

## Pharmacy Technicians as Agents of Specialization in a Hospital Workflow

### Speaking Notes

Brian J. Trevarrow, BA, PharmD, BCPS

#### Historically:

- Pharmacy technicians have long been the backbone of the pharmacy operation in our inpatient setting at Nebraska Medicine. Through mergers and institutional name changes, pharmacy technicians have consistently formed an integral part in the overall workflow within the pharmacy operations and thus, in the delivery of optimal customer service as representatives of the pharmacy department.
- Pharmacy technicians in an inpatient setting work in a variety of settings, performing a large number of tasks, supervised by pharmacists:

Each task to be described briefly

- Unit dose medication preparation
  - IV sterile compounding
  - Non-sterile compounding of oral and topical medications
  - Packaging oral capsules, tablets and caplets into individually-labeled envelopes (i.e., strip-packing)
  - Working with pharmacy buyers to replenish inpatient pharmacy stock
  - Chemotherapy compounding
  - Pulling narcotic inventory to stock automated dispensing cabinets (Onmicell<sup>R</sup>) on patient care units
  - Stocking Onmicell cabinets on inpatient units
  - Pulling and checking narcotic inventory, delivering and stocking Onmicell cabinets on patient care units
  - Working as agents of inpatient pharmacists by checking continuous infusion medication rates, discussing volumes with nursing staff, ensuring subsequent doses are readily available on patient care units (i.e., “drip checking”)
- Technicians have been experts in a geographic (floor-based) model
    - Examples:
      - A technician has always been assigned to a certain floor or floors of the hospital to provide services for patients on that floor
        - Ex: the 5<sup>th</sup> floor at University Hospital, called 5West, has primarily Internal Medicine patients.

- One technician has always been assigned to 5West to perform the necessary functions listed above, especially medication cart delivery, narcotic stocking, Omnicell stocking, continuous infusion (i.e., “drip”) checking and ordering, discussing stock outages, missing medications and late medications with nursing staff, coordinating medication deliveries that are outside of the usual messenger runs to the unit.
- Technicians have been assigned similarly to cover other units of the floors at Nebraska Medicine; the institution now has 4 towers of patients and several technicians servicing various floors of the towers

### **Moving to a primary task based model:**

- Pharmacists moved to a service-line based arrangement for coverage of Nebraska Medicine towers 5 years ago
  - Examples of service line coverage
    - Cardiology
    - Neurology
    - Adult Critical Care
    - Surgery
    - Pediatrics
    - Oncology
    - Heart Transplant
    - Liver Transplant
    - Kidney Transplant
    - Bone Marrow Transplant
    - Oncology
    - Internal Medicine
    - Family Medicine
  - Pharmacists cover patients and round with medical teams by service line, not by geographic location, as had been done for years
- The technician staff will be changed to a **TASK-based model, rather than a geographic model**
  - Reasons for this are several:
    - The technicians will be able to focus on specific tasks for the whole institution, rather than multiple tasks for one area
    - Technicians are already skilled in a variety of tasks; specializing in a certain task-based workflow will better serve the customers of the hospital, namely the patients and the nursing staff
    - Communication upon presentation of issues will be facilitated, as the nursing staff or pharmacist (service-line or central operations) will be able to address the problem in a more timely fashion

- Staff rearrangement for technicians will allow flex in the schedule in that the current number of tasks will be allocated to 3 fewer staff members; thus, the individuals will be available for training in new arenas and, depending on the results of a trial period, amenable to added helper shifts if necessary
- Technicians will have greater accountability and ownership for fewer tasks but servicing the entire institution
  - Ex: delivery delays, missing medications account for a large number of incident reports related to pharmacy
- Workflows tend to be morning and evening peak activity times; specialization will allow more consistency in delivery of services
- Productivity will be enhanced with the potential to utilize fewer staff members
- Technicians will be assigned to the following task-based specialties:
  - Narcotic delivery and stocking: AM and PM shifts
  - Continuous infusion “drip” checking and ordering; also known as “trigger fill medications”: AM and PM shifts
  - Medication Runner: AM and PM shifts
  - Overnight Medication Cart delivery
  - Omnicell stock delivery, non-narcotic medications: AM and PM
  - Inventory: specializing in inventory management with changes upcoming

**New Shifts**

<b>N-Cart</b>	<b>2200-0800</b>	<b>Omicell delivery</b> <b>Cart Delivery-</b> <b>Deliver Zosyns with cart</b> <b>Deliver 3am Critical Low Narcs</b>
<b>DRPam</b>	<b>0630-1500</b>	<b>Drip Checks (10am-2000)/ Follow-up</b> <b>Deliver Velettri/Flolan</b> <b>Missing meds-Triggered Fill IVs</b> <b>L&amp;D/peds (OBOR)</b> <b>-OB trays/Hemorrhage kits</b> <b>-NICU dilutions- lorazepam/fentanyl</b> <b>ICU trays/kits prn</b>

		Thaw/Deliver Cefazolin to L&D when needed
<b>DRPpm</b>	<b>1430-2300</b>	<p>Drip Checks (2000-10am)/Follow-up</p> <p>Deliver Velettri/Flolan</p> <p>Missing meds- Triggered Fill IVs</p> <p>L&amp;D/peds (OBOR)</p> <ul style="list-style-type: none"> <li>-OB trays/Hemorrhage kits</li> <li>-Insulin Dilutions- hospital wide</li> </ul> <p>ICU trays/kits prn</p> <p>Thaw/Deliver Cefazolin to L&amp;D when needed</p>
<b>RunAM</b>	<b>0600-1430</b>	<p>Deliver Stats</p> <p>Deliver 0600 procedural/ED narcs</p> <p>Missing Meds</p> <p>MEPs/Code Trays w/ Restock/Ordering</p> <p>Thaw Zosyn/Cefepime</p> <p>Run between supply and central</p>
<b>RunPM</b>	<b>1430-2300</b>	<p>Deliver Stats</p> <p>Missing Meds</p> <p>MEPs/Code Trays w/ Restock/Ordering</p> <p>Thaw Zosyn/Cefepime</p> <p>Run between supply and central</p>
<b>CSDam</b>	<b>0630-1500</b>	<p>Cart delivery- 57UT</p> <p>Narc Delivery/Discrepancies – start with 0800 narc fill</p> <p>Stock out- narcs</p> <p>Oral Syringes delivery to patient med drawer</p> <p>Clear return bins- narcotic and Omnicell refrigerator bins</p> <p>Satellite Refrigerator Temperatures- 3/8Clarkson</p>

<b>CSDpm</b>	<b>1430-2300</b>	<b>Narc Delivery (including procedure narcs)/Discrepancies</b> <b>Stock out- narcs</b> <b>Oral Syringes delivery to patient med drawer</b> <b>Clear return bins- narcotic and Omnicell refrigerator bins</b> <b>Satellite Refrigerator Temperatures- 3/8Clarkson</b>
<b>4PS07</b>	<b>0700-1530</b>	<b>Omnicell delivery</b> <b>Stock outs- non-narc</b>
<b>3Del1630</b>	<b>1630-2130 (intern)</b>	<b>Omnicell delivery</b> <b>Stock outs- non-narc</b>