

**i) CENTRAL COAST HEALTH**

**OPERATING SUITE PROCEDURE**

**TITLE:** Administration of intravesical epirubicin (a cytotoxic drug) in the operating theatres

**NUMBER:** OS 3.2

**STATUS:** Current

**DATE:** June 2006

**NEXT REVIEW:** Sept 2006

**SCOPE OF PRACTICE**

	CCH Accredited Registered Nurse	#	Enrolled Nurse*
	Specialist Accredited Registered Nurse		Trainee Enrolled Nurse*
#	Registered Nurse		Assistant in Nursing*
	Accredited Enrolled Nurse	@	Patient Support Assistant
#	Endorsed Enrolled Nurse *		Trainee Assistant in Nursing*
√	Urological surgeons or other medical staff members of the urology team under supervision	@	Operation Assistant *
<b>Key:</b>	√ = <i>Who Can Perform this procedure</i>		
	* = <i>Under the supervision of a Registered Nurse</i>		
	# = <i>Who can perform this procedure EXCEPT the administration of epirubicin</i>		
	@ = <i>Who can assist with the positioning &amp; transportation of the patient</i>		

**ALERT –Urgent enquiries or HELP**  
CCH Cancer Care Emergency Hotline  
24 hours a day, 7 days a week.  
Phone: 4320 2876

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## **ADDITIONAL RESOURCES**

- Cytotoxic Exposure Record – Epirubicin
- Epirubicin/Cytotoxic Resource manual (found in Cytotoxic Equipment Tub)
- Information leaflets for postoperative patients
- Additional sterile set up requirements – see individual surgeons preference card
- Cytotoxic spill kit procedure
- Nursing alert sign
- Flowchart for intraoperative Epirubicin
- Oncology Pharmacy Department Epirubicin form

## **STATEMENT OF PRINCIPLE/OUTCOME**

- Cytotoxic drugs are delivered in a safe and effective manner with due regard for the safety of the patient and staff

## **POLICY STATEMENTS:**

- Intravesical epirubicin will be delivered via a urinary catheter for intravesical treatment of superficial bladder cancer following rigid cystoscopy.
- Intravesical epirubicin **will be administered only by a Urologist**, urological registrar or other medical staff members of the urology team under supervision
- Epirubicin 50mg in 50mL Sodium Chloride 0.9% is supplied as a sterile 50mL syringe from Cancer Care pharmacy, and labeled with a purple cytotoxic sticker and “for intravesical use only”
- All nursing, pharmacy and medical staff will practice in accordance with, and be educated in, the provisions of [NSW Health Policy Directive PD2005\\_081 Cytotoxic Drugs & Related Waste NSW Health Care establishments \(Guidelines/Competencies/Handling\)](#) – incorporates Workcover Authority of New South Wales, Guidelines for Handling Cytotoxic Drugs and Related Waste in NSW Health Care Establishments. First edition. New South Wales Government. 1995

[The Central Coast Health Policy CPM 15.1 Administration of Cytotoxics, 1998](#)

[The Central Coast Health Policy CPM 15.9 Bladder instillation of a Cytotoxic drug, 2002](#)

[The Central Coast Health Policy CPM 15.2 Management of a Cytotoxic Spill, 2002](#)

- Staff shall be educated on induction to the unit and this shall be recorded on the relevant education database<sup>1</sup>
- Nursing staff who work with chemotherapy agents must keep a log of exposure<sup>1</sup> Nursing staff are responsible for recording the drug, date, name and whether they assisted in delivery of the drug, exposure to a spill or removal of the patient's catheter. This log shall remain in the Cytotoxic Resource Manual in the cytotoxic equipment tub and in PACU.

- ❖ Standard Precautions will be implemented, including sharps handling and disposal of waste.
- ❖ The Physical environment will be free from hazards. This will include electrical safety precautions and the potential for chemical hazards.
- ❖ Latex allergy risk will be assessed and recommended precautions utilised to prevent exposure to latex in known or suspected latex allergy patients and staff.
- ❖ Ergonomic and manual handling principles will be implemented.

9/12/03

### **PATIENT SELECTION & ORDERING OF EPIRUBICIN FROM PHARMACY**

- Patients should be identified on the Recommendation For Admission (RFA) booking form and consented for Cystoscopy, +/- bladder tumour resection +/-intravesical chemotherapy (epirubicin)
- This shall be documented on the Operating Theatre list as per usual procedure.
- At Gosford elective urology operating theatre lists are attended Monday, Tuesday & Wednesdays during normal working hours.
- This procedure will not be performed at Wyong Operating Theatres or Gosford Ambulatory Urology Clinic.

### **Day prior to surgery**

- Identification of the need for epirubicin & ordering of same shall take place as per [CCH OS 2.3 Procedure: Correct Patient, Procedure & Site Section 1 "Ensuring Equipment/Implants are available for the patients procedure/surgery"](#).

IE: The Nurse in Charge shall

- 1) Assess the theatre list during the Operating Suite elective theatre list sign off meeting at 1.30pm to identify the need for epirubicin to be available for any cystoscopy +/- bladder tumour resection +/-intravesical chemotherapy (epirubicin) booked on the next day's urology list
- 2) Liaise with Cancer Care pharmacy (ext 2928) to order a minimum of two (2) epirubicin syringes for the next day's urology list.

- 3) Special arrangements need to be made with Cancer Care pharmacy if it is anticipated that the epirubicin will need to be available in the Operating Suite after 4pm.
- 4) An equipment/implant alert sticker shall be placed next to the patient's name OR the urology list on the centralised theatre list at theatre reception.

**Day of surgery.**

- CCH OS 2.3 Procedure : Correct Patient, Procedure & Site, shall be followed  
[Section 2: Requesting and sending for a patient](#)  
[Section 3: receiving a patient into the operating suite](#)

**DELIVERY & STORAGE OF EPIRUBICIN:**

**Transportation to and from Pharmacy**

- Trained pharmacy personnel shall deliver the ordered syringes at 8am on the morning of the operating list for which they have been ordered.
- At 4pm of the same day a trained pharmacy personnel will collect the unused syringes and transport them to pharmacy

They are transported in a designated rigid container (esky) that is securely closed and labelled with cytotoxic warnings. The esky also contains an Oncology Pharmacy Department Epirubicin form. The esky will be refrigerated/stored in the operating theatres as per procedure below.

- If a syringe is used intraoperatively and a replacement required, the registered nurse in that theatre shall contact Cancer Care pharmacy (ext 2928) to request the replacement. The medication chart of the previous patient who received the medication is also faxed to Cancer Care pharmacy. (fax no: 2917) The replacement syringe will be delivered by the trained pharmacy personnel as soon as possible

**Operating theatres: storage**

- Epirubicin must be refrigerated until used or returned to pharmacy.
- It will be stored on the bottom shelf of the fridge in the corridor outside theatre eight.
- Upon placing in the fridge, the esky lid must be taken off or placed ajar so that the contents of the esky remain as cold as possible.
- A spill kit will be readily available on top of the fridge.
- When needed the esky will be transported from the fridge to the urology operating theatre and back to the fridge by trained theatre personnel and in accordance with the Workcover guidelines

## **NURSING ACTION:**

### **Equipment needed for administration:**

Cytotoxic Equipment Tub- ensure it is in the operating room

Additional sterile set up requirements – see individual surgeons preference card

Patients trolley – prepare for post operative care

- Ensure the patients trolley has a large blue disposable underpad for mattress protection and plastic covered pillow to contain any spills postoperatively.

Purple cytotoxic waste bin

- Ensure the purple cytotoxic waste bin with purple waste bag insitu is available within the operating room

Operating Table

- Ensure the operating table has sufficient large disposable blue sheets to contain any spills

Epirubicin

- Ensure the epirubicin from pharmacy is available in the fridge

### **Intraoperatively:**

**Surgeon & instrument nurse** must don Personal Protective Equipment (PPE) ie:

- Sterile, disposable, impermeable long sleeve gown with cuffed sleeves
- MUST be double gloved, with the outer glove being replaced at regular intervals or after overt contamination
- particulate respiratory mask
- protective eyewear with side shields
- Instillation of chemotherapy is:
  - at the surgeons discretion, if tumour is found and there are no intraoperative contraindications – such as heavy bleeding requiring continuous irrigation or bladder perforation
  - attended at immediate end of the surgical procedure, prior to removal of the patient drapes
- When needed, the esky will be transported by the scout nurse from the fridge to the urology operating theatre and back to the fridge in accordance with the Workcover guidelines
- The instrument nurse prepares the equipment required for catheterisation and instillation of the epirubicin away from all reusable instrumentation, thus ensuring that there is no possibility that the epirubicin shall have contact with instrumentation that will be required to be processed in CSSD.
- Receiving & handling the epirubicin syringe:
  - Do not use a sharp implement on the syringe at any time
  - Do not expel air bubbles into the atmosphere
  - Take extreme care to observe for signs of leakage.
  - Take extreme care to prevent any spillage whilst instilling

- The surgeon
  - inserts a 2 way 18-20 F Foleys catheter
  - receives the epirubicin syringe from the scout nurse,
  - checks it is the correct medication & dosage ie: 50mg in 50mL in Sodium Chloride 0.9%
  - aspirates 10mls of air into the syringe prior to instillation
  - instils epirubicin from the syringe into the catheter followed by the air
  - the catheter is clamped with x 2 “G” clamps then
  - a catheter adaptor is used to connect the leur lock syringe to the catheter.
  - connects the catheter to a closed drainage bag system
  - disposes of the syringe & catheter adaptor directly into the cytotoxic waste bin
- Any spillage occurring onto the patient’s skin must be thoroughly irrigated to avoid skin irritation by the drug.
- A small combine is secured around the catheter and a small disposable blue sheet is placed around both the small combine and the catheter to contain any potential spills
- Write “cytotoxic warning” on the drainage bag with the permanent marker pen.
- All contaminated drapes, gowns and gloves are removed and placed directly into cytotoxic waste bin with the empty chemotherapy syringe and catheter adaptor. Any contaminated linen should also be placed in the purple cytotoxic bin.
- Theatre staff will ensure that the staff in PACU and ward area are made aware that a chemotherapy patient will be arriving

**Immediately Postoperative:**

- Ensure alert sign is on the patient's trolley & the cytotoxic spill kit is underneath
- The surgeon documents clearly on the patient's prn/stat medication chart. (GMR 43) the administration of epirubicin
- The surgeon documents clearly in the patients postoperative orders:
  - the time of instillation of the epirubicin
  - the time to unclamp the catheter
  - whether or not the catheter is to be removed following bladder drainage or left in situ
- If a syringe is used intraoperatively and a replacement required , the registered nurse in that theatre shall contact Cancer Care pharmacy (ext 2928) to request the replacement. The medication chart of the previous patient who received the medication is also faxed to Cancer Care pharmacy. (fax no: 2917) The replacement syringe will be delivered by the trained pharmacy personnel as soon as possible
- Dispose of purple cytotoxic waste bin (if used) from the operating room as per hospital protocol

**Transfer to and care of patient in PACU:**

- Ensure alert sign remains on the patient's trolley & the cytotoxic spill kit is underneath

- Have cytotoxic waste bin easily available in PACU.
- The patient will be cared for in PACU in the recovery bay closest to the blanket warmer, thus allowing more access to the patient & necessary equipment in the event of a cytotoxic spill.
- Catheter remains clamped for 90 minutes from instillation time, as documented in the patients postoperative orders.
- Minimal catheter handling is required in PACU unless there is patient discomfort, in which case the urology team needs to be consulted re considering release of the clamp.
- Dispose of purple cytotoxic waste bin (if used) from PACU as per hospital protocol

**Transfer of patient to the ward:**

- Patients bed: ensure alert sign is on patients bed and that the spill kit is underneath

**Care of the patient in the ward**

NOTE: Any spillage occurring onto the patients skin must be thoroughly irrigated to avoid skin irritation by the drug.

*The below procedure is attended using precautions for chemotherapy ie:*

Wearing PPE

- Disposable, impermeable long sleeve gown with cuff
- MUST be double gloved
- Particulate respiratory mask
- Protective eyewear with side shields
- Ensure purple cytotoxic waste bin is near patients bed side
- Ensure spill kit is nearby and available

Catheter remaining insitu and replacing the drainage bag

- The catheter is unclamped 90 minutes from instillation time as documented (as “op completed time”) on the Operating Theatre Registered Nurses Report TG61
- Allow catheter to drain the epirubicin into the drainage bag until the bladder is empty.
- Reclamp drainage bag tubing with the 2 G clamps
- Disconnect drainage bag from catheter
- Using measurements on drainage bag, estimate amount of fluid in bag and record on perioperative fluid balance chart.

- Dispose of the drainage bag into the purple cytotoxic waste bin
- Connect new drainage bag to catheter
- Secure a small combine around the catheter and a small disposable blue sheet around both the small combine and the catheter to contain any potential spills
- Remove PPE and dispose of it into the purple cytotoxic waste bin with the drainage bag. Any contaminated linen should also be placed in the purple cytotoxic bin.
- Write “cytotoxic warning” on the drainage bag with the permanent marker pen.

#### Removal of catheter and drainage bag

- The catheter is unclamped 90 minutes from instillation time as documented in the patients postoperative orders
- Allow the catheter to drain the epirubicin into the drainage bag until the bladder is empty.
- The catheter is removed from the patient by deflating the balloon.
- Using measurements on drainage bag, estimate amount of fluid in bag and record on perioperative fluid balance chart.
- Without opening the closed system, dispose of the entire closed system as one unit into the purple cytotoxic waste bin
- Remove PPE and dispose of it into the purple cytotoxic waste bin with the drainage bag. Any contaminated linen should also be placed in the purple cytotoxic bin.
- Dispose of cytotoxic waste bin as per CCH policy.

#### Post catheter removal - care of the patient

##### Voiding

- The patient must void post operatively prior to discharge. Unless written to the contrary in the surgeons post operative orders, the patient is to be encouraged to use the toilet for voiding, not a urinal or bed pan.<sup>3</sup>
- When the patient uses the toilet, lower the lid and flush twice.<sup>2</sup>
- Male patients should be encouraged to sit whilst urinating for the period of precautions (to reduce risk of splashing).<sup>2</sup>
- If a pan or urinal is used. Place it alone in the sanitiser and flush twice.<sup>2</sup>

##### Spill

- If the patient is incontinent of urine, full PPE must be used.<sup>2</sup>



- Encourage the patient to have a shower if skin is contaminated. <sup>2</sup>
- If unable to shower, apply PPE and assist to wash with copious amounts of water. <sup>2</sup>
- If contaminated body fluid is a spill on the floor follow the procedure for *Cytotoxic Spill*. <sup>2</sup>

Prior to **discharge** the ward staff shall ensure the patient receives a copy of the CCH “Epirubicin information leaflet for postoperative patients”

### **REFERENCES:**

1. [NSW Health Policy Directive PD2005\\_081 Cytotoxic Drugs & Related Waste NSW Health Care establishments \(Guidelines/Competencies/Handling\)](#) – incorporates Workcover Authority of New South Wales, Guidelines for Handling Cytotoxic Drugs and Related Waste in NSW Health Care Establishments. First edition. New South Wales Government. 1995
2. Northern Sydney Central Coast Health. Precautions for Nurses Caring for Patients Receiving Chemotherapy. Obtained from CCH Cancer Care Clinic. No date. No author
3. Instructions following conversation between Lilian Blair ( CNC Perioperative Services, CCH) and Drs R. Ouyang (VMO) and Dr Mark Louie-Johnsun (Gosford urology registrar 2006) . Dated 30<sup>th</sup> May 2006

### **BIBLIOGRAPHY:**

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- [The Central Coast Health Policy CPM 15.9 Bladder instillation of a Cytotoxic drug, 2002](#)
- [The Central Coast Health Policy CPM 15.2 Management of a Cytotoxic Spill, 2002](#)
- Westmead Private Hospital Sydney. Protocol for the use of Epirubicin/ Cytotoxic intraoperatively. 2005
- Westmead Public Hospital Sydney. Procedure to obtain Epirubicin intravesical irrigation for peri-operative use. 2001

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