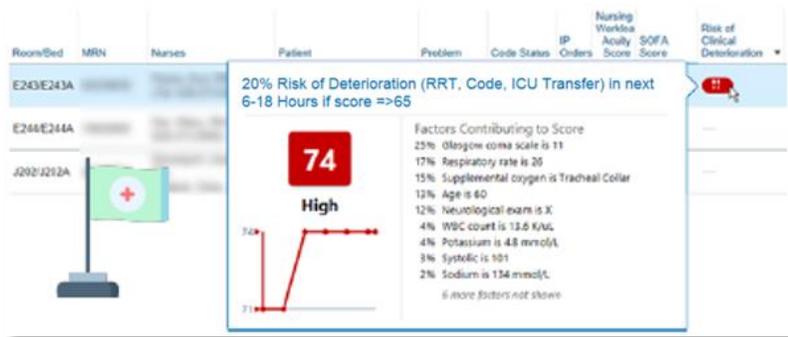


# STANFORD AI-ENABLED CLINICAL DETERIORATION PREVENTION WORKFLOW

## Awareness

## Alignment

- 1 **Clinical Deterioration Column Flag** and BPA trigger when patient breeches model threshold (>20% chance of clinical deterioration in 6-18 hours)



- 3 **Primary Nurse** and Resource Nurse connect to assess the patient and validate alert

- 4 **Primary Nurse** and **Provider Team** connect to review the **SBAR Clinical Deterioration Huddle** in person or on the phone

### **SBAR Clinical Deterioration Huddle:**

- **S:** Patient at high risk of clinical deterioration
- **B/A:** Discuss nursing concerns (Primary Nurse) and likely reason(s) for clinical deterioration (Provider Team)
- **R:** Discuss response to risk of clinical deterioration
  - Assess aspiration risk
  - Transfer to high level of care
  - New orders
  - Goals of care discussion
  - Family meeting
  - New consult
  - ICU provider team consult
  - Critical care response nurse consult
  - Other (comment)

- 2 **Voalte Alert\*** to RN assigned to patient in Epic, Primary Resident/Intern, Cross Cover Resident/ Intern

**Provider Team Voalte Alert**

[Dismiss View](#)

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**ACTIVE EVENTS**

Epic Patient Alert

3/5/21 6:15 PM Ted Test (100008670) L416A Clinical Deterioration Risk Alert. This patient is predicted to be at high risk (1 in 5) of requiring ICU transfer or a RRT in the next 6-18 hours. Connect with Primary nurse to huddle and complete clinical deterioration index BPA for documentation.

Acknowledge
Read

**Nursing Voalte Alert**

[Dismiss View](#)

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**ACTIVE EVENTS**

Epic Patient Alert

3/5/21 12:48 PM L416A Clinical Deterioration Risk Alert – Ted Test (100008670) is predicted to be at high risk (1 in 5) of requiring ICU transfer or a RRT in the next 6-18 hours. Connect with the primary team as soon as possible and complete communication flowsheet documentation.

Acknowledge
Read

\*Voalte alert only occurs the first time the patient is flagged by the model each 24 hr period

# STANFORD AI-ENABLED CLINICAL DETERIORATION PREVENTION WORKFLOW

## Action

- 5a **Primary Nurse** documents huddle attendees and response to risk of clinical deterioration discussed during the huddle in BPA\* Flowsheet Pop-Up

### Nursing BPA

**Risk of Clinical Deterioration Alert - Greater than 20% Risk of Deterioration (RRT, Code, ICU Transfer) in next 6-18 hours.**

Complete an **SBAR** with the primary team and document in the flowsheet as soon as possible.

**Situation** - Communication reason  
**Background & Assessment** - Additional Communication Details  
**Response** - Care Team Response

You are receiving this alert as the **Primary Nurse** for this patient.

[Click here to Document SBAR in Flowsheet Pop Up](#) **Click Here!**

**Acknowledge Reason**

\*If the patient continues to be flagged as high risk, this BPA will reappear every 24 hours to prompt another huddle.

### Nursing Flowsheet Pop-Up for Documentation

Flowsheet Pop-Up

Time taken: 8/20/2021 0934

**Risk of Clinical Deterioration Huddle - Nurse Documentation**

Risk of Clinical Deterioration

Additional communication details

Huddle Members

Magglo, Paul Matthew, MD  Schenone, Brian, RN  Blayney, Douglas Wilkins, MD  Other (comment)

Care team response

Assess aspiration risk  Transfer to higher level of care  New orders  Goals of care discussion  Family Meeting  New consult  ICU provider team consult  Critical care response nurse consult

Continue to monitor-no change  Other (Comments)

- 5b **Provider Team** documents likely reason for Clinical Deterioration discussed during the huddle in Care Team BPA\*

### Care Team BPA

**Risk of Clinical Deterioration Alert - Greater than 20% Risk of Deterioration (RRT, Code, ICU Transfer) in next 6-18 hours.**

Connect with the **primary nurse** to complete an SBAR and discuss possible reasons for potential RRT and/or ICU escalation below.

Time taken: 8/20/2021 0948

**Risk of Clinical Deterioration Huddle - Provider Documentation**

[Possible reason\(s\) discussed for potential RRT and/or ICU escalation](#)

Shock  Arrhythmia  Aspiration  Mental Status Changes  Respiratory Failure

[Other possible reason\(s\) discussed for potential RRT and/or ICU escalation](#)

**Acknowledge Reason**

\*If the patient continues to be flagged as high risk, this BPA will reappear every 24 hours to prompt another huddle.

6

Huddle documentation visible on **Clinical Deterioration Dashboard**. Team enacts plan as discussed. Communicates plans to on-coming shifts. **If patient, continues to flag** – the Nursing and Provider Team BPA’s will reappear every 24 hours to prompt another clinical deterioration huddle.

**Summary**

← RN Homepage AAG PCK Pro Od MR VS L R UC ED ALL PN Risk of Clinical Deterioration Risk of Clinical Deterioration

**20% Risk of Deterioration (RRT, Code, ICU Transfer) in next 6-18 Hours if score =>65** [Mark as Reviewed](#)

Willow, Seven - Score calculated 2 minutes ago

**14**

Range	Value
65 - 100	High
0 - 65	

**Factors Contributing to Score**

Contribution Factor	Value
100% Age	42

**Factors Not Contributing to Score**

**Description**

[View model formula and coefficients](#)

Risk of clinical deterioration (defined by RRTs, codes, or transfer to the ICU) is predicted by a machine learning model developed by Epic systems trained on data from three tertiary medical centers and validated at Stanford Health Care with over 6000 inpatient encounters.

Risk scores are updated every 15 minutes based on laboratory and flowsheet data in the electronic health record.

Patients with risk scores at or above 65 are assigned a risk category of "HIGH," which translates to approximately a 1 in 5 chance of experiencing a RRT, code, or ICU transfer in the next 6 to 18 hours.

**Nursing Documentation (click to document)**

**Communication Reason**

08/20 0931	Risk of Clinical Deterioration
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**Additional communication details**

08/20 0931	Patient is far from nursing station, does not use call light, and is attempting to do more than capable of
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**Huddle Members**

08/20 0931	Maggio, Paul Matthew, MD; Schenone, Brian, RN; Other (comment)
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**Care team response**

08/20 0931	Family Meeting; Continue to monitor-no change; Other (Comments)
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**Provider Documentation (click to document)**

**Possible reason(s) discussed for potential RRT and/or ICU escalation**

08/20 0933	Mental Status Changes
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**Other possible reason(s) discussed for potential RRT and/or ICU escalation**

08/20 0933	Fall and concurrent trauma
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**Deterioration Index Trending (Last 120 hours)**

No recent data available for display

Current Score: 13.8