

Operating Room Pharmacy: A Unique Role for Pharmacy Technicians

Ina Henderson, CPhT
Operating Room Pharmacy
Technician III

I have no conflicts.

Objectives

1. Describe the unique role of the pharmacy technician in the OR setting.
2. List the daily tasks of an OR pharmacy technician.

What's Different About the Role of an OR Technician?

Patient Care Area

- More familiar meds used
- Well-defined order, preparation, and dispensing process
- Fill medication orders
- Slower pace
- Little involvement in billing

Operating Room

- Unique meds used for surgical procedures
- Meds may be dispensed directly to physician or nurse at the window
- Specific case setups
- Faster pace
- Billing from the anesthesia record

Different Team Players

<p>Patient Care Area</p> <p>Work closely with:</p> <ul style="list-style-type: none"> • Pharmacist • Other techs • Nurses • Little interaction with physicians or other health care providers 	<p>Operating Room</p> <p>Work closely with:</p> <ul style="list-style-type: none"> • OR pharmacist • Surgical nurses • Anesthesiologists • CRNA's • Anesthesia techs • Perfusionists • Surgeons
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OR Medications for Anesthesia

- Mepivacaine, ropivacaine, bupivacaine, lidocaine (IV push)
- Remifentanyl, sufentanyl, fentanyl
- Etomidate, propofol, ketamine
- Vecuronium, rocuronium, cisatracurium, succinylcholine
- Ephedrine, phenylephrine (IV push)
- Neostigmine, glycopyrrolate
- Cocaine topical solution

Local Anesthetics

Mepivacaine, ropivacaine, bupivacaine

- Mepivacaine and ropivacaine used for nerve blocks
- Bupivacaine used for nerve blocks or surgeon injects it around incision

Lidocaine

- Can be used for any of above uses
- Also given IV push to minimize pain from propofol, minimize airway reactivity from breathing tube

Analgesics

- Fentanyl is most commonly used in OR rather than morphine (seen on floors)
- Remifentanyl and sufentanyl are more potent agents used almost exclusively in the OR

IV Anesthetics

- Etomidate and propofol given as single injection to make the patient unconscious (induction of anesthesia)
- Ketamine may be given alone or mixed with propofol and infused for sedation / analgesia

Muscle Relaxants

Vecuronium, rocuronium, cisatracurium, succinylcholine

- All are routinely used to facilitate placement of the breathing tube (intubation)
- All except succinylcholine are used to maintain paralysis during surgery

Vasopressors

Ephedrine, phenylephrine

- Given IV push to raise blood pressure
- Both **must be diluted** before being given IV push, especially phenylephrine

Deaths have resulted from giving undiluted phenylephrine IV push!

OR Solutions for Surgeons

- Tumescence solution - liposuction
- Heparinized saline – vascular and others
- Bug juice – ortho, neuro, others
- Tobramycin, vancomycin – bone cement
- Marcaine C – ophthalmology
- Vitrectomy solutions - ophthalmology

Dyes / Contrast

For imaging and diagnostic uses:

- Indocyanine Green – neuro, ophthalmology
- Methylene blue – oncology and others
- Isosulfan blue - oncology
- Iodinated contrast – vascular surgery, others

Topical Hemostats

Used to control surgical bleeding

- Absorbable gelatin sponge
- Oxidized regenerated cellulose
- Collagen powder
- Thrombin
- Fibrin sealant

Daily Tasks

- Check surgery schedule to setup cases for the day
- Prepare IV's for each case
- Set up medications for each case
- Refill anesthesia trays
- Restock medication case boxes
- Restock drugs for the OR satellite

Anesthesia Tray



Case Boxes



Standard Anesthesia Syringes



More Daily Tasks

- Restock drugs to the automated dispensing cabinet used afterhours
- Monitor for outdated stock on shelves and refrigerator
- Medication billing using anesthesia records
- Narcotic reconciliation
- Inspect OR rooms for medications not returned

Questions?




Ina Henderson
Technician Session
Operating Room Pharmacy: A Unique Role for Pharmacy Technicians

Post-Test questions

1. The OR pharmacy technician works closely with the following health care professionals:
 - a. The OR pharmacist.
 - b. Nurses
 - c. Anesthesiologists and surgeons
 - d. All of the above

2. The following are all routine tasks of an OR pharmacy technician *except*:
 - a. Refill anesthesia trays.
 - b. Restock medication case boxes.
 - c. Assist the surgeon as he administers medications to the patient on the table.
 - d. Inspect OR rooms for medications not returned.




Unique Roles for Pharmacy Technicians

Narcotic Diversion Control

Kelly Rymysza, CPhT
Project Assistant
ICHP Annual Meeting
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There are no conflicts of interest regarding this presentation



Who diverts?

- Physicians
- Nurses
- Pharmacists
- Technicians



Why do they divert?

- Self medication
- Pain control
- Personal gain

How do they divert?

- Take medication, but do not document
- Take scheduled medication, then immediately remove another
- Go behind a nurse that did not log out of system
- Waste medication (ex- "dropped on floor")
- Range dosing
- Remove syringe from trash

What are the Consequences?

- Restrict duties
- Rehabilitation with intent to return to job
- Termination

Monitoring Devices

- Locked cabinets with written log
- Counting with witness per shift/day/week
- Blind counts when accessing
- Automated dispensing machines
- Reporting tools

How are they caught?

- Patient with excessive pain
- Behavior changes
- “Something doesn't feel right”
- Charging errors
- Excessive refills
- Discrepancies
- Over standard deviations

Conclusion

Technicians can:

- Work in tandem with the narcotic technicians
- Report suspicious events or trends
- Communicate with nurse managers, the pharmacy manager, each other

Unique Roles for Pharmacy Technicians – Narcotics Diversion Control
Kelly Rymza
121-000-09-044-L01-T

Post Test Question:

1. Name two ways a diversion can occur.
2. State one reason for diversion.
3. What is one thing you can do to help prevent diversion?

Unique Role for Pharmacy Technicians

A Day in the Life of a
Clinical Technician at
Evanston Hospital



By: Tiki Uthavongsakdi

The speaker has no conflict to disclose.

Learning Objectives

- ❖ Describe two unique clinical technician job functions at Evanston Hospital.
- ❖ Explain the daily workflow of a clinical pharmacy technician.

History of our Clinical Technician Program

- ❖ Decentralized pharmacists
- ❖ Nursing Shortage
- ❖ Introduction of Clinical Pharmacy Technician Role
- ❖ Nursing Satisfaction Scores
- ❖ Expanding role for Clinical Pharmacy Technicians

How Does the Pharmacy Technician play a Role?

- ❖ Handles distribution-related questions and requests to free up the clinical pharmacist.
- ❖ Clinical Technicians are a visible part of the team.
- ❖ Prepares medications for major medication passes freeing up the nurse.
- ❖ Trouble-shoot missing medications.
- ❖ Trouble-shoot barcode medication administration issues
- ❖ Assist pharmacist in processing patient-own-meds
- ❖ Locate non-formulary medications as needed

How Does the Pharmacy Technician play a Role? (continued)

- ❖ Maintains automated dispensing cabinets
- ❖ Narcotic inventory counts
- ❖ Unit inspections
- ❖ Assists with investigations on medication errors
- ❖ Participates in quality assurance audits
- ❖ Attend unit staff meetings
- ❖ Communicates information from and to pharmacy (e.g., new procedures, significant product changes, LASA precautions, etc.)

A Day in the Life of a Clinical Morning Shift Technician

- ❖ Start at 6AM: Medication are pulled for medication pass time 08:00 hour to 13:59 hour.
- ❖ Print patient medication information sheets for any new medications.
- ❖ Troubleshoot miscellaneous medication issues.
- ❖ Weekly narcotic inventory.

A Day in the Life of a Clinical Technician

(Morning Shift continued)

- ❖ Refill Pyxis[®], delivery of intravenous medications including chemotherapeutic agents, and other medications that need to be hand-delivered.
- ❖ Medication pull for medication pass time 16:00pm to 18:59pm.
- ❖ Throughout the shift answer pages, and check for patient admission, discharges and transfers.
- ❖ End of shift report.

Day in the Life of a Clinical Technician

Evening shift

- ❖ Start at 14:00pm shift to shift report from morning technician.
- ❖ Report to respective floors to troubleshoot medication issues, patient transfers and discharges.
- ❖ Preparation of the next 24 hour cart-fill of patient medications.
- ❖ Refill Pyxis[®], delivery of intravenous medications and check for final patient admissions, discharge and transfers.

Medication Information Sheets

- ❖ Currently nursing is responsible for most medication counseling
- ❖ Clinical Pharmacy Technicians prepare materials for nurses to use for patient education
- ❖ Identify patients that were admitted yesterday
- ❖ Focus on a select list of medications
- ❖ Additional information pulled on request

Why I like being a Clinical Pharmacy Technician

- ❖ Interaction with a lot more people including patients
- ❖ Challenging
- ❖ Independence
- ❖ You can see the impact your efforts make

Future opportunities for the Clinical Technician Program

- ❖ Investigating possible role in medication reconciliation – acquiring patient medication histories
- ❖ Continued efforts to improve patient medication information communication – HCAHPS
- ❖ More routine role in quality assurance data collection and analysis

Post –discussion questions

1. A pharmacy technician working in patient care areas can:
 - a) Assist the nurse with medication distribution issues
 - b) Assist the pharmacist
 - c) Maintain the automated dispensing cabinets
 - d) Participate in the patient counseling process
 - e) All of the above

Post –discussion questions

2. The clinical pharmacy technician role improved nursing satisfaction with pharmacy services.
- a) True
 - b) False

Thank You

Tiki Uthavongsakdi, BS, CPhT
tuthavongsakdi@northshore.org

Post-discussion Questions

Tiki Uthavongsakdi

Multiple Choice Questions

1. A pharmacy technician working in patient care areas can:
 - a. Assist the nurse with medication distribution issues
 - b. Assist the pharmacist
 - c. Maintain the automated dispensing cabinets
 - d. Participate in the patient counseling process
 - e. All of the above

2. The clinical pharmacy technician role improved nursing satisfaction with pharmacy services.
 - a. True
 - b. False