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3-27-2019

### VTE Risk Factors: SCD Education and Compliance

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#### Recommended Citation

Hayden, Kaly; Gardner, Shari; Haag, Baleigh; and Wofford, Alex, "VTE Risk Factors: SCD Education and Compliance" (2019). *Nurse Presentations*. 3.

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# VTE Risk Factors: SCD Education and Compliance

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# Acknowledgements

- 6 Hall Directors & Educator: Priscilla Bell, MSN, RN, CPN, Bobbie Carter, MSN, RN, CPN, and Amanda Woldruff, BSN, RN, CPN
- KT Scholars: Kristen Seuferling, BSN, RN, CPN and Hannah Boehner, BSN, RN, CPN
- QIC: Kate Gibbs, MHA, CCLS, Kaitlyn Hoch MBA, BHS, RT
- 6 Hall Nursing Staff

# A3 Overview

## A3 for Problem Solving

Focus: Risk Factors for VTE		Owner: Nurse Residency Program	Date:	Date Approved:
A3 Team: <u>Baleigh Haag, Kaly Hayden, Alex Wofford, Shari Gardner</u>		Department Director Signature:		KT Scholar: <u>Kristen Seufferling, Hannah Bohner</u>
				QIC: <u>Kate Gibbs</u>
<b>Clarify the Problem</b> -Increased risk of VTE in post op patients -Non-compliance of patients wearing SCD's -Lack of education on why they should be worn -Lack of education of the requirements of who needs to wear SCD's -Noncompliance on proper charting of SCD's		<b>Develop and Implement Countermeasures</b> 		
<b>Break Down the Problem</b> -Lack of education on why SCD's should be worn -Nurses unaware that there is a policy on SCD's -Nurses unaware of where to find the policy on SCD's -Lack of education on who needs to wear SCD's -Confusion on amount of ambulation that would excuse a patient from wearing SCD's -Nurses are not educated on ALL the risk factors for VTE's		<b>Check Results and Process</b> 		
<b>Set a Target</b> We will increase the percentage of nurses properly educated on SCD from 75% to 90% by January 15th, 2019				
<b>Identify Root Cause</b> 		<b>Standardize and Follow Up</b> <ul style="list-style-type: none"> <li>Education on all the risk factors for VTE should be enforced to nursing staff.</li> <li>Nurses should communicate with medical team if a patient should have an order for SCD's but does not.</li> <li>Nursing staff should be educated on where to chart SCD placement in Cerner and how often to chart them (At least once a shift and with any changes such as off with skin assessment, ambulating, etc.)</li> <li>Possible future Cerner task for SCD placement to populate more than once a shift to remind nurses to chart on/off</li> </ul>		

## 6 Hall Overview

- On 6 Hall our population consist of orthopedic patients and overflow medical/surgical patients.
- In pediatric patients undergoing orthopedic surgical procedures the incidence of VTE was 0.0515% of 143, 808 procedures (Georgopoulos et al., 2016)

# Acronym Breakdown

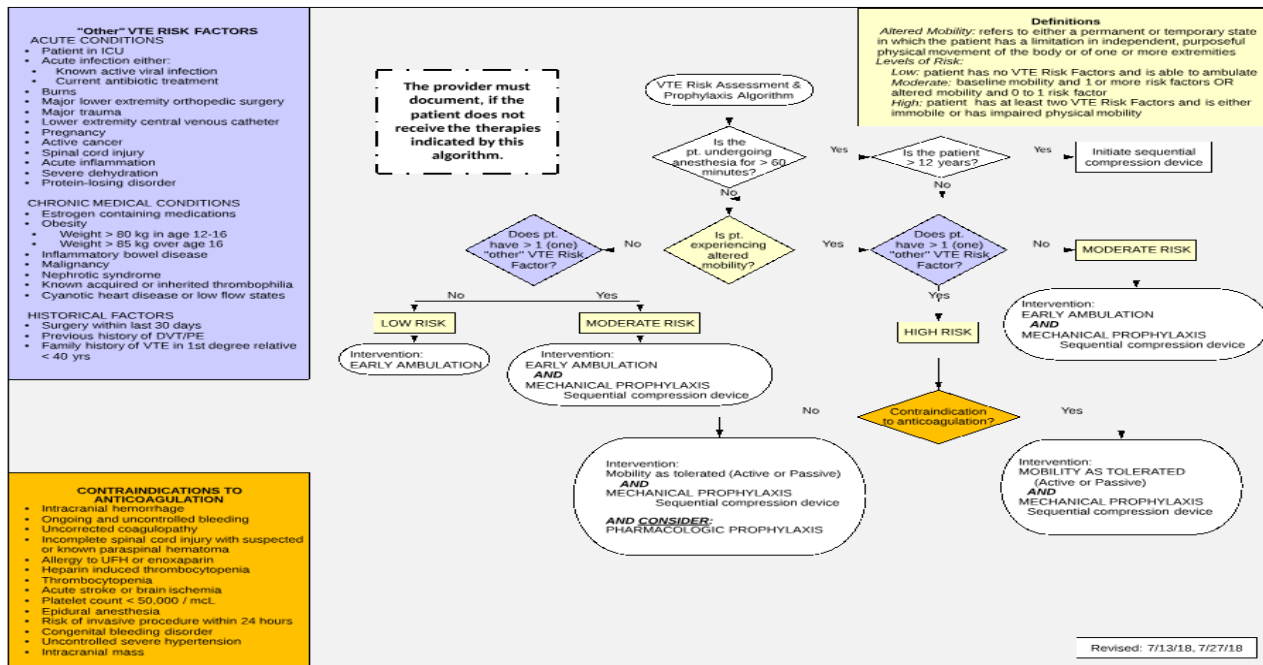
- VTE: Venous Thromboembolism- the blocking of a blood vessel by a clot that has broken off from the place where it formed and traveled to another location
- SCD: Sequential Compression Device-an inflatable sleeve to improve blood flow

# Children's Mercy SCD Policy

## **POLICY:**

- I. Patients undergoing surgical and/or interventional radiology procedures
  - A. Patients who meet the following criteria will have SCD sleeves applied and functional prior to anesthesia induction:
    - 1. All patients twelve (12) years of age or older and having a procedure scheduled for greater than 60 minutes.
    - 2. Patients 10 years of age or older having a spinal procedure.
  - B. SCD use for patients under the age of 12 will be at the discretion of the physician/advanced practice provider (APP).
  - C. Should the physician desire NOT to have SCDs, an order is placed by the physician/APP stating such.
- II. Patients experiencing altered mobility during hospitalization
  - A. SCDs are ordered by the provider to prevent deep vein thrombosis and venous thromboembolism.
  - B. Refer to [VTE Risk Assessment Care Process Model](#)
- III. Discontinuing external compression therapy
  - A. Discontinuation of the SCD can be done with a physician/APP order or when the patient becomes fully ambulatory (performing activities of daily living, child life activities, walking in hallways and/or visiting playroom).

# VTE Risk Assessment Algorithm

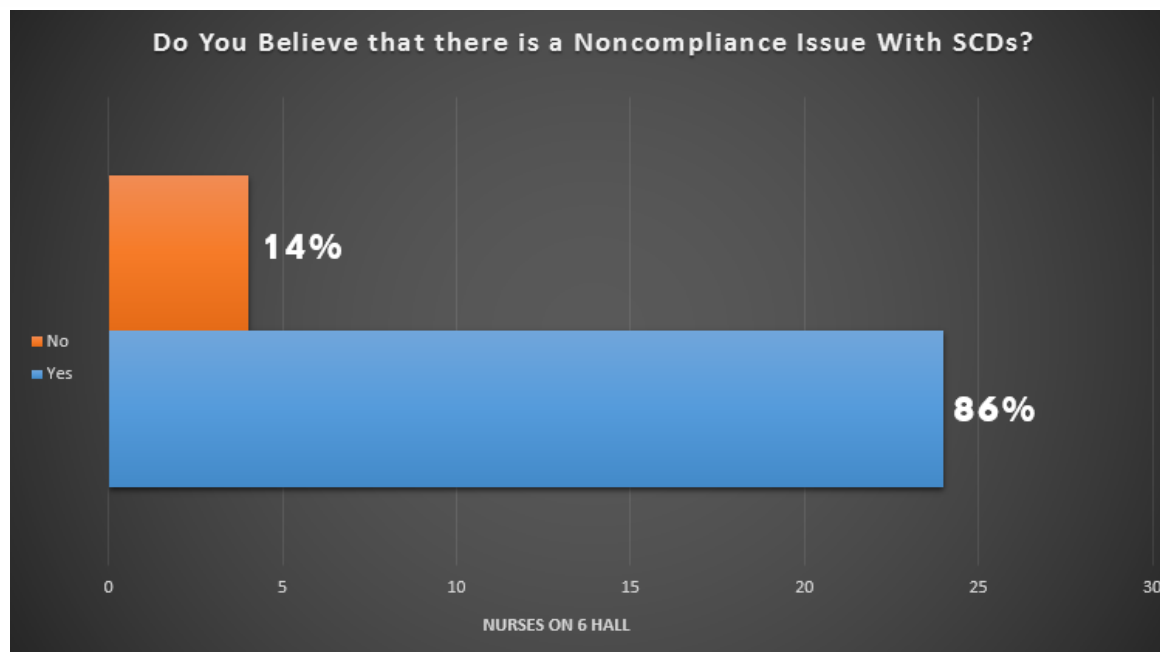




# Clarify the Problem

- Increased risk of VTE in post op patients
- Non-compliance of patients wearing SCDs
- Lack of education on why they should be worn
- Lack of education for the requirements of patients who needs to wear SCDs
- Noncompliance with proper charting on SCDs

# Clarify the Problem



# Breakdown the Problem

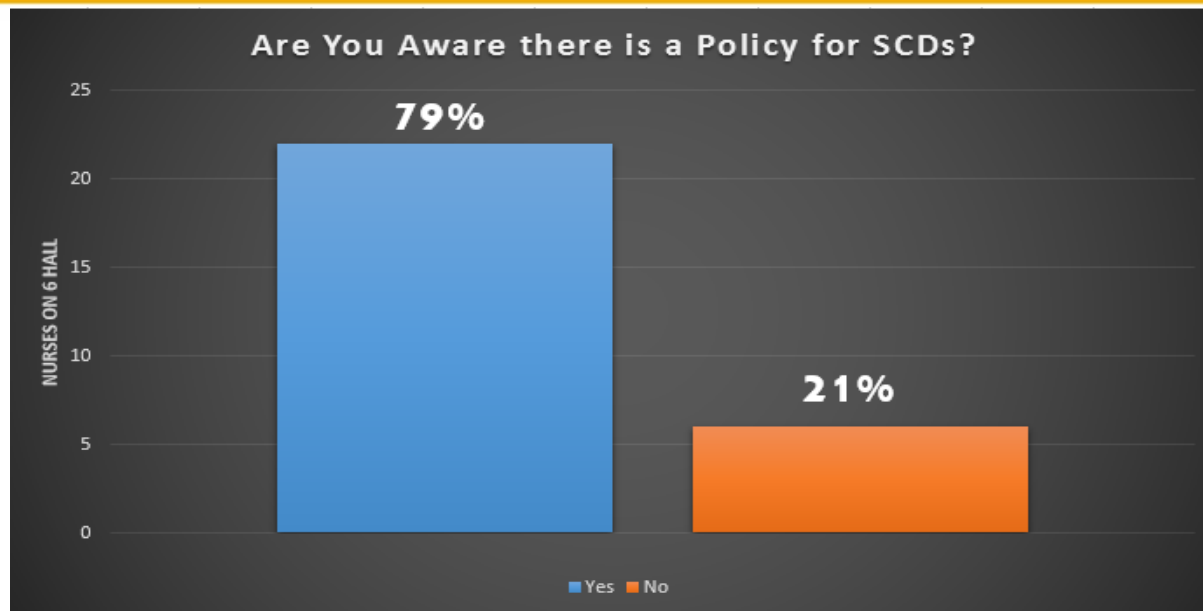
Lack of education on why SCDs should be worn:

- Nurses unaware that there is a policy on SCDs
- Nurses unaware of where to find the policy on SCDs

Lack of education on who needs to wear SCDs:

- Confusion on amount of ambulation that would excuse a patient from needing SCDs
- Nurses are not educated on ALL the risk factors for VTEs
- Noncompliance of proper charting on SCDs

# Breakdown the Problem



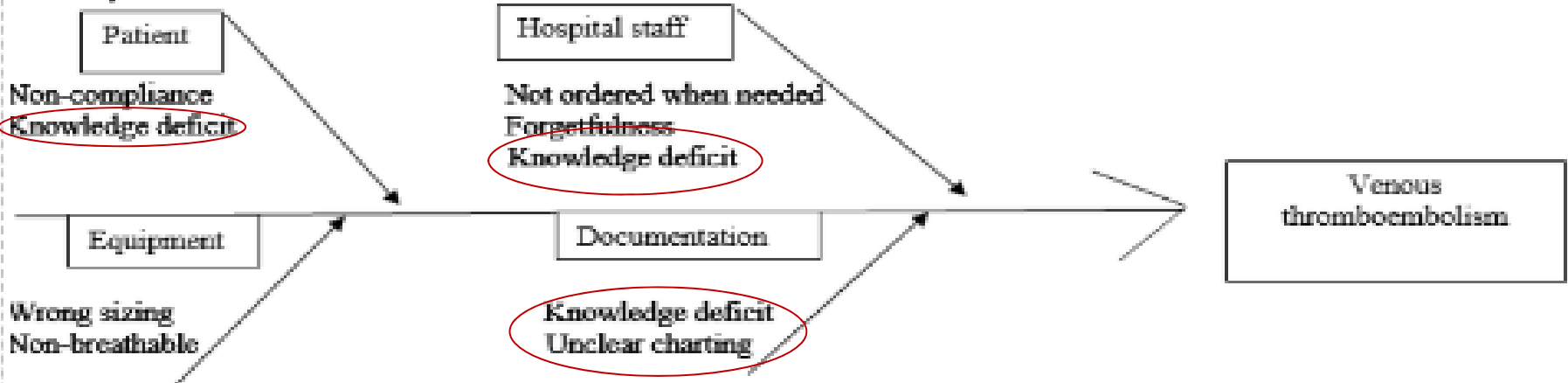
Survey Taken October-November 2018

# Set a Target

- We will increase the percentage of nurses on 6 Hall properly educated on SCDs from 79% to 90% by January 15<sup>th</sup>, 2019.

# Identify Root Cause

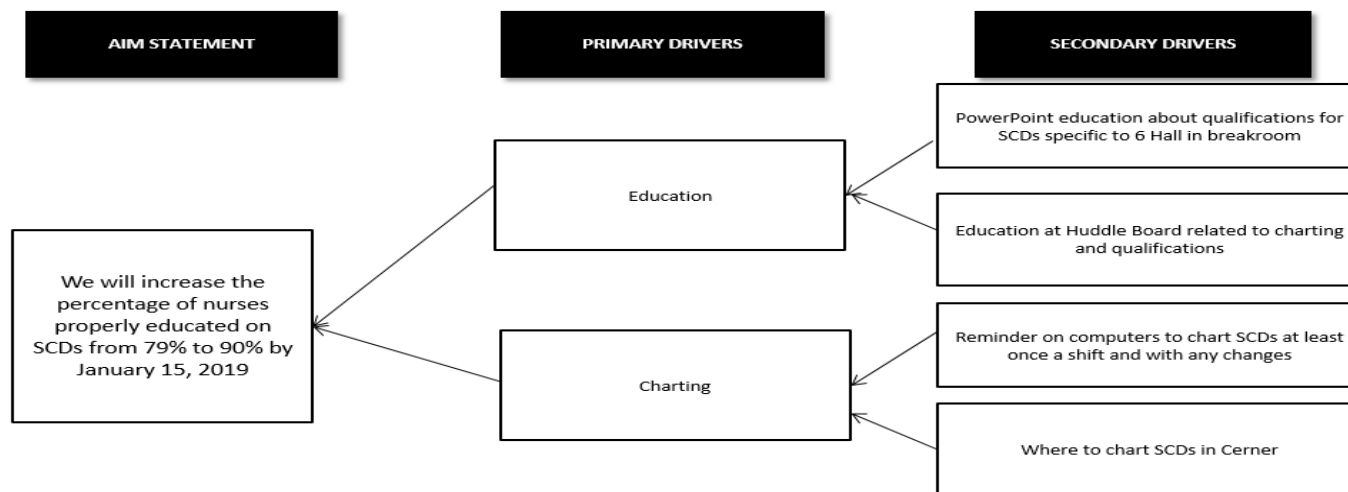
## Identify Root Cause



- Knowledge deficit is the primary root cause for the concern of improper use of SCD's or lack of use.
- With many factors that impact the use of SCD's such as the patient, hospital staff, equipment, and documentation.

# Develop and Implement Countermeasures

## Develop and Implement Countermeasures: Driver Diagram



# Develop and Implement Countermeasures

**Remember to chart SCDs Please!**

**At least once a shift & with any changes!**

## LET'S TALK ABOUT SCDS

By: Kaly Hayden, Baleigh Haag, Shari Gardner and Alex Wofford



# Develop and Implement Countermeasures

## Let's Talk About SCDs

- Identified Risk Factors for VTE
  - Spinal cord injury
  - Trauma
  - Severe dehydration
  - Surgery within the last 30 days
  - Lower extremity orthopedic surgery
  - Patient is not completing their ADLs
  - Obesity
    - 12-16 years >80kg
    - Over 16 years >85kg

### Where?

- I-VIEW

Respiratory/Cardiovascular

Cardiovascular interventions  
SCDs on/off

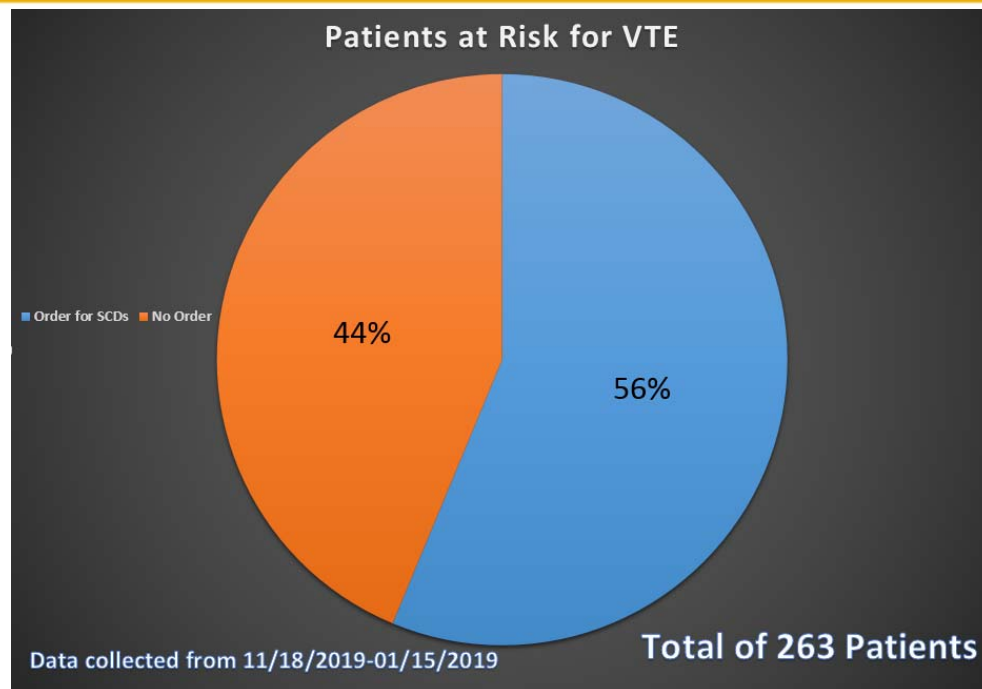
### Why?

- To decrease the risk of VTEs
- Help improve circulation

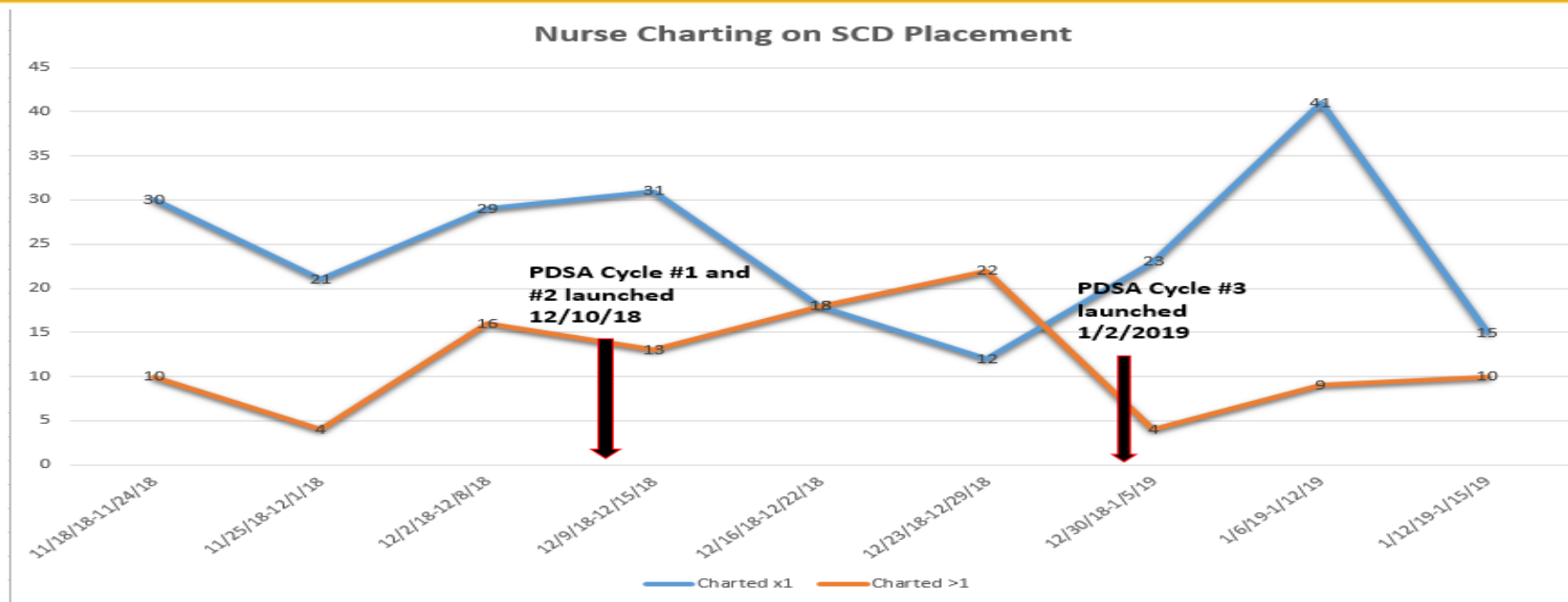
VS/Measurements/Focused Assessments
Comfort
Neurological/Neuromuscular
Respiratory/Cardiovascular
✓ Respiratory
✓ Oxygen/Oximetry
Apnea/Bradycardia/Desaturation/Paroxysm
Airway Care/Suction
Airway Support
Tracheostomy
✓ Respiratory Support Data
Blood Gas Results
✓ Spirometry
✓ Cardiovascular
✓ Pulses
Pacemaker Information

Cardiovascular Interventions	SCDs, On		
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# Check Results and Process

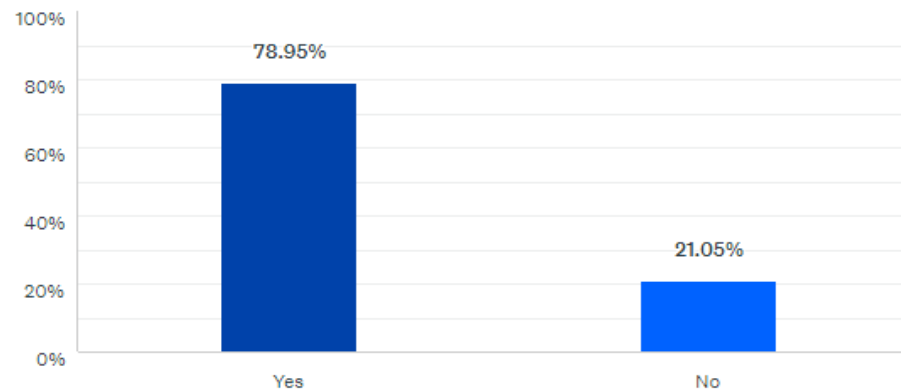


# Check Results and Process

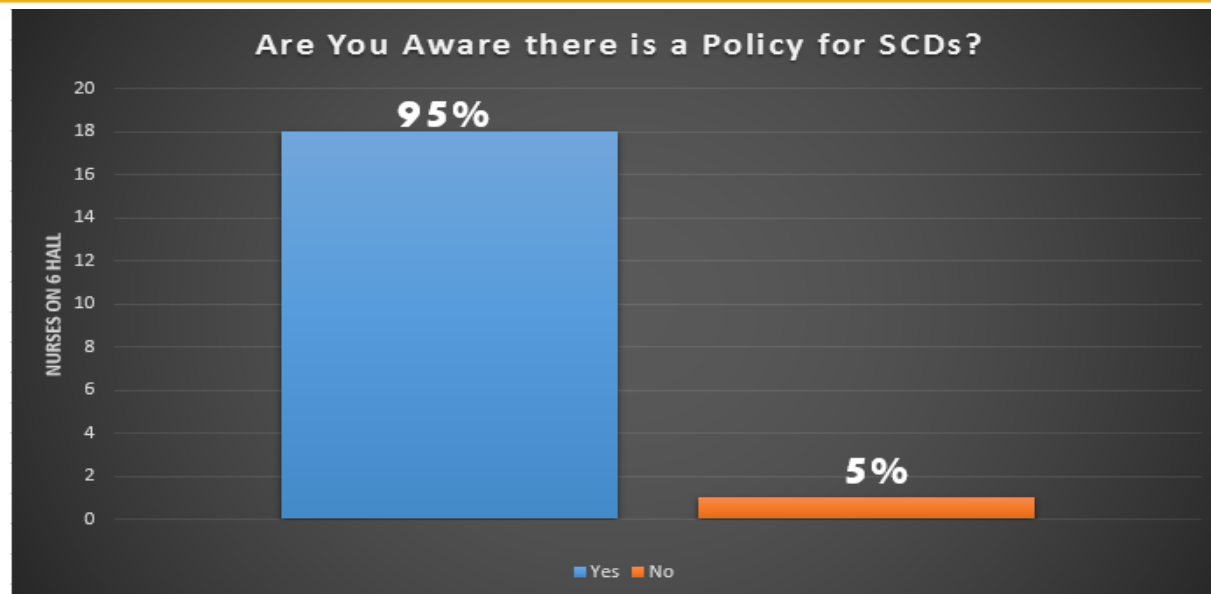


# Check Results and Process

Do you feel that our education pieces (Huddle board, Break room PP, and SCD reminder cards) increased your knowledge about SCDs and will help improve your charting on them?



# Check Results and Process



Survey Taken January-February 2019

# Standardize and Follow Up

- Education on all the risk factors for VTE should be enforced to nursing staff.
- Information on SCDs in admission packets for patients and families
- Nurses should communicate with medical team if a patient should have an order for SCDs but does not.
- Nursing staff should be educated on where to chart SCD placement in Cerner and how often to chart them (At least once a shift and with any changes such as off with skin assessment, ambulating, etc.)
- Possible future Cerner task for SCD placement to populate more than once a shift to remind nurses to chart on/off

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# Questions?