Royal Cornwall Hospitals
NHS Trust

High Output Small Bowel Stoma In The Acute Setting Prior To Specialist Team Involvement, Clinical Guideline

V1.0

March 2025

1. Aim/Purpose of this Guideline

1.1. The aim of this guideline is to provide an evidence-based protocol to ensure a consistent and safe approach to the initial management of high output small bowel stomas (jejunostomy, ileostomy) for inpatients at RCHT prior to involvement of specialist teams. This will include the nutritional, pharmaceutical and nursing management, and will aim to re-establish normal bowel function, and prevent associated risks of a high output such as dehydration, electrolyte imbalance and poor skin integrity. This guidance considers a high output to be when stoma volume is >1250ml for more than 48 hours.

1.2. Patients with a high output large bowel stoma, colostomy, will continue to follow the inpatient diarrhoea pathway.

1.3. This guideline refers to adult patients, i.e. those who are 18 years of age or older.

Data Protection Act 2018 (UK General Data Protection Regulation – GDPR) Legislation.

The Trust has a duty under the Data Protection Act 2018 and UK General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out; it must be opt in.

Data Protection Act 2018 and UK General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and UK General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team.

Royal Cornwall Hospital Trust rch-tr.infogov@nhs.net

2. The Guidance

2.1. The term high output stoma (HOS) is defined as a small bowel stoma that is producing more than 1250ml for a period of > 48hours. This may be post-operatively or periodically. This can lead to an electrolyte imbalance resulting in a patient becoming water, sodium and magnesium deplete.

2.2. Consider causes of HOS before commencing following this guidance such as:

- Infective diarrhoea (e.g. Clostridium Difficile)
- Active inflammatory bowel disease.
- Bile acid malabsorption.
- Small bowel fistulae.

- Small bowel partial obstruction.
- Intra-abdominal or pelvic collections/ sepsis.
- Pancreatic enzyme insufficiency.
- Chemotherapy/radiotherapy induced diarrhoea.
- Coeliac disease.

2.3. **General guidance**

Following the diagnosis of a high output small bowel stoma please ensure the following:

2.3.1. Strict daily fluid balance charts including input and output are maintained.

2.3.2. Stop laxatives and prokinetics.

2.3.3. Send stool sample to exclude infective causes.

2.3.4. Correct dehydration using IV fluids. Do not encourage patients to drink hypotonic fluids as this will increase stoma output (see fluid management section below).

2.3.5. Daily bloods including Urea, Electrolytes (U+E) and magnesium.

2.3.6. Use a high output pouch with a flow collector.

2.3.7. Refer to ward dietitian and stoma nurse if ongoing HOS for 48hours.

2.3.8. Further advice can be provided by On-call Cosmic surgeon.

2.4. **Nutritional guidance**

2.4.1. Refer to your ward dietitian for advice via Maxims referral process.

2.4.2. Restrict oral hypotonic fluids to 500-1000ml and review every 24hrs. Do not encourage to drink more freely as this will increase stoma output.

2.4.3. NB - Hypotonic fluids include tap/bottle/filtered water, unsweetened tea or coffee, low sugar low salt sports drinks.

2.5. **Fluid management**

2.5.1. Consider total volume needed to rehydrate, replace stoma losses and maintenance fluids when prescribing IV fluids. Consider other IV drugs and the volume these provide.

2.5.2. Prescribe the “Electrolyte Mix Kit” such that 1000ml is to be sipped slowly over every 24hours. This is the first line option.

2.5.3. Consider prescribing Dioralyte Double strength (10 sachets in 1000ml) every 24 hours if patient cannot tolerate electrolyte mix. Dioralyte double

strength could potentially result in hyperkalaemia. Monitor potassium levels.

2.5.4. Strict daily fluid balance chart.

2.6. **Medication management**

2.6.1. Stop laxatives and prokinetics (eg: Domperidone, Metoclopramide, Erythromycin).

2.6.2. Stop oral electrolyte replacement (e.g. Sando K, Phosphate Sandoz, Magnesium Aspartate) and prescribe IV replacement if required. Refer to Trust guidelines.

2.6.3. Start Loperamide 2mg quater die sumendum (QDS) (providing infective causes have been ruled out). This can be up titrated by 2mg QDS every 24 hours. Note, the maximum dose recommended is 16mg QDS (specialist teams should be involved prior to this point). Loperamide should be taken 30 minutes before eating to allow for good absorption. Loperamide doses of greater than 4mg QDS can increase the risk of cardiac arrythmias dependent on absorption. Therefore, a baseline ECG should be done when doses of 4mg QDS in 24 hours are achieved. A QTc interval should then be documented for GP by the discharging team.

2.6.4. Consider prescribing Orodispersible loperamide if ongoing HOS and capsule shapes are visible in the output. If unavailable, loperamide capsules can be opened and the granules taken orally.

2.6.5. **Alert the ward pharmacist if tablets or capsule shapes are seen in the stoma bag as medication review will be required.**

2.6.6. Start Codeine 30-60mg QDS after three days of titrating Loperamide (dose of 6mg QDS achieved) and no improvement in stoma output.

2.6.7. Start a PPI after three days of titrating Loperamide (dose of 6mg QDS achieved) and no improvement in stoma output. Prescribe Omeprazole 40mg OD-BD. If a liquid PPI is required start Lansoprazole dispersible tablets 30mg OD-BD.

2.6.8. Octreotide or Lanreotide may be considered by a specialist consultant/ registrar once all of the above has been attempted and patient is on the maximal dose of Loperamide, Codeine, PPI, the patient has undergone fluid restriction, and no other causes have been identified. This will need to be prescribed and reviewed by a consultant when patient has been discharged from the acute setting.

2.6.9. If there is no marked improvement once all the above have been trialed, consider seeking advice from Gastroenterology via the internal referral process on Maxims. Gastroenterology advice can be sought at any point during the inpatient stay via this process.

2.7. **Biochemistry monitoring**

2.7.1. Daily U+Es and magnesium (see medication management section above).

2.7.2. If serum sodium low, check urine sodium (paired osmolarities) once IV fluids have stopped.

2.8. **Stoma management**

2.8.1. Switch to a high output pouch with a flow collector to maintain good skin integrity.

2.8.2. If high output stoma continues for > 48hours, refer to the specialist stoma care team:

Email: rch-tr.stomacare@nhs.net

Telephone: 01872 25 2700

2.9. **Myth busting**

There is no evidence to suggest that consuming Jelly Babies and Marshmallows will reduce stoma output. This should not be given as general advice.

3. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	Nutritional management. Fluid and medication management. Stoma management.
Lead	Chloe Nottingham - Dietitian - ICU and Lead for Cancer and Palliative Care. Meg Tremayne - Clinical Nurse Specialist. Elizabeth Manton - Lead Surgical Pharmacist. Smita Bhikha- Gastroenterology Pharmacist.
Tool	To create proforma for audit.
Frequency	Initial three month audit then every three years thereafter.
Reporting arrangements	Above leads to feedback to below- Surgical governance. Therapies governance. Wards being audited.
Acting on recommendations and Lead(s)	CNS /RD/ Pharmacist as above.
Change in practice and lessons to be shared	Education to surgical wards. Attend and introduce at ward safety briefings. To be included in surgical induction for junior doctors.

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the Equality Diversity And Inclusion Policy or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	High Output Small Bowel Stoma In The Acute Setting Prior To Specialist Team Involvement Clinical Guideline V1.0
This document replaces (exact title of previous version):	New Document.
Date Issued/Approved:	March 2025.
Date Valid From:	March 2025.
Date Valid To:	March 2028.
Directorate / Department responsible (author/owner):	Chloe Nottingham- Dietitian- ICU and Lead for Cancer and Palliative Care. Meg Tremayne- Clinical Nurse Specialist. Elizabeth Manton - Lead Surgical Pharmacist. Smita Bhikha- Gastroenterology Pharmacist.
Contact details:	Chloe Nottingham. Email: rcht.therapyadmin@nhs.net Meg Tremayne. Email: rch-tr.stomacare@nhs.net Tel. 01872 252700
Brief summary of contents:	Management of high output small bowel stoma.
Suggested Keywords:	Stoma, high output, ileostomy, small bowel, diarrhoea.
Target Audience:	**RCHT:** Yes **CFT:** No **CIOS ICB:** No
Executive Director responsible for Policy:	Chief Medical Officer.
Approval route for consultation and ratification:	Surgical Governance. Gastroenterology Governance. Medicines Practice Committee.

Information Category	Detailed Information
Manager confirming approval processes:	Ian McGowan.
Name of Governance Lead confirming consultation and ratification:	Suzanne Atkinson.
Links to key external standards:	None required.
Related Documents:	J.M.D Nightingale., 2022. How to manage a high-output stoma. Frontline Gastroenterology, vol. 13, no. 2, pp. 140-151. Available from: http://fg.bmj.com/content/13/2/140.abstract DOI 10.1136/flgastro-2018-101108. H.Lederhuber, L Massey, VKantola, M.R Siddlique, AE sayers FD Mcdermont, I Daniels and N Smart 2023 Clinical management of high-output stoma: a systematic literature review and meta-analysis Techniques in Coloproctology 27: 1139-1154. Jo Pragnell 2016Association of Stoma Care Nurses UK clinic guidelines : High Output Stoma Management- Hospital setting. Specialist Pharmacy Service (SPS) (2022) Using loperamide in high output stoma or short bowel syndrome. Accessible via www.sps.nhs.net BIFA Position Statement on The use of high dose loperamide in patients with intestinal failure. Accessible via www.bapen.org.uk MHRA alert on Loperamide (Imodium): reports of serious cardiac adverse reactions with high doses of loperamide associated with abuse or misuse (2017). Accessible via: www.gov.uk Trust Guidelines available via Document library: Intravenous Fluid Therapy for Adults in Hospital Clinical Guideline. Treatment of Hypomagnesaemia in Adults Clinical Guideline. Management of Hypokalaemia in Adults Clinical Guideline. Management of Hyponatraemia Clinical Guideline.
Training Need Identified?	Yes - Ward training for nurses/ doctors.
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet.

Information Category	Detailed Information
Document Library Folder/Sub Folder:	Clinical / General Surgery.

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
February 2025	V1.0	Initial issue	Chloe Nottingham- Dietitian- ICU and Lead for Cancer and Palliative Care. Meg Tremayne- Clinical Nurse Specialist.

All or part of this document can be released under the Freedom of Information Act 2000.

All Policies, Strategies and Operating Procedures, including Business Plans, are to be kept for the lifetime of the organisation plus 6 years.

This document is only valid on the day of printing.

Controlled Document.

This document has been created following the Royal Cornwall Hospitals NHS Trust The Policy on Policies (Development and Management of Knowledge Procedural and Web Documents Policy). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Equality Impact Assessment

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity, and Inclusion Team rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	High Output Small Bowel Stoma In The Acute Setting Prior To Specialist Team Involvement Clinical Guideline V1.0
Directorate and service area:	General Surgery and Cancer Services, Surgery.
Is this a new or existing Policy?	New.
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Chloe Nottingham- Dietitian- ICU and Lead for Cancer and Palliative Care. Meg Tremayne- Clinical Nurse Specialist.
Contact details:	01872 252700

Information Category	Detailed Information
1. Policy Aim - Who is the Policy aimed at? (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	The policy is aimed at staff for the management of high output, small bowel stoma within acute settings.
2. Policy Objectives	As above.
3. Policy Intended Outcomes	Management of Stoma. Nutritional management. Fluid and medication management.
4. How will you measure each outcome?	Datix incidents.
5. Who is intended to benefit from the policy?	Staff and patients.

Information Category	Detailed Information
6a. Who did you consult with? (Please select Yes or No for each category)	• Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: No • External organisations: No • Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	**Please record specific names of individuals/ groups:** Surgical Governance. Gastroenterology Governance. Medicines Practice Committee.
6c. What was the outcome of the consultation?	Approved.
6d. Have you used any of the following to assist your assessment?	**National or local statistics, audits, activity reports, process maps, complaints, staff, or patient surveys:** No

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	

Protected Characteristic	(Yes or No)	Rationale
Marriage and civil partnership	No	
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment: Chloe Nottingham- Dietitian- ICU and Lead for Cancer and Palliative Care.

If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis