

SESLHD GUIDELINE COVER SHEET



NAME OF DOCUMENT	Administration of Gastrografin™ in the treatment of Adhesional Small Bowel Obstruction
TYPE OF DOCUMENT	GUIDELINE
DOCUMENT NUMBER	SESLHDGL/055
DATE OF PUBLICATION	April 2022
RISK RATING	Medium
LEVEL OF EVIDENCE	National Safety and Quality Health Service Standard: Standard 4 – Medication Safety
REVIEW DATE	April 2025
FORMER REFERENCE(S)	Nil
EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR	Clinical Stream Director, Surgery, Perioperative and Anaesthetics
AUTHOR	Helen Cox Clinical Nurse Consultant – Acute Surgery POWH
POSITION RESPONSIBLE FOR DOCUMENT	Andrewina Piazza-Davies SESLHD Clinical Stream Manager – Surgery, Peri-operative, Anaesthetic Services andrewina.piazza-davies@health.nsw.gov.au
FUNCTIONAL GROUP(S)	Surgery, Perioperative and Anaesthetics
KEY TERMS	Gastrografin™ Adhesional Small Bowel Obstruction Nasogastric tube
SUMMARY	Details the role the nurse must undertake in the administration of Gastrografin™ caring for a patient with Adhesional Small Bowel Obstruction.

THIS DOCUMENT IS A GUIDE FOR BEST PRACTICE
This Guideline is intellectual property of South Eastern Sydney Local Health District.
Guideline content cannot be duplicated.

Feedback about this document can be sent to SESLHD-Policy@health.nsw.gov.au

Administration of Gastrografin™ in the treatment of Adhesional Small Bowel Obstruction

Section 1 - Background 3
Section 2 - Principles 4
Section 3 - Definitions..... 4
Section 4 - Responsibilities 5
Section 5 - Procedure 5
Section 6 - Observations and Nutrition..... 6
Section 7 - Variances 7
Section 8 - Documentation and References..... 7

Section 1 - Background

The administration of Gastrografin™ in the treatment of Adhesional Small Bowel Obstruction (ASBO) guideline has been created to provide an evidence based reference for managing patients across SESLHD. The aim of the Guideline is to standardise the role the Medical Officer and the Nurse caring for a patient requiring Gastrografin™ for the treatment of adhesional small bowel obstruction.

The purpose of the Guideline is as follows:

- Reduce clinical error
- Provide evidence based best practice guideline
- Limit unwarranted variation in clinical practice
- Improve patient safety
- Provide support for new and transitioning staff regardless of facility.

Small bowel obstruction is one of the most common surgical emergencies and main causes of hospital admission. It is the most prevalent cause leading to bowel related surgical procedures. Almost 75% of the obstruction cases are considered to be the consequence of post surgical adhesion. ⁽⁴⁾

Water soluble contrast followed by an abdominal radiograph after at least four hours can accurately predict the likelihood of resolution of a small bowel obstruction.

Gastrografin™ reduces the duration of hospital stay in patients with adhesive small bowel obstruction that do not require surgery. ⁽³⁾

NOTE: The use of Gastrografin™ in Adhesional Small Bowel Obstruction is considered to be an 'Off-Label' use. Its has been approved by the SESLHD Quality Use of Medicines Committee for this reason.

Please refer to Prescribing Protocol SESLHDPR/570 - Meglumine Diatrizoate and Sodium Diatrizoate (Gastrografin®) in Adult Adhesional Small Bowel Obstruction (See References).

Section 2 - Principles

Provides appropriate prescribing, administration and understanding of the administration of Gastrografin™ in the setting of an adhesional small bowel obstruction.

This rule applies to inpatients of South Eastern Sydney Local Health District (SESLHD).

Section 3 - Definitions

Gastrografin™ or Meglumine Diatrizoate and Sodium Diatrizoate is an oral water soluble contrast medium. It acts like an X-Ray dye when X-Rays of the gastrointestinal tract are being taken.



Adhesional Small Bowel Obstruction

Adhesions are 'band-like' scar tissue that forms between two surfaces inside the body and cause them to stick together.

An Adhesional Small Bowel Obstruction happens when the small intestine is partly or completely blocked by scar tissue. This is usually associated with previous abdominal surgery or it can be a congenital defect.

The blockage prevents food, fluids and gas from moving through the intestines in the normal way. The blockage may cause severe pain that comes and goes (colicky) in nature.

Section 4 - Responsibilities

Medical Officers are responsible, for when caring for a patient with Adhesional Small Bowel Obstruction patient:

- Diagnosing the patient with Adhesional Small Bowel Obstruction (Abdominal X-Ray or CT Abdomen).
- Deciding to administer Gastrografin™ has been made by Consultant Surgeon.
- Prescribing Gastrografin™ in accordance with [prescribing protocol SESLHDPR/570](#).
- Prescribing an antiemetic IV/IM on eMeds.
- Ordering the Abdominal X-Ray and follow up of Abdominal X-Ray.

Registered Nurse are responsible for when caring for a patient with Adhesional Small Bowel Obstruction patient:

- Ensuring Gastrografin has been appropriately prescribed via eMeds (100 mL via nasogastric tube or orally).
- Checking right medication, right dose, right route, right patient, right time, allergies to medications or contrast dyes.
- Explaining procedure to patient. Ensure there is equipment at bedside in case of vomiting pre and post administration of Gastrografin™.

Section 5 - Procedure

1. **For Nasogastric Tube Administration:** Ensure the placement of nasogastric tube has been checked by Medical Officer.

Using catheter tip of a 50 mL syringe; draw up 50 mL of Gastrografin and insert into nasogastric tube. Do not exert pressure. Administer without force. Draw up and administer second 50 mL of Gastrografin via nasogastric tube.

Immediately spigot or clamp the nasogastric tube with a 'G Clamp'. Inform Medical Officer of administration, so that an Abdominal X-Ray can be ordered to be taken six to twelve hours post administration.

2. **For Oral Administration:** Ensure the patient is in an upright position. Pour Gastrografin into a cup and ask the patient to drink at a pace they are able tolerate.

Ensure patient has an antiemetic prescribed via intravenous or intramuscular route and an antiemetic bag within reach in the event of vomiting pre and post administration of Gastrografin™.

NOTE: Aspiration can occur and the patient should be monitored during the post administration period.

Section 6 - Observations and Nutrition

OBSERVATIONS:

- Monitor patient for any signs or symptoms of an adverse drug reaction.
- Anaphylaxis is a rare event monitor for any one of below:
 - Difficult/noisy breathing
 - Swelling of the tongue
 - Swelling/tightness in the throat
 - Difficulty talking and/or hoarse voice
 - Wheeze or persistent cough
 - Persistent dizziness or collapse

A Rapid Response or Code Blue needs to be called if suspected, for management guideline refer to [SGH CLIN 520 Acute Anaphylaxis Management](#) or [ACI Anaphylaxis Clinical Tool](#)

- Monitor patient for any signs relating to aspiration
- General observations should be documented and patient observed whilst waiting for abdominal x-ray which takes place approximately 4-6 hours. **Inform Medical Officer if noticeable changes occur in the aforementioned observations.** Call a code blue or rapid response if required a per [SESLHDPR/697 - Management of the Deteriorating Adult Inpatient \(excluding Maternity\)](#) and [SESLHDPR/705 - Management of the Deteriorating Maternity Woman](#).
- Be aware of potential dehydration, maintain adequate hydration

NUTRITION

- Patient to remain Nil By Mouth (NBM) until the post Gastrografin™ Abdominal X-Ray has been attended within 12 hours of administration ⁽⁶⁾ and the patient has been reviewed by Surgical / Medical Team.

Section 7 - Variances

VARIANCES

In the Event of Aspiration or Adverse Drug Reaction a Code Blue should be activated.

Section 8 - Documentation and References

Documentation

- SESLHD Fluid Balance Chart
- Electronic Medical Records (eMR). Detailed documentation needs to be provided by the nurse caring for the patient with an Adhesional Small Bowel Obstruction regarding general observations.
- eMeds

References

External References

1	NHMRC guidelines https://www.nhmrc.gov.au/guidelines Accessed 18 Oct 2021
2	Abbas S, Bissett IP, Parry BR (2007) "Oral water soluble contrast for the management of adhesive small bowel obstruction (Review)". Cochrane Library. Issue 3
3	Ceresoli M, et al (2016) "Water-soluble contrast agent in adhesive small bowel obstruction: a systematic review and meta-analysis of diagnostic and therapeutic value". The American Journal of Surgery. Vol 211 Pages: 114-1125
4	Gastrografin - Consumer Medicine Information (2015) MIMS. September
5	Safamanesh S, Pazouki A, Tamannaie Z et al (2013) "Evaluation of gastrografin therapeutic role in the management of small bowel obstruction". Journal of Minimally Invasive Surgical Sciences. Vol 2(1) Pages: 90-93
6	<u>Di Saverio S, Coccolini F, Galati M, et al. Bologna guidelines for diagnosis and management of adhesive small bowel obstruction (ASBO): 2013 update of the evidence-based guidelines from the world society of emergency surgery ASBO working group. World J Emerg Surg 2013; 8:42.</u>
7	<u>Cohen RB, Olafson SN, Krupp J, et al. Timing of Gastrografin administration in the management of adhesive small bowel obstruction (ASBO): Does it matter? Surgery 2021; 170:596.</u>

Ministry of Health References

- [NSW Health Policy Directive PD2017_013 - Infection Prevention and Control Policy](#)
- [NSW Health Policy Directive PD2013_043 - Medication Handling in NSW Public Health Facilities](#)
- ACI [Anaphylaxis](#)

SESLHD References

- [SESLHDPR/697 - Management of the Deteriorating Adult Inpatient \(exc Maternity\)](#)
- [SESLHDPR/705 - Management of the Deteriorating Maternity Woman](#)
- [SESLHDPR/336 - Documentation in the Health Care Record](#)
- [SESLHDPR/182 - Medicine: Off label use of registered medicines and use of unlicensed medicines](#)
- [SESLHDPR/570 - Meglumine Diatrizoate and Sodium Diatrizoate \(Gastrografin®\) in Adult Adhesional Small Bowel Obstruction](#)
- [SGH CLIN 520 - Acute Anaphylaxis Management of the Adult Inpatient at SGH](#)

Revision and Approval History

Date	Revision no:	Author and approval
June 2017	DRAFT	Helen Cox – CNC Acute Surgery
March 2018	DRAFT	Draft for Comment
September 2018	DRAFT	Processed by Executive Services prior to submission to SESLHD Quality Use of Medicine Committee and SESLHD Clinical and Quality Council for endorsement
October 2018	0	Approved by SESLHD Quality Use of Medicine Committee and SESLHD Clinical and Quality Council.
October 2021	1	Review commenced. Hyperlinks, references and observations section updated.
February 2022	1	Approved by Executive Sponsor. To be tabled by Quality Use of Medicines Committee.
April 2022	1	Approved by QUM Committee