Table B.69: Cross-Cutting Patient Safety Topics/Practices, Safety Culture—Single Studies

Note: Full references are available in the [Section 17.2 reference list](#Section17point2refs).

| Author, Year | Description of Patient Safety Practice | Study Design; Sample Size; Patient Population | Setting | Outcomes: Benefits | Outcomes: Harms | Implementation Themes/Findings | Risk of Bias (High, Moderate, Low) | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sexton et al., 201818** | Leadership WalkRounds with feedback: Conducting Leadership WalkRounds and providing feedback about the risks that were reduced as a result of conducting them. | Cross-sectional survey administered to a convenience sample of 31 hospitals through the Michigan Health and Hospital Association (MHA) Keystone Center; 28,853 surveys were sent out and 16,797 were returned (response rate=70.4%); 53.9% of respondents reported at least 10 years in their specialty, and nurse was the most frequently selected role (27.1%). | Thirty-one Michigan hospitals were invited to participate. Seventeen (55%) had 99 or fewer beds, five (16%) had between 100 and 199 beds, six (19%) had 200 to 299 beds, and two (6%) had more than 400 beds. | Significant differences were found between the first and fourth WalkRounds, with feedback quartiles on all safety culture SCORE subscales measured: teamwork climate, safety climate, improvement readiness, local leadership, personal burnout, and burnout climate. Respondents who reported higher levels of WalkRounds with feedback also had higher scores on the safety culture subscales (including more positive safety climate, lower personal burnout, and lower burnout climate), two out of the three resilience subscales, and four out of the five engagement subscales. | Not provided | The authors note that one of the most cited methods for reducing burnout is Krasner’s physician mindfulness training. This training usually spans 27 hours over an 8-week period and has demonstrated an effect size of 0.62 (based on Cohen’s *d*) for burnout reduction. The current study calculated an effect size of 0.43 between the first and fourth quartiles of WalkRounds with feedback, suggesting the usefulness of this relatively brief intervention on burnout reduction. | High | None |
| **Sexton et al., 201417** | Leadership WalkRounds | Cross-sectional survey administered to a convenience sample of 44 NICUs; 3,294 surveys were sent out and 2,073 were completed (response rate=62.9%); 706 units (adult clinical areas) in 49 hospitals were used as a comparison group. | Forty-four NICUs in California: 10 were from regional hospitals, 28 were from community hospitals, and 6 were from intermediate hospitals. | The first and fourth WalkRounds feedback quartiles differed significantly on the two SAQ dimensions measured (“safety climate” and “teamwork climate”) and on two of the four HSOPS dimensions measured (“overall perceptions of safety” and “feedback and communication”). The first WalkRounds feedback quartile reported less burnout than the fourth quartile, but was not statistically significant. | Not provided | Participation in Leadership WalkRounds and WalkRounds feedback was lower in NICUs compared with adult clinical areas. There were no significant differences in safety climate between the NICU and adult clinical areas.  The authors note that it may be more difficult for some staff to participate in Leadership WalkRounds (e.g., nightshift, non-nursing providers). | High | None |
| **Schwendimann et al., 201316** | Leadership WalkRounds | Retrospective, cross-sectional survey; 19,053 surveys were received for a response rate of 80.2%. (The total number of surveys sent out was not specified.) | Forty-nine hospitals within a nonprofit healthcare system. A total of 706 clinical and nonclinical units participated. | A significantly higher safety climate was found in the units where there was greater exposure to WalkRounds. The units where 60% or more of respondents indicated that they had at least one WalkRound exposure also reported significantly higher patient safety risk reduction and higher feedback about WalkRound actions that had been taken. | Not provided | Anecdotal evidence suggested that the WalkRounds provided the forum for team members to speak up about errors and safety risks, as well as adopt new practices and share lessons learned. | High to moderate | None |
| **Frankel et al., 200815** | Leadership WalkRounds. Senior leaders, quality and safety personnel, and clinical managers/ directors attended a half-day WalkRounds training session. Coaching sessions were conducted via the telephone every 2 months for 2 years. | Pre-post design. The SAQ safety climate subscale (7 items) was administered prior to the WalkRounds project (n=790) and approximately 18 months later (n=702). | Two hospitals in Massachusetts implemented weekly WalkRounds, including an academic teaching institution and a community teaching hospital. | The baseline SAQ data indicated that 10 out of 21 clinical care areas had safety climate scores below 60%, whereas only 3 clinical areas had scores below 60% post-WalkRounds. The academic teaching institution’s safety climate score significantly improved, from 62% on the pre-SAQ to 77% on the post-SAQ. The safety climate score for the community hospital significantly improved following the WalkRounds project, from 46% to 56%. Safety climate scores increased from pre to post for all caregiver types except nurse managers/charge nurses, whose scores decreased over time. Paired sample t-tests showed significant improvement on items related to: discussing and learning from errors, feeling encouraged by colleagues to report concerns, and knowing how to report concerns. | Not provided | The types of problems discussed during Leadership WalkRounds varied by caregiver type, with nurses focusing on operational problems and physicians focusing on issues related to clinical decision making. Some issues could be resolved locally, some required collaboration across departments, and some required significant resources/budget allocations. Many of the concerns that were shared during the Leadership WalkRounds were addressed and resolved. The authors note that WalkRounds is an inexpensive intervention relative to other quality improvement efforts, but it does require a strong commitment from leadership, a project champion trained in quality or safety, and time and resources to manage the data and feedback gathered. | High to moderate | None |
| **Hefner et al., 201721** | Crew Resource Management, including facilitated training, day-long retreats to develop/tailor CRM safety tools, and role-playing. | One-group pre-post design; 784 staff completed the pre-HSOPS survey; 667 staff completed the post-HSOPS survey. | The Ohio State University Wexner Medical Center. Eight departments from the main and satellite hospital, the comprehensive cancer hospital, and the heart hospital participated. | Overall, significant improvements were observed on 10 of the 12 HSOPS dimensions. The two dimensions for which no significant improvement was observed were “supervisor promotes patient safety” and “staffing.” Staff consistently responded less positively on the pre- and post-assessments than did practitioners. While most departments saw pre to post improvements on a minimum of seven dimensions, the radiation oncology department scores significantly improved on only two dimensions from pre to post and the interventional radiology department’s scores significantly improved on five dimensions after training. | Not provided | To examine the decreasing scores for radiation oncology, the open-ended comments provided by survey respondents were reviewed. They suggested that this most likely was a result of staff changes and turnover that occurred in that department during the study period, as the comments were related to understaffing, workflow problems, communication failures, and lack of buy-in. The authors proposed that strong, stable leadership and human resources may mediate the relationship between CRM and patient safety culture. The authors also noted that the project was a significant undertaking and required staff allocation and buy-in at all levels. | High | The article did not provide details regarding the length of the CRM training (e.g., 1 day, 4 hours). |
| **Schwartz et al., 201824** | Clinical Team Training (based on Crew Resource Management Training) and implementing a patient safety project. | Cross-sectional study design. Thirty-three VA facilities participated in the initial training, and 17 facilities participated in the 12-month recurrent training. Participants represented a variety of clinical areas. | VA medical facilities in the United States. | Scores on all 27 TSCQ items improved over time. Significant improvement was found on 8 of 27 items at the 6-month assessment (5 items related to teamwork, 3 items related to safety climate), and significant improvements were found on 11 of the 27 items at the 12-month follow-up (6 items related to teamwork, 4 items related to safety climate, and 1 item related to perceptions of management). | Not provided | The most pronounced improvements identified through the TSCQ data were: (1) briefings at the start of a shift/case had become a standard method of communication in many clinical areas, (2) respondents believed that the organization was doing more for patient safety than it had a year ago, (3) respondents were more likely to know the first and last names of those with whom they had worked on their last shift, (4) personnel felt encouraged to report any safety concerns, (5) respondents were aware of the proper channels in which to direct their patient safety questions, (6) nurses’ input was well received, and (7) physicians and nurses worked as a coordinated team. | High | The article did not provide details regarding the length of the training (e.g., 1 day, 4 hours). No specific information was presented on the facilities (e.g., number of beds). |
| **Budin et al., 201420** | Four-hour Crew Resource Management Training with a 2-hour refresher class 1 year following implementation. Training was led by five nurse-physician teams who were trained in CRM first and then trained others. | One-group pre-post design with external benchmarking comparisons. Seventy nurses and 88 physicians completed the Teamwork and Safety Climate subscales of the SAQ prior to the initial training. Fifty-eight nurses and 46 physicians completed the same subscales after they had completed a refresher course conducted 1 year following implementation. | Perinatal units at a large urban academic medical center in the northeastern United States. The center has three triage beds, 10 L&D rooms, three ORs, a three-bed post-anesthesia care unit, and four antepartum beds. | Prior to the intervention, physicians’ perceptions on the Teamwork Climate subscale were significantly more positive than nurses’. Both nurses’ and physicians’ perceptions of teamwork climate significantly improved at the 1-year follow-up, although physicians remained more positive than nurses. No differences were found between nurses and physicians on the safety climate subscale prior to the CRM intervention, but significant improvements in safety climate were reported for both groups on the follow-up assessment. Post-intervention data were also compared with available benchmark data. Post-intervention means on the Teamwork subscale and the Safety Climate subscale were significantly more positive than the mean for two benchmark groups: nurses and physicians working in various inpatient settings and as U.S. intensive care unit caregivers. | Not provided | The authors stressed the positive results achieved by this low-tech intervention. However, other changes were also implemented, such as creation of a medical safety officer role. Four officers rotated to provide constant coverage. Team meetings were held with all disciplines twice a day to improve communication and outcomes. Huddles were conducted with the primary team, safety officer, charge nurse, and/or leadership throughout the day if there were patient concerns. Four large flat screens were purchased to support huddles, handoffs, situational awareness, and cross-monitoring. | High | None |
| **Jones et al., 201325** | TeamSTEPPS® Team Training program developed by AHRQ. | Quasi-experimental design: Static group (n=1,328) and pre-post comparison for intervention group (n=2,137). Safety culture was measured using the Hospital Survey on Patient Safety Culture (HSOPS). | Thirty-seven critical access hospitals in the central United States with fewer than 25 beds): 24 hospitals participated in the intervention, and 13 served as a static comparison group. Participants represented a variety of work areas, with the majority reporting that they had direct patient contact (control= 77.2%, intervention= 80.1%, p=0.009). | The intervention group had significantly more positive scores on three HSOPS dimensions: Organizational learning/continuous improvement, teamwork within departments, and teamwork across hospital departments. Early adopters of TeamSTEPPS® had significantly higher scores on three HSOPS dimensions when compared with early/late majority and laggard hospitals (frequency of events reported, staffing, and hospital management support for patient safety). No statistically significant differences were found between the intervention and static groups in terms of the adoption of team behaviors (transfer). The proportion of respondents who reported transfer were 26% for early adopters, 18% for early/late majority, and 7% for laggard hospitals. | Not provided | Participating in the TeamSTEPPS® training had a minimal impact on perceptions of safety culture, learning the TeamSTEPPS® tools had a moderate impact, and transfer of team behaviors had the greatest impact. Although laggard hospitals may have been most in need of team training, they were slower to adopt the TeamSTEPPS® training due lack of management support. | Moderate | None |
| **Berkowitz et al., 201227** | Team Improvement for Patient and Safety (TIPS) conferences. These conferences were 30 minutes long and used to discuss potentially avoidable acute care hospital transfers or adverse events that may have ended in an acute care hospital transfer. The TIPS conferences were held every 2 weeks over the course of the 1-year study period. | Pre-post design. Ten participants completed the baseline Nursing Home Survey on Patient Safety Culture, 41 completed the 6-month post-assessment, and 40 completed the 12-month post-assessment of this measure. | Subacute rehabilitation unit with 50 beds that admits approximately 1,000 patients per year. This unit resides within a 600-unit long-term care, religious-affiliated, not-for-profit organization located in Boston, Massachusetts. | Mean scores on the Nursing Home Survey on Patient Safety Culture significantly improved over time. When looking at overall survey results, the percentage of respondents that agreed or strongly agreed with all survey items increased by almost 20 percentage points. | Not provided | The unit was able to conduct 22 of the 26 intended TIP meetings (84.6%) during the course of the study. The TIP conferences functioned as a structured debrief. Individuals submitted problematic cases for discussion. Effort was made to discuss each submitted case within 1–2 weeks of its occurrence. Actionable steps were recorded and “tips from TIPS” emails were sent to all staff. The times for the TIP conferences were varied to allow staff from all shifts to participate.  The small sample size for the baseline administration of safety culture survey was explained as fear of submitting data. The increase in sample size on the post-intervention measures is attributed to the changes in culture that were occurring. | High | None |
| **Carney et al., 201123** | VA Medical Team Training Program. | One-group pre-post design; 3,419 OR staff from high- and medium-complexity facilities completed the “Safety Climate” subscale of the Safety Attitudes Questionnaire (SAQ) prior to the training; 1,454 OR staff from high- and medium-complexity facilities completed the “Safety Climate” subscale of the SAQ after training. | One hundred and one Veterans Health Administration hospitals. | Significant pre-post differences were reported for respondents working at both high and medium complexity facilities on all seven items on the SAQ safety climate dimension. | Not provided | The Medical Team Training Program involved 2 months of preparation and planning, development of an action plan to identify problem areas, an agreement to use perioperative briefings and debriefings, and a 1-year implementation commitment. Monthly meetings were also held so that the interdisciplinary team could receive coaching on project implementation. | High | No information about the length of the training program (e.g., 1 day, 4 hours). |
| **Blegen et al., 201026** | Four-hour interdisciplinary team training with follow-on unit-based support team; 454 healthcare staff received the training. | One-group pre-post design (surveys were anonymous and not matched); 434 trainees completed the HSOPSC pre-intervention survey and 368 completed the HSOPSC post-intervention survey 1 year following the training. | Inpatient medical units of three hospitals in California: academic university medical center, non-teaching community hospital, and an integrated healthcare system hospital. | No pre-post improvement was observed for one of the participating hospitals. The remaining two hospitals reported significant improvements on 10 of the 12 HSOPC dimensions. | Not provided | The program had a positive impact on safety culture in two of the participating hospitals. The differential impact of the team training program and the unit-based support team was not examined. It is unclear whether one may have had a stronger effect than the other, although the authors felt that both were necessary to achieving the overall results. | High | This was a pilot test, but reads like a true empirical study. |
| **Gore et al., 201022** | An 8-hour seminar based on Crew Resource Management was delivered to all OR personnel. Perioperative briefings were implemented following the seminar to improve communication and teamwork. | One-group pre-post design; 207 pre-intervention surveys were returned (34.5% response rate) and 156 post-intervention surveys were returned (27.6% response rate). The survey contained three subscales related to teamwork, safety climate, and reporting of errors. | OR department within one hospital. | Significant improvements were reported for 2 of 13 items related to error reporting and 2 of 11 items related to safety climate. There were no significant improvements reported related to teamwork. A look at the data by respondent demographics revealed that nurses were most impacted by the training. The scores of nurses significantly improved on 3 of the 4 items related to teamwork, 1 of the 13 items related to error reporting, and 3 of the 11 items related to safety climate. | Not provided | The post-intervention surveys were sent only 8 months following the initial training seminar (and 6 months after the implementation of perioperative briefings), which may not have been a sufficient amount of time to observe pre-post change. | High | The specific name of the survey administered was not included, only that it was made available by AHRQ. The CRM seminar was taught by aviation pilots who presented information, facilitated roleplays, and facilitated OR personnel in conducting perioperative briefing. Perhaps this initiative would have had a greater impact if it had been tailored more to the participants and their environment. |
| **Lin et al., 201833** | Statewide Comprehensive Unit-based Safety Program (CUSP) and individualized bundles. Hospitals were encouraged to implement as many interventions as they liked, but were required to select a minimum of three. | Pre-post cohort design. Pre-post design. | Fifteen hospitals in the State of Hawaii ranging from a 25-bed critical access hospital to a 533-bed academic medical center. | Significant pre-to-post improvement was reported for 10 of the 12 HSOPS subscales, with the most notable improvement on: “organizational learning/continuous improvement” (59% vs. 70%), “frequency of events reported” (51% vs. 60%), “feedback and communication about error” (52% vs. 59%), “teamwork within units” (58% vs. 75%), “supervisor/managers expectations and action promoting safety” (53% vs. 60%). No statistically significant improvement was found on the “staffing” or “handoffs and transitions” subscales.  Over the course of the study period, the rate of SSI decreased significantly (from 12.08% to 4.63%). The superficial SSI rate decreased significantly, from 8.08% to 2.78%, with little change in deep SSI rate (1.70% to 0%), nor organ/space SSI rate (2.56% to 1.85%).  Correlations between safety culture subscales and SSI rates were negligible or weak. | Over the course of the study period, the rate of SSI decreased significantly (from 12.08% to 4.63%). The superficial SSI rate decreased significantly from 8.08% to 2.78% with little change in the deep SSI rate (1.70% to 0%), nor organ/space SSI rate (2.56% to 1.85%). Correlations between safety culture subscales and SSI rates were negligible or weak. | The authors noted that they felt that the learning platform used in this project was very beneficial, as it allowed communication and networking among participants and created a sense of community. They further highlighted the importance of operating room debriefs. While participating hospitals were urged to incorporate briefings as part of their bundled interventions, analyses regarding the use of debriefs were not reported. | Moderate | There are no details as to how many respondents completed the pre-and post-measures of safety culture. |
| **Hsu and Marsteller, 201629** | Comprehensive Unit-based Safety Program (CUSP) and five evidence-based practices for reducing CLASBI rates. | Fifty-four ICUs used CUSP and 17 ICUs not using CUSP served as a comparison group. | All hospitals in Michigan that have an adult ICU were invited to participate. The majority of the ICUs that participated in the study were from teaching hospitals. | No statistically significant improvement was found for the non-CUSP group from the pre-to-post SAQ administration (n=19 at baseline and n=14 at time 2). For the CUSP group, pre-SAQ data were available for 47 ICUs and 38 completed post-SAQ. The ICUs in the CUSP group statistically improved their post-SAQ scores on four of the six subscales measured. No statistically significant change was found for either “stress recognition” or “perceptions of management” over the study period. | There were no statistically significant differences found in CLASBI rates between the CUSP and non-CUSP groups. | Not provided | High to moderate | None |
| **Saladino et al., 201319** | Comprehensive Unit-based Safety Program (CUSP), which included: educate staff on the “science of safety,” identify safety concerns, implement executive WalkRounds, implement improvements, and document/share results. | Single-group repeated measures design. The sample included 81 unit-based staff members (51% were nurses). | Twenty-two-bed surgical critical care unit within a 369-bed Magnet-designated community hospital. | The 36-item critical care version of the Safety Attitudes Questionnaire (SAQ) was administered to evaluate changes in safety culture. Sixty participants (74%) completed the pre-SAQ and 55 (69%) completed the post-SAQ. No statistically significant pre-to-post changes were reported for any of the SAQ subscales. Safety concerns were gathered during monthly WalkRounds that occurred over a 6-month period. A total of 77 safety issues were identified over this period, with 44 being resolved (57.1%). | Not provided | Some scores on the SAQ actually declined over the study period. The authors believe this may have occurred because they posted the safety issues identified during the monthly WalkRounds, and this heightened awareness of how frequently safety issues were arising and may have made the staff feel that there was a lack of safety within the unit. The authors note that the 6-month study period was likely too short to result in significant changes and that the literature suggests there should be approximately 12 to 18 months between pre-and post-safety culture assessments. | Moderate | None |
| **Simpson et al., 201130** | Comprehensive Unit-based Safety Program (CUSP). | Pre-post design. | Fifteen Michigan hospitals with perinatal service. | This study reported improvements on several dimensions of the Safety Attitudes Questionnaire. They also reported significant improvement on all six process measures collected. There were no significant differences in the outcomes measured, although the data were trending in the right direction. | Not provided | The implementation of CUSP included: assessing and promoting a culture of safety, interdisciplinary team building, case review, coaching, administrative support of the safety infrastructure, and ongoing evaluation of care processes and outcomes. | Moderate | None |
| **Vigorito et al., 201131** | Comprehensive Unit-based Safety Program (CUSP). Based on results from the Safety Attitudes Questionnaire (SAQ), units were encouraged to develop an action plan for how they would improve their scores. | Pre-post design; 841 of 1,024 participants completed the pre-intervention SAQ (82%) and 918 of 1,080 completed the post-intervention SAQ (85%). Pre-to-post change was examined for units that had submitted a SAQ action plan and those that had not. CLASBI and VAP infection data were also collected as outcome measures. | Twenty-three ICUs from 11 hospitals enrolled in the Rhode Island ICU Collaborative. | Nine units completed and submitted action plans following the pre-intervention SAQ. Units that had a SAQ action plan demonstrated greater improvement on five of the six SAQ subscales than the units that did not have a SAQ action plan (although not statistically significant). Perceptions of “teamwork climate” and “stress recognition” decreased from pre to post for units without an action plan (-6.4% and -6.6%, respectively), whereas they improved for units that had a SAQ action plan (18.4% and 4.5%, respectively). Pronounced improvement in “job satisfaction” was observed for the units with an action plan (25.9%) versus those without an action plan (7.3%). Decreases in perceptions of “working conditions” were found for both groups. | CLASBI rates decreased by 10.2% for units that had a SAQ action plan over the course of the study period as compared with a 2.2% decrease for the units without an action plan. VAP rates decreased by 15.2% for units with a SAQ action plan and increased by 4.8% for those without an action plan. Differences in CLASBI and VAP rates for the two groups were not statistically significant. | The only SAQ subscale for which no improvement was seen was “working conditions.” The authors noted a high turnover rate for nurse clinical manager and ICU directors (61% during the study period) which likely accounted for lower scores in this area. This quality improvement effort has continued and the authors report that the ICUs continue to make improvements in their SAQ scores every year. | Moderate | Participation was voluntary and anonymous. |
| **Paine et al., 201032** | Comprehensive Unit-based Safety Program (CUSP) was introduced to over 30 units. | Pre-post design; 144 units completed all seven subscales of the SAQ in 2006 (pre-assessment) as well as in 2007 and 2008. | Academic teaching hospital (i.e., Johns Hopkins Hospital) in Baltimore, Maryland. | Scores on the SAQ improved over time, with statistically significant improvements observed on all of the SAQ except “stress recognition” from 2006 to 2008. Scores on “stress recognition” remained at 45.36% and 45.84% across the years. Scores increased from 61.01% to 69.37% on the “safety climate” subscale and from 64.74% to 70.64% on the “teamwork climate” subscale. | Not provided | Units were given a goal to either maintain their “safety climate” and “teamwork climate” scores on the pre-SAQ (if it was 60% or higher) or to improve their score on the subscales by 10 points. | High | The article says that units initially volunteered to implement CUSP, and later units were encouraged to adopt CUSP if their safety culture scores were low. The authors further noted that the units varied in the degree that they fully implemented CUSP.  Data are presented for 144 units, but the units that actually implemented CUSP are not identified. During the study period, approximately a dozen other quality improvement interventions were happening across the hospital. Not able to establish the amount of time between pre-SAQ, intervention, and post-SAQ. |
| **Edwards et al., 200834** | Multiple interventions, including: safety rounds, self-reporting system enhancements, and the SBAR (Situation, Background, Assessment, and Recommen-dation) communication strategy. | Pre-post design. Clinical staff, including nurses, respiratory therapists, and other staff, were participants. Physicians did not participate.  Participants were surveyed (using the 9 subscales from the HSOPS and 2 overall patient safety outcomes) prior to the interventions and again approximately 1 year later. Pre-intervention data were available for 394 staff and post-intervention data were available for 428 staff. | Two inpatient facilities of Children’s Healthcare of Atlanta: one academic hospital (235 beds) and one community-based hospital (195 beds). | Statistically significant improvements were found on the following HSOPS subscales: “Non-punitive response to error” (3.09 vs. 3.24), “frequency of event reporting” (3.47 vs. 3.62), “feedback and communication regarding error” (3.42 vs. 3.59), “organizational learning” (3.77 vs. 3.88), “supervisor/manager expectations and actions” (3.60 vs. 3.85), and “teamwork within units” (3.98 vs. 4.14). Scores declined on one HSOPS subscale (“teamwork across units”) and significantly declined on the other (“hospital handoffs and transitions”) over time, although followup analyses indicated that results were pulled down by stagnant or declining scores from respondents from the academic hospital. | Not provided | The changes observed in HSOPS scores seem to align with the safety initiatives that were chosen. Together, these initiatives relayed the importance of (and commitment to) patient safety.  Staff discussions revealed that the decline in “handoffs and transitions” may have been related to workflow changes related to the self-reporting system enhancements (e.g., workarounds that didn’t work anymore), which made communication at shift changes and transfers more difficult. This also affected some of the teamwork between units at the academic hospital that participated in the study. | High | None |