

SESLHD PROCEDURE COVER SHEET



Health
South Eastern Sydney
Local Health District

NAME OF DOCUMENT	Alum Bladder Irrigation – Prescribing and Administering Instructions
TYPE OF DOCUMENT	Procedure
DOCUMENT NUMBER	SESLHDPR/704
DATE OF PUBLICATION	April 2022
RISK RATING	Medium
LEVEL OF EVIDENCE	National Safety and Quality Health Service Standards – Standard 1: Clinical Governance Standard 4: Medication Safety Standard 3: Preventing and Controlling Healthcare-Associated Infection Standard 8: Recognising and Responding to Acute Deterioration
REVIEW DATE	April 2025
FORMER REFERENCE(S)	N/A
EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR	Clinical Stream Director, Surgical, Perioperative and Anaesthetics
AUTHORS	Eric Lau – Deputy Director of Pharmacy Dr James Churchill, VMO Urologist Janine Bothe, CNC Surgery
POSITION RESPONSIBLE FOR THE DOCUMENT	Andrewina Piazza-Davies, SESLHD Clinical Stream Manager, Surgery, Perioperative, Anaesthetics, Emergency and Trauma Services Andrewina.Piazza-Davies@health.nsw.gov.au
FUNCTIONAL GROUP(S)	Surgery, Perioperative and Anaesthetic
KEY TERMS	Alum, bladder, irrigation, haematuria
SUMMARY	To provide instructions for prescribing and administration of Alum irrigated through the bladder for uncontrollable haematuria secondary to radiation cystitis, bladder carcinoma or haemorrhagic cystitis.

COMPLIANCE WITH THIS DOCUMENT IS MANDATORY

**This Procedure is intellectual property of South Eastern Sydney Local Health District.
Procedure content cannot be duplicated.**

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

SESLHD PROCEDURE

Alum Bladder Irrigation – Prescribing and Administering Instructions

SESLHDPR/704

1. POLICY STATEMENT

South Eastern Sydney Local Health District (SESLHD) has identified the need to develop a procedure for the administration and prescribing of Alum to treat uncontrollable haematuria. Therefore, this procedure ensures the provision of high quality health care and appropriate triage, early diagnosis and management of these patients in line with the following NSW Ministry of Health Policy Directives:

- [NSW Health Policy Directive PD2013_043 - Medication Handling in NSW Public Health Facilities](#)
- [NSW Health Policy Directive PD2017_013 - Infection Prevention and Control Policy](#)
- [NSW Health Policy Directive PD2017_032 - Clinical Procedure Safety](#)
- [NSW Health Information Bulletin IB2020_010 - Consent to Medical and Healthcare Treatment Manual](#)
- [ACI - Guide to Bladder Irrigation: Management of Haematuria](#)

2. BACKGROUND

Alum bladder irrigation for intractable haematuria is a safe, well tolerated and relatively cheap non invasive therapy. Alum 1% (aluminium potassium sulfate) works by the astringent action of protein precipitation at the cell surface and superficial interstitial space in the bladder which may cause the formation of an insoluble solid clot.

3. RESPONSIBILITIES

3.1 Employees will:

All employees of SESLHD will act in accordance with this procedure.

3.2 Line Managers will:

Ensure this procedure is followed by relevant staff.

3.3 District Managers/ Service Managers will:

Provide support to staff in the implementation of this procedure as required.

3.4 Medical staff will:

Ensure the prescribing and administration as outlined in the procedure will be followed when treating their patients.

3.5 Pharmacy staff will:

- Organise Alum to be manufactured by an external pharmacy on an individual patient basis
- Dispense the compounded medicine for individual patient use within SESLHD

SESLHD PROCEDURE

Alum Bladder Irrigation – Prescribing and Administering Instructions

SESLHDPR/704

4. PROCEDURE

4.1 ASSESSMENT AND PREPARATION

- The Medical Officer (MO) must explain the Alum bladder irrigation procedure to the patient and obtain informed consent (written or verbal), documented in eMR.
- The MO is to arrange baseline full blood assessment (FBE), electrolytes (UEC) and coagulation studies prior to commencement of instillation.
- Prior to commencing Alum irrigation into the bladder the MO may order a gentle manual wash out of the bladder or the patient may require a cystoscopy and removal of any existing blood clots. Blood clots may also form with slower irrigation, flow rate should be managed on an individual basis to reduce the chance clots forming.
- Alum 1% is a compounded product manufactured for individual patients, and is not available as a stock item.
- Alum 1% is compounded by an external pharmacy and there is a lead time of one to two business days. Where possible, MO should notify the facility pharmacy by 10:00am or as soon as the decision to prescribe has been made. Alum has a limited shelf life once prepared.
- The MO is to order Alum 1% bladder irrigation solution through the facility pharmacy, by completing an external prescription (used for ordering purpose and not to be used for administration). The external prescription must include the concentration of Alum solution (1%) to be used, the volume (1 L), the rate, the route (via IDC into the bladder) and the quantity of bags required for the predicted duration
- The Alum solution **must be** refrigerated until ready for instillation
- For administration purposes, the MO is to prescribe Alum 1% unambiguously on the Alum 1% Bladder Irrigation Prescription & Administration Record chart (SES130028). The prescription must state the concentration of Alum solution to be used, the volume, the rate at which to be instilled and that it is to be instilled through an indwelling catheter (IDC) into the bladder.

Date	Medication name	Concentration	Fluid type	Volume (mL)	Instillation rate (ml/hr)	Route
	Alum	1%	Sterile Water	1 L	250 mL/hr	Bladder

○ E.g.:

- MO may prescribe pain relief and antispasmodic medications for use as required.
- MO is to ensure the patient has a 3-way IDC in situ.
- Nursing staff are to gather equipment for instillation:
 - Alum solution
 - Double-spike continuous bladder irrigation set
 - Sodium Chloride 0.9% irrigation bag
 - In-line burette attached to the Alum solution (to control flow)
 - Urinary drainage bag
 - IV pole

SESLHD PROCEDURE

Alum Bladder Irrigation – Prescribing and Administering Instructions

SESLHDPR/704

4.2 INSTILLATION OF ALUM INTO THE BLADDER

- Aseptic Non-Touch Technique (ANTT) principles must be maintained.
- Perform hand hygiene in accordance with current policy
- Connect the drainage bag to the larger lumen of the 3-way IDC
- Ensure the IDC is draining prior to commencing continuous irrigation.
- Connect the Alum solution to the irrigation lumen of the 3-way IDC using aseptic/non touch technique
- Label irrigation tubing as 'bladder irrigation only'
- Commence Alum bladder irrigation by opening the roller on the giving set and adjusting to the rate prescribed (usually 250-300 mL/hr)
- Continue Alum bladder irrigation for the duration prescribed (usually 24-72 hours).

4.3 SIDE EFFECTS/ADVERSE REACTIONS

- Mild side effects of Alum bladder irrigation are common, including bladder spasm and/or irritative voiding symptoms
- Severe adverse reactions to Alum bladder irrigation are rare; however, there are six reported cases of acute aluminum toxicity in patients with chronic kidney disease who received Alum bladder irrigation for haemorrhagic cystitis
- Patients receiving Alum bladder irrigation must be reviewed by the urology/surgical registrar at least once every 24 hours, and if nurses identify any clinical indication for review, it will need to be escalated as per the CERS criteria [SESLHDPR/697 - Management of the Deteriorating Adult Inpatient \(excluding Maternity\)](#)
- Patients receiving Alum bladder irrigation must be monitored for clinical manifestations of aluminum toxicity such as mental status changes, malaise, speech changes, and seizures. Serum aluminium levels may be requested at the discretion of the MO
- Accurate input and output must be recorded on the *Alum 1% Bladder Irrigation Prescription & Administration Record chart (SES130028)* and any fluid balance chart used. Urine output target should be the volume of irrigation **plus** a minimum of 30mL/hr urine or as per CERS criteria
- Observe frequently to check that the irrigation is running freely and ensure irrigation is continuous at all times; signs of catheter obstruction/blockage include sudden onset of or increasing flank/abdominal pain, decreased urine output, presence of large clots in the tubing
 - If catheter blockage occurs, turn irrigation fluid off and perform a manual irrigation – refer to local guidelines
 - If catheter obstruction/blockage is unable to be relieved by manual irrigation, request an urgent MO review and initiate a rapid response.

SESLHD PROCEDURE

Alum Bladder Irrigation – Prescribing and Administering Instructions

SESLHDPR/704

5. DOCUMENTATION

- External prescription [to facilitate supply from a compounding pharmacy. Send to the facility pharmacy to coordinate]
- Alum 1% Bladder Irrigation Prescription & Administration Record chart (SES130028), example in Appendix A
- Fluid balance chart
- Clinical notes / eMR / Bedside handover tool

6. AUDIT

Sites will action any iims related to this procedure.

7. REFERENCES

- NSW Health Policy Directive PD2013 043 - Medication Handling in NSW Public Health Facilities
- NSW Health Policy Directive PD2017 013 - Infection Prevention and Control Policy
- NSW Health Policy Directive PD2017 032 - Clinical Procedure Safety
- NSW Health Information Bulletin IB2020 010 - Consent to Medical and Healthcare Treatment Manual
- SESLHDPR/697 - Management of the Deteriorating Adult Inpatient (excluding Maternity)
- ACI- Guide to Bladder Irrigation: Management of Haematuria
- SGH-TSH CLIN191 Labelling Injectable Medicines, Fluid and Lines
- SGH-TSH CLIN 139 Manual Irrigation for Obstructive Haematuria
- SGH-TSH CLIN143 Urinary Catheterisation
- SGH-TSH CLIN027 Aseptic Technique
- Jhingran. A. (2019) Complications of Radiation Oncology in Principles of Gynaecologic Oncology Surgery, Chapter 23, 318-329.
- Updated 2016 EAU Guidelines on Muscle-invasive and Metastatic Bladder Cancer Witjes, JA., Lebet, T., Compérat, EM., et al.
- European Urology, 2017-03-01, Volume 71, Issue 3, Pages 462-475.
- Kong Ho, C., Zainuddin, Z. (2009) Alum Irrigation for the Treatment of Intractable Haematuria. Malays J Med Sci. 16(4): pp66–68.
- Choong, S., Walkden, M., Kirby, R. (2000) The management of intractable haematuria. BJU International 86: pp951-95.

8. REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
March 2021	DRAFT	Initial draft
April 2021	DRAFT	Draft for comments period.
May 2021	DRAFT	Feedback incorporated. Final version approved by Executive Sponsor. To be tabled at Clinical and Quality Council for approval.
June 2021	0	Endorsed by Clinical and Quality Council
October 2021	1	Minor review: Changes made to reflect new Alum 1% prescription chart, wording change in document and new CERS policy updated.
November 2021	1	Tabled at Quality Use of Medicine Committee: Referred to QUM DoP Sub-Committee meeting.
March 2022	1.1	Tabled at QUM DoP Sub-Committee meeting following addition of responsibilities for pharmacy staff (section 3.5), further details for ordering and prescribing (section 4.1) and further information regarding documentation (section 5)
April 2022	1.1	Approved at Quality Use of Medicine Committee.

Alum Bladder Irrigation – Appendix A


SESLHDPR/704

Holes Punched as per AS2828.1: 2019
BINDING MARGIN - NO WRITING



SES130028

NHSIS1164 080921

 <p>Health South Eastern Sydney Local Health District</p>	<p align="center">ALLERGIES & ADVERSE DRUG REACTIONS (ADR)</p> <input type="checkbox"/> Nil known <input type="checkbox"/> Unknown (tick appropriate box or complete details below)			FAMILY NAME	MRN														
	Facility:	<table border="1"> <tr> <th>Drug (or other)</th> <th>Reaction/Type/Date</th> <th>Initials</th> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	Drug (or other)	Reaction/Type/Date	Initials													GIVEN NAMES	
Drug (or other)	Reaction/Type/Date	Initials																	
<p align="center">ALUM 1% BLADDER IRRIGATION PRESCRIPTION & ADMINSTRATION RECORD</p>	Sign..... Print..... Date.....			D.O.B. ____/____/____ M.O.	ADDRESS														
	LOCATION / WARD			COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE															

**Prescription for Bladder Irrigation Administration
(order valid for 24 hours)**

Date	Medication name	Concentration	Fluid type	Volume (mL)	Instillation rate (ml/hr)	Route	Prescriber's printed name & pager no.	Prescriber's signature	Comments (eg order for when to cease)	Refer to Alum 1% Bladder Irrigation:
						Bladder				Prescription & Administration SESLHDPR/704 prior to commencement. When a new bag of irrigation solution begins the urine bag must be emptied and recorded on the input and output of this chart. The "urine volume" column is calculated by subtracting the irrigation solution volume from the "urine drainage bag volume".
						Bladder				
						Bladder				

Record of Bladder Irrigation Administration & Urinary Output


Irrigation Solution Input							Output					Comment
Date	Time	Bag No.	Irrigation solution, concentration & volume	Progressive total of irrigation fluid	RN1 Initials	RN2 Initials	Urine drainage bag volume	Urine volume	Progressive total of urine	Colour	Initials	

Page 1 of 2

**ALUM 1% BLADDER IRRIGATION
PRESCRIPTION & ADMINISTRATION RECORD**
 SES130.028

Alum Bladder Irrigation – Appendix A

SESLHDPR/704

 <p>Health South Eastern Sydney Local Health District</p>	ALLERGIES & ADVERSE DRUG REACTIONS (ADR)			FAMILY NAME		MRN
	<input type="checkbox"/> Nil known <input type="checkbox"/> Unknown (tick appropriate box or complete details below)			GIVEN NAMES		<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
Facility:	Drug (or other)	Reaction/Type/Date	Initials	D.O.B. ____/____/____		M.O.
ALUM 1% BLADDER IRRIGATION PRESCRIPTION & ADMINISTRATION RECORD			ADDRESS			
			LOCATION / WARD			
Sign..... Print..... Date.....			COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE			

Record of Bladder Irrigation Administration & Urinary Output

Irrigation Solution Input							Output					Comment
Date	Time	Bag No.	Irrigation solution, concentration & volume	Progressive total of irrigation fluid	RN1 Initials	RN2 Initials	Urine drainage bag volume	Urine volume	Progressive total of urine	Colour	Initials	

Page 2 of 2



BINDING MARGIN - NO WRITING
Holes Punched as per AS2828.1: 2019