



**RESIDENT AND FELLOW
QUALITY IMPROVEMENT & PATIENT SAFETY
PROJECT HANDBOOK**

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QUALITY IMPROVEMENT PROGRAM BACKGROUND

Quality improvement (QI) can be defined as the systematic approach of measuring and identifying gaps between actual and desired quality of care and applying tools and improvement methods to make changes to the system that result in measurable improvements (i.e. closing the gap). Quality improvement can occur at any level of the health care system and it is important to have physician involvement at each level. Furthermore, learning these methods and how to use the Model for Improvement early in your training will provide you with the necessary tools to be able to continuously improve care for your patients throughout the rest of your career.

The Clinical Learning Environment Review (CLER) Pathways to Excellence (Appendix A) outline the Institutional expectations for an optimal clinical learning environment to achieve safe and high quality patient care. These pathways outline an expectation for resident/fellow education on quality improvement and healthcare disparities, as well as resident/fellow engagement in quality improvement projects and clinical site initiatives to reduce healthcare disparities.

OSUMC Clinical Site Quality Priorities

- Reduce catheter-associated urinary tract infections (CAUTI)
- Reduce central-line associated blood-stream infections (CLABSI)
- Reduce MDROs, specifically focused on MRSA and Cdiff
- Reducing falls with injury
- Proper utilization and documentation of restraints
- Med Safety:
 - Hypoglycemia management
 - Reduce Narcan use with opioid administration
 - Anticoagulant therapy (therapeutic)
- Pressure Injury Prevention
- Antibiotic Stewardship
- Patient Experience
 - Nurse Communication
 - Physician Communication
 - Communication about Medications
 - Environment Clean and Quiet
- Throughput

OSU-CHS QUALITY IMPROVEMENT (QI) PROJECTS: STEP-BY-STEP GUIDE

1. SELECT A PROJECT AND CONTACT A QI FACULTY ADVISOR

Most residency programs have selected to use the site-wide format at OSU Medical Center. This format allows for the committee and service line chairs to serve as the faculty advisor for quality improvement projects that are carried out as a group effort with monthly update reports to be given by residents/fellows assigned to that committee or service line. If you are unsure of your committee assignment, contact your program coordinator. If you would like to select a project on your own, please connect with a faculty advisor in that department and notify the CLER Symposium Committee, qualitysymposium@okstate.edu of your project plans.

If you are completing an outpatient project or a project at a different site, the steps are still very similar, with goal for presentation at the Annual Resident Quality Improvement and Patient Safety Symposium held each spring.

2. REVIEW INSTITUTE FOR HEALTHCARE IMPROVEMENT (IHI) MODULES

IHI Modules

IHI offers "Open School for Health Professions," which includes free online courses, modules, and other excellent resources about quality improvement and patient safety. To get started, create a free account and log-in at: <https://www.ihl.org/layouts/15/ihl/login/login.aspx>

3. COMPLETE IRB DETERMINATION FORM

IRB Application

Most QI projects are exempt from IRB approval, but it may be necessary to complete the IRB process. Once the application is submitted, it takes less than 10 business days for approval. Your QI faculty advisor can provide you with examples of IRB applications, if needed. The contact person to submit IRB is amber.hood@okstate.edu (918) 561-1413.

Human Ethics Training

If your project is determined to be exempt, you do NOT need to complete human ethics training. However, if your QI project is not exempt and you have to complete a full IRB application you **MUST** complete the Human Ethics training. The training is conducted online and contains modules on topics including ethical principles, IRB regulations, informed consent, and vulnerable populations. Each module has a short quiz at the end to assess understanding.

4. CREATE AN AIM STATEMENT

See Appendix B (pages 8 and 9) for advice on creating an effective AIM statement from the Institute for Healthcare Improvement.

5. COMPLETE A PROJECT TIMELINE

Sample project timelines are included in Appendix C (page 10). The timeline should include pertinent steps and assigned duties, and should be coordinated with and approved by the faculty advisor for the project. This will include items such as deadlines for data review and collection (literature review, analysis of the data with the who/what/when/where/how), project implementation, PDSA cycles, and poster preparation.

6. PROJECT OVERVIEW

Discuss ways to determine the extent of the problem you are trying to address with your QI faculty advisor. Develop a better understanding of the problem and summarize the information you learn by completing the following:

- Perform a literature review related to your project. Note: Lou Ann Thompson, MLIS, AHIP (louann.thompson@okstate.edu), is at the OSU-CHS Medical Library. She is available to help assist with performing literature search.
- Create a general overview (ABSTRACT) of the project by outlining the following:
 - TITLE: Describe the initiative to improve health care by improving patient safety, effectiveness, patient centeredness, timeliness, or cost.
 - AUTHORS: Provide name of team members and faculty advisor.
 - AIM STATEMENT:
 - State the specific goal of the project (What are you trying to accomplish?) – See Appendix B <http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementHowtoImprove.aspx>
 - INTRODUCTION/BACKGROUND:
 - State the problem the QI project is addressing.
 - Summarize available current knowledge – describe the extent of the problem and why it is important.
 - State the rationale for the goal/aim.
 - METHODS:
 - Design and execute plan-do-study-act (PDSA) cycle(s): <http://www.ihl.org/resources/Pages/Changes/default.aspx>
 - PDSA worksheet and examples: https://moc.connecticutchildrens.org/media/1005/pdsa_worksheet-guide.pdf
 - Identify the quality improvement tools you will utilize <http://www.ihl.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx>
 - Develop measurement plan (summarize details of the data collection and analysis plan, using the IHI tools for improvement).
 - Describe the outcome measures you will be tracking for your project.
 - CONCLUSION:
 - Describe your plan for sustainability of project or end point of project.
 - State your plan for publication and/or presentation.

7. SCHEDULE REGULAR MEETINGS WITH YOUR QI FACULTY ADVISOR TO CHECK IN

It will be necessary to periodically (e.g. every 2-4 weeks) check-in with your advisor. Use these times to review your progress, ask for guidance, confirm PDSAs and data collection methods, review data, and make plans for scholarly activities related to your project (ex: institutional, local, state, and/or national conferences).

8. CONDUCT YOUR QI PROJECT

- Use the tools you have learned and apply the PDSA approach to test change.
- Pick a small enough change that you can complete at least two PDSA cycles in a short period of time (preferable within a few weeks).
- Use at least two of the seven key tools of quality improvement and write up at least two PDSAs.
- Work closely with your QI Faculty Advisor and team when using the tools and planning your PDSAs
- Consult with your QI Faculty Advisor if you have questions or concerns.

9. COMPLETE FINAL REPORT AND CLOSEOUT MEETING WITH QI FACULTY ADVISOR

Once you have finished your QI project, you will complete your final report in preparation for the Annual Quality and Patient Safety Symposium. The report should be completed and emailed to your QI faculty advisor, the ACGME Quality Representative, and your program coordinator.

After completing all of the above, you should contact your QI faculty advisor to arrange a closeout meeting. In this meeting, you will review your work throughout this experiential learning process and the results of your pre-and post-assessment surveys. You should reflect on your experience beforehand so that you are prepared to ask questions and give feedback on the process (see Appendix E for the template agenda).

10. PRESENT YOUR QI PROJECT

All residents and fellows are expected to present their projects at the Annual Quality Improvement and Patient Safety Symposium held each spring. It is also encouraged to present additionally at local, state, and national conferences.

Appendix A: CLER Pathways to Excellence

The optimal clinical learning environment provides experiential and interprofessional training in all phases of quality improvement aligned with the quality goals of the clinical site. In this way, it ensures that the residents and fellows engage of the entire cycle of quality improvement-from planning through implementation and reassessment.

Health Care Quality (HQ):

HQ Pathway 1: Education on quality improvement

The Clinical learning environment:

- a. Ensures that residents, fellows, and faculty members are familiar with the clinical site's priorities and goals for quality improvement.
- b. Provides the clinical care team, including residents, fellows, and faculty members with ongoing education and training on quality improvement that involves experiential learning and interprofessional teams.
- c. Engages residents, fellows, and faculty members in quality improvement educational activities where the clinical site's systems-based challenges are demonstrated.
- d. Ensures that the clinical site's quality improvement education program is developed collaboratively by quality officers, residents, fellows, faculty members, nurses and other members of the clinical care team to reflect the clinical site's quality program's priorities and goals.
- e. Ensures the integration of quality improvement processes and lessons learned into the daily workflow of clinical care.

HQ Pathway 2: Resident/fellow engagement in quality improvement activities

The Clinical learning environment:

- a. Provides opportunities for residents and fellows to actively engage in interprofessional quality improvement.
- b. Ensures that residents and fellows actively engage in interprofessional quality improvement that is aligned and integrated with the clinical site's priorities for sustained improvements in patient care.
- c. Maintains a central repository for all quality improvement projects, including resident-and fellow-led projects, to monitor progress and assess the quality of the projects.
- d. Shares quality improvement outcomes with all members of the clinical care team, including residents and fellows, across the organization.

HQ Pathway 3: Data on quality metrics

The Clinical learning environment:

- a. Provides the clinical care team, including residents and fellows, with clinical site-level quality metrics and benchmarks.
- b. Provides the clinical care team, including residents, fellows, with aggregated data on quality metrics and benchmarks related to their patient populations.
- c. Provides the clinical care team, including residents and fellows, with data on quality metrics and benchmarks specific to the patients for whom they provide direct patient care.
- d. Ensures the clinical care team, including residents, fellows, and faculty members, can interpret data on quality metrics and benchmarks.

Appendix A: CLER Pathways to Excellence

HQ Pathway 4: Resident/fellow engagement in the clinical site's quality improvement process

The Clinical learning environment:

- a. Engages residents, fellows, and faculty members in strategic planning for quality improvement.
- b. Engages residents, fellows, and faculty members in interprofessional service-line, departmental, and clinical site-wide quality improvement committees.
- c. Periodically reviews resident and fellow quality improvement projects to integrate with the clinical site's quality improvement planning process.

HQ Pathway 5: Resident, fellow, and faculty member education on eliminating health care disparities

The Clinical learning environment:

- a. Provides the clinical care team, including residents, fellows and faculty members with education on the differences between health disparities and health care disparities.
- b. Ensures the residents, fellows and faculty members know the clinical site's priorities for addressing health care disparities.
- c. Educates residents, fellows, and faculty members on identifying and eliminating health care disparities among specific patient populations receiving care at the clinical site.
- d. Maintains a process that informs residents, fellows and faculty members on the clinical site's process for identifying and eliminating health care disparities.

HQ Pathway 6: Resident, fellow and faculty member engagement in clinical site initiatives to eliminated health care disparities

The Clinical learning environment:

- a. Engages residents, fellows, and faculty members in defining strategies and priorities to eliminated health care disparities among its patient population.
- b. Identifies and shares information with residents, fellows, and faculty members on the social determinants of health for its patient population.
- c. Provides residents, fellows, and faculty members with quality metrics data on health care disparities grouped by its patient population.
- d. Provides opportunities for residents, fellows, and faculty members to engage in interprofessional quality improvement projects focused on eliminating health care disparities among its patient population.
- e. Monitors the outcomes of quality improvement initiatives aimed at eliminating health care disparities among its patient population.

HQ Pathway 7: Resident, fellows, and faculty members deliver care that demonstrates cultural humility

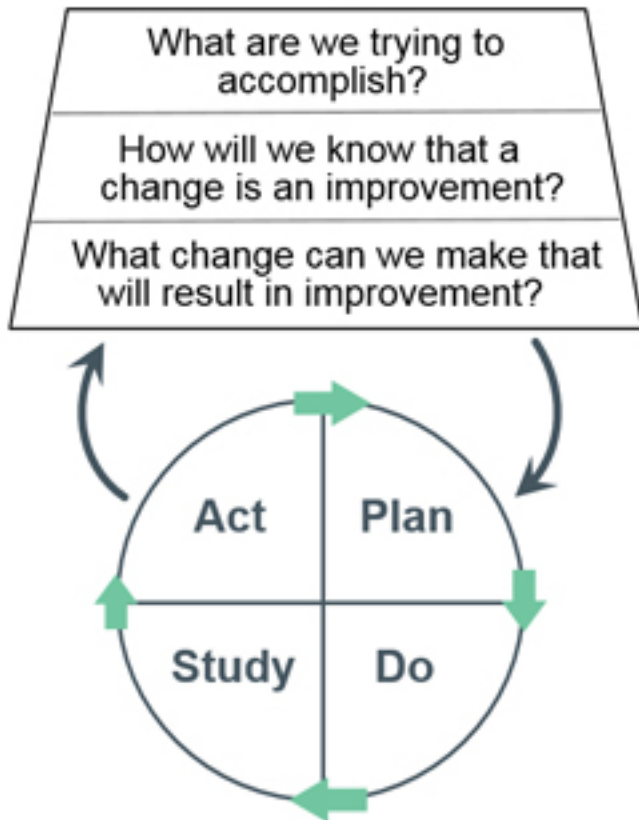
The Clinical learning environment:

- a. Provides residents, fellows, and faculty members' continual training in cultural humility relevant to the patient population served by the clinical site.
- b. Ensures that the clinical care team, including residents, fellows, and faculty members, delivers care that incorporates the views of culturally diverse patient populations.

Appendix B: Setting Aims

Science of Improvement: Setting Aims

Model for Improvement



Improvement requires setting aims. An organization will not improve without a clear and firm intention to do so. The aim should be time-specific and measurable; it should also define the specific population of patients that will be affected. Agreeing on the aim is crucial; so is allocating the people and resources necessary to accomplish the aim.

In 1999, the Institute of Medicine (IOM) in Washington, DC, USA, released [*To Err Is Human: Building a Safer Health System*](#), a report that brought much public attention to the crisis of patient safety in the United States. In 2001, the IOM issued a second report, [*Crossing the Quality Chasm: A New Health System for the 21st Century*](#), which outlines [six overarching "Aims for Improvement" for health care:](#)

- **Safe:** Avoid injuries to patients from the care that is intended to help them.
- **Effective:** Match care to science; avoid overuse of ineffective care and underuse of effective care.
- **Patient-Centered:** Honor the individual and respect choice.
- **Timely:** Reduce waiting for both patients and those who give care.
- **Efficient:** Reduce waste.
- **Equitable:** Close racial and ethnic gaps in health status.

Many organizations use the six IOM aims to help them develop their aims.

Appendix B: Setting Aims

Science of Improvement: Tips for Setting Aims (Institute for Healthcare Improvement/IHI)

- 1. State the aim clearly.** Achieving agreement on the aim of a project is critical for maintaining progress. Teams make better progress when they are very specific about their aims. Make sure that the aim statement describes the system to be improved, and the patient population. In addition, ensure that the aim gives guidance on the approaches to improvement.
- 2. Include numerical goals that require fundamental change to the system.** Teams are more successful when they have unambiguous, focused aims. Setting numerical goals clarifies the aim, helps to create tension for change, directs measurement, and focuses initial changes. For example, the aim "Reduce operating room time" is not as effective as "Reduce operating room time by 50% within 12 months." Including numerical goals not only clarifies the aim but also helps team members begin to think about what their measures of improvement will be, what initial changes they might make, and what level of support they will need.
- 3. Set stretch goals.** A "stretch" goal is one to reach for within a certain time. Setting stretch goals such as "Reduce operating room time by 50% within 12 months" communicates immediately and clearly that maintaining the status quo is not an option. Effective leaders make it clear that the goal cannot be met by tweaking the existing system. Once this is clear, people begin to look for ways to overcome barriers and achieve the stretch goals.
- 4. Avoid aim drift.** Once the aim has been set, the team needs to be careful not to back away from it deliberately or "drift" away from it unconsciously. The initial stretch goal "Reduce operating room time by 50% within 12 months" can slip almost imperceptibly to "Reduce operating room time by 40%" or "by 20%." To avoid drifting away from the aim, repeat the aim continually. Start each team meeting with an explicit statement of aim, for example, "Remember, we're here to reduce operating room time by 50% within 12 months," and then review progress quantitatively over time.
- 5. Be prepared to refocus the aim.** Every team needs to recognize when to refocus its aim. If the team's overall aim is at a system level (for example, "Reduce adverse drug events in critical care by 30% within 12 months"), team members may find that focusing for a time on a smaller part of the system (for example, "Reduce adverse drug events for critical care patients on the cardiac service by 30% within 12 months") will help them achieve the desired system-level goal. Note: Don't confuse aim drift, or backing away from a stretch goal (which usually isn't a good tactic), with consciously deciding to work on a smaller part of the system (which often is a good tactic).

Examples of Effective Aim Statements

- Reduce adverse drug events (ADEs) in critical care by 75 percent within 1 year.
- Improve medication reconciliation at transition points by 75 percent within 1 year.
- Reduce high-hazard ADEs by 75 percent within 1 year. For example, reduction of 75 percent in one of the following:
 - Overdoses from benzodiazepines and narcotics
 - Percentage of patients with incidence of bleeding in patients being treated with anticoagulant medications
 - Percentage of patients on insulin with any blood sugar <50
- Increase the number of surgical cases between cases with a surgical site infection by 50 percent within 1 year.
- Achieve > 95 percent compliance with on-time prophylactic antibiotic administration within 1 year.
<http://www.amchp.org/TransformationStation/Documents/QI%20Step%20by%20Step%20Guide.pdf>
<http://www.ihl.org/resources/Pages/HowtoImprove/default.aspx>

Appendix C: Project Worksheet

Use this Project Worksheet/timeline to plan out your tasks. The dates in bold are the due dates for the QI Symposium. Other dates are suggestions to help keep the project workflow on time.

	Due by	Task	Who is responsible?
<input type="checkbox"/>	11/2/2020	Decide on QI Project	
<input type="checkbox"/>	11/2/2020	Assign a person to each of the tasks below	
<input type="checkbox"/>	11/2/2020	Contact a Faculty Advisor	
<input type="checkbox"/>	11/2/2020	Email qualitysymposium@okstate.edu with intent to participate	
<input type="checkbox"/>	11/16/2020	Perform literature Review	
<input type="checkbox"/>	11/30/2020	Request IRB approval/exemption (see page 3 of this handbook)	
<input type="checkbox"/>	12/1/2020	Email qualitysymposium@okstate.edu with team member names, title & QI faculty advisor	
<input type="checkbox"/>	12/15/2020	Complete Project Outline	
<input type="checkbox"/>	12/15/2020	Report progress on plan for data collection to your advisor	
<input type="checkbox"/>	12/31/2020	Complete literature review	
<input type="checkbox"/>	12/31/2020	Develop plan for any identified barriers (include who/what/where/when/how)	
<input type="checkbox"/>	1/15/2021	Initial survey or data collection detailed	
<input type="checkbox"/>	02/01/21	Formally review plan/progress with your faculty advisor	
<input type="checkbox"/>	02/01/2021 - 02/28/2021	Implement Project. Conduct additional "mini" PDSAs as needed	
<input type="checkbox"/>	03/01/21	Email qualitysymposium@okstate.edu with abstract of your poster. (See #6 on Page 4 of this handbook)	
<input type="checkbox"/>	03/07/2021	Analyze your results.	
<input type="checkbox"/>	03/14/2021	Complete the Final Report Template and submit to your QI Faculty advisor for revisions (See Appendix D)	
<input type="checkbox"/>	03/31/2021	Complete the rough draft of your Poster (See templates in Appendix H)	
<input type="checkbox"/>	04/01/2021	Submit rough draft of your poster to your QI Faculty Advisor	
<input type="checkbox"/>	04/15/2021	Submit draft of your poster by 5pm to qualitysymposium@okstate.edu after review by your faculty advisor	
<input type="checkbox"/>	05/03/2021	Submit final large poster template via PowerPoint (ppt): qualitysymposium@okstate.edu	
<input type="checkbox"/>	05/17/2021	Poster presentation set-up 7 am to noon.	
<input type="checkbox"/>	05/18/2021	Resident/Fellow Quality and Patient Safety Symposium Day!	

Appendix D: Final Report Template

Instructions:

Complete your poster presentation report and submit to your **QI faculty advisor** and the **program coordinator** for revisions prior to the closeout meeting.

1. Project Background:

- a. Describe the specific area of care that you focused on.
- b. State the problem or the "gap" in care that you identified.
- c. Include any baseline data that was collected before you started the QI project.

2. Project Aim:

- a. Please paste your project aim statement here or attach your completed aim statement.

3. Methods:

- a. Attach the plan-do-study-act (PDSA) cycle(s) that you designed and executed.
- b. Attach any tools that you used.

4. Results:

- a. Attach the data you collected and/or analyzed.

5. Conclusions:

- a. What did you learn?
- b. Describe how you think you can apply this experience to potential future clinical problems you are likely to encounter.

6. Sustaining Improvements / Next Steps

This is to allow you to think about how you can sustain the project after you leave. If your QI project resulted in change that was an improvement, think about:

- a. Who should be assigned to carry out the change or project going forward?
- b. What data should continue to be collected in order to monitor the change? How should the data be collected? Who should collect the data?
- c. What clinic or hospital leader should be informed of your sustainability plan so that they can track the project going forward?

APPENDIX E: 2019 Resident Quality Projects

Poster 1: Repetition is Key: A Retrospective Analysis of Perioperative Antibiotic Reading – Anesthesiology

Faculty Advisor: Brian Harris, D.O.

Authors: Tate Triska, D.O. (PBY), Fady Hanna, D.O. (CA-1) and Michael Moore, D.O. (CA-3)

Poster 2: Improving the Safety and Efficiency of Labor Epidural Placement

Faculty Advisor: Kimberlie Dullye, D.O.

Authors: Kale Goerke, D.O. (CA-1), Ross Tanzer, D.O. (CBY) and Michael Moore, D.O. (CA-3)

Poster 3: Systematic Review of Pre-Admission Testing: An Update on Guidelines

Faculty Advisors: Sarah Carter, D.O. and Brad White, D.O.

Authors: Jaime W. Thompson, D.O. (CBY), John Grose, D.O. (CA-1) and Michael Moore, D.O. (CA-3)

Poster 4: Declare the Past, Diagnose the Present and Simulate the Future: Can Simulation Prepare Physicians for Catastrophic Events?

Faculty Advisor: Trevor Bright, D.O.

Authors: Michael Moore, D.O. (CA-3) and Maxwell Sencherey, D.O. (CA-2)

Poster 5: Overcoming Barriers to Promote Advance Care Planning Discussions in the Outpatient Setting: Is There a Better Way?

Faculty Advisors: Ashton Clayborn, D.O. and Robert R. King, M.D.

Authors: Nikki Eagle Road, D.O. (PGY-1), Mitchell Sanford, D.O. (PGY-1) and Quinton Tieu, D.O. (PGY-3)

Poster 6: Colorectal Screening: An Intervention to Improve Your Bottom Line

Faculty Advisor: T. Sanford, D.O.

Authors: L. Sanford, D.O., T. Tandberg, D.O., H. Yang, D.O. and J. Lowe, D.O.

Poster 7: Bringing Resident Awareness of Clinical Research Trails for Osteopathic Manipulative Treatment (OMT)

Faculty Advisor: Mark Thai, D.O.

Author: Angela Tyson, D.O., (PGY-4), NMM/OMM +1

Poster 8: Improving Documentation of Blood Product Consent in the Outpatient Setting

Faculty Advisors: Sarah Hall, D.O. and Regina Lewis, D.O.

Authors: Caleb Prentice, D.O. (PGY-3), Glenda Tiller, D.O. (PGY-2), Kathleen Postlethwaite, D.O. (PGY-2), Erica Beal, D.O. (PGY-1) and Frank Goodman, D.O. (PGY-1)

Poster 9: Barriers in the HCV treatment cascade after confirmed diagnosis

Faculty Advisors: Steffen Carey, D.O. and Crystal David, Pharm D, BCPS

Authors: Daniel de Gaston, D.O., Michael Hitsman, D.O., Christopher Long, D.O., Jantzen Matti, D.O., Jason Postlethwaite, D.O., Tate Vance, D.O.

Poster 10: Clinical Strategies to Reduce Heart Failure Hospitalizations

Faculty Advisor: Amanda Gorden Green, D.O.

Authors: Dev Jaiswal, D.O., Rusty Vann, D.O., Gershon Koshy, D.O. and Kelly Natarajan, D.O.

Poster 11: Preventing Upper Aerodigestive Tract Bleeding in the Anticoagulated Patient

Faculty Advisor: Tom Hamilton, D.O.

Authors: Chase Nelson, D.O. (PGY-4), Jaye Bea Downs, D.O. (PGY-5); Margo Tanghetti, D.O. (PGY-3), Clay Farahani, D.O. (PGY-2) and Mason Skinner, D.O. (PGY-1)

APPENDIX E: 2019 Resident Quality Projects (continued)

Poster 12: Change in Provider Workflow to Promote 'Before Noon' Patient Discharges

Faculty Advisor: Kathy Cook, D.O.

Authors: George Demopoulos, D.O. and Robert P. Aran, D.O.

Poster 13: Initiative to reduce Central Line Associated Bloodstream Infection Rates: an Infectious Disease Prevention Committee QI Project

Faculty Advisor: Amanda Gorden Green, D.O., Kaleb Veit, D.O.

Contributing Advisor: Michelle Murtaza-Rossini MPH, BSN, RN

Authors: Michael Engheta, D.O. (PGY-3), David Alcorn, D.O. (PGY-2) and James Pelton, D.O. (PGY-1)

Poster 14: CT Guided Core Needle Bone Biopsy for Non-Vertebral Osteomyelitis: Is It Necessary?

Faculty Advisor: Donald von Borstel, D.O.

Authors: Cameron Smith, D.O, Gregory Bradley, D.O. and Yoon Cho, D.O.

Poster 15: Probiotic Protocol: Prevention of Hospital Acquired Clostridium Difficile Associated Diarrhea

Faculty Advisor: M. Bernard, D.O.

Authors: D. Vardeman, Megan, Garibay, N. McFarland, D.O., P. Flournoy, DO and K. Greuel, D.O.

Poster 16: Antibiotic Stewardship Interventions and Their Effects on Prescribing Practices: A Prospective Cohort Study

Faculty Advisor: Troy Harden, D.O.

Authors: Larry Elliott, D.O., Jalal Moharreri, D.O., Colin Mychak, D.O. and Troy Harden, D.O.

Poster 17: Prevention of Syncope during IUD Placement, a quality improvement project

Faculty Advisor: William Po, M.D.

Authors: Thanh Luu, D.O. (PGY-2), Kent Abernathy, D.O. (PGY-4) and Darren Vargas, D.O. (PGY-2)

Poster 18: Analysis of O-Negative Blood Transfusions and Implementation of Utilization Policy

Faculty Advisor: Justin Chronister, D.O.

Authors: Nekita Patel, D.O., Hanna Crow, D.O. and Rebecca Gupton, D.O.

Poster 19: Documentation of Code Status in Initial Admitting and Consulting Documentation, A Randomized Chart Review

Faculty Advisor: Katherine Cook, D.O.

Authors: Hope Burkett, D.O., Jared Lepley, D.O., Alainna Simpson, D.O. and Michael Warren, D.O.

Poster 20: Perioperative Glycemic Control, Mortality and Sternal Wound Rate in CABG Patients

Faculty Advisor: Amanda Gorden Green, D.O.

Authors: Alexander Thoman, D.O., Andrew Hale, D.O., Gershon Koshy, D.O. and Zach Beam, D.O.

Poster 21: Advancing Advance Directives in the Outpatient Setting

Faculty Advisor: Erin Kratz, D.O.

Authors: Kealan O'Neill D.O., Stephen Granger, D.O., Scott Russ, D.O., Barry Dockery, DO, Amrit Dockery, D.O., Liz Severns, D.O., Zach Thomas, D.O.

APPENDIX F: 2020 Resident Quality Projects

Poster 1: A Quality Improvement in Approach to Pulse Oximetry in Non-Hypoxic Patients

Faculty Advisor: Colony Fugate, D.O. and Shawna Duncan, D.O.

Author: Taylor Craft, D.O. (PGY3)

Poster 2: Improving Pediatric Palliative Care Education in Pediatric Residency

Faculty Advisors: Christine Beeson, D.O. and Ashraf Mohamed, M.D.

Authors: Betsy Kadapuram, D.O. (PGY3)

Poster 3: Antibiotic prescriptions upon hospital discharge: A blind spot of antimicrobial stewardship

Authors: Laura Holliday, PharmD (PGY2), Crystal David, PharmD, PCPS, Anjly Kunapuli, PharmD, Erica Martin, PharmD, BCPS

Poster 4: Accuracy of prehospital trauma scoring by EMS in a rural hospital setting: A retrospective analysis

Faculty Advisor: David Behm, D.O.

Authors: Andrew Burnett, D.O. (PGY3), Vanessa Clendenin, D.O. (PGY 3), Justin Magalassi, D.O., Jessica Meador, D.O. (PGY4), Alisha Murrow, D.O. (PGY4), Dana Pentecost, D.O. (PGY4)

Poster 5: QI: Health Maintenance with Low Dose CT Scans

Faculty Advisors: Amanda Carey D.O., Attending Physician

Chair/Program Director/Attending Physician: Lora Cotton, D.O.

Authors: Nikki Eagle Road, D.O. (PGY1), Mitchell Sanford, D.O. (PGY1), Quinton Tieu, D.O. (PGY3)

Poster 6: Increasing Pneumococcal Vaccinations in the OSU Family Medicine Clinics

Faculty Advisor/Attending Physician: Kristin Browning, D.O.

Authors: Joshua Redmond, D.O. (PGY3), Tate Vance, D.O. (PGY2), Yera Gandhi, D.O. (PGY1), Matt Priest, DO (PGY1)

Poster 7: Are We Over-treating Asymptomatic Bacteriuria in Pregnancy: A Quality Improvement Project to Improve Evidence Based Empiric Treatment and Prevention of MDR Organisms

Faculty Advisor: Erin Brown, D.O.

Authors: Justin Parks, D.O. (PGY2), Thanh Luu, D.O. (PG3), Lauren Chinnery, D.O. (PGY3), Cortney Booth, D.O. (PGY1)

Poster 8: Incidence of Delirium in the Intensive Care Unit Before and After Implementation of the Confusion Assessment Method for the ICU (CAM-ICU)

Faculty Advisors: Austin Hinchey, PharmD, John Bury, PharmD, BCPS, MBA

Authors: Ben Jacobs, PharmD (PGY1)

Poster 9: Resident Wellness Project

Faculty Advisors: Mercedes Bernard, D.O. and Moncy Varkey, D.O.

Authors: Mu En Hu (PGY1), Eric Mathis, D.O. (PGY1), Heidi Nightengale, D.O. (PGY3), Megha Patel, D.O. (PGY2), Natalie Patterson, D.O. (PGY3)

Poster 10: Perioperative Beta Blocker Utilization and Associated Cardiovascular Outcomes in the Hospital Setting

Faculty Advisor: Katherine Cook, D.O. Internal Medicine

Authors: Internal Medicine: Ekaterina Shapiro (PGY1), Divya Akula (PGY3), Jennifer Neff (PDY2), Patrick Neff (PGY3)

Surgery: Kryston Boyer, (PGY5)

APPENDIX F: 2020 Resident Quality Projects (continued)

Poster 11: Analysis of Fresh Frozen Plasma Waste and Implementation of Liquid Plasma Utilization for Life-Threatening Bleeding Events Policy

Faculty Advisor: Justin Chronister, D.O.

Authors: Shafiq Al-Rifai, D.O. (PGY1), Nekita Patel, D.O. (PGY2), Jason Bass, D.O. (PGY3)

Poster 12: Improving Documentation of Blood Product Consent to the Outpatient Setting

Faculty Advisors: Sarah Hall, D.O. and Regina Lewis, D.O.

Authors: Erica Beal, D.O. (PGY2), Frank Goodman, D.O. (PGY2), Martina Swinger, D.O. (PGY1),
Tiffany Perez, D.O. (PGY1)

Poster 13: Intubation Management and Optimization

OSUMC ED: David McAdams, D.O. MHA, John Carlson, D.O.,

OSU-CHS EM: Gavin Gardner, D.O., Kelly Murray, PharmD, BCACP

Poster 14: Expediting CT Imaging in Patients with Known Creatinine and Pregnancy Status

Faculty Advisors: Tyler Evilsizer, D.O. and Anastasia Fisher, D.O.

Author: Shane Hnatusko, D.O. (PGY4)

Poster 15: Massive Transfusion Protocol Optimization

OSUMC ED: M. Smith, D.O. (PGY4), J. Briggs, D.O. (PGY2), R. Coker, D.O. (PGY3)

OSU-CHS EM: J. Pritchett, D.O., D. Blankenship, D.O., M. Schiesel, D.O., M. Cannon, D.O. K. Murray, PharmD

APPENDIX G: Poster Information - Checklist

Content

- Add poster title to presentation:
 - List faculty advisor(s) with credentials
 - List authors with credentials and PGY status
 - Include institutional affiliation. (Out of Tulsa programs: It is okay to use your institution's logo; however, the OSU logo must be visible as well since this is an OSU sponsored program.)
- Logical sequence of information flow (left to right, and top to bottom).
- Photographs, graphs, tables, and charts are used whenever possible to display data or convey important information.
- Each section is concise and clear. Wording should allow for each graphic, section, table to 'stand alone.'
- Avoid abbreviations
- Cite references in standard style (there should be several references utilized)
- Review with Faculty Advisor for the project prior to submitting.**

Appearance

- Please utilize the OSU-CHS template provided in Matt Vassar's link referenced in Appendix H pg. 17. The template meets the size restrictions of the scientific program (maximum size is 24" tall by 36" wide).
- Poster construction will accommodate method of display at the meeting.
- Abstract is posted in the proper position on the poster (optional).
- The poster does not appear cluttered.
- Major headings can be read from at least 4 to 5 feet away.
- Text and figures can be read from 2 to 3 feet away.
- Graphs and figures can be read from 2 to 3 feet away.
- Font is similar throughout (no more than three font sizes used for poster's title, section title, and text).
- Color, lines, boxes, and arrows are used to emphasize important points.
- Content can be absorbed in 10 minutes or less.

Sections

- Background:** This is the introduction; it provides the reader a short background of the topic you are discussing/presenting. The reader needs to very quickly understand why you chose this general topic (why is it important?). This can be a bulleted list or paragraph, maximum length of approximately 200 words. Avoid providing an overview of the entire project.
- Aim Statement:** One sentence that includes the goal of the project with specific percentage improvement (if applicable) and end date (can be Month/Year).
- Methods:** Briefly describe qualitative (descriptive) and quantitative results using bullets or limited text.
- Results:** Use figures with figure legends, graphs, and tables to enhance the presentation of your results, not just a text description.
- Conclusions:** Remind the reader of your aim, discuss relevance of your findings and limitations. This would include a brief discussion of things that went well and reasons goals may not have been met (limitations). (Example: Order set utilization did not seem to be related to lack of knowledge of its existence, but rather the difficulty in navigating the order set.)
- Next Steps:** Describe how you will use this information to continue to improve quality of care and patient safety (further PDSA for your project or implementation).

APPENDIX H: Poster Information - Printing

- ❑ The OSU-CHS Medical Library will be providing large format-poster printing for the 2021 Quality Improvement & Patient Safety Symposium. **All posters this 2020-2021 academic year must be submitted by the deadline of May 3. Any posters submitted after this due date cannot be accepted and it will be at the expense of the resident or department to pay. THERE WILL BE NO EXCEPTIONS.**
- ❑ Additionally, **all Departments** are required to send their final file in MS PowerPoint and PDF to qualitysymposium@okstate.edu. Please proofread all material prior to submission (especially resident/fellow names). MeLyssa will upload all final files to the OSU-CHS Medical Library. Posters will be retained in a folder to create an online flipbook.
- ❑ Maximum size is 24" Tall by 36" Wide. To create a true size slide in PowerPoint, select Design, Slide Size->Customer Slide Size-> Width: 36; Height 24"-> Ensure Fit. **Save** the poster first. Then do a "Save as Adobe PDF", then selecting "PDF". Send **BOTH** formats to qualitysymposium@okstate.edu.
- ❑ Do not name your file "Presentation". You will be given a Poster #. When naming your file use this format: Poster number-> dash symbol-> brief template name-> dash symbol->QI 2020.

Example: Poster 3-Blood Transfusions-QI 2020

- ❑ OSU-CHS POSTER GUIDELINES AND TEMPLATES: 

<http://libraryguides.health.okstate.edu/postertemplates>

*This link provides you with OSU-CHS poster templates and instructions for creating your template as a file. **These websites contain information for Research Day, please use our guidelines for the QI Symposium.***

Or you may use Matt Vassar's link for templates/instructions:

<http://vassar.pbworks.com/w/page/117691287/How%20to%20create%20a%20research%20poster>

APPENDIX H: Additional General Resources for Academic Posters:

Designing Conference Posters (includes do's and don'ts)

<http://colinpurrington.com/tips/poster-design>

Scientific Poster Design: How to keep your poster from resembling an abstract painting

<http://hsp.berkeley.edu/sites/default/files/ScientificPosters.pdf>

How to make an Academic Poster

Annals of Surgery and Medicine

<http://www.sciencedirect.com/science/article/pii/S2049080116301303>

Appendix I: Poster Information – 2021 Deadlines

OSU-CHS Resident/Fellow Quality Improvement and Patient Safety Symposium

Tuesday - May 18, 2021

Poster Presentation and Judging

Deadlines:

November 2, 2020	Email qualitysymposium@okstate.edu of notification of intent to participate.
December 1, 2020	Email qualitysymposium@okstate.edu with team members, title and faculty advisor.
February 1, 2021	Review project plan/progress with your faculty advisor.
March 1, 2021	Email qualitysymposium@okstate.edu with abstract of poster.
April 15, 2021	Submit draft of your poster by 5pm to qualitysymposium@okstate.edu after review by your faculty advisor. Poster will be reviewed by QI committee with suggested corrections. You will receive email confirmation with further details and instructions for the symposium.
May 3, 2021	Submit final large poster template via PowerPoint (ppt) to qualitysymposium@okstate.edu .
May 17, 2021	Poster presentation set-up will be available from 7:00 am to Noon in the Doctor's room (right before you get to the OSU Auditorium, 2 nd Floor OSU MC). Poster numbers will be assigned and push pins will be provided for mounting. Please put push pins on each corner (4).
May 18, 2021	Resident/Fellow Quality and Patient Safety Symposium Day!

 **Presentation format, location and time to be determined.** 

Submission Process Details

- All medical students, residents, and fellows that are engaged in a quality or patient safety project are encouraged to participate. Projects can be in progress or completed.
- Submitted abstracts that are related to quality and/or patient safety will be accepted for participation in the symposium, included in the program overview, and have the opportunity to participate in poster presentations. Selected abstracts will participate in podium presentations.
- Email notification of intent to participate must include the completed draft QI poster template PowerPoint slide. Clearly indicate all participants, department, program director, faculty advisor for the project if applicable, and poster size (maximum 24 inches in height by 36 inches in width).

Appendix J: Project Wrap-up

Agenda Items:

1. Review final report, including tools used and PDSA cycles
2. Discuss what went well with your project and what could have been done differently
3. Discuss suggestions to improve the learning experience during your QI project (i.e., resources, readings, etc.)
4. Discuss key learning you will apply in your future work
5. Discuss the sustainability of your project even after you are gone. Who will sustain the project? What will it look like?
6. Discuss importance of lifelong learning and application of QI knowledge and skills throughout your career (i.e., if you are in practice, and someone asked you to do a project, how would you do it?)