SUSTAINING IMPROVEMENTS

In the wake of a Sentinel Event, a thorough and credible root cause analysis (RCA) is required under Maine Sentinel Event statute and rules. For each causal factor identified in an RCA, an action plan must be developed, implemented, and evaluated, with the goal of preventing recurrence of similar adverse events. Based on our review of RCAs and action plans, the Sentinel Event Team (SET) has identified the development and evaluation of action plans as an improvement opportunity for facilities.

In 2015, the Minnesota Department of Health worked with Stratis Health to develop the Minnesota Adverse Events Measurement Guide (Guide).

This comprehensive document is a tool to assist teams in developing and measuring the effect of interventions that target causal factors identified in an RCA. Some of the basic tenets in the Guide include:

- Measurement is an essential component to quality improvement work and is used to determine if a change has been sustained and embedded into staff practice as expected and if the change has resulted in improvement in care over time. Measurement allows an organization to compare its performance to external benchmarks, as well as to its own past history.

- An important aspect of data collection is that it does not need to be a complex process or include so much data collection that it undermines the actual performance improvement efforts. With a well-developed measure, a smaller amount of data can be useful in demonstrating whether the implemented changes are successful or not.

For each causal factor identified through a root cause analysis, a corrective action plan (CAP) should be developed to address the systems or processes that contributed to the event. The CAP outlines the actions to be taken to improve the systems, processes, or structural issues that are related to the root cause. A measurement plan for each CAP helps monitors the impact of the actions taken. A measurement plan should evaluate whether the CAP was 1) implemented as intended, and 2) resulted in the intended changes in practice, in the system, or in a process of care.

A measurement plan should not be limited to measuring the completion of the actions only. Simply training staff on a new policy or process is not enough to demonstrate that the CAP is effective.

The Guide outlines the following steps for creating measures:

- Define the problem and identify the desired changes;
- Define what to measure to show success a. Determine type of measures to use (structural, process and outcome);
- Define the numerator and denominator;
- Establish a goal;
- Set a threshold; and
- Select a measure of success

The Guide defines three types of measures, as outlined, below. Ideally, CAP should have a structural or process measure and well as an outcome measure

1) Structural – the CAP calls for the removal or replacement of equipment or a physical change in the environment. (For example, equipment that had malfunctioned is taken out of service.)

2) Process – the CAP calls for a system/process change. (For example, the frequency of surgical sites correctly marked.)

3) Outcome – an indicator of health status or change in health status that can be attributed to the care provided. (For example, the number of unacted upon critical lab results.)
Process measures are usually calculated as a percentage, where the numerator represents the number of times the process occurs, and the denominator is the number of times the process could have occurred. Outcome measures utilize the number of times the event/outcome occurs for the numerator and the number of times the event/outcome could have occurred as the denominator. Defining what is to be measured is essential, for example, are you measuring all medication errors or only medication errors involved a specific medication.

Once a determination is made about the measure(s), it is important to set a goal, which is usually the percentage of time that the desired outcome/process occurs. Goals should be:

- Specific – who, what, when, where, why and how;
- Measurable – concrete criteria for measuring and monitoring success;
- Attainable – a reasonable rate of success;
- Realistic – something staff are both willing and able to work toward; and
- Timeframe – there is an end point for the goal to be attained.

The Guide also describes the additional steps for measurement:

- Data Collection Method (population to be included, sampling size and sample methodology);
- Frequency and Duration of Measurement; and
- Drawing Conclusions.

The Guide concludes with the following quote from Atul Gawande that eloquently summarizes the importance of performance improvement and measuring success: “We always hope for the easy fix: the one simple change that will erase a problem in a stroke. But few things in life work this way. Instead, success requires making a hundred small steps go right - one after the other, no slipups, no goofs, everyone pitching in.” Atul Gawande

In a recent issue of the Harvard Review of Psychiatry, Forte, et al. reported that suicidal risk for patients following psychiatric hospital discharge was 20 times higher than in the general population. * The authors reviewed 48 studies, involving 1.7 million patients, and found that the suicide rate within 12 months of discharge was 2.41/1000 psychiatric discharge or 1 suicide in every 45 discharges. Attempted suicides were highest soon after discharge in all 48 studies: 26% within the first month after discharge, 40% within 3 months of discharge and 73% within one year after discharge. These findings highlight the importance of a thorough assessment of suicidal risk before discharge as well as effective plans for mitigating suicidal risk in post discharge care.

The Joint Commission’s (TJC) sentinel event statistics for the first half of 2019 indicated that suicide-related events were in the top five, with 21 sentinel events in both inpatient suicide and off-site suicide within 72 hours after discharge. In 2018, there were three suicide-related sentinel events reported to SET. To date, in 2019, seven suicides have been reported.

TJC and the Centers for Medicare and Medicaid Services (CMS) are both stepping up efforts to reduce suicide risk. To that end, the National Patient Safety Goals were updated in 2018 and went into effect July 1, 2019 to include: NPSG 15.01.01 Identify patient safety risks – find out which patients are at risk for suicide. These revisions expanded three previous elements of performance into seven, outlining requirements for environmental risk assessment, evidence-based suicidal ideation screening, training of hospital personnel to care for suicidal patients and efforts to counsel and provide follow up care at discharge.

https://www.jointcommission.org/assets/1/6/2019_HAP_NPSGs_final2.pdf

TJC has developed a Resource Guide that will help hospital comply with the NPSG 15.01.01

https://www.jointcommission.org/assets/1/18/Suicide_Prevention_Resources_to_support_NPSG150101_Nov201821.PDF

NEW GERIATRIC SURGICAL GUIDELINES

Americans aged 65 years and older are the fastest-growing segment of our population. More than 40% of all inpatient operations and 33% of outpatient procedures are performed on older adults in the U.S. each year. This population presents numerous complexities, including multiple co-morbidities, polypharmacy and cognitive challenges.

The American College of Surgeons Quality Improvement Program has established the Geriatric Surgery Verification (GSV) Program which outlines 30 different standards of surgical care for older adults. Since older patients potentially have a number of health issues and require more than one provider, medical personnel who participate in this new program would create a team, including nurses, geriatricians, pharmacists, physical therapists and social workers that would monitor the patient from pre-op to discharge.

The GSV program was developed over a four-year period with 50+ stakeholders and two phases of hospital site visits, resulting in the creation of the 30 standards. The standards address matters of institutional investment (securing the administrative support and leadership needed to establish geriatric surgical care as a priority), clinical practice (emphasizing shared decision making, assessment of geriatric-specific vulnerabilities, and interdisciplinary collaboration) and programmatic infrastructure (facilitated by standardized protocols across the clinical continuum that build quality improvement and patient-centered care into the fabric of institutional operations.

The GSV helps identify any geriatric vulnerabilities prior to surgery, including frailty and cognitive issues, such as pre-delirium and dementia. Exercise and nutritional programs are put in place to help ensure patients are stronger after surgery and able to recuperate more quickly. Geriatric friendly rooms are equipped with such things a skid-free floors and clocks with large, easy-to-read numbers.

The standards developed by the American College of Surgeons are intended as qualification criteria for the GSV accreditation, and do not constitute a standard of care or replace the medical judgement of a surgeon in individual circumstances. Enrollment for the GSV program will begin in October. Once a hospital enrolls, there will be site visits to ensure that standards are being met. The public will be able to go to the American College of Surgeon website to see which hospitals are in the GSV Program and are successful. The standards for the GSV accreditation are available at: https://www.facs.org/-/media/files/quality-programs/geriatric/geriatricsv_standards.ashx?la=en

CHALLENGES FOR RURAL HEALTHCARE

Although rural Americans constitute 19% of the population, nearly 38% of community hospitals in the United States are in rural locations (American Hospital Association, Fast Facts on U.S. Hospitals 2018). Median emergency department (ED) visits in rural hospitals is estimated at 8,158 per year, compared to the median ED visits for urban hospitals estimate at 30,928. Staff in rural EDs treat high-risk, low volume events, such as acute myocardial infarction (AMI), stroke, severe trauma, and sepsis less often than staff in urban EDs. Additionally, staff in rural EDs often work alone and may have additional non-ED responsibilities, making treatment of high-risk cases more challenging, especially in surge situations that require reserve capacity. The absence of subspecialty physicians is a further impediment to timely access to definitive care.

In a 2018 Agency for Healthcare Research and Quality (AHRQ) Patient Safety Network Commentary, Chest Pain in a Rural Hospital, MacKinney and Mohr discussed the challenges facing rural hospitals in dealing with patients presenting with chest pain. Patients with AMI or unstable angina discharged from an ED to home may be as high as 2%. Patients with AMI have an estimated 43% higher mortality if treated in the lowest case volume EDs compared to highest volume EDs.

Ways in which rural EDs may better address these low-frequency, high-risk clinical issues, like AMIs, include:

- **Standardizing care** – a standard chest pain protocol can prompt ED staff to perform an electrocardiogram immediately upon arrival for all patients with chest pain, prompt providers to consider repeating the ECG periodically, notify the clinician of elevated troponins and recommend transfer to a center with a cardiac catheterization lab.
- **Enhanced teamwork and coordination of care** – crew resource management (CRM) techniques have been found to be successful in reducing diagnostic errors by engaging diverse perspectives from the entire care team. Research has found that a CRM program applied to ED staff in clinical teams reduced the clinical error rate significantly. An example of a CRM-type program may be found at https://www.ahrq.gov/teamstepps/instructor/videos/ts_vig1a001/vig001.html
- **ED-based consultation**, such as ED-based telehealth
- **Standardized communications between ED and admitting providers** as well as between the admitting provider and nursing staff.
CHALLENGES FOR RURAL HEALTHCARE

- Standardized transfer protocols – the National Academy of Medicine has recommended a coordinated regionalized emergency system as one strategy for improving outcomes from emergency care.

Predicting the clinical course in critically ill patients can be challenging and determining whether a rural hospital has the capacity to care for a patient can be difficult. Patients often want to remain local for hospital care, and physicians may overestimate the value of local care in patient’s perception of care quality. While most ED-based triage tools have been developed to predict patient acuity and resource needs, none have been devoted to rural issues in matching patient needs to facility resources, explicitly.

Maine’s rural hospitals face these challenges every day. The importance of planning for addressing high-risk, low-volume conditions, including AMI, cannot be overly-emphasized, and looking at regionalization for care is important to ensure that patients receive the right care in the right place and at the right time.