

TL1 – STRATEGIC PLANNING

SURGICAL WOUND ACTION TEAM NURSING BUNDLE: AN INITIATIVE IN NURSING PRACTICE

Provide one example, with supporting evidence, of an initiative in nursing practice that is consistent with the organization's mission statement.

NewYork-Presbyterian Mission

NewYork-Presbyterian (NYP) is one of the nation's most comprehensive, integrated academic health care delivery systems, dedicated to providing the highest quality, most compassionate care and service to patients in the New York metropolitan area, nationally, and throughout the globe. As part of the NYP enterprise, NewYork-Presbyterian/Columbia University Irving Medical Center (NYP/Columbia) shares NYP's mission statement as follows:

In collaboration with two renowned medical schools, Weill Cornell Medicine and Columbia University College of Physicians and Surgeons, NYP is dedicated to educating the next generation of healthcare professionals, developing groundbreaking research, advancing innovative, patient-centered clinical care, and serving the needs of our local, national and global community.

Initiative in Nursing Practice: SWAT Nursing Bundle

In alignment with NYP's mission statement to advance innovative patient-centered clinical care, Alexandra Taylor Berger, BSN, RN, PCCN, clinical nurse, Surgical Stepdown (5GN-605427) [5GN] Unit; Tilu Chacko, BSN, RN, CCRN, clinical nurse, CTICU (5MB/HH-605150) [CTICU]; Kayla Dunn, MSN, RN, PCCN, clinical nurse, 5GN; and Michael Spicer, MSN, RN, CCRN-CSC, clinical nurse, CTICU; formed the Sternal Wound Action Team (SWAT) and spearheaded an initiative in nursing practice to prevent sternal wound infections.

SWAT

The Sternal Wound Action Team (SWAT) was formed as a result of the SWAT members participation in the Clinical Scene Investigator (CSI) Academy of the American Association of Critical-Care Nurses (AACN) in June of 2023. CSI is a one-year national fellowship program designed to leverage clinical nurses' expertise to improve patient outcomes. The SWAT members noted an increase of sternal wound infections (SWI) in cardiac surgery patients with sternotomy. Since the Centers of Medicaid and Medicare (CMS) will not reimburse if a patient develops a SWI, the SWAT members identified SWI as an opportunity to improve patient outcomes. Between July 2023 and September 2023, with the support of their CSI coach, Darshani Singh, MS, RN, AGCNS-BC, CEN, Program Manager Extra Corporeal Membrane Oxygenation (clinical nurse), and Sarah Garza-Ohl, MPH, BSN, RN, CENP, Patient Care Director (nurse manager), 5GN, the SWAT members reviewed SWI data from August 2022 onwards for 5GN and the CTICU to set baseline and retrospective data. The SWAT members performed a literature review and identified that their organization had higher SWI rates and lacked a nursing bundle for SWI prevention, despite evidence of effective approaches to reducing SWIs. SWAT members set a goal to decrease SWI by 40 percent, or less than six cases per year, by June 2024 through the implementation of a nursing bundle.

SWAT Nursing Bundle

In September 2023, SWAT members developed the SWAT Nursing Bundle. The evidence-based bundle included a preoperative education checklist, skin preparation instructions, and postoperative sternal wound infection prevention checklist tasks for clinical nurses. In addition, the SWAT members developed a patient education handout with topics such as what to expect before surgery and what to expect immediately after surgery, including important teaching points about blood glucose, sternal wound care, and discharge instructions.

SWAT Nursing Bundle	
Preoperative Education Checklist	<p>Clinical nurses educate cardiac surgical patients prior to their procedure on the following:</p> <ul style="list-style-type: none">• Sternal wound infection prevention with an accompanied patient education handout• Comprehensive glycemic control with an accompanied patient guidebook for patients with Hgb A1c greater than 5.9

<p style="text-align: center;">Skin Preparation Instructions</p>	<p>Clinical nurses review skin preparation instructions, which include patients to use chlorhexidine gluconate (CHG) wipes the evening prior to surgery then bathe with CHG 2% solution, an antiseptic agent.</p> <p>The day of surgery, the clinical nurse assists the patient with CHG preparation to the patient’s chest and applies Bactroban®, an antibacterial ointment, in the nostrils of the patient and applies a new lead-set to the back of the patient, if applicable, as well.</p>
<p style="text-align: center;">Postoperative Sternal Wound Infection Prevention Checklist</p>	<ul style="list-style-type: none"> • Clinical nurses apply a surgical bra or binder to the patient postoperatively • Timely antibiotic administration • Glycemic control (blood glucose of 140-180) with patient education to maintain a carbohydrate-controlled diet • Incision care guidelines • Ensure patient is examined daily • Provide daily patient hygiene with adhesive remover or shower, if applicable • Provide patient instructions to keep all surgical dressings clean, dry, and intact

The clinical nurses implemented the SWAT Nursing Bundle initiative in October 2023, with a SWAT Nursing Bundle kickoff on 5GN and in the CTICU. SWAT members provided education to 5GN and CTICU clinical nurses on the SWAT Nursing Bundle using a PowerPoint (PPT) presentation (TL1.4—SWAT Presentation and EMR Auditing). Clinical nurses utilized the PPT to review the “Midsternal Incision Care” guidelines which they accessed via a link or QR code in the presentation. These evidence-based practices aligned nursing practices to the evidence and standardized wound care guidelines in postoperative cardiac surgery patients. SWAT members identified champions for each unit to become experts and assist their peers with resources for sustaining compliance with the SWAT Nursing Bundle.

SWAT members ensured full adoption as they monitored the SWAT Nursing Bundle compliance via randomized electronic medical record (EMR) chart audits on their peers, including preoperative CHG cleansing completed by the patient or clinical nurse; surgical site infection prevention education provided by the clinical nurse prior to the patient's surgical procedure; application of a surgical bra on the patient; wound treatments/dressings, including gauze with CHG and antibiotic ointment; and daily bathing of the patient, if applicable.

Home > Our Mission and Vision

Our Mission and Vision

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New Mission and Vision:

NYP Mission: In collaboration with two renowned medical schools, Weill Cornell Medicine and Columbia University College of Physicians and Surgeons, NYP is dedicated to:

- Educating the next generation of health care professionals.
- Developing groundbreaking research.
- Advancing innovative, patient-centered clinical care.
- Serving the needs of our local, national and global community.

NYP Vision: To be the #1 Integrated Academic Health System in the Nation in high-quality patient centered care, education & research.

Our Culture

Respect

Every Person Counts

Teamwork

Working Together

Excellence

Exceptional Quality and Service

Empathy

Listen, Understand and Respond

Innovation

Creative Ideas, Cutting Edge Solutions

Responsibility

Honoring Our Past, Ensuring Our Future



CSI AACN **Academy**
Clinical Scene Investigator™

 **NewYork-Presbyterian**



Edwards

EDWARDS
LIFESCIENCES
FOUNDATION

December 5, 2023

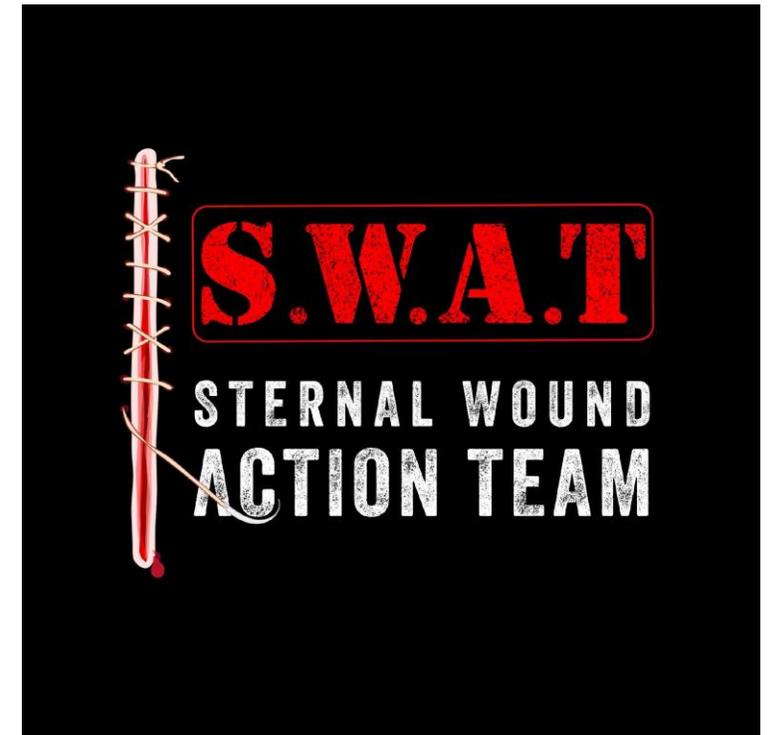
Sternal Wound Action Team

Alexandra Taylor Berger, BSN, RN, PCCN

Tilu Chacko, BSN, RN, CCRN

Kayla Dunn, MSN, RN

Michael Spicer, MS, AGNP, RN, CCRN-CSC



Edwards Lifesciences Foundation

CSI Academy Expands to Support Underserved/Underrepresented Populations

- Charitable giving and philanthropic branch of corporation
- Foundation focus on health and community programs
- Support for programs via grants to nonprofits
- ***Every Heartbeat Matters*** philanthropic initiative
- Underserved patients with cardiac surgery and/or critically ill recovery needs
- \$100,000 grant to AACN CSI Academy

NewYork-Presbyterian Hospital

- Patient population: local, national, international and across all specialties
- 2478-beds across all campuses
- 10 campuses across New York City and Westchester
- 2 million visits annually (inpatient and outpatient)



NewYork-Presbyterian/Columbia University Irving Medical Center Campus

- Patient population: local, national, and international, across all specialties
- Ranked #6 nationally for cardiothoracic surgery
- 738-beds
- Annualized patient numbers: 2 million annually
- American Nurses Credentialing Center Magnet Designated
- Extracorporeal Life Support Organization Platinum Center of Excellence



NewYork-
Presbyterian

5 Garden North (5GN)

- Patient population: pre- and post-operative coronary artery bypass grafts, valve repairs and replacements, heart transplants, and additional surgeries
- Number of beds: 36
- Average daily census: 31.5
- Annualized patient numbers: 1683 cases/2022
- Unit awards:



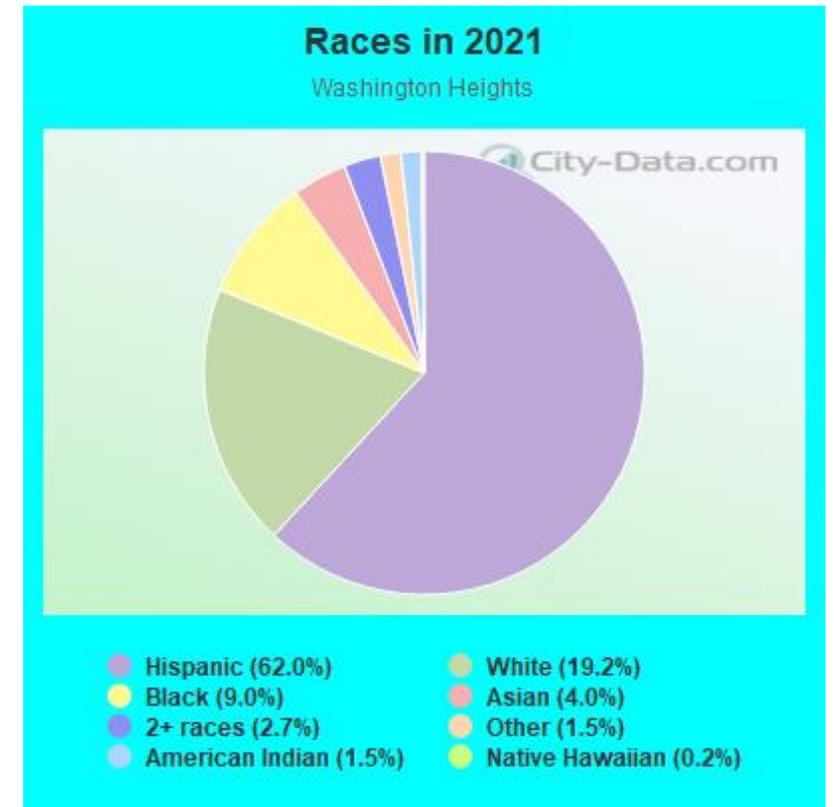
Cardio Thoracic Intensive Care Unit (CTICU)

- Patient population: critically ill patients with cardiothoracic disorders and complex pathophysiology, predominantly surgical candidates
- Number of beds: 31
- Average daily census: 27.45
- Annualized patient numbers: 1683 cases/2022
- Unit awards:



Underserved/Underrepresented Population

- Race/Ethnicity¹: 62% Latino, 19.2% White, 9% Black, 4% Asian, 2.7% two or more Races, 1.5% American Indian, 1.5% Other
 - 3% identify with limited English proficiency
 - 48% born outside the U.S.



Underserved/Underrepresented Population

- Insurance
 - Medicaid: 44.8%
 - Medicare: 33.2%
 - Uninsured: 22%
- Average household income¹: \$58,060 (2021)
 - Poverty rate: 27%
 - Unemployment: 16%
- Co-morbidities²:
 - Diabetes: 10%
 - Hypertension³: 64% of NYC adults



**Washington Heights
and Inwood**

Problem

Increased rate of sternal wound infection (SWI) in cardiac surgery patients with sternotomy

Centers for Medicaid and Medicare Services (CMS) will not reimburse if a patient develops a sternal wound infection. Goal of less than 1% ⁴

NYP is currently in the red/above national trends based on internal data ^{4,5}

No nursing bundle for SWI prevention at NYP, despite relevant evidence supporting multimodal approaches ⁶

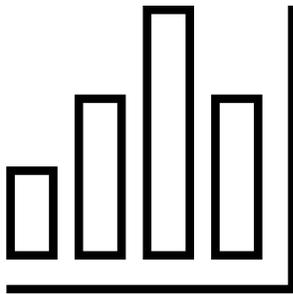
Purpose

- To decrease the incidence of sternal wound infection via a multidisciplinary bundle approach

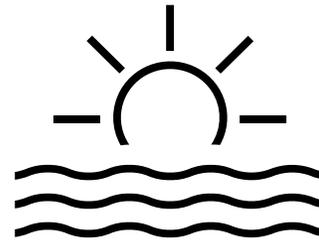
Outcomes

- To decrease the incidence of midsternal wound infection 40% (less than 6 cases/year) by June 2024

Key Activities and Dates



Pre-data collection
08/01/2022 - 08/30/2023



Bundle inception
09/11/2023

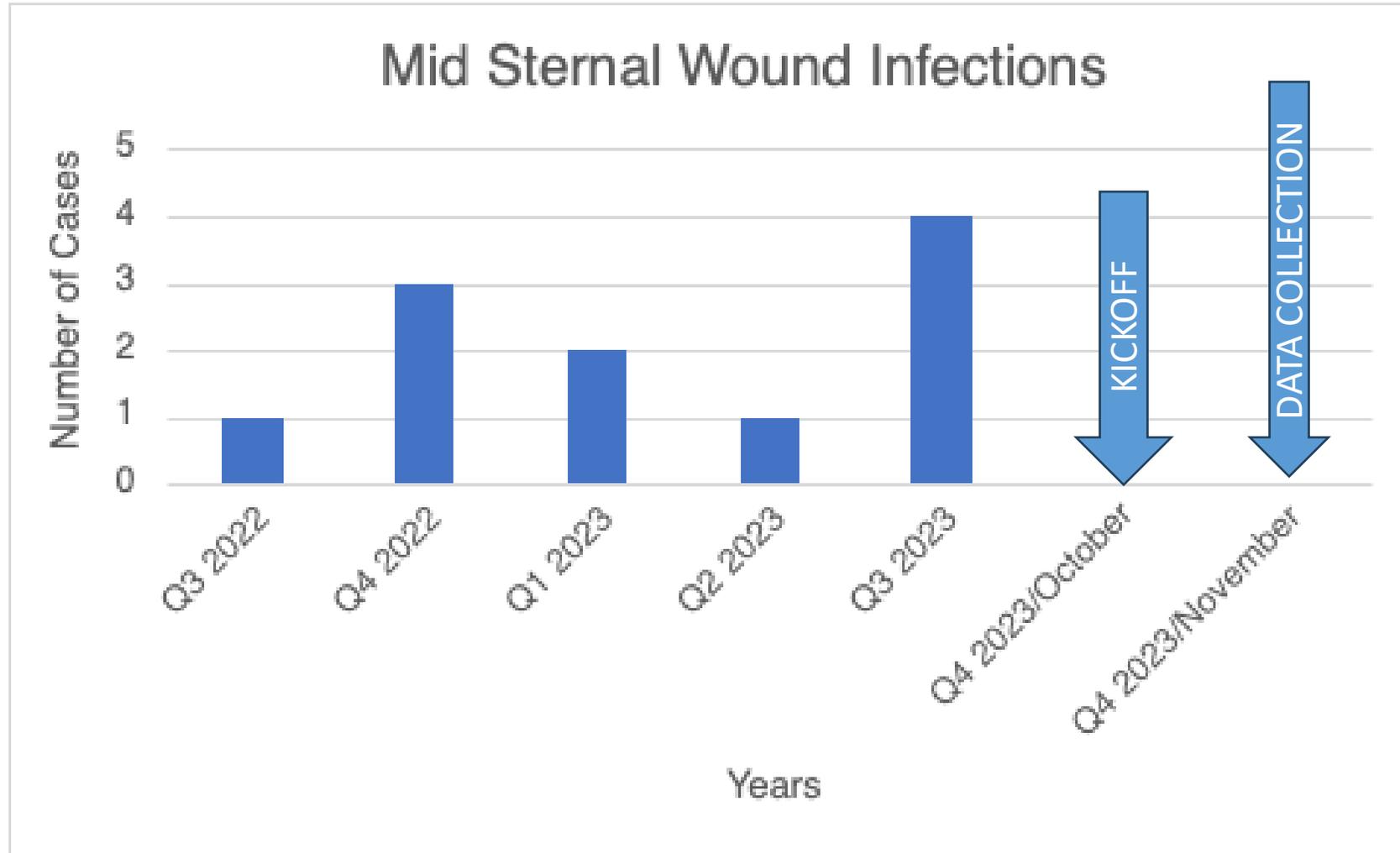


Kickoff
10/16/2023

Key Activities and Dates

- Sternal Wound Action Team (SWAT) will present to the Staff Advisory Committee (SAC) in December
- Chief Nursing Officer, Bernadette Khan sponsors this meeting

Baseline Data



Surgical Site Infection (SSI) ⁷

11 cases total (6
superficial/5 deep)

**Goal: decrease by
40% by July 2023 =
11 X 40% =
4.4 (Prevent 5
midsternal infections)**

Superficial wound
infection \$7981/case

Deep wound
infection \$111,175/case

Superficial wound
infection \$7981/case

Deep wound
infection \$111,175/case

$$6 \times \$7981 = \$47,886$$

$$5 \times \$111,175 = 555,875$$

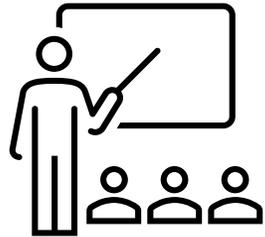
$$\$7981 \times 5 = \$39,905$$

$$\$111,175 \times 5 = \$555,875$$

Projected Fiscal Impact

- 40% decrease in SWI= 5 cases per year.
 - Superficial wound per case: $\$7981 \times 5 = \$39,905$
 - Deep wound per case: $\$111,175 \times 5 = \$555,875$
- A total projected fiscal impact of $\$39,905 - \$555,875$, which is determined by the severity of the wound upon admission

Key Challenges



Large number of
staff to in-service
and audit



Coordinating with
providers across
disciplines

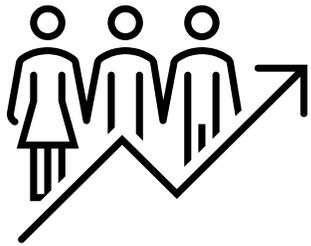


Staff buy-in



Finalizing bundle with
multiple stakeholders

Unintended Positive Outcomes



**Developed close
bond as a team**



**Early buy-ins
from surgeons**



**Positive feedback
from staff**



**Increased
knowledge and
autonomy**

“

If you want something done, give it to
nurses' only then will you see results . . .

”

Dr. Takayama – Chief of Cardiothoracic Surgery

“

It is a seamless throughput from
nursing . . .

”

Dr. Yuji Kaku - Cardiothoracic Surgeon

Lessons Learned



Ensure full provider
buy-in through
tangible measures



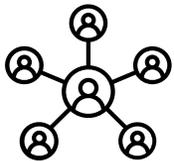
Change within a large
institution is difficult



Expect challenging
situations



Keep refocusing- don't let
the project get ahead of
itself



Interdisciplinary
cohesiveness is key



Flexibility and
patience are necessary



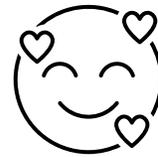
Burnout is real, even
if you're passionate
about the project



Growth is ongoing-
don't be afraid of
change

How AACN or Your Coach Can Help

- Increase the budget (allows for more robust kickoff, swag for the champions, gifts for staff)
- WE HAVE THE BEST COACH!!!!



Sustainability Plan

- Incorporate into electronic medical record order set
- Update hospital policy
- Standardized/include in orientation for all cardiac division units
- Champions on every unit long-term

References

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5. Hospital-acquired infections in New York State, 2019. (n.d.). https://www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections/2019/docs/hospital_acquired_infection_p1.pdf
6. Downing, M., Modrow, M., Thompson-Brazill, K. A., Ledford, J. E., Harr, C. D., & Williams, J. B. (2023). Eliminating sternal wound infections: Why every cardiac surgery program needs an I hate infections team. *JTCVS Techniques*, 19, 93–103. <https://doi.org/10.1016/j.xjtc.2023.03.019>
7. Hawkins RB, Mehaffey JH, Charles EJ, et al. Cost-Effectiveness of Negative Pressure Incision Management System in Cardiac Surgery. *Journal of Surgical Research*. 2019;240:227-235. doi:10.1016/j.jss.2019.02.046

Thank you!

To our leadership who has supported us from the beginning!

- Bernadette Khan, CNO
- Cathy Halliday, Director of Nursing
- Sarah Garza-Ohl, 5GS Patient Care Director
- Maxy Escalante, CTICU, Patient Care Director
- Sophia Scott, CTICU Patient Care Director
- O'Brian Gordon, 5GS, Clinical Nurse Manager
- Matt Naylor, CTICU & 5GS, Clinical Nurse Specialist
- And many more!

Questions?

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Tilu Chacko, tet9017@nyp.org

Kayla Dunn, krd7010@nyp.org

Michael Spicer, mjs9031@nyp.org

Sternal Wound Action Team Nursing Bundle	Sternal Wound Action Team Nursing Bundle
Pre-Op	Post-Op
<p>New Pre-Op Education:</p> <ul style="list-style-type: none"> <input type="checkbox"/> SWI Prevention education for all patients <input type="checkbox"/> Comprehensive Glycemic Control education for patients with Hgb A1c > 5.9 <p>Skin Prep:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bath with CHG 2% solution; and CHG wipes x 2 <input type="checkbox"/> Complete removal of adhesives (lead-set) <ul style="list-style-type: none"> <input type="checkbox"/> Lead-set applied to back if applicable <input type="checkbox"/> Bactroban ointment in nostrils, if applicable 	<p>SWI Prevention Checklist:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Surgical bra/Abdominal binder <input type="checkbox"/> Timely antibiotic administration <input type="checkbox"/> Glycemic Control with education <ul style="list-style-type: none"> • Blood Glucose (BG) Goal: 140-180 <input type="checkbox"/> <u>Incision Care</u> <ul style="list-style-type: none"> <input type="checkbox"/> Gauze and Tegaderm: first 48 hours unless soiled <input type="checkbox"/> CHG (or Betadine if allergy) and Bacitracin, then Gauze and Tape: change q12h until POD7 <input type="checkbox"/> With incision open to air, continue CHG and Bacitracin: q12h for 21 days <input type="checkbox"/> Daily exam by surgical team <input type="checkbox"/> Daily hygiene with adhesive remover and if applicable, shower prior to discharge

Sternal Wound Infection Prevention *during your stay at NYP-Columbia*

What to expect before surgery:

- The night before your day of surgery, the nursing team will assist you with washing with a solution called Chlorhexidine (CHG). It is an antiseptic solution that cleanses your incision from bacteria. If you have an allergy to CHG, the nurse will use Betadine (also an antiseptic solution) for wound cleansing, and soap and water for bathing.
- Following the wash, the nursing team will use CHG wipes to cleanse your chest and limbs. This will happen twice, typically once before you go to bed and again around 5am before you transfer to the pre-operative area. This is done to minimize risk of infection.

What to expect immediately after surgery:

- **Surgical Dressing**
 - Your incision will be covered with gauze and tape for up to 9 days after surgery. When you leave, your incision will stay open to air (no dressing) with antibiotic ointment applied twice a day for 21 days. Let your nurse know if your skin is having any reactions to the tape or adhesive.
 - Our goal is to **keep all surgical dressings clean, dry, and intact**. If you notice any dressing is soiled, please tell your nurse or the surgical team.
- **Diet & Blood Sugar Control**
 - High blood sugar levels increase your risk of infection, which is why we closely monitor and treat your blood sugar levels. If you are diabetic or your sugars continue to be high, you will be on an insulin drip and then be transitioned to insulin injections. We will check your blood sugar using the finger stick method at least 4 times a day.
 - If you are taking pills to manage your diabetes before surgery, they will be stopped. This is to prevent harm to your liver. You will most likely go back on your oral diabetes medications when you go home.
 - To help control your blood sugar, **diet is very important**. You will be placed on a Carbohydrate Controlled diet, which will give you a specific amount of carbohydrates per meal. We suggest you minimize your consumption of outside food and sugary drinks.
 - After discharge, we encourage all of our patients to maintain a heart healthy diet: limited in saturated fats (greasy), salt, and cholesterol.
- **Sternal Precautions**
 - The CTS team will place either a surgical bra or abdominal binder, if needed, to help **limit tension on your incision**. It will remain in place until discharge. If either become soiled, the nursing team will replace it.
 - **Follow the sternal precautions** as provided by your care team.
- **Bathing**
 - To help prevent infection, the CTS team will assist you in **washing daily**. This typically occurs between 5am - 7am. Washing is crucial to help prevent infections.
 - After bathing, your nurse will encourage you to sit in the chair, as early morning movement greatly helps your recovery, breathing, and healing.
 - Every shift, your nurse will clean your incision with CHG (or Betadine), then apply triple antibiotic ointment (Neosporin) for two weeks after the Dermabond is removed.
- **Please notify your nurse** if you feel fever-ish, or notice any itching, burning, drainage, redness or heat coming from your incision.

STERNAL WOUND ACTION TEAM



 October 2023

AMAZING
THINGS
ARE
HAPPENING
HERE

AACN CSI Academy

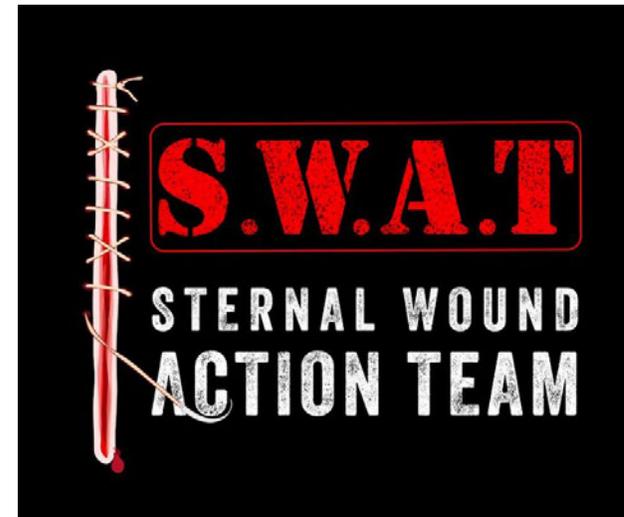
CSI (Clinical Scene Investigator) Academy is a national fellowship through AACN (American Academy of Critical Care Nurses) aimed to empower bedside nurses as leaders through hospital-based innovation to improve outcomes.

- Program Duration: July 2023 to July 2024
- Team:
 - 4 RN Fellows (2 CTICU & 2 5GN)
 - 1 Coach: Darshani Singh (CNS)
 - 1 Point of Contact: Sarah Garza-Ohl (5GN PCD)
- Program Goals:
 - Improve patient care and patient outcomes with support from coaches, mentors, and monthly educational workshops
 - Create unit-wide improvements that can be scaled to campus and system-wide changes
 - Create changes that improve staffing and fiscal outcomes

Introductions: S.W.A.T

CSI Fellows

- Tilu Chacko, BSN, RN, CCRN, CN3
- Kayla Dunn, MSN, RN, CN1
- Michael Spicer, MSN, RN, CCRN-CSC, CN1
- Alexandra (Lexi) Taylor Berger, BSN, RN, PCCN, CN1



Data Review Cases of SWI

Year	Event Date	Class	Procedure Date	Procedure	Surgeon	Organism
2023	6/23/2023	SIP	6/13/2023	OHT	Takada	Proteus mirabilis
2023	6/21/2023	MED	6/16/2023	OHT	Kaku	Candida albicans
2023	6/15/2023	MED	5/1/2023	CABG	Takeda	Negative Culture
2023	6/13/2023	SIS	7/18/2023	CABG	Kaku	Morganella morganii
2023	4/1/2023	LUNG	3/3/2023	VALVE	Kaku	Candida albicans
2023	3/24/2023	SIP	2/27/2023	VALVE	Takayama	MRSA
2023	3/7/2023	BONE	2/16/2023	CABG	Takayama	Proteus mirabilis
2022	11/7/2022	SIP	10/14/2022	VALVE	George	No Growth
2022	10/27/2022	MED	9/16/2022	CABG	Smith	MSSA
2022	10/7/2022	BONE	9/27/2022	VALVE	Smith	Morganella morganii
2022	8/14/2022	LUNG	7/8/2022	CABG	Smith	enterococcus

Wound Classifications

BONE - Osteomyelitis

DIP - Deep Incisional Primary

DIS - Deep Incisional Secondary

LUNG - Other infections of the lower respiratory tract

MED - Mediastinitis

SIP - Superficial Incisional Primary

SIS - Superficial Incisional Secondary

Source Data from NYP/Columbia Quality Metrics

Bundle Approach

Sternal Wound Action Team Nursing Bundle

Pre-Op

New Pre-Op Education:

- SWI Prevention education for all patients
- Comprehensive Glycemic Control education for patients with Hgb A1c > 5.9

Skin Prep:

- Bath with CHG 2% solution; and CHG wipes x 2
 - Provide instructions for self-care, unless patient physically unable
- Complete removal of lead-set (adhesives) from chest, during 2nd CHG wipes
 - New lead-set applied to back immediately after, if applicable
- Bactroban ointment in nostrils, if applicable

Post-Op

SWI Prevention Checklist:

- Surgical bra/Abdominal binder
- Timely antibiotic administration
- Glycemic Control with education
 - Blood Glucose (BG) Goal: 140-180
- Incision Care
 - Gauze and Tegaderm: first 48 hours** unless soiled
 - CHG** (or Betadine if allergy) and **Triple Antibiotic Ointment**, then **Gauze and Tape: change q12h until POD7**
 - With incision **open to air**, continue **CHG and Triple Antibiotic Ointment q12h for 21 days**
- Daily exam by surgical team
- Daily hygiene with adhesive remover and if applicable, shower prior to discharge

Pre-Op Bundle

- All patients given "SWI Prevention" education handout at any point between admission and day of surgery
- Patients with Hgb A1c > 5.9 given NYP's "Diabetes: A Self-Care Guide."
- Skin Prep:
 - **CHG 2% solution** in water bath the evening before surgery
 - **CHG wipes** night before surgery and day of surgery before transport pick-up
 - Option for patient self-care, with prior instruction
 - After CHG wipes, a new gown is worn
- Complete removal of adhesives and lead-set on chest – send patient to PACU without leads
 - **Only if "off tele" order active**
 - Lead-set applied to back, if applicable (i.e., CABG with total occlusions/low EF/unstable)
- Bactroban ointment in nostrils, if applicable

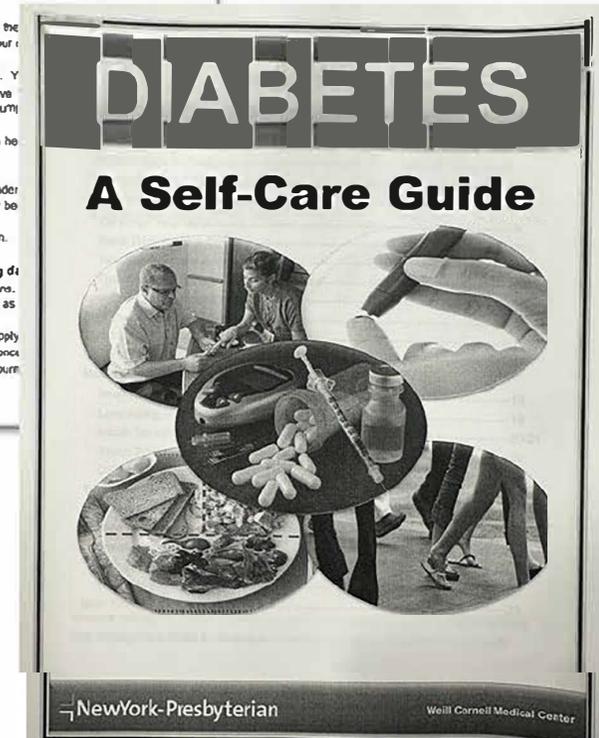
Sternal Wound Infection Prevention during your stay at NYP-Columbia

What to expect before surgery:

- The night before your day of surgery, the nursing team will set you up to wash with a solution called Chlorhexidine (CHG). It is an antiseptic solution that cleanses your incision from bacteria. If you have an allergy to CHG, the nurse will use Betadine (also an antiseptic solution) for wound cleaning, and soap and water for bathing. Please let the team know if you have an allergy prior.
- Following the wash, the nursing team will give you CHG wipes to cleanse your chest and limbs. This will happen twice, typically once before you go to bed and again around 5am before you transfer to the pre-operative area. This is done to minimize risk of infection. The nurse will provide you with instructions with how to use it.

What to expect immediately after surgery:

- **Surgical Dressing**
 - Your incision will be covered with gauze and tape. This stays on for 7 days or until discharge if you leave before that 7 days. The nursing staff will clean your incision and change the dressing every 12 hours.
 - Our goal is to **keep all surgical dressings clean, dry, and intact**. If you notice any dressing is soiled, wet, or falls off, please tell your nurse or the surgical team.
- **Diet & Blood Sugar Control**
 - High blood sugar levels increase your risk of infection, which is why we closely monitor and treat your blood sugar levels. If you are diabetic or your sugars continue to be high, you will be on an insulin drip and then be transitioned to insulin injections. We will check your blood sugar using the finger stick method at least 4 times a day.
 - If you are taking pills to manage your diabetes before surgery, be sure to take them to prevent harm to your liver. You will most likely go back on your pills when you go home.
 - To help control your blood sugar, **diet is very important**. Try Carbohydrate Controlled diet if you are diabetic, which will give you carbohydrates per meal. We suggest you minimize your consumption of sugary drinks.
 - After discharge, we encourage all of our patients to maintain a healthy diet low in saturated fats (greasy), salt, and cholesterol.
- **Sternal Precautions**
 - The CTS team will place either a surgical bra or abdominal binder over your incision. They will remain in place until discharge. If either the bra or binder is soiled, the team will replace it.
 - Follow the sternal precautions as provided by your care team.
- **Bathing**
 - To help prevent infection, the CTS will assist you in **washing** your chest between 5am - 7am. Washing is crucial to help prevent infections.
 - After bathing, your nurse will encourage you to sit in the chair, as sitting helps your recovery, breathing, and healing.
 - Every shift, you or your nurse will clean your incision, then apply Neosporin. You will continue to do this at home for 2 weeks, once heat coming from your incision.
- **Please notify your nurse** if you feel fever-ish, or notice any itching, burn, or heat coming from your incision.



Post-Op Bundle

SWI Prevention Checklist:

Wound Care

- Initial dressing (from OR): **Gauze and Tegaderm – maintain for 48 hours unless soiled**
- Incision care with **CHG and Triple Antibiotic Ointment**, followed by dressing change (**Gauze & Tape**) -- change every **12 hours until POD7**
- After dressing removed, continue **incision care with triple antibiotic ointment**

Surgical bra/Abdominal binder is maintained and remains clean, dry, and intact

Tight Glycemic Control with Perioperative Education

- Maintaining BG Goal: 140-180

Timely antibiotic administration

Daily exam by CTS Provider

Daily hygiene, and if applicable, shower prior to discharge with adhesive remover

- **Mostly already standard practice. Now focused on education and consistency.**



Wound Care Step-by Step



[Site Link - Click Here!](#)

Based on your feedback...

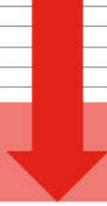
- **Order Set for Incision Wound Care.... in the works by the PAs**
 - Will include instructions and ordering Triple Antibiotic Ointment q12
 - This is useful to all, especially our floats
- If patient is having adhesive allergy, make sure to use minimal paper tape and notify team
- Currently we have large CHG 2% bottles..... working on obtaining personal size use bottles
 - For now, add soap in pink basin outside the room/do not bring into room so we can share supply
 - **Never** use CHG on mucosal tissues, just chest and limbs
- **Does this apply to OHT patients?.....** we are clarifying with the surgical and transplant team currently
- **MSI Care demonstration** coming soon!

How do we measure compliance? DOCUMENTATION :)

- Education of nursing staff regarding bundle approach:
 - Goal to educate 90% of staff every in-service period – via QR Code (Starbucks Gift Card raffle!)
- Randomized samples of chart auditing to review participation in interventions through documentation:
 - **CHG Baths**
 - **Wound Care** = Select "**Gauze**" with comment "**CHG swabbed with Triple Abx Ointment**"
 - **Surgical Bra** = Under Miscellaneous Devices (under Daily Cares), comment "**Surgical Bra**" or select "**Abdominal Binder**"
 - **Daily Hygiene** = Select "Bathed or Shower"
 - Education Documented

Documenting incisional care:

Wound Pro...	Date First Assessed/Time First Assessed:	10/2/2023 1837	Present on
Non-staged...			
Wound base			
Margins/Ed...			
Per-wound...			
Wound Drai...			
Drainage A...			
Wound Out...			
Wound Shape			
Wound Len...			
Wound Widt...			
Wound Surf...			



Securement device:

Complex Assessment	I/O with Vitals	Lines/Drains/Airways	Daily Cares/Safety	Res
<input type="radio"/> Accordion <input type="radio"/> Expanded <input type="button" value="View All"/>				
1100 120				
Comfort Interventions				
Elevated Head of Bed				
Warm Blanket				
Warming Device				
Warming Device Temperature				
IHI Ventilator Associated Pneumonia Bundle				
Daily Awakening Trials Performed				
Daily Assessment of Readiness to Extubate				
Miscellaneous Devices				
Miscellaneous Devices				
Safety Equipment at Bedside				
Safety Equipment at Bedside				
Hospital Schooling				
Did patient receive hospital schooling?				
Provider Notification				
Reason for Communication				



Choose groups/rows to add to the flowsheet

Miscellaneous Devices

Select All

If value = Abdominal binder

Abdominal Binder

10/9/23 1700

Abdominal Binder

Select single option (F5)

Applied

Removed

Remains in place

Refused

Other (Comment)

Surgical Bra

10/9/23 0600

Wound Treatments and Dressings

GAUZE

- Negative Pressure Wound Therapy (VAC)
- Non Adherent Dressing (Telfa)
- Offloading
- Open to Air
- Pediatric Safe Barrier Film (Smith & Nephew Skin-...
- Perineal Cleanser (Coloplast Bedside-Care No Ri...
- Petrolatum Impregnated Gauze (Adaptic™ Non ...
- Povidone-Iodine (Betadine Solution)
- Pressure Dressing
- Silicone Contact Layer (Mepitel)
- Silver Hydrofiber (AquacelAg)
- Silver Hydrogel (Silvasorb Gel)
- Silver Impregnated Foam Dressing (Mepilex Ag)
- Silver Sulfadiazine (Silvadene Cream)
- Split Gauze
- Stretch Conforming Gauze (Kling)
- Strip Packing (Iodoform)
- Surgical Glue
- Thin Foam Dressing (Mepilex Lite)
- Transparent Dressing (Tegaderm)
- Tubular Elastic Retainer Net (Spandage)
- Wound Cleanser
- Zinc-Oxide Based Hydrophillic Paste (Triad)
- Other (Comment)

CHG OR betadine with triple abx ointment

Education:

Education

Assessment | Education

Clear Selections Active All

- General Nursing
 - Core Nursing
 - Orientation to Unit/Room
 - Use of Patient ID Band
 - Disease/Condition
 - Medications
 - Pain Management
 - Reinforce the use of Patient/Visitor Guide
 - Fall Precautions
 - Equipment
 - Infection Control
 - Isolation Precautions
 - Nutrition/Diet
 - Vascular Access Device
 - Misc Nursing
 - Activity/Positioning
 - Disease/Condition
 - Skin Care/Pressure Injury Prevention
 - Sternal Precautions
 - Surgical Site Infection Prevention
 - Telemetry/Continuous Monitoring
 - Advance Directives
 - Bowel Care
 - Central Line Infection Prevention
 - Cough/Deep Breathing/Incentive Spirometer
 - Function and Care of Lines/Drains/Tubes
 - Multi-Drug Resistant Organism Infection Prevention
 - Procedures
 - Smoking Cessation
 - Test/Results
 - Wound/Incision Care
 - Other

Diabetes

- Diabetes Nursing
 - Review Plan of Care
 - Review Today's Plan of Care
 - Psycho/Social/Spiritual Support
 - Postpartum Depression
 - Anxiety Reduction
 - Coping Mechanisms
 - Support Systems
 - Spiritual/Emotional Needs
 - Skin to Skin

Hygiene:

Hygiene

Hygiene

CHG Cleansing/Treatment

Line Change

Oral Care

Bather/Shower

CHG Cleansing/Treatment

Select single option (F5)

soap and water for CHG allergy

Previous: Not Done-Allergy

- Done-by RN
- Done-by NA/PCT
- Done-by Family
- Done-by Patient
- Partial - Not stable for turning
- Not Done-Allergy
- Not Done-Refused

How can you be involved?

- **Become a S.W.A.T. Champion!**
- Being a Champion includes:
 - Acting as a resource for staff
 - Reinforcing education on new SWI Bundle
 - Assisting with documentation
 - A cute, free T-shirt!
 - Entry for a Starbucks Gift Card raffle!
- Other ways:
 - Participating in this new hospital protocol and documenting your work
 - Provide us continual feedback (i.e., what's working and what's not working). We are always looking to improve!
- This is a **nurse-driven** protocol, which means **we, as nurses, are driving the change for patient care.**
- For any process to be effective, **we must do it as a team.**

Education Sign-In!



Everyone who signs up is entered into a raffle for a Starbucks gift card!

Questions?

Comments?

Want to be a Champion?

Let us know!

References

- Downing, M., Modrow, M., Thompson-Brazill, K. A., Ledford, J. E., Harr, C. D., & Williams, J. B. (2023). Eliminating sternal wound infections: Why every cardiac surgery program needs an I hate infections team. *JTCVS techniques*, 19, 93–103. <https://doi.org/10.1016/j.xjtc.2023.03.019>
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AMAZING
THINGS
ARE
HAPPENING
HERE

 **Thank You!**

12/12/2023

1209

1210

2014

0000

0630

Pressure Injury Prevention Bundle - Surface

Heels/Feet Offloaded

Pressure Injury Prevention Bundle - Keep Turning

Positioning Frequency

Able to turn self

Able to turn self

Repositioned

Pressure Offloading & Repositioning Device

Encourage early and frequent evaluation

Pressure Injury Prevention Bundle - Nutrition/Hydration

Nutrition Screening

Encourage adequate nutrition and hydration

Early Mobilization/Mobility

Activity

Ambulate in roo...

Ambulate in roo...

Level of Assistance

Independent

Independent

Length of Time in Chair/Wheelchair (min)

Assistive Device

Distance Ambulated (ft)

Ambulation Response

Tolerated well

Range of Motion

Active; Passive;...

Active; All extre...

Anti-Embolism Device Locations

Bilateral

Anti-Embolism Devices

Sequential com...

Anti-Embolism Device Status

Off

Reason Device is off

OOB ambulating

Nutrition

Diet Type

Regular; Cardiac

Cardiac

Feeding

Able to feed self

Able to feed self

Appetite

Fair

Fair

Fluid Restrictions

Juice for treatment of Hypoglycemia (mL)

Hygiene

Hygiene

Peri care

CHG Cleansing/Treatment

Done-by Pati...

Done-by Pati...

Done-by Pati...

Linen Change

Oral Care

Urinary Incontinence Management

Skin Care

Moisture barrier...

pH balanced sk...

Hygiene Level of Assistance

Independent

Clear Selections Active All

- Cardiac Catheterization
- General Nursing
 - Core Nursing
 - Misc Nursing
 - Activity/Positioning
 - Advance Directives
 - Blood Product Administration
 - Bowel Care
 - Central Line Infection Prevention
 - Cough/Deep Breathing/Incentive Spirometer
 - Delirium
 - Disease/Condition
 - Function and Care of Lines/Drains/Tubes
 - Multi-Drug Resistant Organism Infection Preven...
 - Nausea Management
 - Oxygen Therapy
 - Probiotics
 - Procedures
 - Skin Care/Pressure Injury Prevention
 - Smoking Cessation
 - Sternal Precautions
 - Surgical Site Infection Prevention**
 - Telemetry/Continuous Monitoring
 - Test/Results
 - Wound/Incision Care

General Nursing

Misc Nursing

Surgical Site Infection Prevention ^

Educate learner(s) about surgical site infection prevention PRIOR to surgical procedure. Provide verbal instruction and handout.

Patient Acceptance, Explanation, Verbalizes Understanding Orahovac, Sanella, RN at 12/19/2023 19:56 [More \(8\)](#)

Accordion Expanded View All

 1m 5m 10m 15m 30m **1h** 2h 4h 8h 24h Interval Start: 0700 Reset Now

		Admission (Current) from 12/12/2023 in MIL 5 GARDEN NORTH							
		12/17/2023		12/18/2023		12/19/2023			
		0800	1000	2035	0800	1713	2020	0800	Last Filed
Hygiene									
CHG Cleansing/Treatment				Done-by Patient	Done-by Patient		Done-by RN		Done-by RN
Linen Change				Done			Not Done - Ref...		Not Done - Refused
Oral Care							Teeth brushed		Teeth brushed
Urinary Incontinence Management				Disposable inco...			Disposable inco...		Disposable inconti...
Skin Care				pH balanced ski...			Not applicable (...)		pH balanced skin ...
Hygiene Level of Assistance				Minimal assist			Minimal assist		Minimal assist
Comfort Interventions									
☰ Comfort Interventions		Elevated head ...			Elevated head ...				Elevated head of ...
Elevated Head of Bed					Yes (Comment)				Yes (Comment)
Warm Blanket									Applied
IHI Ventilator Associated Pneumonia Bundle									
Head of Bed Elevated		HOB 30			HOB 30				HOB 30
Miscellaneous Devices									
☰ Miscellaneous Devices					Other (Comr		Other (Com...		Abdominal binder
Abdominal Binder									

12/18/23 0800

Miscellaneous Devices

Other (Comment)

- Abdominal binder
- ABductor pillow
- Ace wrap
- Brace
- Collar
- Immobilizer
- Ortho boot
- Prosthesis
- Scrotal support
- Sling
- Splint
- Other (Comment)
- surgical bra in place**

Search (Alt...)

Accordion
 Expanded
 View All

1m 5m 10m 15m 30m 1h **2h** 4h 8h 24h Interval Start: 0700 Reset Now

12/18/23 2020 **Wound Treatments and D...**

Hide All Show All

- CHARTIN...
- HEAD
- CHEST
- EXTREMI...
- FLAP
- SKIN
- Integum...
- Braden ...
- Pressure...
- Pressure...
- Pressure...
- Pressure...
- Skin Ass...
- Non Pre...
- Non Pre...**
- MUSCUL...
- ABDOMEN
- PELVIS
- PSYCHO...
- CLINICAL...
- PROVIDE...
- ABNORM...
- INTERPR...
- MEDICAL...
- OTHER

Admission (Current) from 12/12/2023 in MIL 5 GARDEN NORTH						
12/18/2023						
1800	1804	1900	2020	2046	2207	12/19/2... 0619

Non Pressure Injury 12/13/23 0900 Surgical Incision Sternum Anterior

Wound Properties Date First Assessed/Time First Assessed: 12/13/2023 0900 Present on Hospital Admission: No Show all properties

Non-staged Wound Description				Full thickness			Full thickness
Wound base			Clean; Dry; Intact	Clean; Dry; Intact			Clean; Dry; Intact
Margins/Edges				Attached Edges			Attached Edges
Peri-wound Assessment			Clean; Dry; Intact	Clean; Dry; Intact			Clean; Dry; Intact
Wound Drainage Description							Unable to assess
Drainage Amount				None			None
Wound Output (complete when weighing dressing)							
Wound Shape				Linear			Linear
Wound Length (cm)							
Wound Width (cm)							
Wound Surface Area (cm^2)							
Wound Depth (cm)							
Wound Volume (cm^3)							
Tunneling (cm)							
Tunneling Location in Wound							
Wound Undermining (cm)							
Undermining along Wound Edge							
Wound Healing %							
State of Healing (WOC RN Only)							
Wound Bed Granulation (%) (WOC RN Only)							
Wound Bed Epithelium (%) (WOC RN Only)							
Wound Bed Slough (%) (WOC RN Only)							
Wound Bed Eschar (%) (WOC RN Only)							
Wound Treatments and Dressings				Gauze;			Open to Air
Dressing Changed				New			New
Dressing Status			Clean/Dry/Intact	Clean/Dry/Intact			Clean/Dry/Intact
Adhesive Closure Strips							
Number of Adhesive Closure Strips							
Number of Sutures Removed							
Staples Removed, Incision Intact							
Number of Staples Removed							

- Gauze
- Hydrocolloid (DuoDerm)
- Hydrofiber (Aquacel Extra)
- Hydrogel (Solosite Wound Gel)
- Hypochlorous Acid Wound Solution
- Impregnated Hydrogel Dressing ...
- Medicinal Honey Gel (Medihoney ...)
- Medicinal Honey Impregnated Algi...
- Moisture Barrier (Coloplast Critic-...
- Moisture Barrier Antifungal Cream...
- Moisture-Wicking Fabric with Anti...
- Mupirocin Ointment (Bactroban)
- Negative Pressure Wound Therap...
- Non Adherent Dressing (Telfa)
- Offloading
- Open to Air
- Pediatric Safe Barrier Film (Smith ...)
- Perineal Cleanser (Coloplast Bed...
- Petrolatum Impregnated Gauze (...)
- Povidone-Iodine (Betadine Solution)
- Pressure Dressing
- Silicone Contact Layer (Mepitel/V...
- Silver Hydrofiber (AquacelAg)
- Silver Hydrogel (Silvasorb Gel)
- Silver Impregnated Foam Dressi...
- Silver Sulfadiazine (Silvadene Cre...
- Split Gauze
- Stretch Conforming Gauze (Kling)
- Strip Packing (Iodoform)
- Surgical Glue
- Thin Foam Dressing (Mepilex Lite)
- Transparent Dressing (Tegaderm)
- Tubular Elastic Retainer Net (Spa...
- Wound Cleanser
- Zinc-Oxide Based Hydrophillic Pa...
- Other (Comment)

chg and antibiotic ointment

Musculoskeletal

Search (A...)

Accordion Expanded View All

1m 5m 10m 15m 30m **1h** 2h 4h 8h

Hide All Show All

PRECA...

Precaut...

SAFE E...

FALL RISK

POST F...

SKIN RISK

ACTIVITY

NUTRITI...

HYGIENE

COMFO...

VAP BU...

MISCEL...

SAFETY...

SCHOO...

PROVID...

ABNOR...

INTERP...

MEDICA...

OTHER

Admission (Current) from 12/12/2023 in MIL 5 GARDEN NORTH						
12/16/2023	12/17/2023			12/18/2023		
2000	0500	0800	1000	2035	0800	

Pressure Injury Prevention Bundle - Nutrition/Hydration

Encourage adequate nutrition and hydration

Early Mobilization/Mobility

Activity	Bathroom privi...	Bathroom privi...		Progressive am...
Level of Assistance	Minimal assist, ...	Minimal assist, ...		Minimal assist, ...
Length of Time in Chair/Wheelchair (min)				
Assistive Device				
Distance Ambulated (ft)				
Ambulation Response		Tolerated well		Tolerated well
Range of Motion	Active; All extre...	Active; All extre...		Active; All extre...
Anti-Embolism Device Locations	Bilateral	Bilateral		Bilateral
Anti-Embolism Devices	Sequential com...	Sequential com...		Sequential com...
Anti-Embolism Device Status	Off	Off		Off
Reason Device is off	OOB ambulating	OOB ambulating		OOB ambulating

Nutrition

Diet Type	Cardiac	Cardiac		Cardiac
Feeding	Able to feed self	Able to feed self		Able to feed self
Appetite	Fair	Fair		Fair
Fluid Restrictions				
Juice for treatment of Hypoglycemia (mL)				

Hygiene

Hygiene		Bathed; Peri care		Bathed; Peri care	Peri care
CHG Cleansing/Treatment		Done-by RN		Done-by Patient	Done-by Patient
Linen Change		Done		Done	
Oral Care					
Urinary Incontinence Management				Disposable inco...	
Skin Care		pH balanced ski...		pH balanced ski...	
Hygiene Level of Assistance		Moderate assist		Minimal assist	

Comfort Interventions

Comfort Interventions	Elevated head ...	Elevated head ...		Elevated head ...
Elevated Head of Bed	Yes (Comment)			Yes (Comment)
Warm Blanket				