SIMPLE FRACTURE PATIENTS RECEIVING ANALGESIA IN THE CHOP MAIN ED

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Center for Healthcare Quality & Analytics



Simple Fracture Patients Receiving Analgesia in the CHOP Main ED

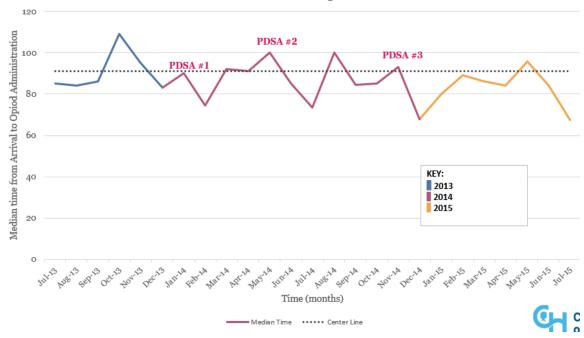
SMARTIE AIM: We will decrease the time of administration of analgesia from 91 minutes to 30 minutes in CHOP main ED simple fracture pediatric patients regardless of REaL by January 2024.



Results:

There was no center line shift from the 91-minute median on the SPC chart. However, there was a decrease in median time from 91 minutes to 83 minutes. Project Dates: 06/2023 – 01/2024

Median Time from Arrival to Opioid Administration





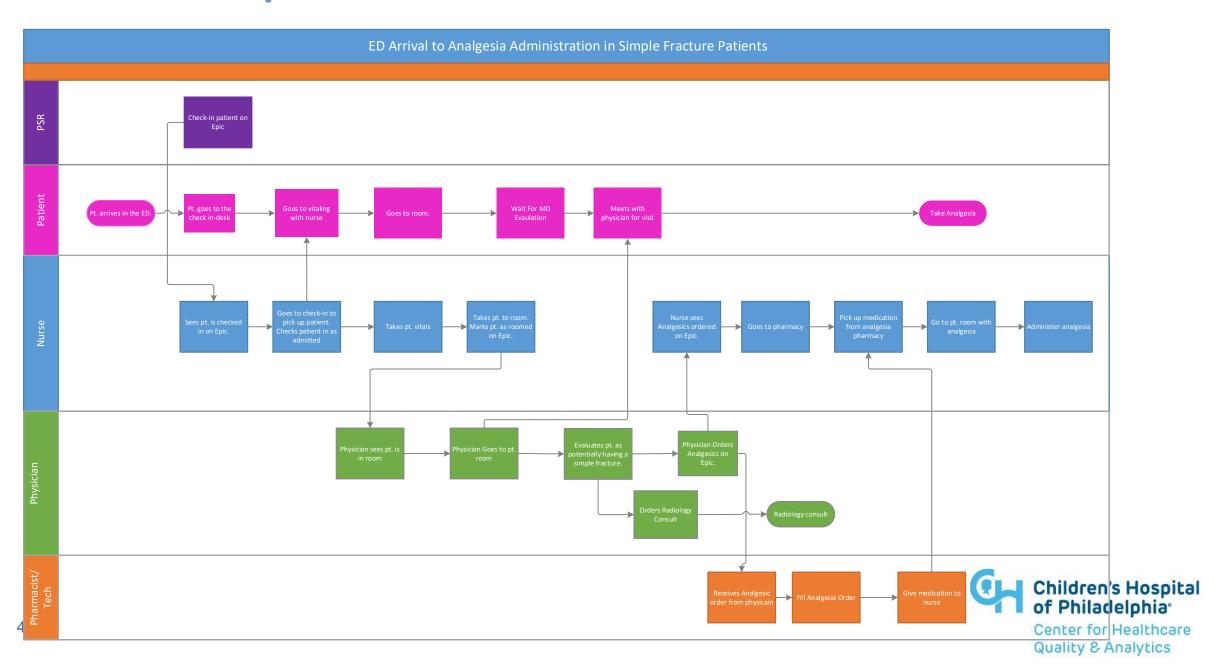
Charter

PURPOSE				
Problem Statement What is the problem you are trying to solve?	No standard process for administration of analgesia for pediatric patients with suspected simple fractures resulting in increased patient pain and worse outcomes in recovery based off of best practice administering analgesia should be within 30 min of arrival of simple fracture patients. Currently, CHOP EDs are not meeting best practice protocols for simple fracture patients.			
Goal Statement SMARTIE Aim Specific Measurable Achievable/ Attainable Realistic/Relevant Time Bound Inclusive Equitable	We will decrease the time of administration of analgesia from 86 minutes to 30 minutes in CHOP main ED simple fracture pediatric patients regardless of ReAL by January 2024.			

Quality Impact Theme	☐ Improve Outcomes
Why is this project	☐ Keep Patients Safe
important to the	☑ Reduce Suffering
organization?	☐ Reduce Unnecessary Care
	☐ Reduce Disparities in Care
	☐ Keep Kids out of the Hospital
	☐ Reduce Time to Needed Care
	□Increase Effectiveness & Efficiency
	☐ Promote Health & Healthy Communities
	☐ Other: Click here to enter text.
In Scope	All simple-fracture patients presenting to CHOP main campus ED regardless of language, ethnicity, payor, or race from July 2023 to January 2024.
Out of Scope	Non-fracture ED pediatric patients, ED pediatric patients presenting with complex fracture, and simple fracture patients outside given time frame and location.



Process Map



Fishbone Diagram

Med Dispense

Long Wait time for Nurse to pick up pain meds

Lack of Communication when pain meds are dispense

Far Location to pick Pain meds in the hospital Triage Station

Inconsistent Triage procedure

Long Wait Time after Triage

Some Traige occurs in Room

Lack of Communication to nurse to alert them about pain meds

> Physician unaware of timely admin

> > Physician

Decrease the time
of administration of analg
esia from 45 minutes to
30 minutes in CHOP main
ED simple
fracture pediatric patients







Key Driver Diagram

Primary Drivers

Technology

People

Location/Environment

from 86 minutes to 30 minutes or less in CHOP main ED simple fracture pediatric patients

AIM/Goal Statement

regardless of REaL by January 2024.

Decrease the time of administration of analgesia

Finalized: July 6th, 2023

Secondary Drivers

Automated communication system between nurse and MD.

Analgesia is given to all pt. with Dx simple fracture.

Analgesia Pickup location

Reminders for clinicians that analgesia should be administered w/in 30 minutes with Dx of simple fracture. (following clinical pathway guide)

Designated primary and secondary nurse assigned to pt. at triage.

Provider buy-in

Frequent rotating resident staff

Potential Process Changes

Assigned nurses' phone pings when MD ordered medication

Light above door changes color after MD eval.

Epic auto-fill order. Provider de-selects if not wanting to order.

Centralized med-cart located at nursing station stocked with necessary medications.

Pharma-tech checks and re-stocks cart every hour.

Nurse scans badge to check out medication.

EPIC physician BPA alert after Dx of simple fracture is inputted on EPIC that analgesia must be admin. in 30 min time of arrival.

Nurse BPA alert for pt. with Dx simple fracture and analgesia order.

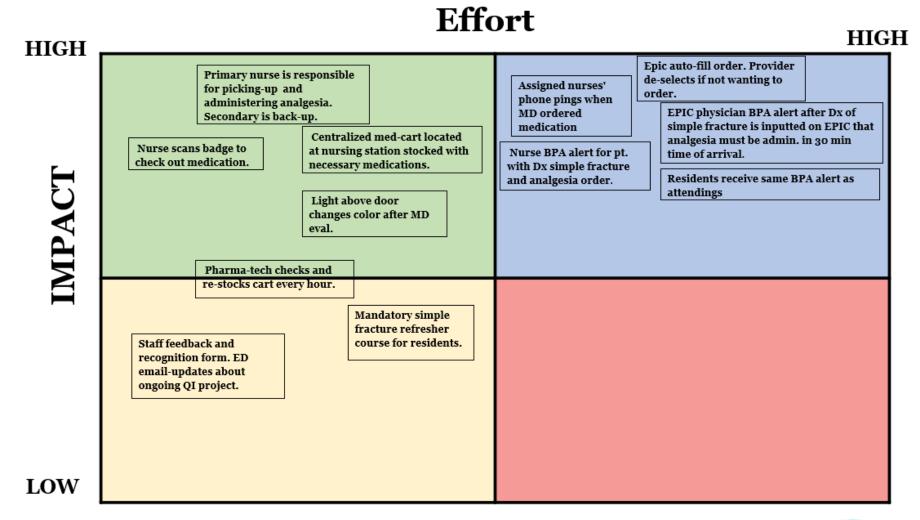
Primary nurse is responsible for pickingup administering and administering analgesia. Secondary is back-up.

Staff feedback and recognition form. ED emailupdates about ongoing QI project.

Mandatory simple fracture refresher course.

Receive same BPA alert as physicians

Impact / Effort





Summary of Interventions

PDSA #	Intervention	Metric	Primary Driver	Impact/ Effort	Outcome
1	Centralized med-cart located at nursing station stocked with necessary medications	Time from analgesia ordered to analgesia admin	Location/ Environment	High Impact/Low Effort	Adopt
2	Epic autofill order for pt. with Dx code(s) for simple fracture	Simple fracture pt. receiving analgesia	Technology	High Impact/High Effort	Adopt
3	Primary and Secondary Nursing system assigned to patients.	Time from admitted to analgesia admin	People	High Impact/Low Effort	Adapt
4	Primary nurse's phone pings when analgesia medication is ordered	Time from admitted to analgesia admin	Technology	High Impact/High Effort	Adopt



Intervention 1: Centralized Medcart

Plan:

- Shorten the time to walk to pharmacy and to have commonly used analgesics easily accessible
- August 2024- September 2024

Do:

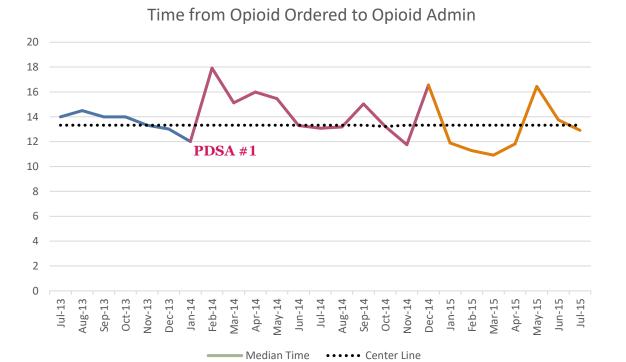
- Run the first PDSA cycle for 3 weeks, modifying as needed.
- Move and stock centralized medcart into ED nurses' station. Determine data that will be collected

Study:

 Measure time from analgesia ordered to analgesia admin, number of patients receiving analgesia

Act:

• Adapt Medcart. Decrease in time from analgesia ordered to analgesia given.







Intervention 2: Epic autofill order for pt. with

Dx code(s) for simple fracture

Go Live October 2023

Plan:

- · Centralized Med Cart in nursing station
- August 2024- October 2034

Do:

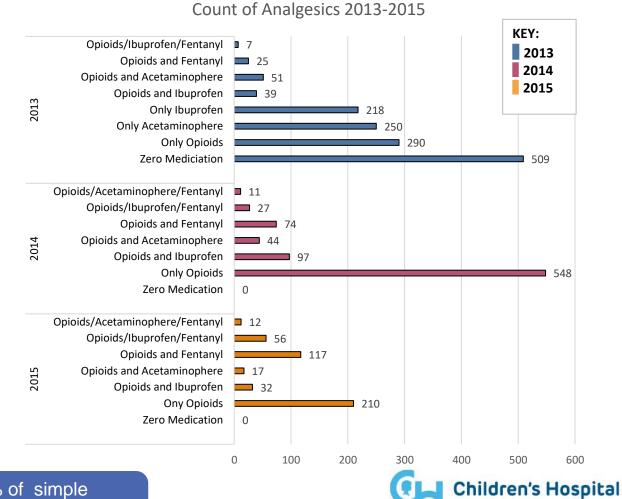
- Educate providers that there is an autofill feature with a simple fracture Dx code in the ED.
- The Dx code can be overridden.
- · Crosscheck with pharamacy.

Study:

- Overall, simple fracture patients in the ED receiving opioids
- If anyone is opting out, who do not meet the criteria.

Act:

- Adopt/Abandon/Adapt based off of:
- If see a lot of people opting out, would adapt approach
- If see more pt. receiving analgesics, would adopt.



We found that in both 2014 and 2015 there were 0% of simple fracture patients received zero analgesia medication. In 2013, before the intervention(s), 36.7% of pt. did not receive an analgesic.

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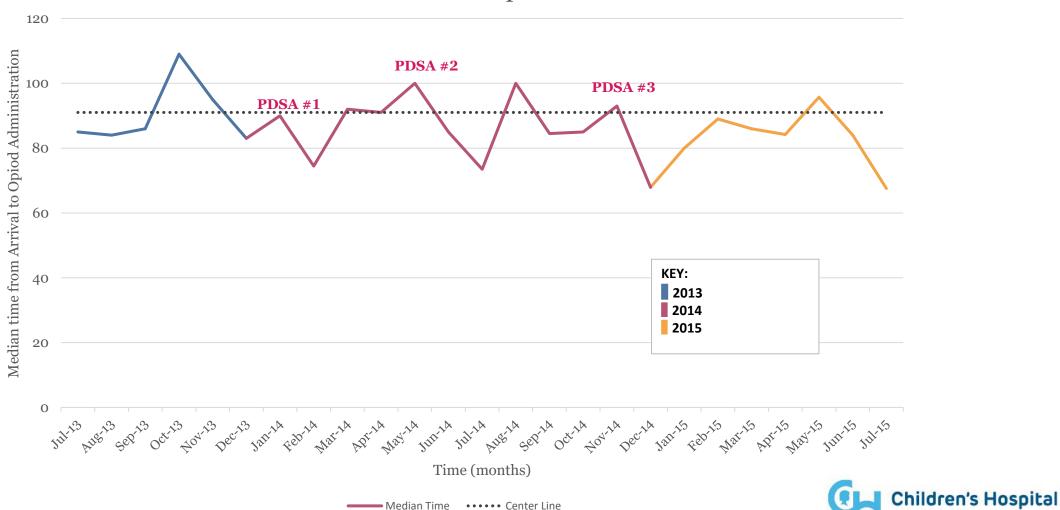
Summary of Metrics

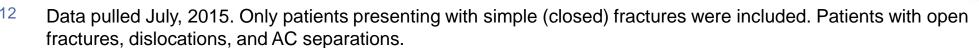
Туре	Detail	Baseline x/xx – x/xx	Goal	Result x/xx – x/xx
Outcome	Decreased time from 91 minutes to 30 minutes from time of arrival to analgesia administration	July 2014-December 2013	30 min	January 2013- July 2014
Process	Time from analgesia ordered to analgesia administered	July 2013-December 2013	16 min.	·
Process	Percentage of simple fracture ED patients receiving analgesia medication	July 2013-December 2013	90%	
Balancing	Increase in wait time in non-simple fracture patients	July 2013-December 2013		



Metric

Median Time from Arrival to Opioid Administration





Considerations

Multiple Responsibilities of Staff and Buy-in to new protocol(s)

• Staff often have multiple responsibilities and patients to care for, including non-fracture patients, that they must be attentive to. Often, changes in structure can be challenging to adjust to.

Consistency and Organization of Data

Multiple data platforms may be necessary to create full picture

Things to consider for future projects/work or spread

- Standardizing the type of analgesia for simple fracture patients
- Emphasize simple fracture patients come in the whole year.
- All EDs function differently so we may have to modify our PDSA implementations when we spread



Simple Fracture Patients Receiving Analgesia - Sustain Plan

What	Who	Responsibilities	How Often/When
Sustain Team	ED Staff (nurse managers and attending physician(s) Pharmacist/Pharm atech IA and DA	Continue meeting Champion project as subject matter experts	Once a month sustain team meetings. Check Dashboard that reflects data on simple fracture pt. receiving analgesia
Meeting Logistics	Physician leads	Schedule meetings, track takeaways	
Data Monitoring	Data Analyst	Train in data tools; identify trends; prep data for report outs	Dashboard will be updated automatically. However, data analyst monitor if any issues occur with the dashboard
Materials	Pharmacist/Pharm atec & Nurse Manger	Analgesic Medication(s), Medcart, Epic	Medcart will be restocked hourly. Report to nurse manager if there are any problems with managing materials.
Report Outs	Manager nurse, QI Analyst, project champion	 Meetings: List any meetings appropriate for an occasional report out, External: Conferences, Publications CHOP: Quality & Safety Day, Clinical Excellence enewsletter, Leadership Briefing if SPC shift 	

