



ABSTRACT

NSH has celebrated being CAUTI free since 2013. Catheter Line Days have been higher than the predicted rate. A process improvement project was implemented in 2019 to reduce the Standard Utilization Ratio.

Michelle George, BSN, RN
Quality and Compliance Officer

Leadership/Planning

Nebraska Spine Hospital (NSH) is a high reliable organization with a commitment to patient safety at all levels throughout the organization. The hospital mission is to provide a center of excellence for spine care through a caring and compassionate environment. Our vision is to become a nationally recognized provider and destination of choice for spine care. Quality and Safety is supported through a Joint Venture Leadership structure leading a data driven evidence-based Quality Assessment Performance Improvement program. The Board of Managers (BOM) maintains ultimate responsibility for the Quality and Safety program ensuring the program reflects the complexity of the organization. The administrative leaders and governing bodies holds the responsibility of managing the following factors pertaining to quality of care:

1. Fostering a culture of safety.
2. Planning and provisioning of services to meet the spine patient population needs.
3. Ensuring the availability of resources for the care, treatment and services of the spine patient.
4. Maintaining and ensuring competent medical staff, employees, and persons involved in the provision of contracted services.
5. Ongoing evaluation of performance improvement and patient safety.

Process of Identifying Need

Nebraska Spine Hospital (NSH) has been CAUTI free since 2013. A thorough review of the Foley Catheter line days was completed in 2018. It was identified our hospital line days were higher than the Centers for Disease Control (CDC) predicted rate by reviewing the NHSN Standard Utilization Ratio (SUR). A process review of our hospital Nurse Driven Foley Removal protocol previously approved by the Board of Managers identified it was never implemented. In 2018 the protocol was rolled out to staff but catheter utilization days remained higher than expected. High line rates poses a risk of infection. Quality and Safety implemented a process improvement plan focused on a reduction in foley catheter utilization days.

Year	SUR*	SUR Goal	Comments
2015	2.052	N/A	Benchmark Year
2016	2.165	N/A	
2017	2.067	N/A	
2018	2.080	N/A	Nurse Driven Foley Removal Protocol implemented
2019	1.819	1.86	Reduction in Foley Catheter Line Days Process Improvement project implemented
2020	0.827	<1.0	Data through June 30, 2020. Meeting goal

*Standard Utilization Ratio

Process Improvement Methods

A process improvement project was implemented using the FOCUS-PDSA methodology. The purpose of the project was to reduce foley catheter utilization rate. Our process improvement team included Infection Prevention RN, VP Patient Care Services, Risk Patient Safety RN and Quality and Compliance Officer. Project scope of work included tracking foley device utilization on inpatients in the Centers for Disease Control National Healthcare Safety Network (NHSN).

Staff education was completed and a review of the process improvement project and goal was rolled out from the Unit level to the Board of Managers. The Infection Prevention RN conducted daily rounds to assess the need for foley catheters reminding Staff RN's to utilize the Nurse Driven Foley Removal Protocol. RN's are also encouraged to remove foley's prior to 1100 a.m. each day. Patients with lines in place are discussed at the daily unit interdisciplinary care rounds. Medical Staff are reminded to document in the patient record the reason for leaving the catheter in.

The patient EMR is audited daily for indwelling catheter documentation and to monitor for use of the Nurse Driven Foley Removal Protocol. The Infection Prevention RN continues to conduct daily nursing rounds to address patient specific needs and discussion of Foley catheter removal. Line days are highlighted in the inpatient unit interdisciplinary care rounds. Process Improvement updates are presented at Safety Huddle with the Leadership team, Quality and Patient Safety Department, Patient Care Committee (Quality Committee), Medical Executive Committee, and the Board of Managers.

The NSH Risk and Patient Safety Manager did a review of best practice guidelines in June of 2020. The purpose of the review was to continue our focus on patient safety as indwelling devices put patients at greater risk for a healthcare associated infection. The review supports using a Nurse Driven indwelling urinary catheter removal protocol having proven to reduce the catheter line days by using evidence-based guidelines. Nurses are empowered when given the autonomy to make decisions that can make a positive impact on patient safety and infection prevention.

Results

Nebraska Spine Hospital patients continue to be CAUTI free. The Standard Utilization Ratio has decreased significantly. 2019 SUR was 1.819 catheter days per patient. By June 30, 2020 the SUR was 0.827 meeting the goal to decrease the ration to <1.0.

The Nurse Driven Foley Protocol was reviewed again by the Board of Managers and re-approved in 2019. The goal time for foley line removal was changed from 1100 a.m. to 0600 a.m. to help reduce LOS. Foley lines that were discontinued at 1100 or later led to more calls to the physicians, delays in pulling the line, and voiding issues.

The Spine Surgeons were asking for activity orders to be more aggressive and suggested some changes. They were looking to discharge patients on POD#2 with increased activity beginning on the day of surgery. The NSH Unit Based Council reviewed inpatient spine order sets and made the following recommendations to the Medical Executive Committee:

1. Day of Surgery-within four hours of arriving to the inpatient unit staff will dangle the patient at the bedside with nursing or therapy and/or sit in chair at least once as tolerated.
2. Post Op Day #1-The patient will sit in the chair at least twice. Once at lunch and once at dinner. They will ambulate with Physical Therapy.
3. Post Op Day#2-The patient will sit in the chair for all meals and finish all PT/OT treatments.

Recommended changes listed above will be presented at an upcoming Med Exec meeting for discussion and vote of approval.

In 2008 CMS began holding hospitals accountable for failing to prevent harm to patients. CAUTI was the first condition to not be paid if the infection wasn't present on admission.

A Catheter Associated Infection (CAUTI) is also known as a Healthcare Acquired Condition (HAC). The Estimated cost of one infection is \$13,793 per episode of care. Nebraska Spine Hospital has been CAUTI free since 2013. Being CAUTI free directly impacts patient safety, patient costs, and hospital costs. NSH patients have not incurred any CAUTI related costs for 7 years.

Lessons Learned

Having a clear foley management protocol, RN knowledge and use of the Nurse Driven Foley Removal Protocol, and Board Support of the project have been critical to our success. Nurses are empowered when given the autonomy to make decisions that can make a positive impact on patient safety and infection prevention. Staff are receptive to following the safety and prevention processes to meet the hospital goal. Nebraska Spine Hospital is continuing the patient safety project work by monitoring device utilization days and rates.

2015 Baseline Year

National Healthcare Safety Network

SUR for Catheter Device Use for Acute Care Hospitals (2015 baseline) - By OrgID

As of: July 31, 2020 at 2:10 PM

Date Range: BS2_CAU_RATESICU_SCA summaryYr 2015 to 2015

orgID=24148 medType=' '

orgID	ccn	summaryYr	numucathdays	numPredDDays	SUR	SUR_pval	SUR95CI	SUR_pctl
24148	280133	2015	955	465.511	2.052	0.0000	1.924, 2.185	99

2016

National Healthcare Safety Network

SUR for Catheter Device Use for Acute Care Hospitals (2015 baseline) - By OrgID

As of: July 31, 2020 at 2:11 PM

Date Range: BS2_CAU_RATESICU_SCA summaryYr 2016 to 2016

orgID=24148 medType=' '

orgID	ccn	summaryYr	numucathdays	numPredDDays	SUR	SUR_pval	SUR95CI	SUR_pctl
24148	280133	2016	1166	538.658	2.165	0.0000	2.043, 2.292	100

2017

National Healthcare Safety Network

SUR for Catheter Device Use for Acute Care Hospitals (2015 baseline) - By OrgID

As of: July 31, 2020 at 2:12 PM

Date Range: BS2_CAU_RATESICU_SCA summaryYr 2017 to 2017

orgID=24148 medType=' '

orgID	ccn	summaryYr	numucathdays	numPredDDays	SUR	SUR_pval	SUR95CI	SUR_pctl
24148	280133	2017	958	463.558	2.067	0.0000	1.939, 2.201	99

2018

National Healthcare Safety Network

SUR for Catheter Device Use for Acute Care Hospitals (2015 baseline) - By OrgID

As of: July 31, 2020 at 2:13 PM

Date Range: BS2_CAU_RATESICU_SCA summaryYr 2018 to 2018

orgID=24148 medType=' '

orgID	ccn	summaryYr	numucathdays	numPredDDays	SUR	SUR_pval	SUR95CI	SUR_pctl
24148	280133	2018	902	433.554	2.080	0.0000	1.948, 2.220	99

2019

National Healthcare Safety Network

SUR for Catheter Device Use for Acute Care Hospitals (2015 baseline) - By OrgID

As of: July 31, 2020 at 2:14 PM

Date Range: BS2_CAU_RATESICU_SCA summaryYr 2019 to 2019

orgID=24148 medType=' '

orgID	ccn	summaryYr	numucathdays	numPredDDays	SUR	SUR_pval	SUR95CI	SUR_pctl
24148	280133	2019	832	457.345	1.819	0.0000	1.699, 1.946	97

2020 YTD through June 30, 2020

National Healthcare Safety Network

SUR for Catheter Device Use for Acute Care Hospitals (2015 baseline) - By OrgID

As of: July 31, 2020 at 2:18 PM

Date Range: BS2_CAU_RATESICU_SCA summaryYM 2020M01 to 2020M06

orgID=24148 medType=' '

orgID	ccn	numucathdays	numPredDDays	SUR	SUR_pval	SUR95CI	SUR_pctl
24148	280133	142	171.682	0.827	0.0225	0.699, 0.972	47

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