Improving Care for Patients Receiving Intravesical Mitomycin

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Bladder Cancer
- Common Cancer – 69,000 new cases
- Cancer of older adults
- Male to Female 5:2

Risk Factors
- Smoking
- Occupational exposure
- Inflammation (chronic UTI – Schistosoma)
- Radiotherapy

Bladder Wall
- 4 layers
- Innermost layer is the urothelium
- Barrier

Clinical Presentation and Diagnosis
- Painless, microscopic hematuria
- Symptoms similar to UTI
- Urine microscopy, culture and cytology
- CT scan
- Cysto-urethroscopy
- TURBT
- Photodynamic diagnosis

Management of Bladder Cancer
- American Urological Association recommendations
- TURBT with immediate Intravesical Therapy
- Direct contact tumor
- Barrier
- Follow up prophylactic therapy
Mitomycin, Mutamycin, or Mitomycin C

- Institute for Safe Medical Practices (ISMP): this is a High Alert Drug which means increased patient harm when used in error
- Alkylating agent that selectively inhibits DNA & RNA synthesis in tumor cells – used as an antineoplastic
- Used for pancreatic, stomach, head & neck, lung, esophageal, and bladder cancers

Mitomycin

- May be given IV or intravesical – purple in color
- A vesicant
- Side Effects: May include… but usually not with intravesical administration
  - Anorexia, Nausea / vomiting
  - Fatigue
  - Mucositis
  - Pruritus / dermatitis
  - Myelosuppression – nadir is 4-8 weeks after treatment
- Irritation, burning

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EPA Toxic Hazardous Drug

- Hazardous Waste containers
  - Puncture proof
  - Tight lid
  - Labeled “Hazardous Waste”
  - Different from other containers
- Plastic sealable bag – inside container
- Yellow “trace-chemotherapy” container

Administration – questions

- Was there a standard way to provide for the safe care of patients and staff?
- What do we need to do to standardize the care?
- Is there a policy or guideline surrounding the administration of Intravesical Mitomycin?

Cross Functional Team

- Chief of Urology
- PACU RNs
- Oncology RNs
- Pharmacy
- OR RN

Goals

- To ensure that best practices were demonstrated in the care of patients receiving Intravesical Mitomycin in the PACU
- To provide PACU nurses with the tools required to practice safely
Define the Problem

- Assess the current state – develop a flow chart to map out the current process for administering Mitomycin in the PACU.

Value Stream Process Map

<table>
<thead>
<tr>
<th></th>
<th>MD Decision for TURBT, Mitomycin</th>
<th>Discussion about risks/benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holding</td>
<td>Consent Pre-operative teaching</td>
<td>Attending adds Mitomycin to consent</td>
</tr>
<tr>
<td>OR</td>
<td>Ordering</td>
<td>Attending writes order 2 RN verification of order</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>Preparation of drug</td>
<td>Transport of drug to PACU</td>
</tr>
<tr>
<td>PACU</td>
<td>Safe administration</td>
<td>2 RN verification, closed – system transfer, Mitomycin box, available equipment</td>
</tr>
</tbody>
</table>

Create a Safe Care Process

- Consent
- Ordering
- Handoffs
- Administration

Development of an Education Plan

- Consent

**Attending** must add the option of an Intravesical administration of Mitomycin to the surgical consent form

Ensures a conversation of the risks and benefits takes place

Development of an Education Plan

- Ordering

**Attending** must write and sign the order for a chemotherapy medication

2 person thoughtful verification / signature

3 way foley

Development of an Education Plan

- Handoffs

- From the OR to PACU, Pharmacy
- Pharmacy to PACU
- PACU to EVS
Development of an Education Plan

- **Administration**
  - 2 RN thoughtful verification
  - Mitomycin box in PACU
  - Mitomycin Reference book

**Mitomycin Box**

- **Administration**
  - RN educates the patient as to side effects to expect (discomfort, burning) and which to report to staff – acute abdominal or back pain.
  - RN performs hand hygiene, dons yellow gown, mask with shield, and chemo gloves, pulled over cuffs.

**Closed System Drug Transfer Device**

- Used to prevent aerosolization
- Latex free
- Mitomycin comes from Pharmacy with the syringe attached to the injector
- Dose - 40 mg in 20 ml

**Bladder instillation set up**

- Place pad with waterproof backing under foley to ensure protection of the patient’s skin
- Clamp the urine drainage port
- Attach the catheter tip adapter to the PhaSeal connector (the smaller piece)
**Administration**
- Insert the catheter tip adapter in the 3rd port of the 3 way foley
- Attach the PhaSeal injector to the connector
- Engage the PhaSeal (no blue will be showing) and slowly instill the Mitomycin into the bladder

**Administration**
- Carefully assess for leakage, and immediately stop if occurs
- Clamp the foley
- Disengage the injector and connector (you’ll see blue) and remove the injector from the connector
- The injector and syringe are disposed of in the yellow biohazard bucket

**When completed**
- Don PPE
- Release the clamp, and drain Mitomycin into the foley
- Remove foley as ordered, and entire contents are placed in yellow biohazard container.
- Documentation

**Disposal**
- Yellow container is removed by EVS

**Chemo Spill**
- Chemo spill kit / yellow bucket at bedside
- Wash skin with soap & water
- Flush eye with water
- Remove clothing if exposed – must go in biohazard container – shoes

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Communicate the spill
- To MD
- To Pharmacy
- Patient Safety Reporting System
- EVS

Discharge Instructions
- Hand Hygiene!
- Dedicated bathroom
- Double flushing
- Follow up

Progress to Date
- Guidelines for administration
- Closed loop communication between OR, Pharmacy, PACU
- Annual competency for PACU nurses
- Shared with OR
- Teach back for new fellows

References