

1. Goals and Objectives:

Topic 1: Health System Science- Personal QI Project

- Apply the IHI Model for Improvement to develop a personal Quality Improvement Project. [LCME 4.1, 4.2, 6.3, 8.1, 8.3]
- Construct a personal aim statement based on an understanding of the components of an effective aim statement. [LCME 4.2, 6.3, 8.1, 8.2]
- Distinguish the different types of quality improvement measurements and apply this knowledge to your personal project measurement. [LCME 6.3, 8.1, 8.2]
- Define and implement a measurement for improvement [LCME 4.1, 4.2, 6.3, 8.1, 8.2]
- Apply QI tools to your project through construction of a Fishbone Diagram and Process Map. [LCME 6.3]
- Identify an appropriate intervention using a Priority Matrix. [LCME 6.3]
- Plan and implement an improvement intervention. [LCME 4.2, 6.3]
- Create a Run Chart that includes a baseline median, a goal line, and annotation [LCME 6.3]
- Analyze your Run Chart for Astronomical Points, Shifts and Trends. [LCME 6.3]
- Reflect on your project and conclude whether to adopt, adapt (cycle another intervention), or abandon your change idea. [LCME 4.1, 4.2, 4.3, 6.3]
- Effectively evaluate a peer's work and give appropriate feedback [LCME 5.1, 5.2, 5.3,]
- Practice self-care and gain methods and skills to improve your personal wellness and future resilience. [LCME 8.1, 8.2]
- Build an actionable foundation for change implementation [LCME 6.1, 6.2]

Topic 2: CDC Guideline for Prescribing Opioids for Chronic Pain

- Explain the rationale for the development of the 2022 CDC Guidelines for the Management of Chronic Pain [LCME 1.6, 4.5]

- Summarize the role of a clinical guideline [LCME 4.5]
- Summarize the 12 key points of the CDC guidelines [LCME 4.5]
- Utilizing the CDC Guidelines for the Management of Chronic Pain, outline an appropriate strategy to mitigate risk to patients if initiating opioids [LCME 1.5, 4.5]
- Define “morphine milligram equivalents” (MME) and calculate given an opioid dose [LCME 1.2, 1.3]
- Summarize best practices for opioid tapering and discontinuation [LCME 1.5]
- Describe the role of a prescription drug monitoring database [LCME 6.2, 6.4]
- Explain how urine drug testing can help in risk assessment and decision making when prescribing opioids [LCME 1.3]

Topic 3: Lab Science

Lecture 1 – Introduction to the Clinical Laboratory and the Total Testing Process

- Define Laboratory Medicine [LCME 6.1, 6.2]
- Describe the Total Testing Process [LCME 7.2, 7.3]
- Discuss the role of the clinical laboratory in the diagnosis and treatment of patients [LCME 6.2, 7.1, 7.2, 7.3]
- Recall the laboratory specialties within Clinical Pathology [LCME 7.2]
- List several laboratory tests within each main laboratory section [LCME 6.1]

Lecture 2 – The Preanalytical Phase of Testing

1. Describe the steps that occur during the preanalytical phase of testing [LCME 6.1, 6.2, 7.1]
2. Provide examples of preanalytical variables affecting laboratory result accuracy [LCME 6.1]
3. Discuss the role of the clinical laboratory in the management of risks associated with the preanalytical phase of testing [LCME 7.1, 7.2, 7.3]

Lecture 3 – The Analytical Phase of Testing

4. Describe several of the analytical principles most commonly employed by clinical laboratories [LCME 7.2]
5. Differentiate between precision and accuracy as these parameters relate to laboratory analysis [LCME 7.2]
6. Discuss the need for standardization and calibration in the clinical laboratory [LCME 7.2]

Lecture 4 – The Postanalytical Phase of Testing

7. Describe the process of result reporting and data transmission from the laboratory to the patient's electronic medical record [LCME 2.7, 6.1, 7.2]
8. Provide examples of laboratory results that are directly communicated to physicians that may require more immediate attention [LCME 2.7, 6.1, 7.1, 7.2, 7.3]
9. Recall some of the prompts designed to stop result verification from occurring automatically [LCME 6.1, 6.3]
10. Discuss how reference intervals for laboratory tests are established and aid in the interpretation of results [LCME 6.1]

Topic 4: Buprenorphine Mini-Course

- Examine the core principles of opioid use disorder treatment through the chronic disease framework of addiction [LCME 1.2, 1.5, 2.2, 2.3, 2.6, 6.2, 6.4]
- Explore safe buprenorphine prescribing recommendations, guidance, and implementation strategies for new prescribers [LCME 1.3, 7.2]
- Identify best practices and clinical considerations for buprenorphine initiation, stabilization, dosing, treatment, and discontinuation [LCME 1.3]
- Examine recommendations for ongoing patient management, monitoring, engagement, and care [LCME 6.2, 7.2]

Topic 5: Researching Your Specialty

- Students will become aware of typical professional organization(s) of desired specialty. [LCME 4.3]

- Students will research useful written and digital resources used by trainees in desired specialty. [LCME 4.3, 8.2]
- Students will self-reflect on personal learning style. [LCME 4.1, 4.2]

Topic 6: Financial Literacy for M4s- Optional Activity

- M4s will be able to define personal finances including but not limited to the following by the end of the lecture:
 - o Debt
 - o Retirement plans 401(k), 403(b), 457, Roth, SEP IRA
 - o HSA
 - o 529
 - o Tax planning
 - o Compound Interest
 - o Loans/PSLF
 - o Life Insurance/Disability Insurance