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The Write Way:
An Innovative Process Improvement Project to Enhance the Quality of Progress Notes.

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Background

- Clinical documentation is a narrative of patient care that serves as the legal record of patient encounters, assists in billing, provides data for clinical decision support, assists in communication between different providers, and is used for secondary data analysis

- Despite the numerous benefits of electronic health records, they contribute to lengthy and redundant notes

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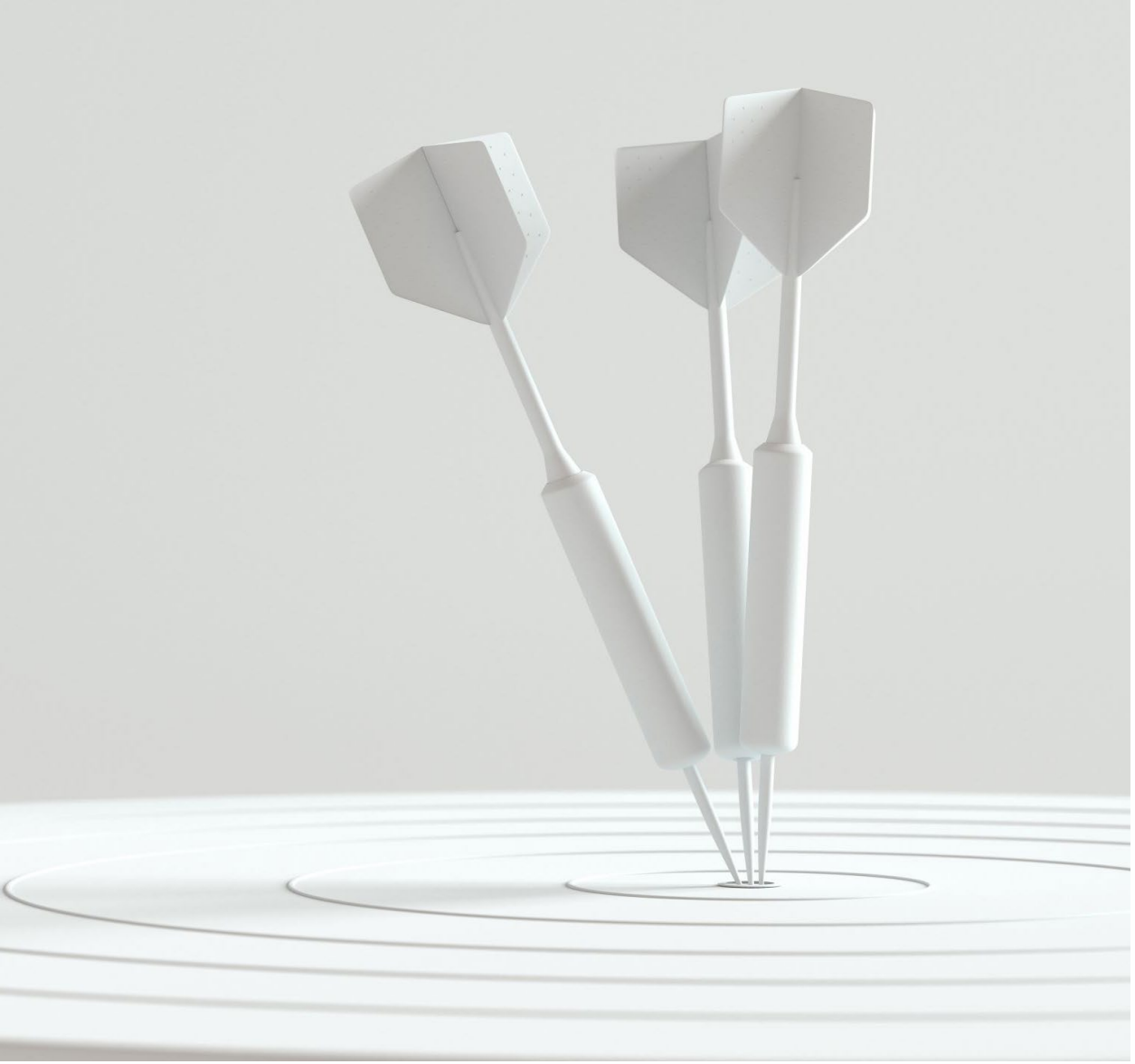
Problem Statement

Currently, there is a lack of standardized process and templates for writing progress notes in the Surgical MCS/Heart and Lung Transplant department, causing increased time spent writing notes, inconsistency of format and information in the notes, compromising the accuracy and comprehensibility of the notes.

Literature Review

- Consistency in the organization of progress notes makes it easier to read and interpret information (Hultman, 2019)
- Standardizing the documentation process by establishing standardized templates can improve accuracy, efficiency, and user-satisfaction (Wilbanks et al., 2018) (Lee et al., 2021) (Ebbers et al., 2022)
- Clinical documentation training for providers have shown to improve quality of notes and increase hospital reimbursement rates (Reyes et al., 2017)
- Adopting a multimodal strategy helps improve overall quality of notes (Savel, 2018)



SMART Goal

The goal of this project is to increase the quality scores of the progress notes in the MCS/Txp department by at least 25% and decrease the time spent writing notes by 25% within 2 months.

Current State

APP receives sign out from CVICU

APP copies latest progress note from CVICU and edits it based on personal preference or practice

Note is updated throughout the patient's stay based on APP's personal preference or practice

Interventions

Root Cause	Intervention
Lack of educational guidelines for note writing.	Create educational guidelines outlining how to properly write a progress note. The document will provide details on what information to include or omit in the daily progress notes.
Lack of standardized template and dot phrases for progress notes.	Create SmartPhrases to help standardize how notes are formatted and written for primary patients.

Interventions: Educational Guidelines

WRITING AND UPDATING HAND-OFF SECTION

1. We use a systems-based approach in documenting our **Assessment and Plan**: NEURO, PULM, CV, IS, OIP, GU, GI, ID, HEME, and ENDO. Other systems may be added if relevant to the patient (SKIN/DERM, MSK)

2. Utilize "**#Diagnosis**" format. Ex: **#Hypertension**. Please bold the diagnosis to highlight it and separate it from the intervention/plan. No need for a colon after diagnosis since the # and bold type already sets it apart. If there is a medication prescribed or treatment we're pursuing, it should have an associated diagnosis.
   a. If abbreviating medical terms, please only use widely accepted medical abbreviations. **DO NOT** make up abbreviations that only you can understand or decipher[1].
      i. Ex: **#HTN**
   b. If the diagnosis is acute and, if applicable, please state whether it is **stable, improving, or resolved**.
      i. Ex: **"#Ileus -Improving" "#Hyperkalemia -Resolved" "#Thrombocytopenia -Stable"**
   c. If a diagnosis has resolved or no longer applicable to the patient, please remove from the note or move to the bottom of the section.

3. Each diagnosis should have a **plan or intervention** associated with it. Each plan or intervention should be separated with its own line.
   Ex: **#Respiratory Insufficiency**
   -Stable on NC
   -Pulmonary toileting: IS, flutter
   -DuoNeb Q6H
   a. Medications:
      i. Doses do not have to be included. They are already in the medications section. Additionally, this will help eliminate inconsistencies with your note and help you save time. Exceptions may include non-standard dosing of meds (i.e. apixaban 2.5 mg) or set rate inotropes (i.e. dobutamine @2 mcg/kg/min)
      Ex: **#HTN**
      -Metoprolol[2]
      ii. If medication is a home med, please specify by placing "home" in front of the medication.
      Ex: **#HTN** **or** **#Hx of HTN**
      -Home metoprolol -Holding home metoprolol d/t hypotension
      iii. If dosing of meds (i.e. diuretics) is by a different service, please specify.
      Ex: **#Post-op fluid overload**
      -Diuresis: furosemide – dosing by Transplant Cardiology team[1]
      iv. Ideally, each medication in your med list is either referenced or listed in your Assessment and Plan.
   b. Diagnostic Imaging:
      i. Underline all relevant diagnostic imaging to highlight it.
      ii. As much as possible, **try to abbreviate or summarize the results/findings of studies**. Sometimes, the results are specific and technical, so copy/paste may be appropriate in those instances. Please use your judgement.
      iii. Only include the latest or relevant imaging in your note. Our patients will likely get multiple scans and imaging. There is no need to document all the previous scans that were done weeks/months ago in the note.
      iv. Include the date of when imaging was done. Recommend placing date in parentheses for ease of viewing.

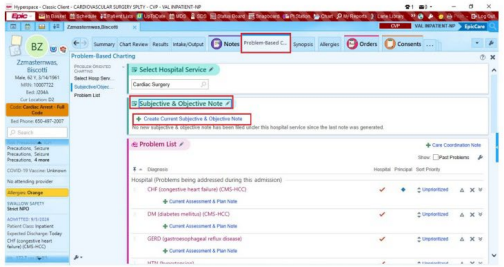
[1] An example of an acceptable list of acronyms/abbreviations include Taber's Medical Dictionary. Try to avoid those listed by the Joint Commission.
[2] In general, capitalize brand names and use lower case for generic medications.

Ex: Last RHC (2/22/23): RAP 10, PCWP 14, PAP 42/16 (25), CI 3.1
CT Head (4/22/23): no acute findings
"US Bilat LE (3/5/23): Negative for DVTs" or "US DVT BLE (3/5/23): negative"

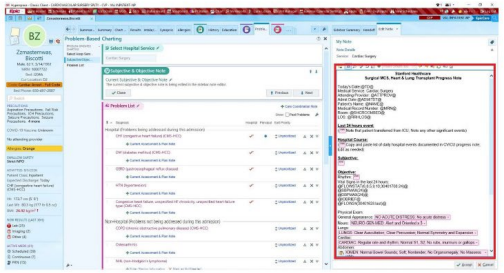
   c. Consults: If another service is consulted or following, please place in the appropriate diagnosis or section.
      i. Ex. **#Thrombocytopenia** **or** **#MRSA PNA**
      -Heme consulted, pending recs -ICID following

PROGRESS NOTE WRITING GUIDE

1. Click **Problem-Based Charting** tab. Once in the tab, click **Create a Subjective & Objective Note.**



2. Edit note will open in the side bar. Once in edit note, use Smart Phrase **.TXPROBASED.** Once the note is populated, Document or update information as appropriate.



Tips:

- If Smart Phrase already populated, please remember to **REFRESH the note** to update all the Smart Links built in (ie labs, meds, today's date, length of stay)

UPDATING THE SUMMARY LINE

Why update the **Summary Line**?

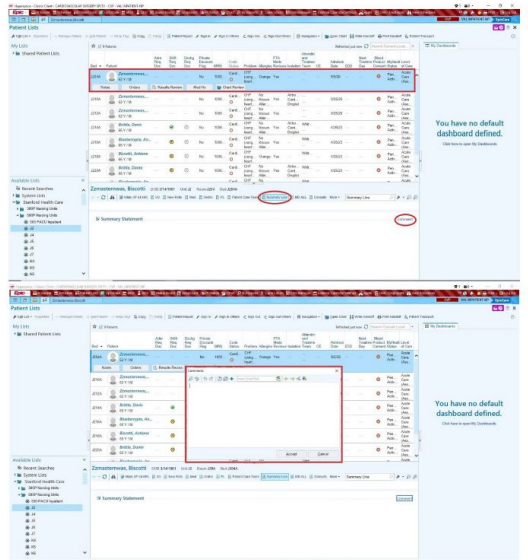
- The Summary Line is a brief synopsis of the patient's clinical course for this admission. It provides quick, relevant information for our team, consulting services, and other departments. Our patients typically have long hospital courses and multiple complications. Updating the Summary Line beyond their stay in the ICU allows everyone to have a general idea of the patient's clinical status without diving deep into the chart.

What are examples of significant events that trigger updates to the Summary Line?

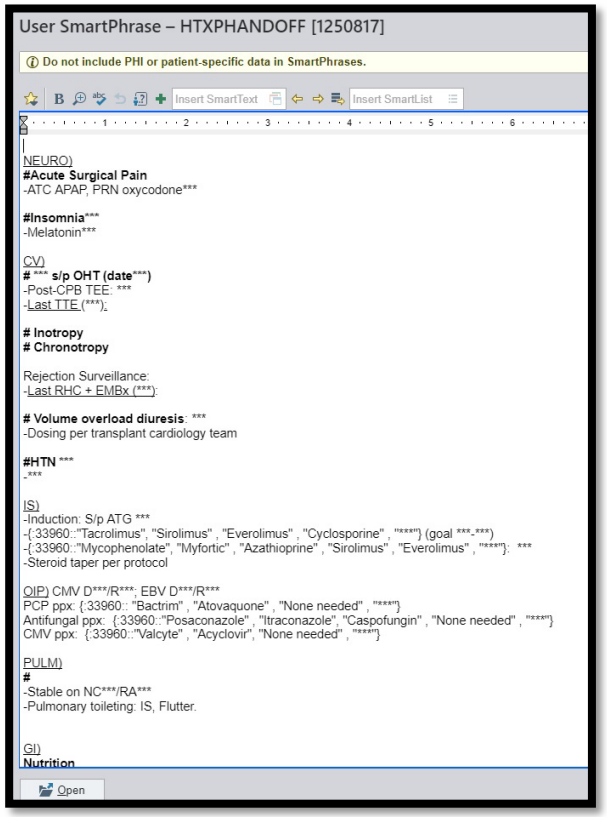
- Significant events include, but are not limited to, codes, rapid responses resulting in transfer back to the ICU, respiratory failure requiring intubation, AKI resulting to iHD, unplanned invasive interventions, infections, etc.

How to update the **Summary Line**?

- On the Patient List, select the patient you want to update the Summary Line. On the bottom navigator, click **Summary Line**, then click "**Comment**" on the bottom right corner to open the Summary Line editor window.



Interventions: Smart Phrases



User SmartPhrase – HTXPHANDOFF [1250817]

Do not include PHI or patient-specific data in SmartPhrases.

Insert SmartText | Insert SmartList

NEURO)
#Acute Surgical Pain
-ATC APAP, PRN oxycodone***

#Insomnia*
-Melatonin***

CV)
 # * s/p OHT (date***)**
-Post-CPB TEE: ***
-Last TTE (***):

 # Inotropy
 # Chronotropy

Rejection Surveillance:
-Last RHC + EMBx (***):

 # Volume overload diuresis: ***
-Dosing per transplant cardiology team

#HTN ***
-***

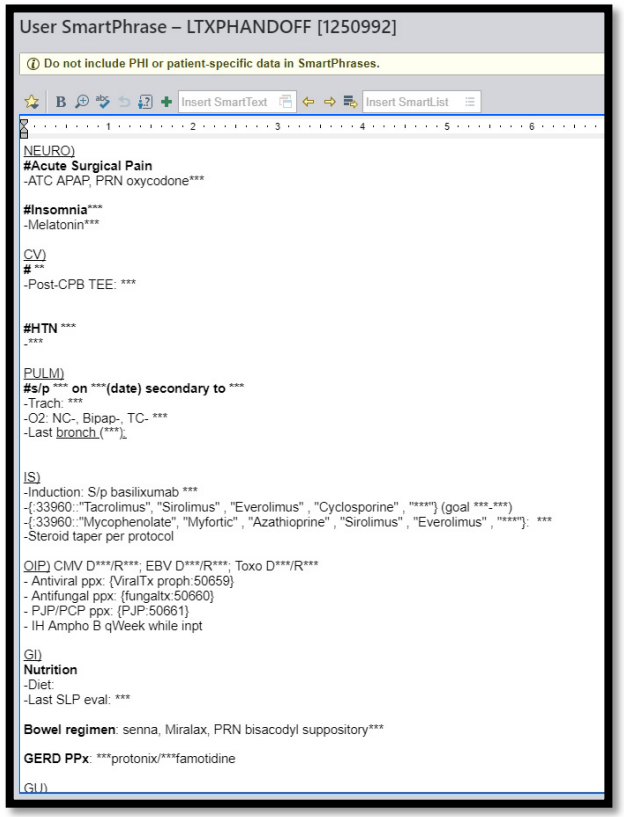
IS)
-Induction: S/p ATG ***
-{:33960::"Tacrolimus", "Sirolimus" , "Everolimus" , "Cyclosporine" , "***"} (goal ***-***)
-{:33960::"Mycophenolate", "Myfortic" , "Azathioprine" , "Sirolimus" , "Everolimus" , "***"}: ***
-Steroid taper per protocol

OIP) CMV D***/R***; EBV D***/R***
PCP ppx: {:33960:: "Bactrim" , "Atovaquone" , "None needed" , "***"}
Antifungal ppx: {:33960::"Posaconazole" , "Itraconazole", "Caspofungin" , "None needed" , "***"}
CMV ppx: {:33960::"Valcyte" , "Acyclovir", "None needed" , "***"}

PULM)
#
-Stable on NC***/RA***
-Pulmonary toileting: IS, Flutter.

GI)
Nutrition

Open



User SmartPhrase – LTXPHANDOFF [1250992]

Do not include PHI or patient-specific data in SmartPhrases.

Insert SmartText | Insert SmartList

NEURO)
#Acute Surgical Pain
-ATC APAP, PRN oxycodone***

#Insomnia*
-Melatonin***

CV)
**
-Post-CPB TEE: ***

#HTN ***
-***

PULM)
#s/p * on ***(date) secondary to** ***
-Trach: ***
-O2: NC-, Bipap-, TC- ***
-Last bronch (***):

IS)
-Induction: S/p basiliximab ***
-{:33960::"Tacrolimus", "Sirolimus" , "Everolimus" , "Cyclosporine" , "***"} (goal ***-***)
-{:33960::"Mycophenolate", "Myfortic" , "Azathioprine" , "Sirolimus" , "Everolimus" , "***"}: ***
-Steroid taper per protocol

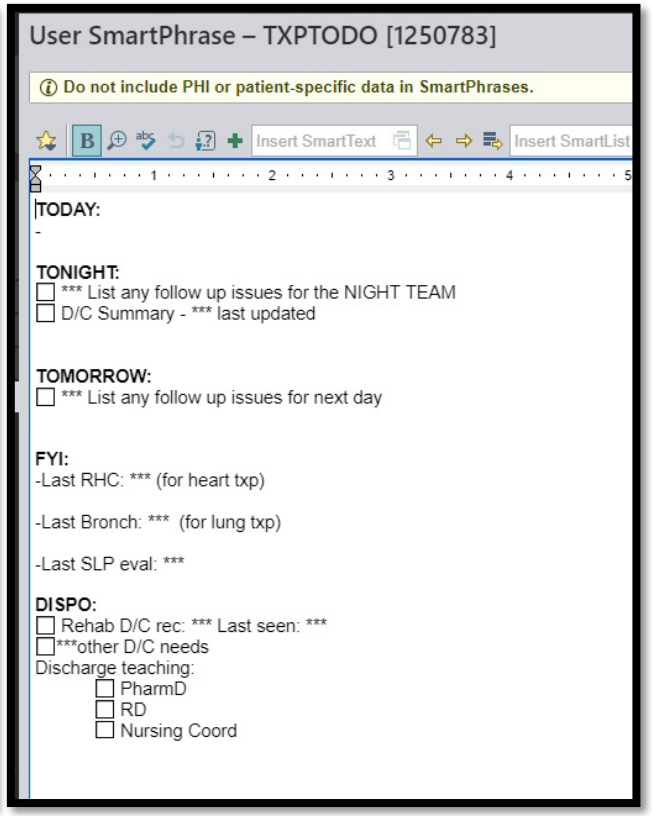
OIP) CMV D***/R***; EBV D***/R***; Toxo D***/R***
- Antiviral ppx: {ViralTx proph:50659}
- Antifungal ppx: {fungaltx:50660}
- PJP/PCP ppx: {PJP:50661}
- IH Ampho B qWeek while inpt

GI)
Nutrition
-Diet:
-Last SLP eval: ***

Bowel regimen: senna, Miralax, PRN bisacodyl suppository***

GERD PPx: ***protonix/***famotidine

GU)



User SmartPhrase – TXPTODO [1250783]

Do not include PHI or patient-specific data in SmartPhrases.

Insert SmartText | Insert SmartList

TODAY:
-

TONIGHT:
☐ *** List any follow up issues for the NIGHT TEAM
☐ D/C Summary - *** last updated

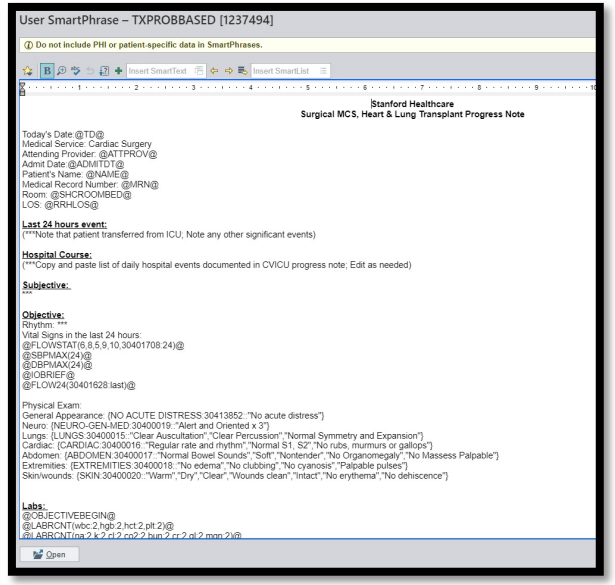
TOMORROW:
☐ *** List any follow up issues for next day

FYI:
-Last RHC: *** (for heart txp)

-Last Bronch: *** (for lung txp)

-Last SLP eval: ***

DISPO:
☐ Rehab D/C rec: *** Last seen: ***
☐ ***other D/C needs
Discharge teaching:
☐ PharmD
☐ RD
☐ Nursing Coord



User SmartPhrase – TXPROBBASED [1237494]

Do not include PHI or patient-specific data in SmartPhrases.

Insert SmartText | Insert SmartList

Stanford Healthcare
Surgical MCS, Heart & Lung Transplant Progress Note

Today's Date:@TD@
Medical Service: Cardiac Surgery
Attending Provider: @ATTPROV@
Admit Date:@ADMITDT@
Patient's Name: @NAME@
Medical Record Number: @MRN@
Room: @SHCROOMBED@
LOS: @RRHLOS@

Last 24 hours event:
(***Note that patient transferred from ICU; Note any other significant events)

Hospital Course:
(***Copy and paste list of daily hospital events documented in CVICU progress note; Edit as needed)

Subjective:
***

Objective:
Rhythm: ***
Vital Signs in the last 24 hours:
@FLOWSTAT(6,8,5,9,10,30401708:24)@
@SBPMAX(24)@
@DBPMAX(24)@
@ICOBRIEF@
@FLOW24(30401628:last)@

Physical Exam:
General Appearance: {NO ACUTE DISTRESS:30413852:"No acute distress"}
Neuro: {NEURO-GEN-MED:30400019:"Alert and Oriented x 3"}
Lungs: {LUNGS:30400015:"Clear Auscultation","Clear Percussion","Normal Symmetry and Expansion"}
Cardiac: {CARDIAC:30400016:"Regular rate and rhythm","Normal S1, S2","No rubs, murmurs or gallops"}
Abdomen: {ABDOMEN:30400017:"Normal Bowel Sounds","Soft","Nontender","No Organomegaly","No Massess Palpable"}
Extremities: {EXTREMITIES:30400018:"No edema","No clubbing","No cyanosis","Palpable pulses"}
Skin/wounds: {SKIN:30400020:"Warm","Dry","Clear","Wounds clean","Intact","No erythema","No dehiscence"}

Labs:
@OBJECTIVEBEGIN@
@LABRCNT(wbc:2,hgb:2,hct:2,plt:2)@
@LABRCNT(na:2,k:2,cl:2,co2:2,bun:2,cr:2,gl:2,mgn:2)@

Open

Methods

To assess the quality of notes, a seven-item assessment tool adapted from the Physician Documentation Quality Instrument (PDQI-9) (Stetson et al., 2012) was employed:

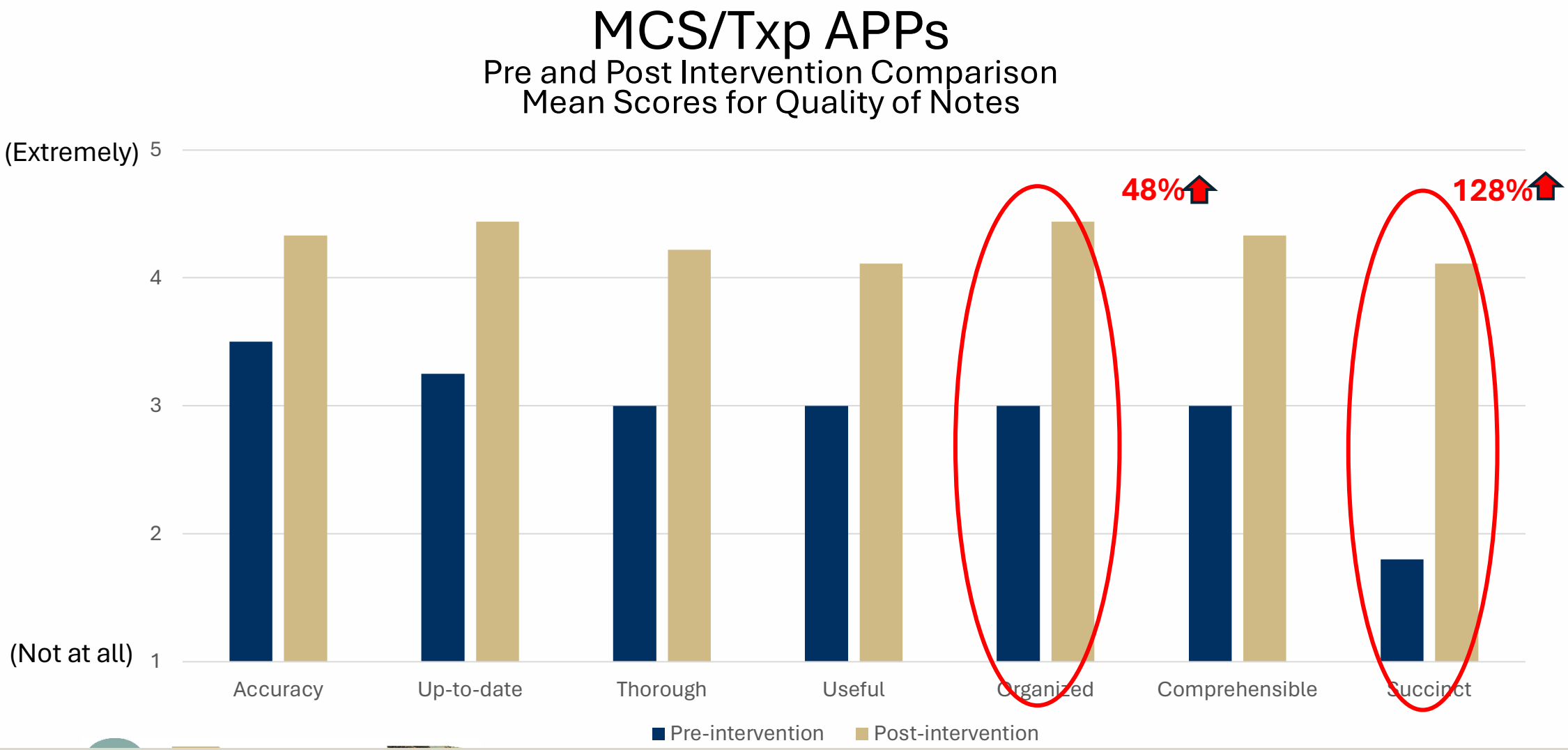
- Accurate: The note is true. It is free of incorrect information
- Up-to-date: The note contains the most recent test results and recommendations
- Thorough: The note is complete and documents all of the issues of importance to the patient
- Useful: The note is extremely relevant, providing valuable information and/or analysis
- Organized: The note is well formed and structured in a way that helps the reader understand the patient's clinical course
- Comprehensible: The note is clear, without ambiguity or sections that are difficult to understand
- Succinct: The note is brief, to the point, and without redundancy

A 5-point Likert scale was utilized to score each aspect of the notes

Pre and Post Intervention surveys where distributed via Survey Monkey to all MCS/Txp APPs and other departments that work closely with them

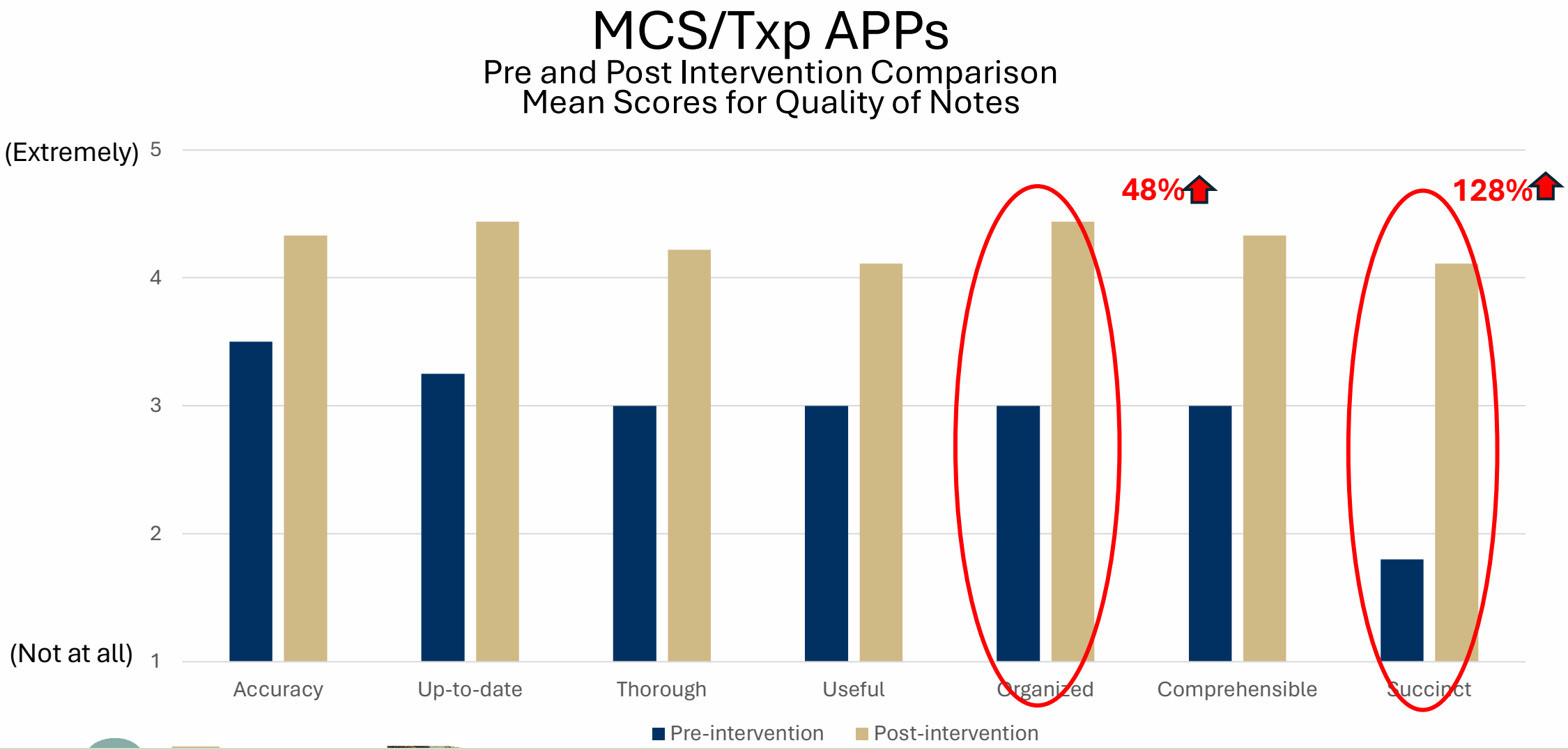
Other departments include: MCS/Heart transplant cardiology, Pulm transplant medicine, CVICU APPs, Pharmacy, Case Management, PT/OT, and Dietitian

Results: Notes Quality



Pre-intervention: n=12 and Post-intervention: n=9

Results: Notes Quality



Pre-intervention: n=12 and Post-intervention: n=9

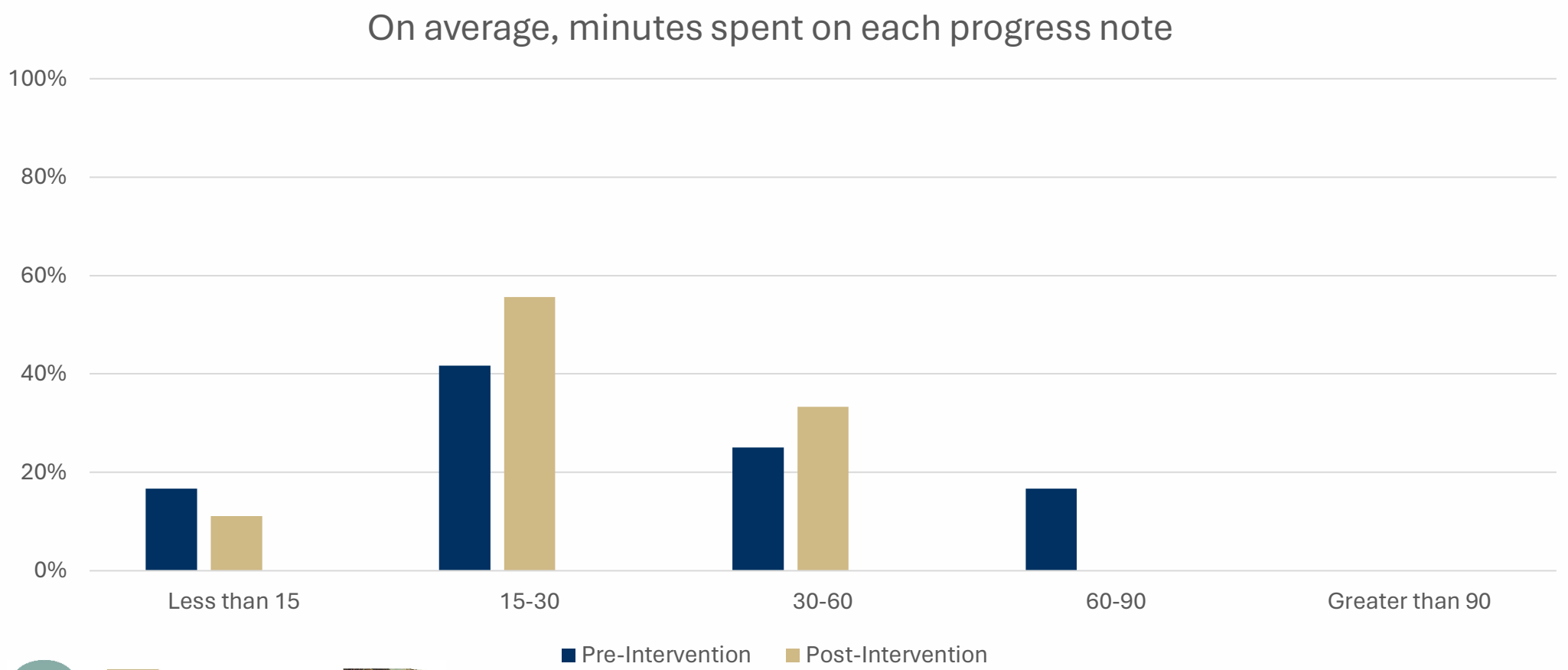
Mean % Increase: Pre-Intervention to Post-Intervention

MCS/Txp APPs	
Accuracy	23.7%
Up-to-date	36.6%
Thorough	40.7%
Useful	37%
Organized	48%
Comprehensible	44.3%
Succinct	**128.3%**
Average: 34.7%	

Other Departments	
Accuracy	36.3%
Up-to-date	**67.2%**
Thorough	36.7%
Useful	22.7%
Organized	**58.9%**
Comprehensible	37.7%
Succinct	**57.3%**
Average: 45.3%	

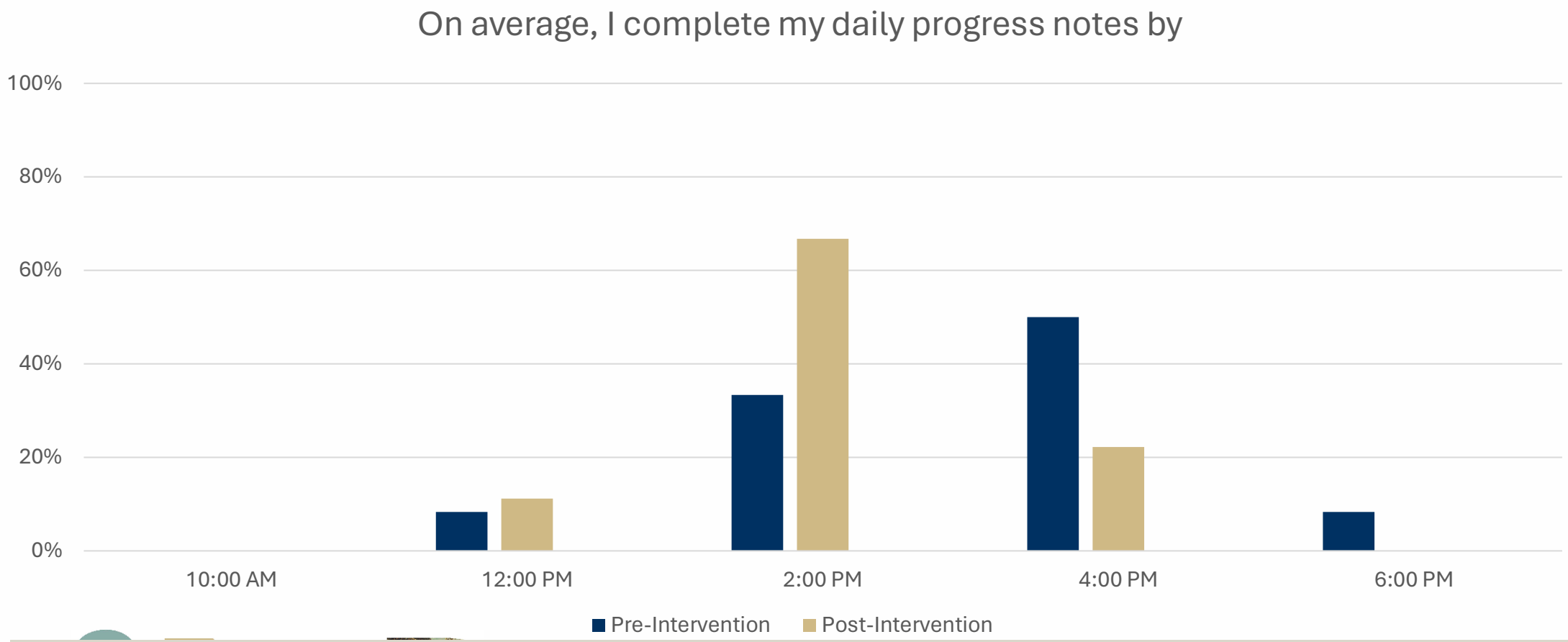
Combined Average: **40% increase** in mean scores for Quality of Notes

Results: Time Management



Pre-intervention: n=12 and Post-intervention: n=9

Results: Time Management



Pre-intervention: n=12 and Post-intervention: n=9

Key Learning Points

- Find the key stakeholders of various disciplines and get their input first
- Buy-in from team leadership and the senior members of the team is important to institute any type of change
- A well-designed standardized note template specific to your department or patient population improves efficiency and work-flow
- An educational document makes it easier for newer team members to learn the format and style of note writing for the department. It is also a good tool to refer to for everyone else.
- Teams would likely benefit from periodic (yearly?) training/discussion about clinical documentation
- Bi-weekly check-ins are recommended during project implementation due to changes in the department
- Less time spent on notes results in more time for high quality patient care!

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