Competency: Change management and Quality improvement

Sub-Competency: Quality Improvement

Example of an anonymized real sample Quality Improvement Rationale, scored as "significant" (3)	Example of an anonymized real sample Quality Improvement Rationale, scored as "Absent" (0)
The project, "Reducing Surgical Site Infections (SSI) Following Cesarean Section Across a secondary care women's health hospital," demonstrates my advanced competency in Change Management and Quality Improvement through my leadership and active contribution to the design, implementation, evaluation, and sustainability of a large-scale, evidence-based SSI reduction initiative. I identified cesarean section SSI as a high-risk, high-volume patient safety concern due to its association with increased morbidity, prolonged hospitalization, antimicrobial exposure, readmissions, and increased healthcare costs. Through analysis of prospective surveillance data within a women's health hospital belonging to a 10-hospital integrated healthcare system, I identified an increasing SSI trend, with rates rising from 1.5% in 2019 to 2.5% in 2020 despite existing prevention measures. Based on these findings, I escalated the issue through organizational quality and patient safety governance structures, contributing to its prioritization as a strategic quality improvement initiative. To address this problem, I participated in the establishment and coordination of a multidisciplinary quality improvement taskforce chaired by senior medical leadership. I collaborated closely with obstetric surgeons, perioperative nursing leaders, wound care specialists, environmental services, clinical informatics teams, biomedical engineering, dietitians, quality specialists, and frontline clinical staff. My role extended beyond traditional infection prevention surveillance activities and included driving system-level interventions across multiple operational domains.	The importance of Quality Improvement (QI) in infection prevention is widely recognized, as it helps reduce healthcare-associated infections and improves patient safety. QI principles such as continuous improvement, evidence-based practice, and adherence to guidelines are essential components of infection prevention programs in all healthcare settings. I use quality Improvement activities in my daily practice to enhance compliance with infection prevention standards, such as hand hygiene, environmental cleaning, and adherence to infection prevention bundles. These activities contribute to improving overall healthcare quality and reducing the risk of infections in patients. Multidisciplinary teamwork is also an important principle in infection prevention, as collaboration between healthcare workers ensures better implementation of policies and procedures. Education and awareness sessions are regularly conducted to reinforce infection prevention practices among healthcare staff. Surveillance data is used to monitor infection trends and identify areas for improvement. When increases in infection

I facilitated root cause analysis sessions and process mapping exercises to identify factors contributing to SSI occurrence. Through these analyses, I identified several gaps, including inconsistent surgical hand antisepsis practices, variation in skin preparation techniques, inconsistent perioperative normothermia practices, environmental monitoring gaps, inconsistent postoperative wound care education, and variability in compliance with the SSI prevention bundle. Based on these findings, I collaborated with the multidisciplinary team to develop SMART objectives aimed at: 1. Reducing the cesarean section SSI rate to ≤1.0% within 2 years 2. Achieving ≥90% compliance with the SSI prevention bundle 3. Standardizing perioperative prevention practices 4. Enhancing post-discharge surveillance and early SSI detection I played an active role in implementing multiple evidence-based interventions using structured quality improvement methodology and iterative Plan-Do-Study-Act (PDSA) cycles. Interventions included: • enhancement of surgical hand hygiene auditing processes • competency-based retraining for perioperative staff • implementation of standardized surgical skin antisepsis protocols • reinforcement of antimicrobial prophylaxis timing compliance • implementation of perioperative patient warming strategies • daily monitoring and escalation processes for operating room temperature and humidity deviations • enhancement of Environmental Cleaning Auditing and ultraviolet room disinfection practices • standardization of postoperative patient education processes A significant component of my contribution involved leveraging digital health technologies and advanced surveillance systems. I participated in the implementation and optimization of electronic surveillance methodologies	rates are observed, corrective actions are taken to address gaps in practice and reinforce compliance with established protocols using many quality improvement models. Quality Improvement is an ongoing process that requires commitment from all healthcare professionals. It is important to follow guidelines, monitor performance indicators, and ensure continuous education to maintain high standards of patient care and safety. Overall, Quality Improvement principles play a key role in reducing infections and improving patient outcomes across healthcare facilities.

utilizing machine learning-supported algorithms integrated within the enterprise electronic health record system. These tools enabled enhanced identification of potential SSI cases through automated monitoring of microbiology results, antimicrobial prescriptions, readmissions, emergency department visits, and wound-related clinical documentation. This strengthened surveillance sensitivity, improved early case detection, and enhanced data-driven decision-making. Recognizing the importance of patient engagement in infection prevention, I also contributed to the development and implementation of standardized multilingual patient education materials integrated directly into clinical workflows and discharge processes. These materials focused on wound care, hygiene practices, early signs and symptoms of infection, escalation pathways, and follow-up expectations. By embedding these resources into the electronic health record and ensuring accessibility for culturally diverse patient populations, I helped improve consistency of education delivery and strengthen patient participation in postoperative infection prevention. To evaluate the effectiveness of interventions, I conducted prospective surveillance using CDC/NHSN definitions from January 2019 through December 2022. During this period: • 3,799 cesarean procedures were monitored • the SSI rate decreased from 2.5% in 2020 to 1.1 % in 2021 and further to 0.6% in 2022 • compliance with the SSI prevention bundle improved from 70% in 2019 to 95% in 2022 In addition to reducing infection rates, the initiative contributed to reductions in preventable patient harm, postoperative wound-related readmissions, and antimicrobial utilization. The project also improved standardization of perioperative practices and strengthened organizational quality and patient safety outcomes.	

To ensure sustainability, I contributed to integrating interventions into organizational policies, electronic workflows, competency programs, auditing structures, and routine operational monitoring processes. This supported long-term maintenance and scalability of improvements across the healthcare network. The outcomes of this initiative were disseminated internally across the healthcare system and externally through regional scientific meetings, international conference presentations, and peer-reviewed publication in an international infection prevention journal. I also contributed to presenting the project at an international infection prevention conference in Europe, demonstrating external recognition of the initiative's impact and innovation. The attached evidence includes the peer-reviewed publication associated with this initiative.	
Why was this sub-competency scored as "Significant"?	**Why was this sub-competency scored as "absent"?**
This example was scored at the "Significant" level because it demonstrated advanced practice beyond routine infection prevention activities. The following key elements have strengthened the submission: • The applicant identified a **high-risk organizational patient safety issue** using surveillance data and escalated it through formal governance structures. • The applicant clearly described their **personal leadership** role using "I" statements rather than describing only team activities. • The submission included use of formal **quality improvement methodology**, including root cause analysis, SMART objectives, process mapping, PDSA cycles, compliance monitoring, and outcome evaluation. • The project produced **measurable and sustained outcomes**, including significant reduction in SSI rates and improvement in bundle compliance over multiple years. • The applicant demonstrated **multidisciplinary collaboration and change management**, involving multiple departments and operational stakeholders.	This rationale scores poorly because it does not demonstrate actual Quality Improvement competency in practice. Instead, it remains at a general, theoretical level. Key reasons include: • **No real project described**: There is no defined QI initiative, no problem statement, no baseline data, and no structured intervention. • **No personal contribution:** The applicant does not explain what they personally led, changed, or implemented so ownership and leadership are unclear. • **Generic statements only**: The content describes QI as a concept (e.g., importance of QI, teamwork, surveillance) rather than showing how it was applied in a specific situation. • **No measurable outcomes**: There are no infection rates, improvement percentages, compliance data, or evidence of impact on patient outcomes.

• The initiative extended beyond routine surveillance and education activities by including workflow redesign, policy integration, electronic health record optimization, advanced surveillance technologies, as well as machine learning-supported monitoring. • **Sustainability** was demonstrated through integration into organizational policies, workflows, competency programs, and auditing structures. • The work was disseminated externally through international presentations and peer-reviewed publication, demonstrating broader professional impact beyond the organization.	• **No evidence of impact or change:** Nothing demonstrates that practice improved or that patient safety outcomes changed. • **No systems thinking or leadership:** The narrative does not show coordination, influence, or organizational change. In simple terms This submission is weak because it describes Quality Improvement instead of demonstrating it in action.