed insulin via the prescribed route and assess its effectiveness. Record the amount and dose on the 24-hour observation chart.
- 15. Where clinically indicated, administer prescribed Parenteral Nutrition as directed by the Trust Parenteral Nutrition Policy (2017).

References

| Department of Health (2011) | High Impact Intervention Care Bundle to reduce ventilation-associated pneumonia. <u>HCAI High</u> Impact Interventions | | |
|--|---|--|--|
| Hellyer. T., Ewan. V., Wilson., Simpson A. (2016) | The Intensive Care Society bundle of interventions for the prevention ventilator-associated pneumonia. Journal of the Intensive Care Society Vo/. 17.(3) pp. 238-243. | | |
| Lewis K., Alquahtani.Z., McIntyre. L <i>et al.</i> (2016) | The efficacy and safety of prokinetic agents in critically ill patients receiving enteral nutrition: a systematic review and meta-analysis of randomised trials. <u>Critical Care</u> 20. 259 | | |
| Naldrett. I. (2022) | Essential critical care skills 5: management of fluid balance. <u>Nursing Times [online]</u> Vol.118. Issue 3. <u>www.nursingtimes.net</u> | | |
| NMC (2018) | The Code. Professional standards of practice and behaviour for nurses, midwives and nursing associates. <u>http://www.nmc.org.uk/code</u> . | | |
| Rovlias. A., Kotsou.S. (2000) | The influence of hyperglycaemia on neurological outcome in patients with severe head injury. <u>Neurosurgery</u> 46. pp. 335-342 | | |
| UHDB (2017) | Trust Parenteral Nutrition Policy CL-OP/2012/027 | | |
| UHDB (2017) | Trust Policy & Procedures for Enteral Feeding POL-CL/119/11 | | |

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| Intended Recipients: This guideline is for the nursing team on both ICU RDH and ICU QHB sites. The target population for this policy includes all Trust health care staff, bank workers or external agency, who are responsible for the care of patients within Critical Care. Training and Dissemination: Cascaded electronically through lead sisters/nurses/doctors/outreach. Published on Intranet, Article in ICU newsletter; emailed via NHS.net Development of Guideline: Cath Rowe | | | | | | | |
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