Clinical Decision Support Projects

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Objectives

Identify everyday events can be triggers for Clinical Decision Support (CDS) tools

Identify when specific questions need to be built to facilitate CDS tools

Recognize the need to generalize research from facility to facility

Recognize a complete view of the project - from start to finish

Recognize the value of projects at a National/Organizational level

eMEWS

electronic Modified Early Warning Score

Overview: Patients that suffer a catastrophic change is condition usually show subtle to not so subtle signs up to eight hours in advance. If we can identify these patients early - we can help them.

The identification work began on paper. The idea to move from paper to electronic became a clinical decision support project.

Timing is Everything

Hospital was big - 650 beds

Resources were available

Rapid Response Team was being implemented

All staff was being educated

The project was a success

eMEWS criteria

Ideal score is 0

Pt is scored on Systolic Blood Pressure (BP), Pulse, Respiratory Rate (RR), Temperature (C), Level of Consciousness (AVPU) [Alert, responds to Voice, response to Pain, Unresponsive]

Score ranges 0-3

Score triggers alert when reaching 5 or increasing by 2

MEWS Scoring Criteria

Score	3	2	1	0	1	2	3
Systolic Blood Pressure (mmHg)	<70	71-80	81-100	101-199		≥200	
Pulse Rate (HR) (bpm)		<40	41-50	51-100	101-110	111-129	≥130
Respiratory rate (bpm)		<9		9-14	15-20	21-29	≥30
Temperature (C)		<35		35-38.4		≥38.5	
AVPU score				Alert	Reacting to Voice	Reacting to Pain	Unresponsive

eMEWS documentation screen from Meditech

Taking a Project and Making a Project

Re-initiation of eMEWS in a small hospital

Make it fit the hospital - personalize it

Pre and post studies

Interview staff

CDS alerts and triggers

Information is available to anyone that wants it

Violence Criteria

Violence in the Workplace

Growing trend in the United States is violence in the workplace

Can happen in any setting

Can we protect our staff

Can we help our patients

Behavioral Health - Broset

Can Broset be generalized from Behavioral Health to Acute Care

Pilot on paper in one unit

Liked the results

Asked to go electronic

Project is holding - waiting on National project

Our project is more robust

Violence Risk Assessment

The patient is scored on a 0 for no 1 for yes point scale on admission for the following behaviors:

Confused

Irritable

Boisterous

Verbally Threatening

Physically Threatening

Attacking Objects

Brainstorming

Original project has been sidelined waiting on a National project

Our project did not include family members

Our project did not take people off of VC once triggered

These are all things to consider - policies for the facility

Notification to the Team

Automated order for Violence protocol

Banner Bar

Warning when patient chart is opened

Alerts to Providers when assessment completed

Dashboard

Automated orders - Psychiatric Consult - NP

Reporting

Local v. National Project

Local timeline was faster

Our project was more "robust"

We had ownership

Good to have brainstorming for broader ideas

National support is nice

We did have a voice in the project (this does not always happen)

Authors and Key Words

MEWS and eMEWS:

      Subbe, C.P

      DeVita, M.A.

      McGaughey, J.

Violence in the Workplace:

      Woods, P.

      Almvik, R.

      Huidhjelm, J.

      Broset