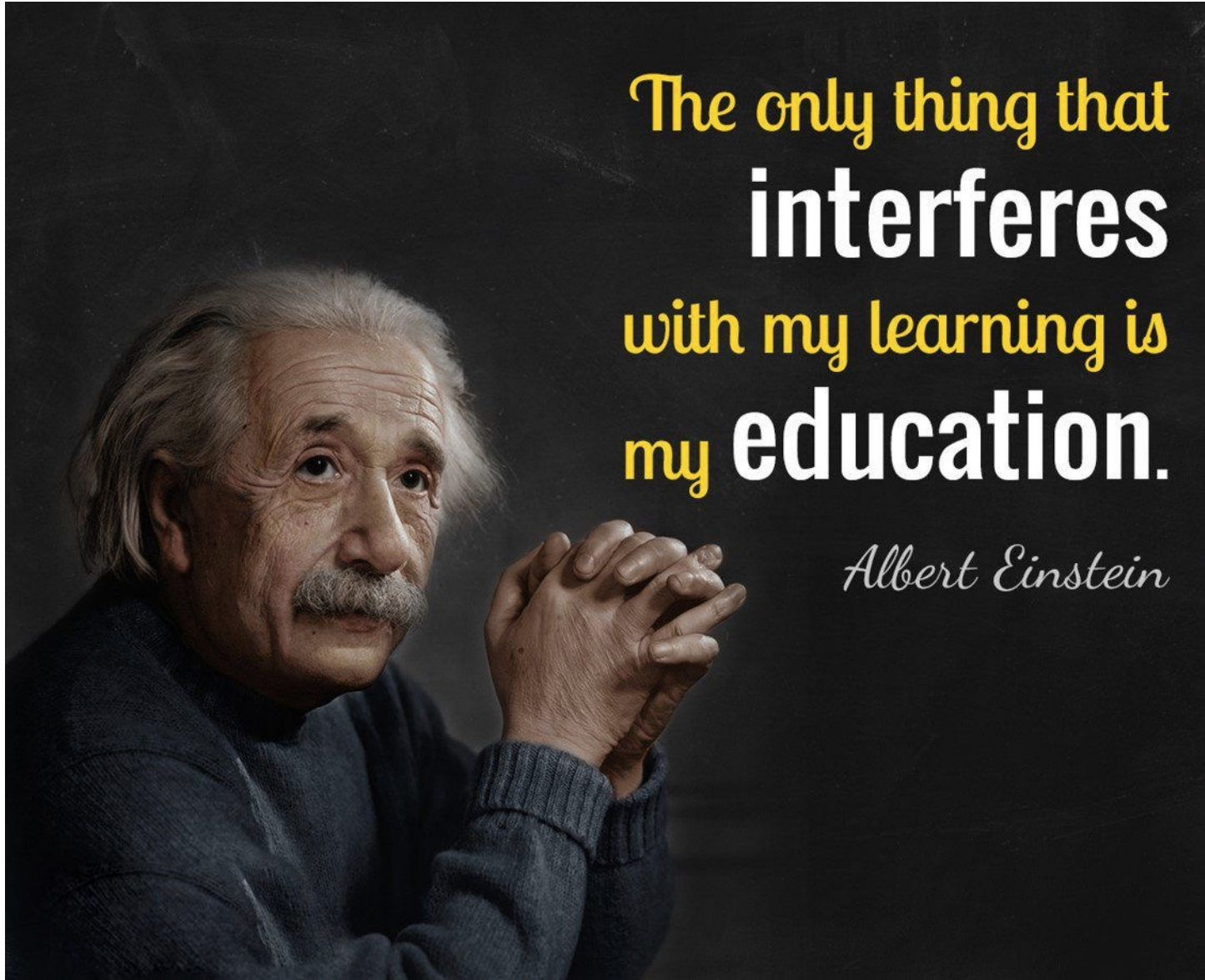




# Workshop: The Low Hanging Fruit: Low/No Cost Operational and Quality Improvements

Tina Wu, MD, MBA  
Erin Muckey, MD, MBA



The only thing that  
**interferes**  
with my learning is  
**my education.**

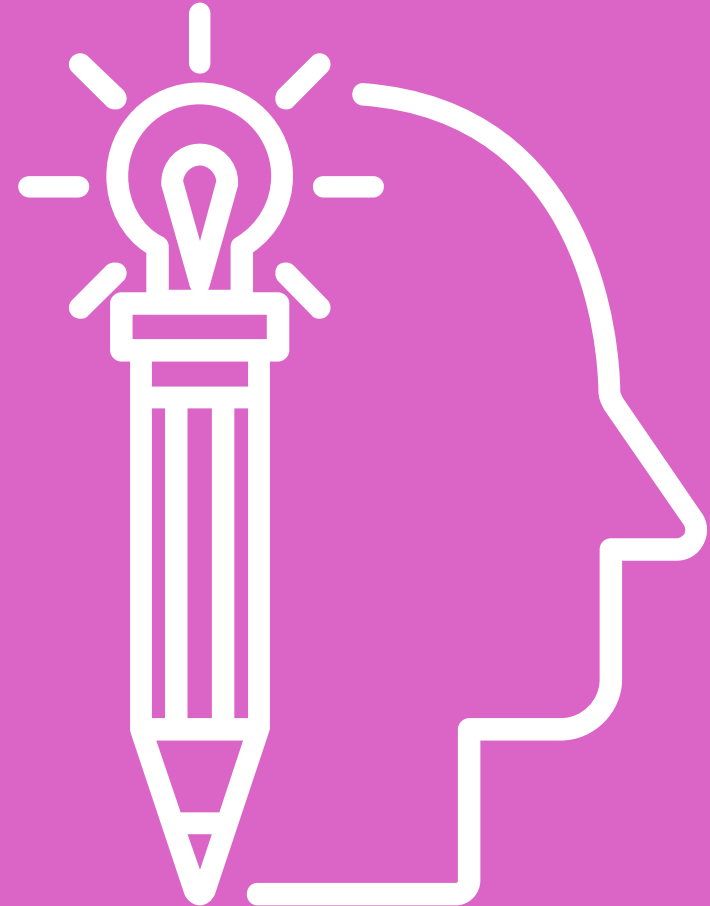
*Albert Einstein*

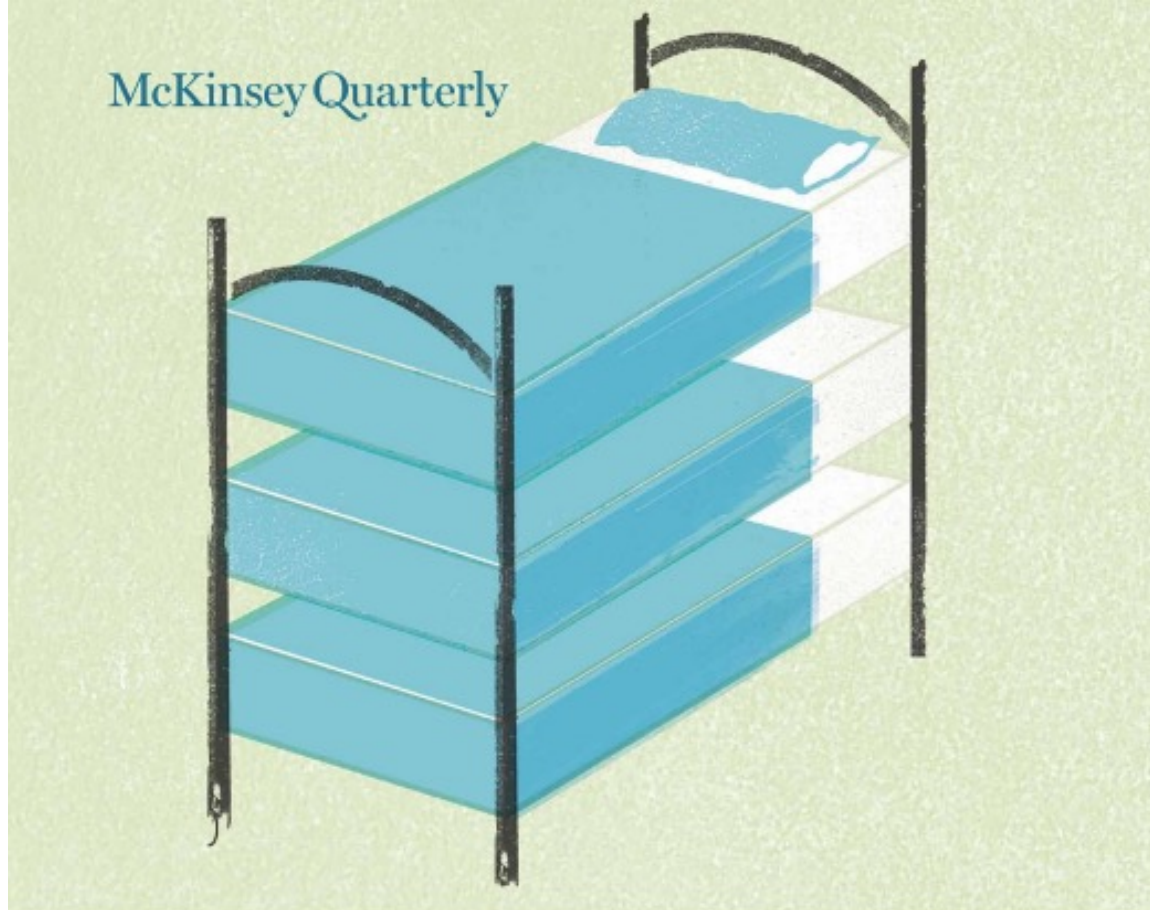
# HOW TO BE A MEDICAL DIRECTOR IN 2023

Make sure your ED has 100% quality metrics in stroke, STEMI, Sepsis, 2 min door-to-doc, no incorrect orders, no deaths, no bouncebacks, no elopements, no AMAs, 100% satisfied patients in pain while being in the hallway, calling all PCPs/SW/CM, all the while, being careful not to over-order, over-medicate, over-test, 2-hour door-to-dispo, perfect staff satisfaction balancing resident teaching and perfect oversight, in a safe, spotless ED when there are nationwide hospital closures, no opioids, benzos, NS, and a zosyn shortage. And add on Dr Google and no budget. Oh, and get an MBA on the side.

How to be a Medical Director, literally every generation before us

- P=MD
- Be nice. Play golf. Try hard.





## **A hospital-wide strategy for fixing emergency-department overcrowding**

A sustained reduction of emergency-department wait times requires not only an end-to-end transformation of multiple hospital processes but also a change in hospital culture, stronger staff skills, better performance management, and visible leadership.

# TYPES OF WASTE

01

## Wasted Motion

Wasted time and effort related to unnecessary movements by people

05

## Wasted Transportation

Wasted time, resources, and costs when unnecessarily moving products and materials

02

## Defects

Waste from a product/service failure to meet expectations.

06

## Excess Processing

Wastes related to more work or higher quality than is required.

03

## Rework

Waste from having to re-do tasks.

07

## Waiting Time

Waste from time spent waiting for the next step in the process to occur

04

## Overproduction

Waste from making more product that patients demand.

08

## Wasted Intellect

Wastes due to underutilization of talents, skills, and knowledge

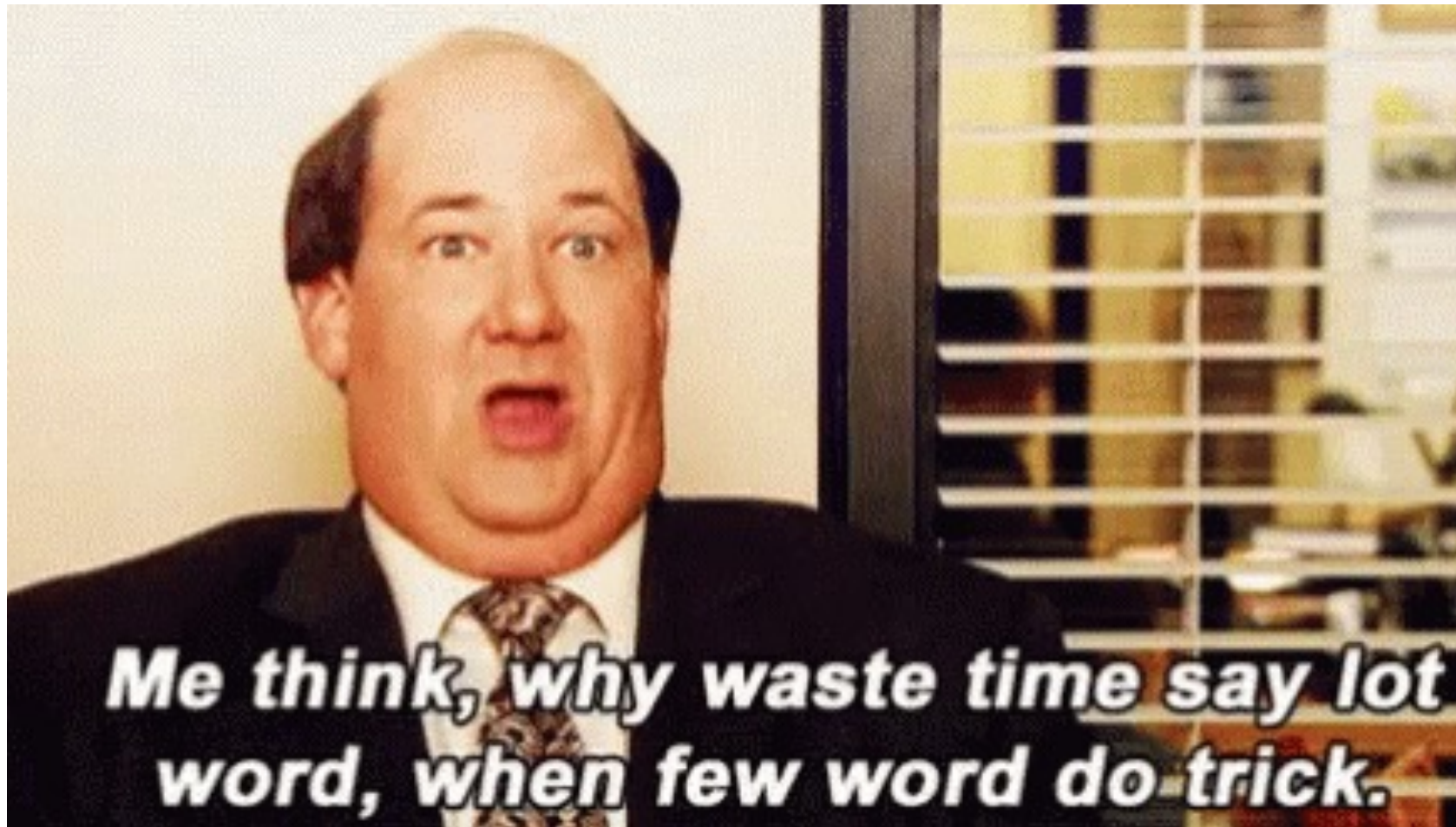
# Format

- Small groups
- Write down things that your ED has implemented
- Write down 3 ideas that you will implement

1 min = \$6

# Wasted Motion





# Pulmonary Embolism Response Team (PERT)

Does your patient have a confirmed or suspected PE and any of:

- Tachycardia
- New oxygen requirement
- Moderate to severe dyspnea
- Hemoptysis
- Moderate to severe chest pain
- Echo with RV dilation +/- hypokinesis
- CTA with signs of right heart strain
- Saddle embolus or significant clot burden
- Serum Tn > upper limits of normal

COST: \$0  
TIME: MINIMAL

**If yes to any of the above w/o alternate etiology  
then activate PERT:**

- 1. Call 4PERT (646 – 754 – 7378)**
- 2. Order IP consult for Pulmonary Embolism Response Team in EPIC**

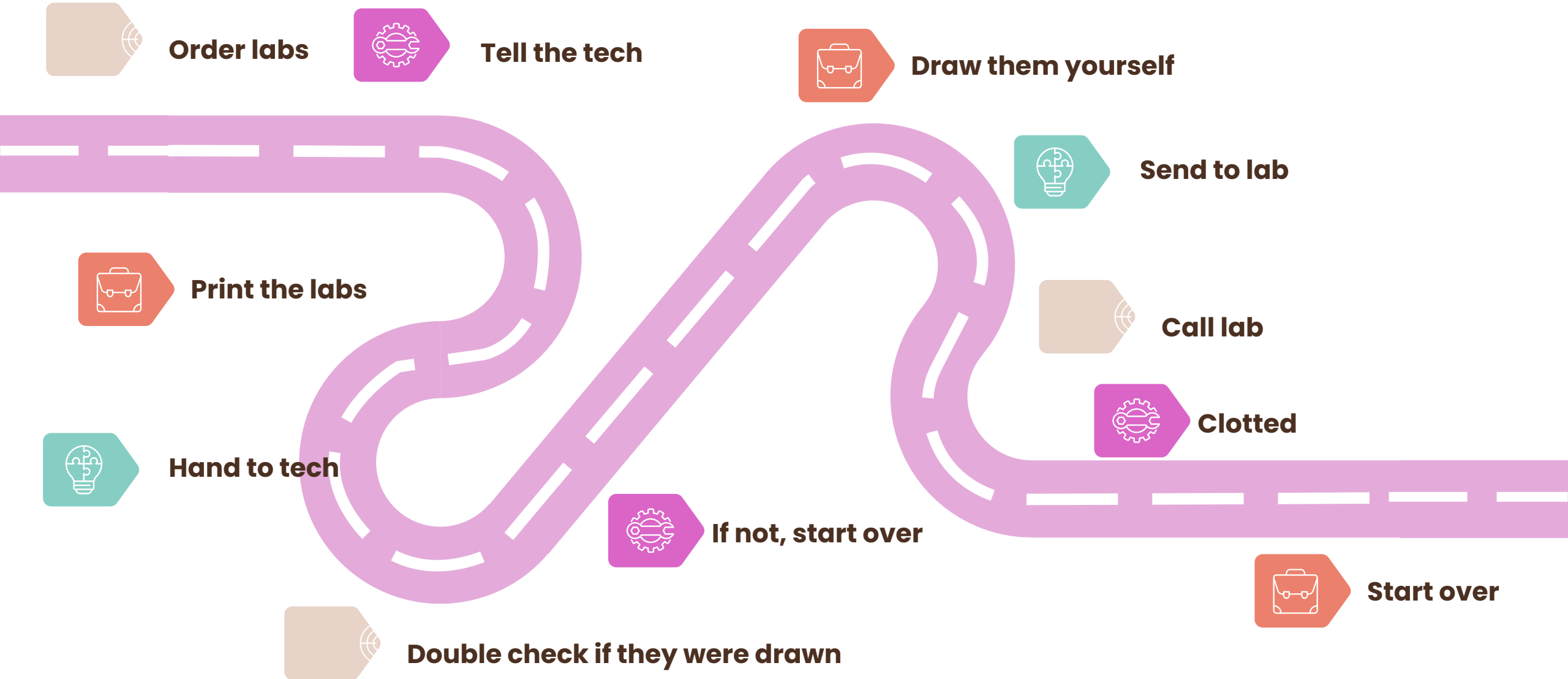
# Defects



**Rework**

# REWORK

WRITE YOUR SUBTITLE HERE



Level of Care: None Code Not... HCA: N... Dosing... LOS (... Allergies: No Known Aller... MyChart: No p...  
Pref Language: Need L... Weight... BMI: 2... CrCl:... Attending: WU, T O... Transplants: N...

I-Care - 3/31/2018 visit for WALK IN - left wrist injury

- Summary
- Chart Review
- Results Revi...
- I-Care

- DOCUMENTATION
  - BestPractice
  - Care Everywhere
  - Problem List
  - Vital Signs
  - Review Home Meds
  - Cosign Orders
  - Allergies
  - History
  - Communication
  - Progress Note
  - Pre-Sedation Ass...
  - Procedure Note
- ORDERS
  - Order Sets
  - Orders
- DISCHARGE DOCUMENTATION
  - Visit Diagnosis
  - Departure Condition
  - Follow-Up
  - Ref/Attachments

BestPractice Advisories  
No advisories to address.

Care Everywhere Outside Records (View Only)  
This patient is not linked to any outside organizations.  
[Request Outside Record](#)

Discharge Problem List [+ Care Coordination Note](#)

Show:  Past Problems

Review all problems to determine which can be resolved and which still require a plan for treatment after discharge.

Diagnosis	Hospital	Principal	Sort Priority	Noted	Share w/ Pt
Non-Hospital					
Injury of left wrist					
Left hand pain			Unprioritized	03/31/2018	<input checked="" type="checkbox"/>

COST: \$0  
TIME: MINIMAL

# Orders

Quick List Active All Orders Results Signed & Held Home Meds Pathway Mgmt Order History

Orders Imaging Pediatric

## XR - Chest

- XR Chest AP Portable
- XR Chest PA and Lateral
- XR Chest Decubitus Bilateral
- XR Ribs Left
- XR Ribs Right

## XR - Forearm, Wrist, Hand, Finger

- XR Finger Left
- XR Finger Right
- XR Forearm AP And Lateral Left
- XR Forearm AP And Lateral Right
- XR Hand PA Lateral And Oblique Left
- XR Hand PA Lateral And Oblique Right
- XR Wrist 1 View Left
- XR Wrist 1 View Right
- XR Wrist PA Lateral And Oblique Left
- XR Wrist PA Lateral And Oblique Right

## XR - Clavicle, Shoulder, Humerus, Elbow

- XR Clavicle Left

## Automatically Protocolled CTs

- Head Trauma (CT Head Without IV Contrast)
- Altered Mental Status (CT Head Without IV Contrast)
- Headache (CT Head Without IV Contrast)
- Facial Trauma (CT Facial Bones With IV Contrast)
- Cervical Spine Injury/Fracture (CT Cervical Spine Without IV Contrast)
- Pulmonary Embolism (CT Chest Pulmonary Embolism With IV Contrast)
- Lung Evaluation Without Contrast (CT Chest Without IV Contrast)
- Non-Specific Lower Abdominal Pain (CT Abdomen/Pelvis With Oral And IV Contrast)
- Appendicitis (CT Abdomen/Pelvis With Oral And IV Contrast)
- Diverticulitis (CT Abdomen/Pelvis With Oral And IV Contrast)
- Bowel Obstruction (CT Abdomen/Pelvis With Oral And IV Contrast)
- Renal stone (CT Abdomen/pelvis without IV contrast)
- Lumbar Spine Injury/Fracture (CT Lumbosacral Spine Without IV Contrast)

- CT C-Spine (Without IV Contrast)
- CT Facial Bones (Without IV Contrast)

## US - Abd/Pelvis

- US Abdomen with Doppler
- US Abdomen without Doppler
- US Kidneys with Doppler
- US Kidneys without Doppler
- US Pelvis with Doppler
- US Pelvis without Doppler
- US Scrotum With Doppler

## US - Extremity

- US Duplex Venous Lower Extremity Bilateral
- US Duplex Venous Lower Extremity Left
- US Duplex Venous Lower Extremity Right
- US Duplex Venous Upper Extremity Left
- US Duplex Venous Upper Extremity Right

## MRI - Head

- MRI Brain (Without IV Contrast)
- MRI Brain (With And Without IV Contrast)

**COST: \$0**  
**TIME: MODERATE**  
**SAVINGS: 28 MINUTES!**



RME Average

RME Median

## RME METRICS (Median)

Acuity (group)

(All)



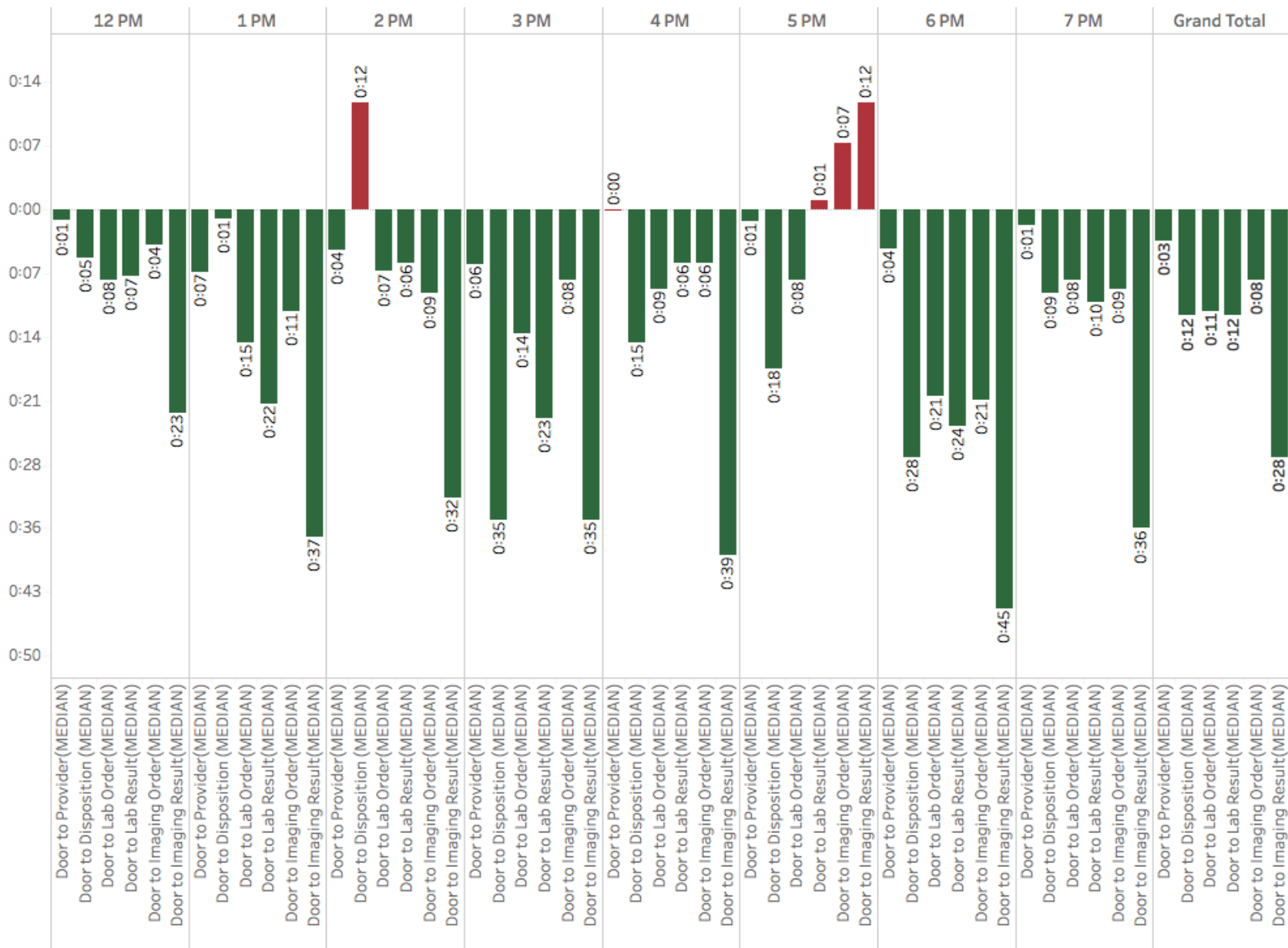
Filter by Hour

(Multiple values)

Bars indicate RME change from baseline.

Green indicates RME saw improvement on metric

Red indicates RME saw decline on metric



**Overproduction**



# Typical supply area







EAST COAST  
ORTHOTIC & PROSTHETIC CORP.

DEF

# Motion, Rework, Defects, Overproduction – Solutions

- .

# Wasted Transportation







COST: \$0

TIME: MODERATE

LAUNCHPAD

**Excess processing**



BOARD PROC

MEDICAL EVAL

NAME: JENSEN, JERRALD M.

DEPARTMENT: DA

TOTAL YEARS OF MILITARY SERVICE: 6

DATE OF LAST PHYSICAL EXAM: 12/11/08

PHYSICAL PROFILE: P U I J

PHYSICAL PROFILE: T M N O

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

PHYSICAL PROFILE: YES NO

609

Patient Name: Jensen, Jerrald Patient ID: [illegible]

Begin forwarded message:

**From:**

**Subject: Shift Report [safe]**

**Date:** March 13, 2018 at 6:53:52 PM EDT

**To:** # ED Charge Nurse Reports <edchargenurserep@nyumc.org>

RME @ 1100

Total Census @ End of Shift : 59

# of ED Patients in the Hallway: 23

Admissions: 4

➤ 2 medicine

➤ 2 Surgery

Longest LOS in ED for Admitted Patients: 8 hrs MIN

LOS of Admitted Patients:

➤ 0 > 12hrs

➤ 0 > 20hrs

# of UBB Eligible Admitted Patients: 2

# Of Patients on Isolation Precaution: 0

➤ Droplet / Neutropenic

➤ Airborne

➤ Contact/C. diff

Left without being seen: 0

Re-Visits in last 24 hours: 0

Elopement: 0

➤ PUA's

COST: \$0  
TIME: MINIMAL  
POLITICAL CAPITAL: MODERATE

ission r the Flo Co's  
s, had smell  
ilted.

**Waiting time**

**Sent:** Sunday,  
**To:** # psyches  
**Cc:**  
**Subject:** Psycl

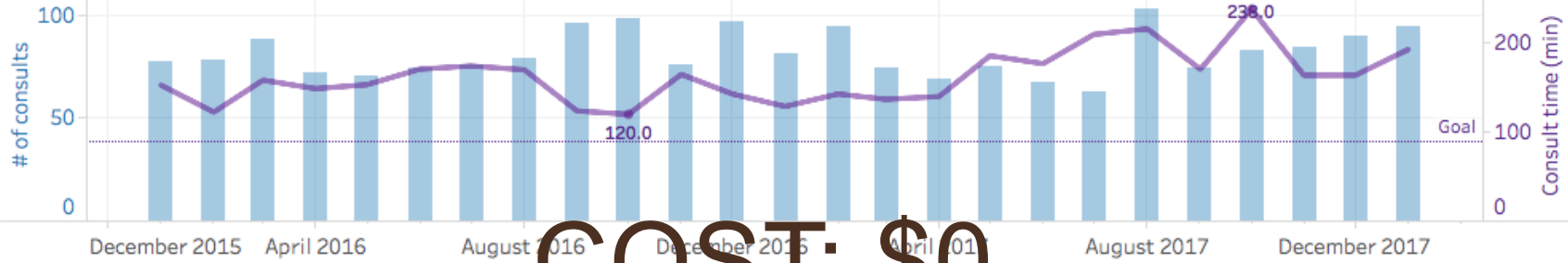
Hi everyone,  
This patient I  
1:1 and I call  
will be a few  
Thank you,  
|



o limited staffing for  
trist believes there

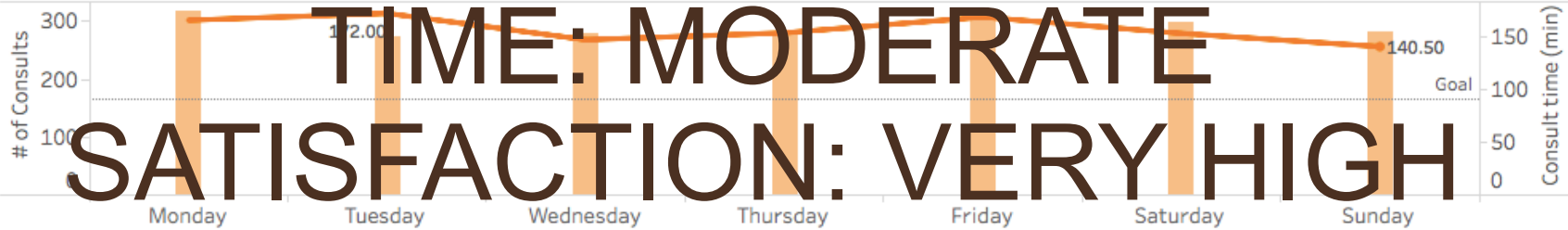
### Consult Timeliness - Orthopedic Surgery

#### Number of consults and median consult time



**COST: \$0**

#### Entire Day by day of the week



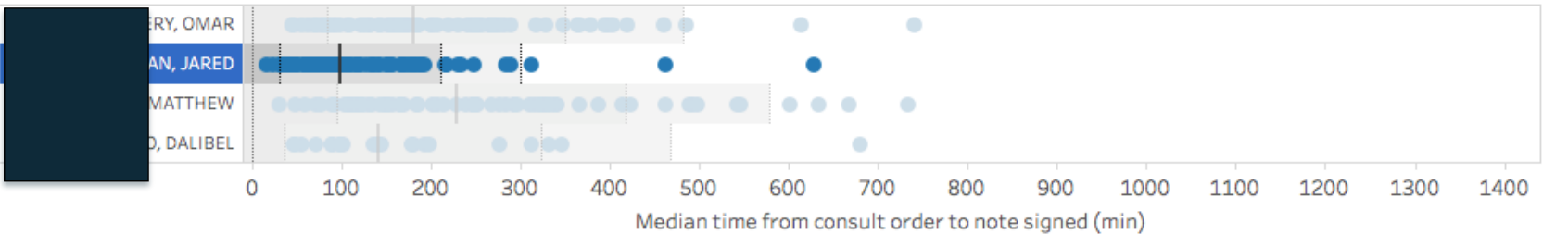
**TIME: MODERATE**

**SATISFACTION: VERY HIGH**

#### Consult timeliness by consultant (only consultants with at least 5 consults are shown)



#### Consult Timeliness by consult (only consultants with at least 5 consults are shown)





**Wasted Intellect**











IDEA

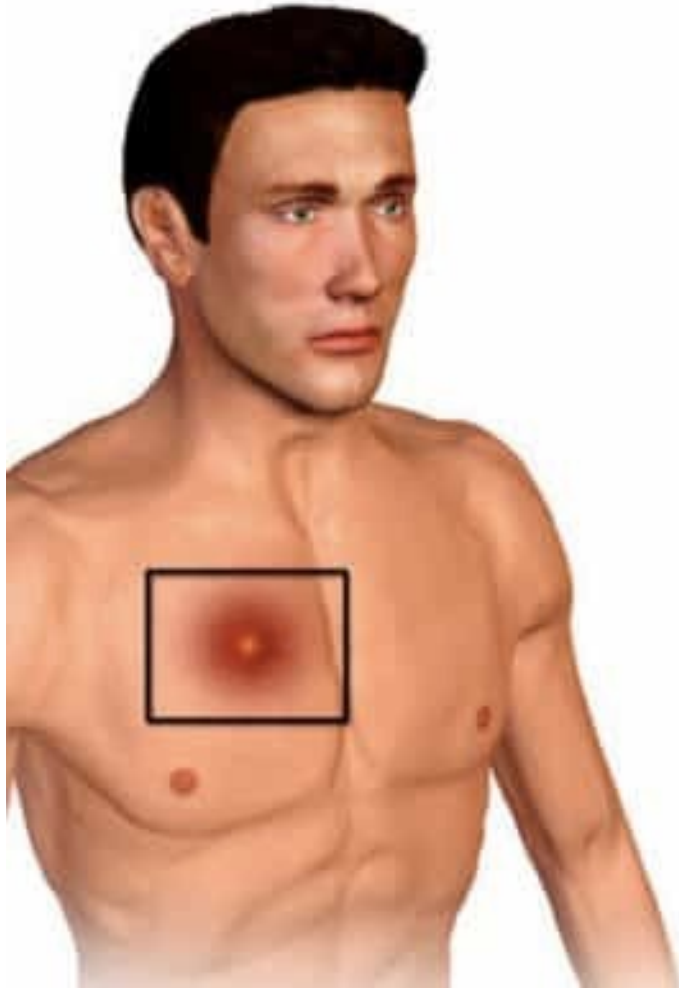
Medications ^

Name	Drug Cost	Dose	Route	Frequency
 acetaminophen (TYLENOL) tablet (aka TYLENOL)	\$0.02/325 MG	500 mg	Oral	Every 4 Hour...
 acetaminophen (TYLENOL) chewable tablet (aka TYLENOL)	\$0.03/80 mg	80 mg	Oral	Every 4 Hour...
 acetaminophen (TYLENOL) oral liquid (aka TYLENOL)	\$0.04/325 mg		Oral	Every 6 Hour...
 acetaminophen (TYLENOL) suppository (aka TYLENOL)	\$0.48/325 mg	650 mg	Rectal	Every 4 Hour...

An underwater scene with blue water and many bubbles. A shark's mouth is visible on the right side, showing its teeth. The text is overlaid on the center of the image.

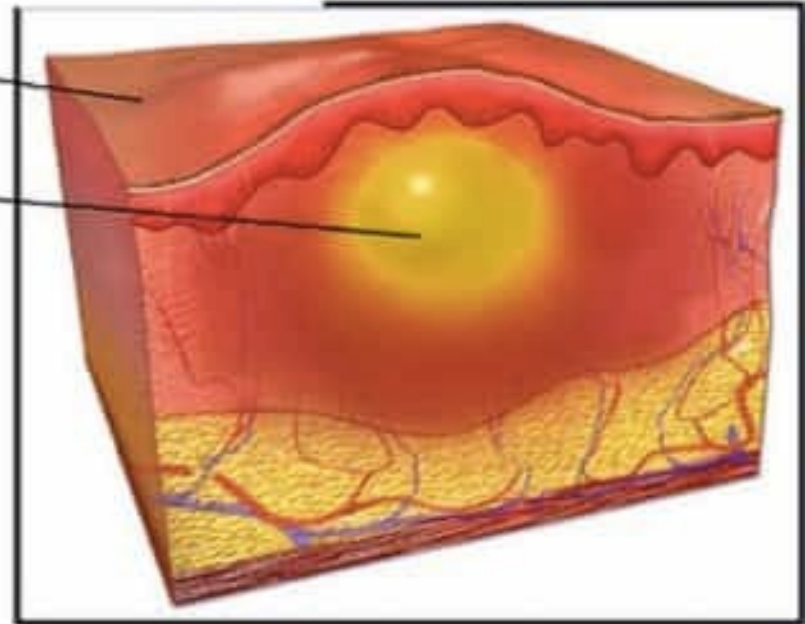
COST: \$0  
TIME: MODERATE?  
**SHARK TANK**  
FUN: EXTREME

# Wasted Intellect



Skin


Pus



Abscess







**COST: \$20,000**  
**TIME: >9 MO**

**Financial ROI**

- **FY17 Team 5 pts:**  
**5,417**
- **Mins/Saved per Visit:**  
**31**
- **ED Price/Min: \$6**
- **YTD**  
**savings: \$1,007,562**

# Wasted Transportation, Excess processing, Waiting time, Wasted Intellect

- Solutions



Progress

Write down 3 ideas that you  
will implement

**Excuses are a time thief.**

**Have a goal,  
accept responsibility,  
and take action!**

**- Dr. Steve Maraboli**

[www.stevemaraboli.com](http://www.stevemaraboli.com)

# Thank You



Tina Wu: [tinaswu@gmail.com](mailto:tinaswu@gmail.com)  
Erin Muckey: [emuckey@gmail.com](mailto:emuckey@gmail.com)



**Presentation title**  
**Lorem ipsum**



Care

Forward

Moving

### Mission

Our mission is to rewire the supply chain to make prescription care more accessible and affordable.

## Vision

Our vision is a smarter pharmaceutical system, working together to deliver better outcomes for everyone.

A close-up photograph of two hands. The top hand is light-skinned and holds two light blue and white capsules. The bottom hand is darker-skinned and is positioned below the first hand, as if supporting or presenting it. The background is a solid teal color.

# Find Your Partner



# Contents

01 Section title lorem ipsum quisque est

02 Section title lorem ipsum ergo quam

03 Section title lorem ipsum dolor nul

04 Section title lorem ipsum estesque

05 Section title lorem ipsum quisque est

06 Section title lorem ipsum ergo quam

07 Section title lorem ipsum quisque est

18 Section title lorem ipsum ergo quam

09 Section title lorem ipsum dolor nul

10 Section title lorem ipsum estesque

**Section Title**

**Subtitle**

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## Subhead

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**A message you want  
to emphasize goes  
here**

**(Not a content slide)**

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## Subhead

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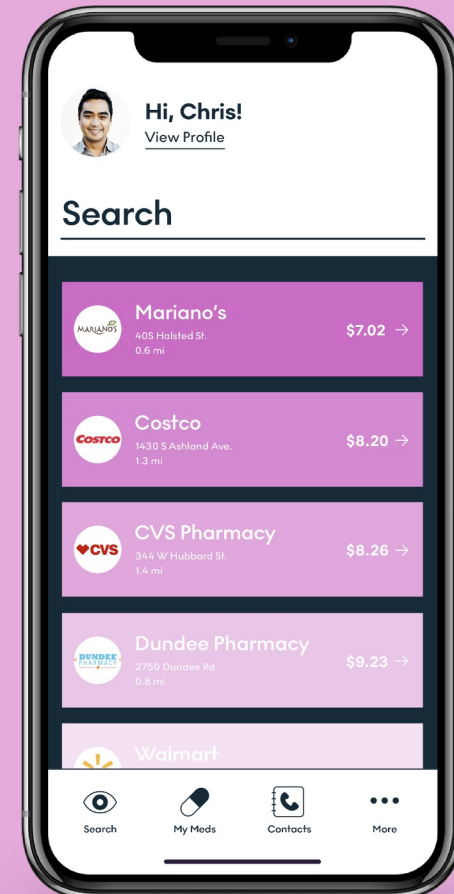




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**Number for emphasis**  
**Lorem ipsum**

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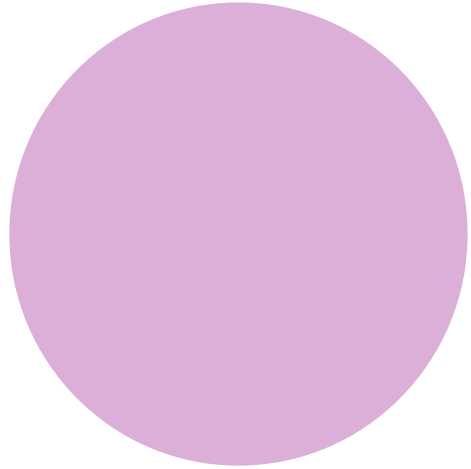
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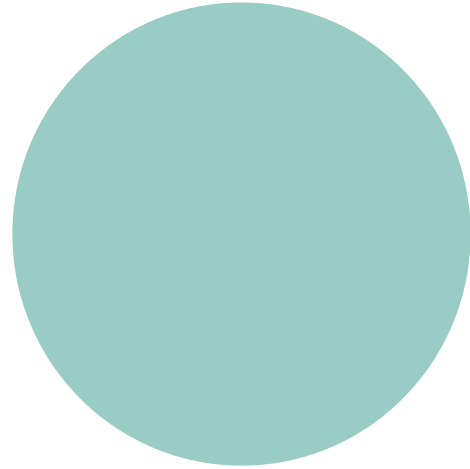
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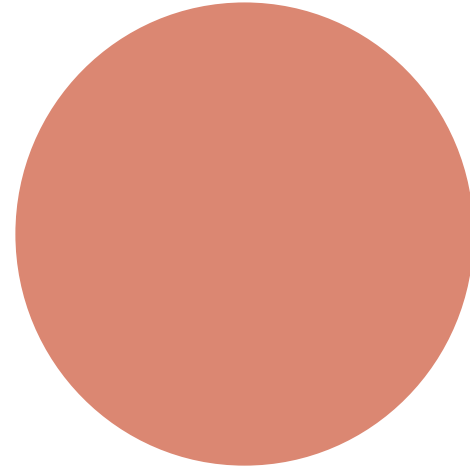
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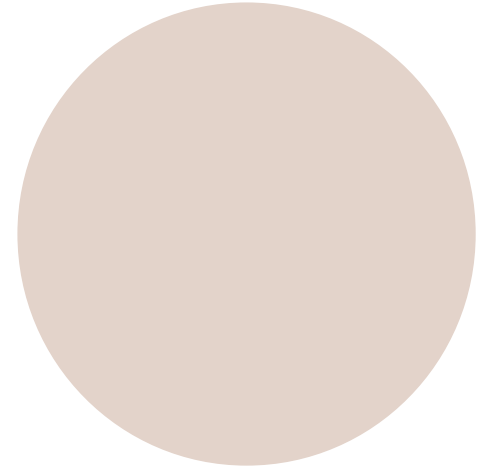
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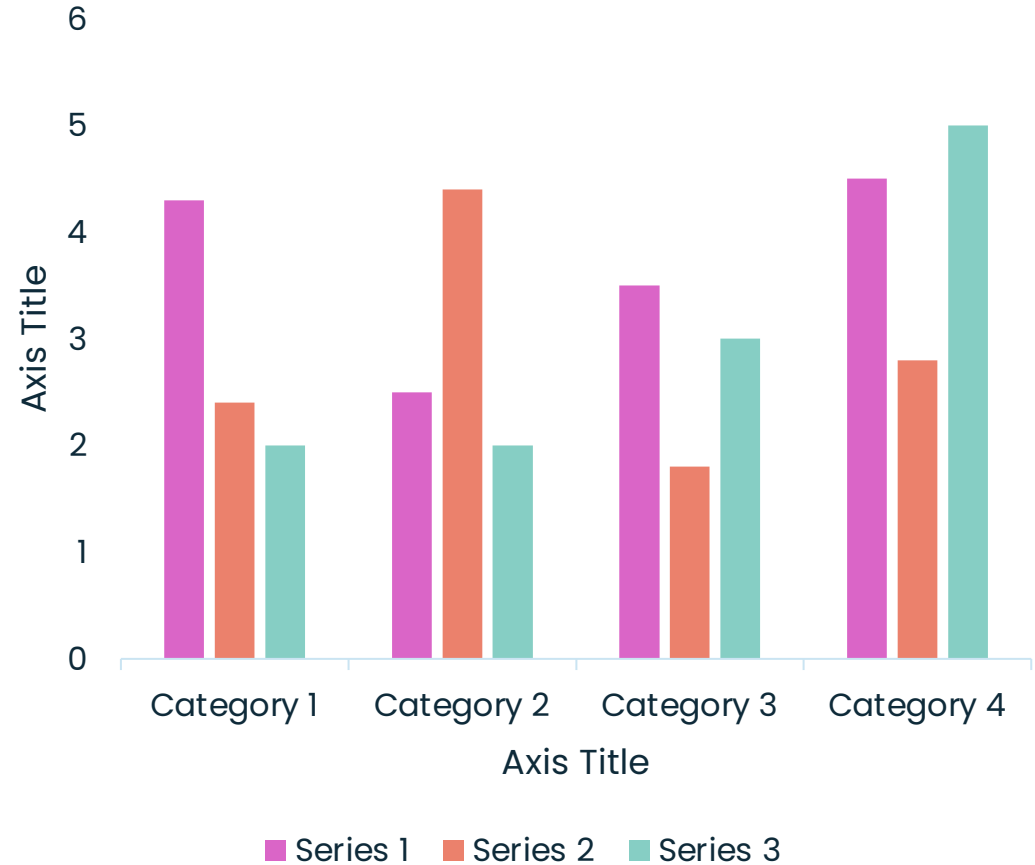
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## Subhead

### Phase Title



#### Content Title

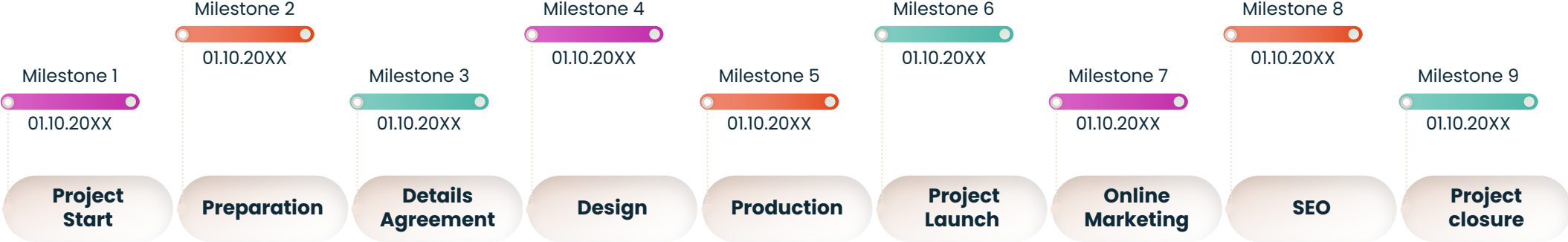
Descriptive text here



Use to mark  
"Today"

# Header lorem ipsum dolor

## Subhead



**Thank You**





# Iconography



Alert



Arrow



Bookmark



Consumer



Ellipses



Home



Information



Integrity



Search

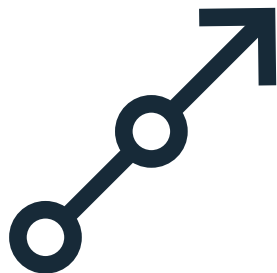


WiFi

# Iconography



Access



Progress



Inclusion



Email



Phone



Mobile



Website



Accountability



Location