Pain in the ED!

Improving recognition and follow up using a pain score system

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One of the commonest presentation in the Emergency Department is PAIN. It is under recognized, undertreated and treatment may be delayed.

Problem & evidence base

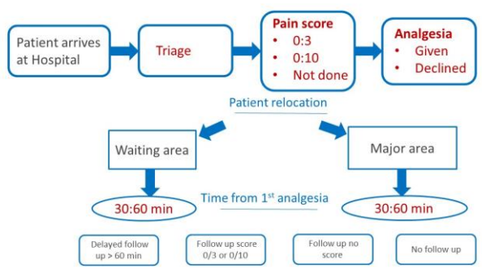
Pain management process should
- Start at triage
- Be followed and monitored during waiting time in Emergency Department (ED)
- Be measured using pain score

The College of Emergency Medicine recommendation
Patients with pain to receive analgesia within 20 min of arrival
Re-evaluation within 30-60 min of receiving the first analgesia according to severity

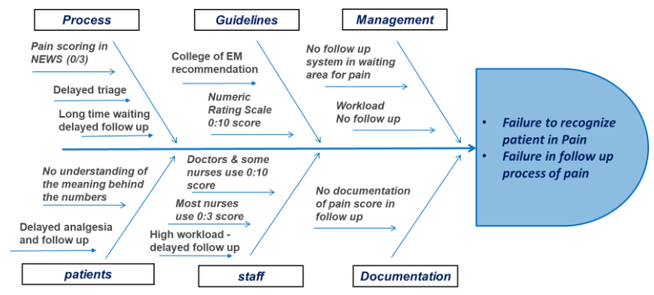
Patient Satisfaction is related to proper timely pain management and relief

Understanding the problem (Diagnostics)

Process map



Fishbone diagram



Aim statement

What are we trying to accomplish?

Using one standard numeric pain score 0/10 measured through follow up of pain score by Feb 2020 achieving 50% of pain score documentation

-Improve the implementation of pain score to reach 9 out of 10 people by Feb 2020.
- Implementation of Follow up of Pain after 1 hour of analgesia

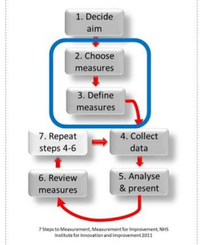
9 out of 10 patients to have pain score implemented by end of April 2020

8 out of 10 patients to receive follow up pain score 30-60 min after receiving analgesia by end of April 2020

An iterative process

Measurement definition

7 steps to measurement



Updated Aim *(guided by aim worksheet)*
-Improve the implementation of pain score from 8 out of 10 patient to 9 out of 10 by the end of April 2020 .
-implementation of follow up of pain score after 1 hour of triage.
Chosen measure
-Identification of patients with pain from registered complain.
-Follow up by pain score.
Inclusions
Adult patients presented through triage either by Ambulance service or walk in.
Exclusions
Children and critical ill patients
Sampling method & frequency
Retrospectively and day to day basis. By choosing 10 patients randomly selected through triage.

Change ideas

1. Any patient complains of pain, pain score to be done at triage, analgesia to be given then check box is drawn at front paper of the ED Card for pain score and another for follow up after one hour of triage.
2. A coloured sticker is to be applied to the front page of ED card with Tick box for Pain score and for follow up after one hour.
3. Patient is advised to go to triage nurse if still in pain after one hour.
4. Patients in waiting room is given a coloured card to raise it if he is in pain and need analgesia.
5. Patients with pain receive cards with faces (like emoji) that express the pain level to raise it in the waiting room.
6. Nurses at triage keep a list of patients with pain score and follow them after one hour.
7. A specific mobile number is written in waiting room and if patient has more pain he/she send sms to the number .

PDSA cycles

PDSA: Plan

Change idea	To put a small check box ☐ on the front page of ED card with label of 'follow up of pain score after one hour of triage'.
ONE thing to test	Having the check box in the front page of ED card , would it remind the nurses or medical staff to check or follow the pain score on time
What to do	Discuss with ED Clinical director for permission Discuss with Nurse on charge to apply
When to do it	10/03/2020
Where to do it	Triage and Rapid assessment area(RAT) of Emergency Department
Who to do it	Nurses, Doctors and Emergency ACP
Predict outcome	Ensure follow up of pain score is done although there might be a delay in timing.
Data to collect	Time of follow up of pain score compared to time of initial pain score taken.

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PDSA: Do, Study, Act

Change idea	To put a small check box ☐ on the front page of ED card, to be ticked when follow up of pain score is done after 1 hour of initial.
Do	Check box applied by nurses in triage or RAT area for every patient complains of pain for the time of study.
Study	The study involved a small sample of patients (10) over (1-4h) that resulted in: -It ensured that the follow up of Pain score is done -There was a delay in applying the follow up (it took more than 1 hour)
Act Abandon ☐ Again ☐ Adapt ☐ Adopt ☐ Extend ☐	Next steps..... Combine another idea of change to try to improve the time for follow up That is keeping a list of patients who have been pain scoring in the initial triage

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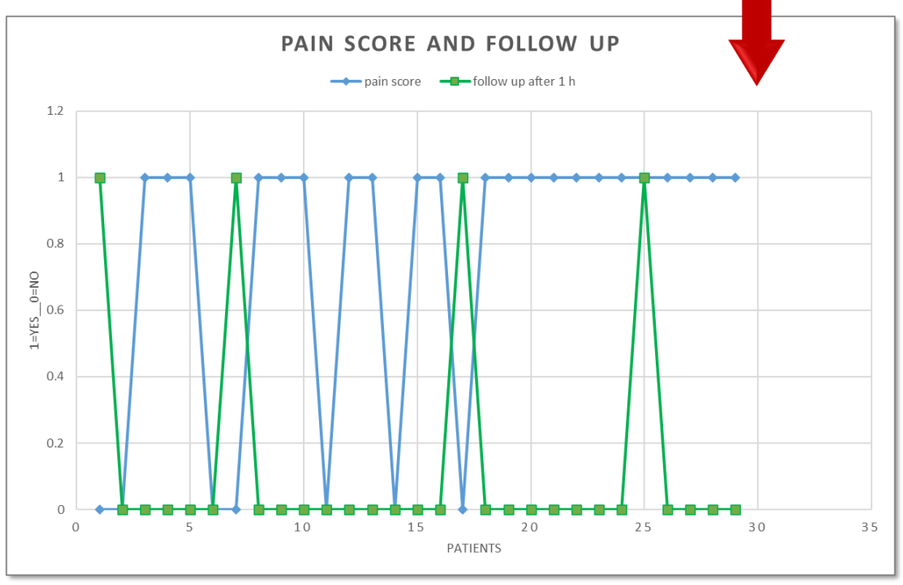
IDEA	PLAN	DO	STUDY	ACT
1.1 CHECKBOX	Get permission to add checkbox to front page of ED card for staff to tick when follow up pain score is done	Add checkbox for every patient who complained of pain on one day (n = 10). Time of follow up pain score recorded. Box ticked for all patients. Follow up pain relief > 1 hour for 10 patients	Confirmed that follow-up was done for all patients given checkbox but timing of follow-up dose could still be improved	Consider other ideas to reduce the time delay on follow-up dose
1.2 CHECKBOX + keeping a list of Patient with Pain score	Add in to the above another Idea e.g. keep a list of patients who have been pain scoring in the initial triage stage (regardless of where triaged)	As above and nurse at Triage Rooms or Rapid Access Triage (RAT) areas to keep a list of all patients who pain scored and if given a painkiller or not. Document the time of 1st pain score and the time due after 1 hour from initial score. Sample 5 patients on list – ALL received follow up pain score in Minors. Sample of 1 patient in Majors - would have been missed if not done myself.	Significant improvement of the time of follow up in waiting area for minors. Small sample in Majors Patient triaged and ED Card moved to the box for doctors to pick might be missed. – not confident of improvement in this area. Tasks required in Majors mean pain score follow up is not always prioritised.	1. Check to see if change is sustained in minors a week later (PDSA 1.3) 2. Teach nurses on Majors during Handover so all would know about the plan, and try it again (PDSA 2.1).
1.3 FOLLOW-UP	Check to see if change is sustained in minors a week later.			
2.1 TEACHING	Teach nurses on Majors during Handover so all would know about the plan, and try it again.			

Work suspended due to COVID-19

Run chart

Work suspended due to COVID-19



Patient	Pain score	Follow up after 1 hour
1	0	1
2	0	0
3	1	0
4	1	0
5	1	0
6	0	0
7	0	1
8	1	0
9	1	0
10	1	0
11	0	0
12	1	0
13	1	0
14	0	0
15	1	0
16	1	0
17	0	1
18	1	0
19	1	0
20	1	0
21	1	0
22	1	0
23	1	0
24	1	0
25	1	1
26	1	0
27	1	0
28	1	0
29	1	0

Reflections and learning

- I have learned how to approach any problem in a step by step way: Identifying the problem; diagnosis (data collection and analysis); decide upon aim; decide upon measure; test and implementation of change; and re-evaluation using PDSA.
- Analysing the problem and breaking it by using tools such as process mapping and fishbone diagrams.
- How to use PDSA cycles and construct a series of tests.
- How to communicate with my hospital team and gather their ideas of change and get their buy-in to improve the service.
- I faced a great barrier as I realised I couldn't execute my first idea of changing the pain scoring method in the system - from that I learned that it is important to involve my stakeholders earlier on as they are more experienced in how the system works.

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