

EP10b – STAFFING, SCHEDULING, AND BUDGETING PROCESSES

ADDRESSING SAFETY CONCERNS IN TREATING POSTPARTUM PATIENTS THROUGH NEW POSTPARTUM HEMORRHAGE KIT WORKFLOW

Provide one example with supporting evidence, when nurse(s) collaborated with a Nurse AVP/Director to evaluate data to meet an operational need (not workforce related).

Nurses Collaborated with Nurse Directors to Evaluate Data

The NewYork-Presbyterian/Columbia University Irving Medical Center (NYP/Columbia) OR (MB3,4-605320) [OR] nurses are committed to improving maternal safety for surgical obstetric and gynecological (OB/GYN and GYN) patients. As part of the overall maternal safety program, the OR stocks postpartum hemorrhage kits which nurses can quickly access for OB/GYN and GYN emergencies as part of daily operations. The postpartum hemorrhage kits contain medications to be implemented during an emergency response. During March 2022, nurses accessed the postpartum hemorrhage kits from Omnicell, the automated medication dispensing machine, and discovered that select medications were missing from the kits, creating a delay in the emergency response and interrupting operations.

On April 18, 2022, Rochelle Alexander, MSN, RN, CNOR, clinical nurse, OR, was gathering supplies for two cases and notified Vincent Virone, RPh, MS, Pharmacy Storeroom Manager, and Jill Cohen, DNP, RN, PCCN-K, NEA-BC, Patient Care Director (nurse manager), OR, via email to report the missing postpartum hemorrhage kits from Omnicell. Ms. Alexander further justified the need and explained the urgency associated with maintaining an adequate PAR (periodic automatic replenishment) level for the medications in the kits.

On April 26, 2022, Dr. Cohen responded to the email to Mr. Virone asking him to confirm the number of postpartum hemorrhage kits on PAR. The following day, Mr. Virone replied that the PAR level was 10; and 2 kits were currently available. Ms. Alexander suggested to Mr. Virone that 10 postpartum hemorrhage kits should be available and stocked at all times based on the evaluation of data from the nurses and their director of nursing. [EP10b.1—Email to Pharmacy](#)

On April 27 2022, Dr. Cohen and Kerri Hensler, DNP, MPA, RN, CNOR, NEA-BC, Director of Nursing, Perioperative Services, met to discuss the reoccurring issue and develop a solution for the operational need to ensure that the OR postpartum hemorrhage kits (without any missing medications) were always readily available for all OB/GYN and GYN surgical procedures. Together, they created an A3 to evaluate data related to total cases and kit usage associated with OB/GYN daily cases. A3 is a problem-solving, project planning tool used at NYP/Columbia. Dr. Cohen and Dr. Hensler identified trends using the most recent six-month data reports. They determined that the OR averaged eight cases per day. The current PAR level of 10 kits was theoretically adequate: however, there was a significant discrepancy between PAR level and stock available. Dr. Cohen and Dr. Hensler concluded that always having 10 postpartum hemorrhage kits available/stocked in Omnicell would ensure that operational needs could be met. They consulted with the surgeons who also agreed with their assessment. [EP10b.2—Evaluation of Data - A3](#)

Working to Meet an Operational Need for Postpartum Hemorrhage Kits

Over the next three months, Ms. Alexander noted variations in PAR levels and identified kits in Omnicell that were incomplete, with at least one emergency medication missing from the kit. In August 2022, Taylor Hall, RN, BSN, Clinical Nurse Manager, Milstein OR, followed up with Mr. Virone to review expectations due to incomplete kits being stocked in the OR Omnicell and to discuss the process and contents for the postpartum hemorrhage kits moving forward. After multiple discussions throughout the month of August 2022, Ms. Hall, Mr. Virone, and Susan Kokura, PharmD, MBA, Pharmacy Operations Manager, Perioperative Services/Intensive Care Unit, decided that the postpartum hemorrhage kits would be stocked in two Omnicells, located in two areas of the OR (third floor). [EP10b.3—Planning Postpartum Hemorrhage Kits](#)

Operational Need Met

On August 12, 2022, Ms. Hall emailed the perioperative team to introduce the new postpartum hemorrhage kit workflow to improve operations and ensure that used kits are restocked in a timely manner. Ms. Hall specified two areas of the OR where the postpartum hemorrhage kits would be stocked and described the new breakaway locks for the kits. An unbroken lock signified that the postpartum hemorrhage kits are

complete and contain the necessary medications provided by Pharmacy. In the same email, Ms. Hall indicated that there would be a bin marked “Used Postpartum Kits” in the Omnicell refrigerators for nurses to place used postpartum hemorrhage kits for pick up by a pharmacy tech who would return the used kits to the Pharmacy for refilling daily.

[EP10b.4—Postpartum Hemorrhage Kit New Workflow](#)

The new workflow was successful in meeting the operational need in the OR. The postpartum hemorrhage kits were maintained at 10 kits per Dr. Cohen’s audits, ensuring that all OB/GYN and GYN surgical cases had emergency medications readily available.

[EP10b.5—Operational Need Met Huddle](#)

Note on email dated April 27, 2022 at 10:11am: The Omnicell in MHHC_ORGX_HC_3_OR_G (near rm 26) is located in OR (MB3,4-605320) [OR]. All other Omnicells are located in another NYP campus.

From: Virone, Vincent <vrvirone@nyp.org>
Sent: Wednesday, April 27, 2022 10:25 AM
To: Alexander, Rochelle <ralexand@nyp.org>
Cc: Cohen, Jill <jbc9009@nyp.org>; Dave, Mohak <mod9041@nyp.org>; Hall, Taylor <tah9107@nyp.org>; Jun, Ellie <hyj9002@nyp.org>; Yoo, Grace <yoograc@nyp.org>; Rose, Isabel <ichiu@nyp.org>
Subject: Re: Post partum hemorrhage kit

Dear Rochelle Alexander,

I will need to order additional plastic trays to prepare the kits. So that we are on the same page, when you say "HC" you mean "MHHC3_ORGX -HC_3_OR_G (near rm 26)".

For "core A" I will need the description of the Omnicell located on the upper left hand side of the screen. Please take a photo or email the description to me. Thank you.

Vincent Virone, RPh, MS
Pharmacy Storeroom Mgr
New York Presbyterian Hospital
Columbia University
212-305-0244

On Apr 27, 2022, at 10:11 AM, Virone, Vincent <vrvirone@nyp.org> wrote:

Dear Jill Cohen,

Below are the specific Omnicells, the par levels and the current quantity of post partum hemorrhage kits stocked in the these Omnicells:

Bab 10C Antepartum / par = 2 / qty on hand = 3
CHB 10Tower-BAB 10T L&D / par = 4 / qty on hand = 3
CHB10T_OR / par = 3 / qty on hand = 1
CHBAB5 / par = 2 / qty on hand = 2
CHBAB6 / par = 2 / qty on hand = 2
MHHC3_ORGX -HC_3_OR_G (near rm 26) / par = 10 / qty on hand = 2

Vincent Virone, RPh, MS
Pharmacy Storeroom Mgr
New York Presbyterian Hospital
Columbia University
212-305-0244

From: Cohen, Jill
Sent: Tuesday, April 26, 2022 8:43 PM
To: Dave, Mohak
Cc: Alexander, Rochelle; Virone, Vincent; Hall, Taylor; Jun, Ellie
Subject: Re: Post parfumerie hemorrhage kit

Vincent,

Can you confirm the par level for the post partum hemorrhage kit?

Thanks,

Jill

Jill B. Cohen, DNP, RN, PCCN-K, NEA-BC

Patient Care Director, Milstein OR

NewYork-Presbyterian/Columbia

C 347.266.8422

T 646.317.6506

Jbc9009@nyp.org

www.nyp.org

On Apr 18, 2022, at 9:08 AM, Dave, Mohak <mod9041@nyp.org> wrote:

Hi Rochelle,

I will defer to Vincent for the stocking of PPH. but can share information regarding the 5 letter minimum. 5 letter minimum updates were discussed at the medication safety sub-committee. Using a 5 letter minimum is a recommendation from the institute of safe medication practice based on errors that have occurred in healthcare.

"Med Safety has approved a change to require a minimum of 5 characters to be entered when searching for medication.

Subject: Medication Safety -OmniceIl – 5 Character Drug Name Search

Start Date/Time: Wednesday April 13th @10am

Who this message is for: All Automated Dispensing Cabinet Users @Milstein/MSCH (i.e. Omnicell and Anesthesia Workstations)

What's happening? To minimize risk of issuing the wrong medication(s) from the Omnicell, ISMP recommends using at least five characters when conducting drug name searches.

The user will be required to **enter a minimum of 5 characters** to begin searching for the drug or item. This change was approved by Med Safety and the Medical Board.

How will this affect you?

When searching for Drugs under stocked meds tab, type the first 5 characters of the name to start searching:

- Ex: Acetaminophen = 'aceta'
- Ex: Ibuprofen = 'ibupr'

For NON-Drug items, such as Keys, you can search using the name of the item or the drug the Key is related to:

- Ex: Key <space> Lorazepam = 'Loraz'
- Ex: Key <space> Ativan = 'Ativa'
- Both 5-character search entries will allow you to find the Key linked to that drug

To assist with searching for non-drug items and/or drugs that have **LESS than 5 characters in length** a table with suggested aliases is attached."

Attached are guides that can be shared across all the CNM's in the OR/PACU. Thanks!

Mohak Dave, PharmD, MHA

Pharmacy Operations Manager

M4 ICU | OR Pharmacy

NewYork-Presbyterian

Columbia University Irving Medical Center

Office: 212.342.5251

Cell: 347.835.1813

From: Alexander, Rochelle
Sent: Monday, April 18, 2022 8:29:15 AM
To: Virone, Vincent; Dave, Mohak
Cc: Hall, Taylor; Cohen, Jill
Subject: Re: Post parfumerie hemorrhage kit

Additionally Vincent,

We need to have a par of 10 post-partum hemorrhage boxes in HC. This is a GYN service and patients can bleed heavily at any time in addition to the ER cases and OB cases that come here. This Omnicell is not user friendly. I am not able to return unused meds that are lying around. We need to type in 5 letters to get meds and the screen switches back and forth between stocked meds and display meds so the selected meds don't come up. It takes longer to get a med with this new Omnicell.

Rochelle Alexander, MSN, RN, CNOR.

GU/GYN nursing core

New York-Presbyterian | Columbia University Irving Medical Center

622 West 168th Street, New York, NY 10032

New York, NY 10032

Email: ralexand@nyp.org

From: Alexander, Rochelle <ralexand@nyp.org>
Sent: Monday, April 18, 2022 7:41:16 AM
To: Virone, Vincent; Dave, Mohak
Cc: Hall, Taylor; Cohen, Jill
Subject: Post parfumerie hemorrhage kit

The post party hemorrhage kit is not stocked in Omnicell. We need it for 2 cases this morning please

Sent from my iPhone

A3 Owners: Jill Cohen, Kerri Hensler

A3 Title: Post-partum Hemorrhage Kit

Date: April 26-27, 2022

| Brief Description/ Problem Statement | Recommendations/Countermeasures: Workflow & PPH Locks |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>There were 2 incidents overnight where they didn't have post-partum hemorrhage (PPH) kits during the emergencies. Nurses were also finding incomplete PPH kits stocked in the Omnicell or the PPH kits are not being restocked leaving mostly 2 on hand.</p> | <ol style="list-style-type: none"> 1. Revise nursing workflow to help identify incomplete PPH kits and ensure used PPH kits are replaced in refrigerator bin and no longer in the Omnicell- in a timely manner. 2. Add break-away locks in every PPH kit. These will serve as an indicator whether the PPH kits are intact and complete. |
| <p>Current State: April 2022</p> <ul style="list-style-type: none"> • Current par is 10, but only 2 on hand • Some PPH kits were missing medication or quantity not adequate • Nurses would take out individual medications from the PPH kit and return the rest of the PPH kit in Omnicell as they should per the current workflow • Pharmacy has no mechanism of distinguishing between a complete or an incomplete kit | |
| <p>Goal / Aim: Emergency Preparedness OB/GYN & GYN Cases 24/7 PPH Kits</p> <p>Maintain adequate par of complete post-partum hemorrhage kits to ensure OR staff has medications on hand for OB/GYN&GYN bleeding emergencies.</p> | <p>Plan / Action Items: Huddle Message; Collab w/Pharm</p> <p>What New workflow- Collaborate with pharmacy and have pharmacy begin securing kits</p> <p>Who Taylor Hall- Collaborate with Pharmacy on securing kits with break-away locks Jill Cohen- PAR level audit</p> <p>When Follow up with Pharmacy on any incidences of incomplete kits (May-June 2022) Locks (Aug 2022) Audit (mid Aug-Sept 2022)</p> |
| <p>Analysis of Problem: Kerry & Jill Analyze Data and Kits</p> | <p>Measures and Follow-up: PAR Reports</p> |
| <ul style="list-style-type: none"> • Oct 2021: 127 cases, Nov 2021: 154 cases, Dec 2021: 154 cases, Jan 2022: 121 cases, Feb 2022: 150 cases, Mar 2022: 159 cases • Based on the 6-month trend, OR averaged 8 OB/GYN & GYN cases a day. Every case needs a kit on hand in case of a hemorrhagic emergency. The current par is 10, which theoretically is adequate, however, there is a significant discrepancy between par level and stock on hand. • Kit contents: Carboprost 0.25mg/1mL inj, Methylergonovine 0.2mg/1mL inj, MISOPROSTOL 200mcg tab (2), Oxytocin 10 units/1mL inj | <p>Jill and Taylor to follow up with Pharmacy on any incidences of incomplete kits (May-June 2022)</p> <p>Jill to audit PAR levels- Maintain 10 PPH kits and report any incomplete kits (mid Aug-Sept 2022)</p> <p>August 2022:</p> <ul style="list-style-type: none"> • Week 3: 10 PPH kits maintained • Week 4: 10 PPH kits maintained • Week 5: 10 PPH kits maintained <p>September 2022:</p> <ul style="list-style-type: none"> • Week 1: 10 PPH kits maintained • Week 2: 10 PPH kits maintained • Week 3: 10 PPH kits maintained • Week 4: 10 PPH kits maintained |

A3 Owners: Jill Cohen, Kerri Hensler
Date: April 26-27, 2022

A3 Title: Post-partum Hemorrhage Kit

| Choose Column 1 Surgery Year | | Choose Column 2 Surgery Month | | | | | | Choose Column 3 N/A | Choose Column 4 N/A | Choose Metric Cases |
|---------------------------------|-------|----------------------------------|-------------|-------------|------------|------------|------------|------------------------|-------------------------------------------------------------------------|---------------------------|
| Choose Row 1 Site | | Choose Row 2 Location | | | | | | Choose Row 3 N/A | Choose Row 4 N/A | Metric Parameter Total |
| | | 2021 | | | 2022 | | | Grand Total | | |
| | | 10 Cases | 11 Cases | 12 Cases | 1 Cases | 2 Cases | 3 Cases | Cases | | |
| NYP-CU | MILOR | 127 | 154 | 154 | 121 | 150 | 159 | 865 | Relative Surgery Date 1/1/2021 12:00:00 AM to 12/31/2021 12:00:00 AM | |
| Grand Total | | 127 | 154 | 154 | 121 | 150 | 159 | 865 | Surgery Date Range 10/1/2021 12:00:00 AM to 3/31/2022 12:00:00 AM | |
| | | | | | | | | | Weekday of SurgeryDate All | |
| | | | | | | | | | Site All | |
| | | | | | | | | | Location MILOR | |

From: Virone, Vincent <vrvirone@nyp.org>
Sent: Friday, August 12, 2022 12:05 PM
To: Kokura, Susan; Hall, Taylor
Cc: Cohen, Jill; Alexander, Rochelle
Subject: Re: GYN meds

Hi Sue,
Thank you.

Vincent Virone, RPh, MS
Pharmacy Storeroom Mgr
New York Presbyterian Hospital
Columbia University
212-305-0244

From: Kokura, Susan <ssk9023@nyp.org>
Sent: Friday, August 12, 2022 11:49 AM
To: Virone, Vincent <vrvirone@nyp.org>; Hall, Taylor <tah9107@nyp.org>
Cc: Cohen, Jill <jbc9009@nyp.org>; Alexander, Rochelle <ralexand@nyp.org>
Subject: RE: GYN meds

Hi Vincent, I confirmed with Taylor.
These Kits are to go in Two areas

1. CORE A Milstein OR 3rd floor outside of where rooms 1-4 are located
2. Heart Center 3rd Floor OR Core outside of rooms 25-28

Let me know if you need anything else,
Thank you,
Susan

Susan Kokura, PharmD, MBA
Pharmacy Operations Manager: Perioperative Services|Intensive Care Unit
NewYork-Presbyterian|Columbia University Medical Center
Office: (646) 317-4930
Cell: (646)-831-0239
Email: ssk9023@nyp.org

From: Virone, Vincent <vrvirone@nyp.org>
Sent: Friday, August 12, 2022 10:48 AM
To: Hall, Taylor <tah9107@nyp.org>; Kokura, Susan <ssk9023@nyp.org>
Cc: Cohen, Jill <jbc9009@nyp.org>; Alexander, Rochelle <ralexand@nyp.org>
Subject: Re: GYN meds

Hi Taylor,
When you get a chance, please call my cell (646-899-0435) to discuss a process for the post partum kits.
Thanks.

Vincent Virone, RPh, MS
Pharmacy Storeroom Mgr
New York Presbyterian Hospital
Columbia University
212-305-0244

From: Hall, Taylor <tah9107@nyp.org>
Sent: Tuesday, August 9, 2022 5:12 PM

To: Kokura, Susan <ssk9023@nyp.org>

Cc: Cohen, Jill <jbc9009@nyp.org>; Virone, Vincent <vrvirone@nyp.org>; Alexander, Rochelle <ralexand@nyp.org>

Subject: Re: GYN meds

Good evening,

Vincent reached out after our initial email. We are working together to establish a par and workflow so that we can maintain an accurate inventory of these kits. Thank you!

Best,
Taylor

Taylor Hall RN, BSN

Clinical Nurse Manager, Milstein OR

NewYork-Presbyterian/Columbia

Tah9107@nyp.org

(c) 347-266-7937

On Aug 9, 2022, at 4:11 PM, Kokura, Susan <ssk9023@nyp.org> wrote:

Hi Jill I can look into this and get you the information!

I will get back to you,

Thank you,

Susan

Susan Kokura, PharmD, MBA

Pharmacy Operations Manager: Perioperative Services|Intensive Care Unit

NewYork-Presbyterian|Columbia University Medical Center

Office: (646) 317-4930

Cell: (646)-831-0239

Email: ssk9023@nyp.org

From: Cohen, Jill <jbc9009@nyp.org>

Sent: Tuesday, August 9, 2022 11:27 AM

To: Hall, Taylor <tah9107@nyp.org>; Virone, Vincent <vrvirone@nyp.org>; Kokura, Susan <ssk9023@nyp.org>

Cc: Alexander, Rochelle <ralexand@nyp.org>

Subject: RE: GYN meds

Including Susan

From: Hall, Taylor <tah9107@nyp.org>

Sent: Tuesday, August 9, 2022 9:45 AM

To: Virone, Vincent <vrvirone@nyp.org>

Cc: Cohen, Jill <jbc9009@nyp.org>; Alexander, Rochelle <ralexand@nyp.org>

Subject: Re: GYN meds

Good morning,

I want to touch base on the expectations for the post-partum hemorrhage kits throughout the Milstein operating room. From my understanding, both heart center core G and Core A Omnicells should have complete post-partum hemorrhage kits. Vincent, can you provide expected par levels for each Omnicell with the complete list of post-partum medications per kit? I have received multiple reports from the GYN team that these kits are often not complete or stocked in the Omnicell. I appreciate your help on this!

Best,

Taylor

Taylor Hall RN, BSN

Clinical Nurse Manager, Milstein OR
NewYork-Presbyterian/Columbia
Tah9107@nyp.org
(c) 347-266-7937

From: Alexander, Rochelle <ralexand@nyp.org>

Sent: Tuesday, August 9, 2022 8:37 AM

To: Hall, Taylor <tah9107@nyp.org>

Subject: GYN meds

Hi Taylor,

There is just one hemorrhage post partum kit in the HC Core G pyxis. Can you please ask them to send more. I was under the impression that we would have 10 kits.

Rochelle Alexander, MSN, RN, CNOR.

GU/GYN nursing core

New York-Presbyterian | Columbia University Irving Medical Center

622 West 168th Street, New York, NY 10032

New York, NY 10032

Email: ralexand@nyp.org

From: Hall, Taylor <tah9107@nyp.org>
Sent: Friday, August 12, 2022 4:11 PM
To: Hall, Taylor
Cc: Cohen, Jill; MSOR CNM; Hensler, Kerri
Subject: New Postpartum Hemorrhage Kit Workflow

Good afternoon,

Our team has reported an increasing number of incomplete post-partum kits stocked in the GYN and ENT Omnicells. To help eliminate this issue, we will be implementing a new workflow that will identify incomplete kits and ensure that used kits are refilled and stocked in a timely manner. Below are the **Post-Partum kits** pharmacy will be placing in the **Milst-3 OR Core A and GYN HC Omnicell refrigerators** this afternoon.

These new kits have **break-away locks**. The intact break-away locks are an indicator that the kit was filled and completed by pharmacy. Once the kit is used, please **return the plastic box** and unused medication back in the **refrigerator** in the **bin marked "Used Post-Partum Kits"**.

The pharmacy tech will return the used kits back to the Pharmacy for refilling daily. Below is a picture of the new kits.



Best,
Taylor

Taylor Hall RN, BSN
Clinical Nurse Manager, Milstein OR
NewYork-Presbyterian/Columbia
Tah9107@nyp.org
(c) 347-266-7937

Circle of Communication

Date/Unit: 11/7/2022

| Readiness | Discussion | Owner / F/U |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <p>M = Methods Are our Processes and workflows ready for the day? If no, specify...</p> | <ol style="list-style-type: none"> 1. 4 GYN rooms 2. Truclear needed in Milstein 4 and HC 3. Family planning cases in HC <ol style="list-style-type: none"> a. Post Partum Kits checked, par remains consistently at 10 b. No report of missing med from post partum kits | |
| <p>E = Equipment Beds Is the key equipment ready for the day? If no, specify...</p> | <ol style="list-style-type: none"> 1. Black stirrups needed on Mil 4 | |
| <p>S = Supplies Are our key supplies ready for the day? If no, specify...</p> | <ol style="list-style-type: none"> 1. Suction irrigators: backorder | |
| <p>S = Staffing Are we staffed as planned with appropriate skill mix for today? If no, explain</p> | <ol style="list-style-type: none"> 1. Adequate for cases | |
| <p>S = Safety / Keepsafe KEEPSAFEs, near misses, great catches, staff incidents or injuries</p> | <ol style="list-style-type: none"> 1. None to address | |