Teaching Quality Improvement to the Next Generation of C-L Psychiatrists

Dave Kroll, MD, Sejal Shah, MD,
Lisa Rosenthal, MD, Brady Lonergan, MD

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Disclosures: David Kroll, MD

Company	Genentech	EMD Serono	Celgene	Abbvie	
Employment					
Management					
Independent Contractor					
Consulting	I	I	I	I	
Speaking & Teaching					
Board, Panel or Committee Membership					

Disclosures: Sejal Shah, MD

With respect to the following presentation, there has been no relevant (direct or indirect) financial relationship between the parties listed above (or spouses) and any for-profit company in the past 24 months which could be considered a conflict of interest. Evidence base for off-label use of medications is discussed.

Disclosures: Lisa Rosenthal, MD

With respect to the following presentation, there has been no relevant (direct or indirect) financial relationship between the parties listed above (or spouses) and any for-profit company in the past 24 months which could be considered a conflict of interest. Evidence base for off-label use of medications is discussed.

Disclosures: Brady Lonergan, MD

With respect to the following presentation, there has been no relevant (direct or indirect) financial relationship between the parties listed above (or spouses) and any for-profit company in the past 24 months which could be considered a conflict of interest. Evidence base for off-label use of medications is discussed.

Workshop Slide Presentation

1. Make an argument that teaching QI effectively is important (Dave Kroll, MD)
2. Explain the ACGME requirements for a QI project during a C-L Psychiatry fellowship (Sejal Shah, MD)
3. Describe the growth of a national program to help support C-L fellows and faculty on their QI projects (Lisa Rosenthal, MD)
4. Describe the experience of learning QI through this national program (Brady Lonergan, MD)
5. Review the progress of the National QI Project and workshop next steps (you)

This slide deck is from a workshop presented at the ACLP Annual meeting in 2019. We developed a national quality project for trainees, and the workshop describes what quality improvement is, and how it was applied to our project

Review of Quality Improvement

David Kroll, MD
Brigham and Women's Hospital
Harvard Medical School

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Problem Statement

The Accreditation Council for Graduate Medical Education (ACGME) requires all trainees in accredited medical training programs in the United States to complete a quality improvement (QI) project over the course of their training.

However, many training programs have struggled to provide the right mentorship for QI projects, and many trainees do not find their experience with QI projects to be meaningful.

Consultation-Liaison (C-L) psychiatry programs face additional obstacles to providing high-quality mentorship for trainee QI projects because no widely agreed-upon quality measurement strategies for consultation-liaison psychiatry exist.

QI is critical for our survival

First, we have to figure out what's important

$$\textbf{VALUE} = \frac{\text{OUTCOMES}}{\text{COST}} \qquad \textbf{QUALITY} = 1 - \frac{\text{\# DEFECTS}}{\text{\# PRODUCED}}$$

The ACGME Requirements for a QI Project

Sejal Shah, MD

Director, Division of Medical Psychiatry

Director, Consultation-Liaison Psychiatry Fellowship

Brigham and Women's Hospital

Harvard Medical School

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Background

- Why is QI such a “hot topic?”
- Why do I need to understand this?
- Why do I need to ensure that my CL fellows are adept in QI strategies?
- How do I begin to participate?

ACGME Common Program Requirements

VI.A.1.b) **Quality Improvement**

VI.A.1.b).(1) **Education in Quality Improvement**

A cohesive model of health care includes quality-related goals, tools, and techniques that are necessary in order for health care professionals to achieve quality improvement goals.

VI.A.1.b).(1).(a) **Fellows must receive training and experience in quality improvement processes, including an understanding of health care disparities.** (Core)

ACGME Common Program Requirements

VI.A.1.b).(2)	**Quality Metrics** ***Access to data is essential to prioritizing activities for care improvement and evaluating success of improvement efforts.***
VI.A.1.b).(2).(a)	**Fellows and faculty members must receive data on quality metrics and benchmarks related to their patient populations.** (Core)

ACGME Common Program Requirements

VI.A.1.b).(3) **Engagement in Quality Improvement Activities**

Experiential learning is essential to developing the ability to identify and institute sustainable systems-based changes to improve patient care.

VI.A.1.b).(3).(a) **Fellows must have the opportunity to participate in interprofessional quality improvement activities.** (Core)

Consultation-Liaison Psychiatry Milestones

Patient Safety and the Health Care Team

A. Medical errors and improvement activities
B. Communication and Patient Safety
C. Regulatory and educational activities related to patient safety

CL Fellowship Pitfalls

- Motivation of fellows to understand and participate in QI
- Expertise of faculty in QI
  - Mentorship
- TIME!
- Resources
- Practice Setting
  - “I do inpatient CL. They aren’t my patients!”

Growth of A National Quality and Safety Program

Lisa J. Rosenthal, MD, FACLP, DFAPA
Director, Division of Consultation Psychiatry
Fellowship Director, Consultation Liaison Psychiatry
Associate Vice Chair for Clinical Affairs
Department of Psychiatry and Behavioral Sciences
Northwestern University, Feinberg School of Medicine

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Consultation-Liaison Psychiatry Milestones

Patient Safety and the Health Care Team

A. Medical errors and improvement activities

B. Communication and Patient Safety

C. Regulatory and educational activities related to patient safety

ACGME Common Program Requirements

- FAQ from ACGME: ”is the expectation that individual data regarding clinical performance must be provided?“

- Answer: “Providing individual, specialty-specific data is desirable, but not required. The requirement seeks to ensure that quality metrics used by the institution are shared with residents/fellows and faculty members. Examples of metrics include, but are not limited to, those provided by the following: Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), Centers for Medicaid and Medicare Services (CMS), Press Gainey, and National Surgical Quality Improvement Program (NSQIP).”

[Common Program Requirement: VI.A.1.b).(2).(a);
One-Year Common Program Requirement: VI.A.1.b).(2).(a)

Common Program requirements: ACGME

- "Background and Intent: Practice-based learning and improvement is one of the defining characteristics of being a physician. It is the ability to investigate and evaluate the care of patients, to appraise and assimilate scientific evidence, and to **continuously improve patient care based on constant self-evaluation and lifelong learning**."

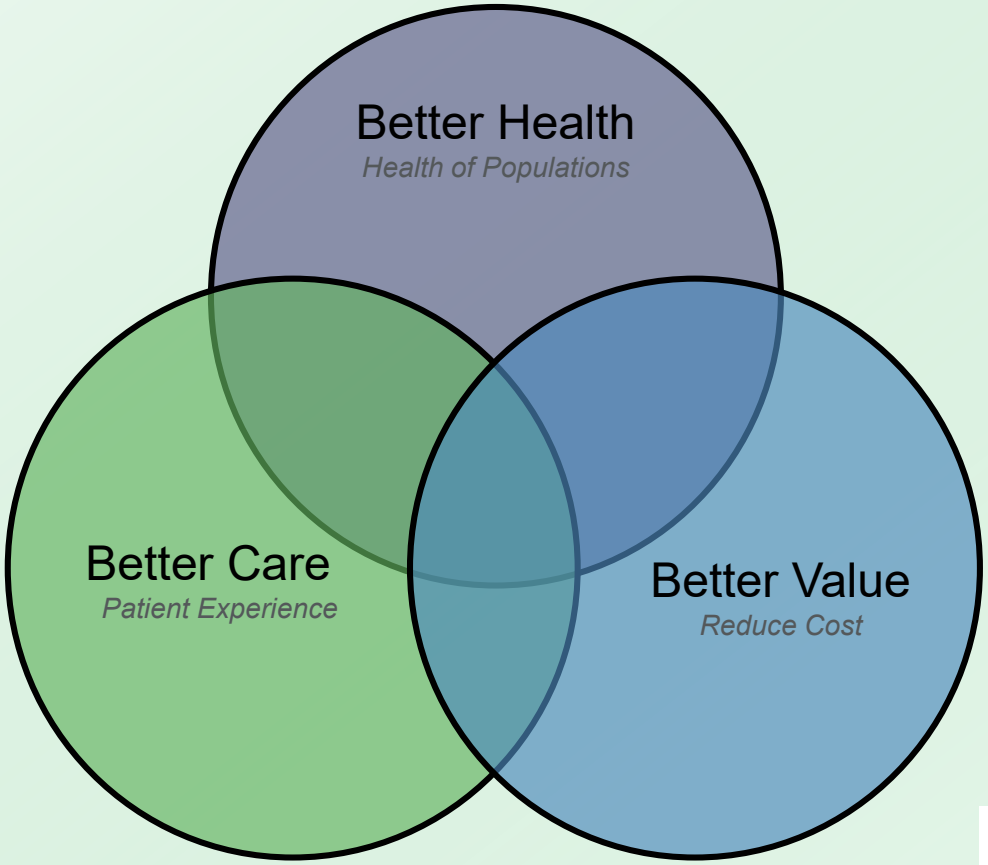
- "The intention of this Competency is to help a fellow refine the habits of mind required to continuously pursue quality improvement, well past the completion of fellowship."

- Is the way you, and those around you, practice effective?

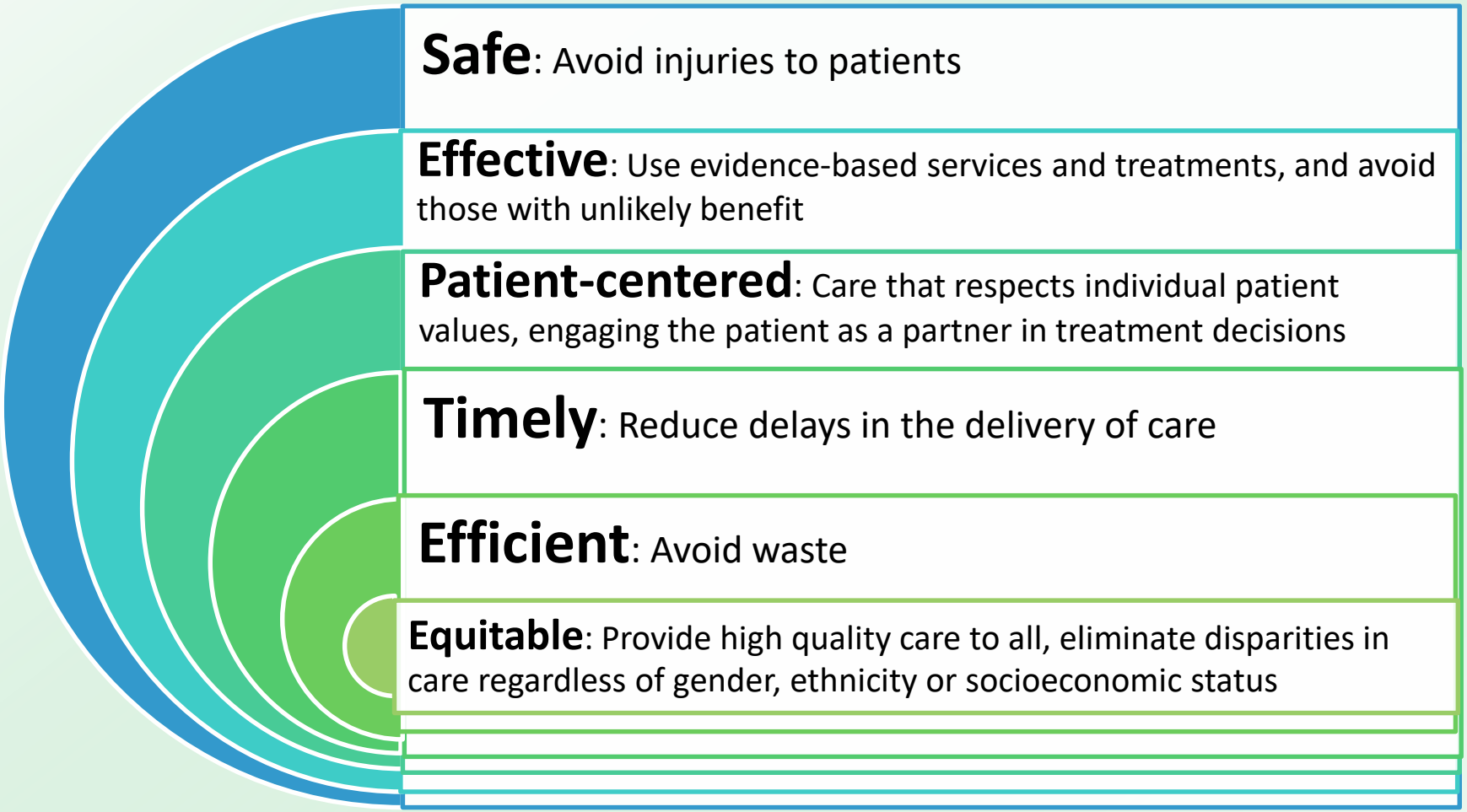
https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs_2017-07-01.pdf
https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/409_ConsultationLiaisonPsychiatry_2019_TCC.pdf?ver=2019-03-27-090719-270

The National Quality Strategy Aims

"The extent to which health care services provided to individuals and patient populations improve desired health outcomes" - WHO

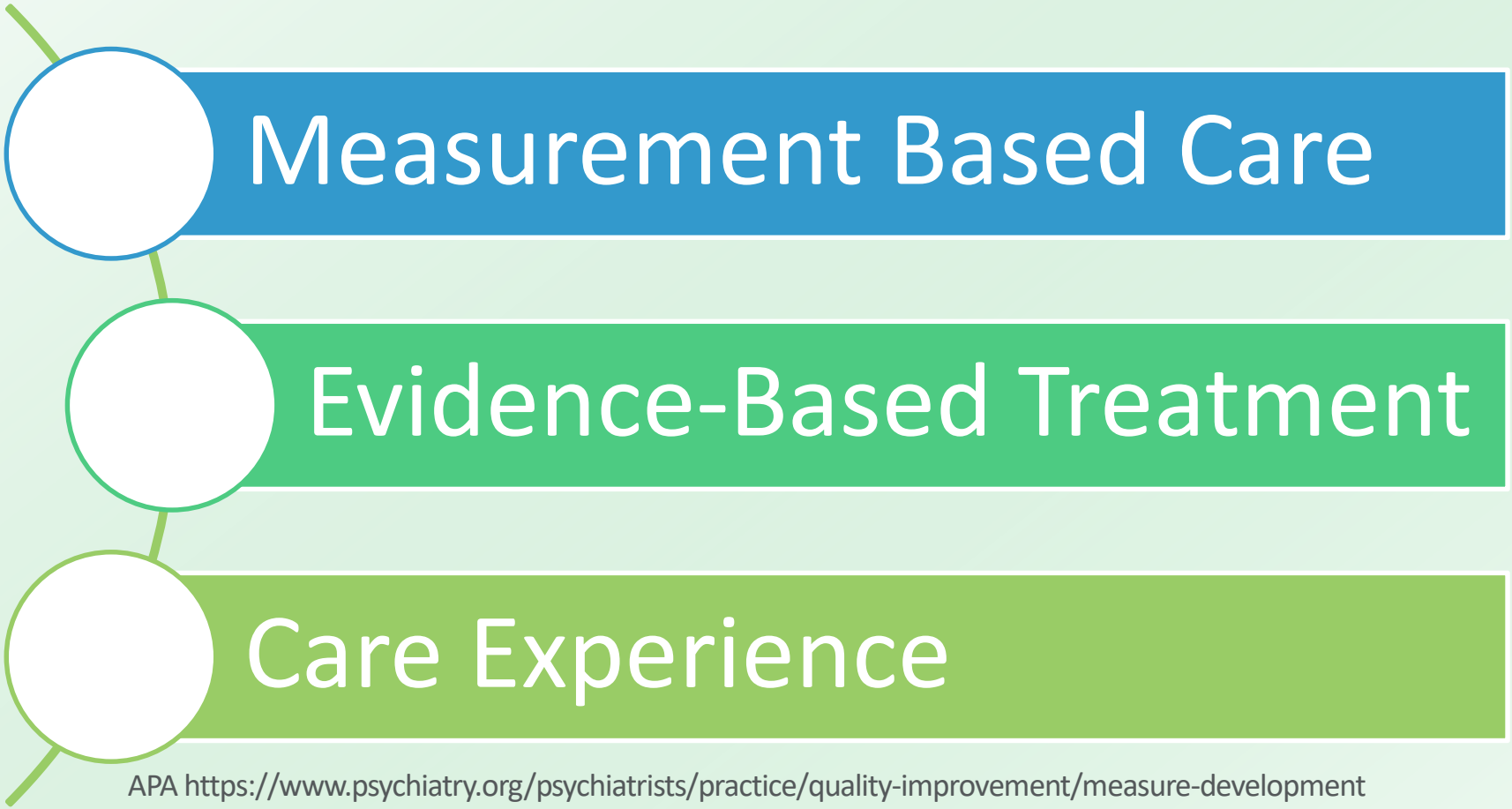


6 Aims for Improvement by Institute of Medicine



IOM Committee on Quality of Health in America: Crossing the Quality Chasm: A New Health System for the 21st Century: 1–337. Washington, DC, National Academies. 2001.

APA: Preferred Domains for Quality Improvement



APA https://www.psychiatry.org/psychiatrists/practice/quality-improvement/measure-development

Proposed National Quality Project

- Idea to develop a quality improvement project that could be completed at any institution.
- Options and assistance is needed because it is difficult to complete a meaningful project for Fellows in a 1 year program
- Idea that a group project or single idea at many sites would be helpful, particularly with resources such as coaching or pre-vetted topics
- Opportunity for CL psychiatrists to test and trial opportunities for best practices in multiple settings
- We would like the ACLP to be the leaders for Quality and Safety parameters in CL
- *Proposed national project with online resources and possibly mentorship*

What is QI, how do you do it?

- **Identify** a small and specific aspect of clinical practice for improvement

- IHI (Institute for Healthcare Improvement) recommends **asking three questions** during planning:
  1. What are you trying to accomplish?
     - **SMART** (specific, measurable, achievable, realistic and time-framed)
  2. How will you know that a change is an improvement?
  3. What changes can we make that will result in improvement?

- **Test** changes: the '**plan, do, study, act**' **(PDSA)** cycle

Ewins E, et al. Training in quality improvement for the next generation of psychiatrists. BJPsych Bull 2017;41(1):45–50.

http://www.ihi.org/

SMART – safety and business practice

- SMART Mnemonic was developed for business managers to assess practice

- Reviewed in Arbuckle and Cabaniss Curriculum, a great resource for psychiatry trainees
  - **Specific**
  - **Measurable**
  - **Achievable**
  - **Relevant**
  - **Time-Framed**

Arbuckle MR, et al. Training psychiatry residents in quality improvement: an integrated, year-long curriculum. Acad Psychiatry. 2013 Jan 1;37(1):42-5.

Doran, G. T. (1981). "There's a S.M.A.R.T. way to write management's goals and objectives". Management Review. 70 (11): 35–36.

What quality measure is: clinically relevant, measurable, definable, and **owned** by the CL service?

Use the PDSA Cycle outlined in GREEN to follow a standard QI process

PLAN: What quality measure is: clinically relevant, measurable, definable, and **owned** by the CL service?

- **Brainstorming group – CL clinical team and quality representative**

- **Ideas for projects:**
  - Restraints
  - Withdrawal protocol
  - Timeliness of consult for suicidal patients recommendations
  - Referral to follow up care
  - LOS
  - Consultee satisfaction
  - Medication

• Problems with each…

PLAN: What quality measure is: clinically relevant, measurable, definable, and **owned** by the CL service?

- **Brainstorming group – CL clinical team and quality representative**

- **Ideas for projects:**
  - Restraints
  - Withdrawal protocol
  - Timeliness of consult for suicidal patients
  - Medication recommendations
  - Referral to follow up care

- LOS
- Consultee satisfaction

- Problems with each…

- **SMART**

Is Medication Recommendation SMART?

- **SMART** Mnemonic in the PLAN stage (PLAN DO STUDY ACT)
  - **Specific** – Improve documentation of medication rationale and duration of prescriptions
  - **Measurable** – Can be extracted from the EMR
  - **Achievable** – CL team can OWN the process and outcome
  - **Relevant** – Patients and regulators increasingly demand this information, highly clinically relevant, may prevent errors
  - **Time-Framed** – within the next academic year

Arbuckle MR, et al. Training psychiatry residents in quality improvement: an integrated, year-long curriculum. Acad Psychiatry. 2013 Jan 1;37(1):42-5.

PROJECT 1

- We decided to use medication recommendations as the year's opportunity for improvement
- Medication recommendation and justification was a prior inpatient psychiatry national core measure, and may be focused on again in the near future
- It is clinically highly relevant to patients
- Medication recommendations are a standard part of the CL process, entirely controlled by the CL team, and could be searchable in the EMR
- We hypothesized that we generally do well with names and doses of recommended medications, but probably less so with clear documentation of duration of treatment or rationale by diagnosis

- Trainee project: poll our colleagues to find out current state, and review current documentation:

Jackie Hirsch MD, Aspiring CL Fellow and Northwestern PGY2: abstracted Current State Data - PLAN

- She reviewed 32 patient charts that had a total of 82 medication recommendations
- Of these, she found the following documentation present:
- Medication Name: 97.6%
- Rationale: 61.0%
- Dosing: 85.4%
- Frequency: 80.5%
- Future Plan: 15.9%

Jackie Hirsch MD, Aspiring CL Fellow and Northwestern PGY2: polled our Medicine Colleagues PLAN

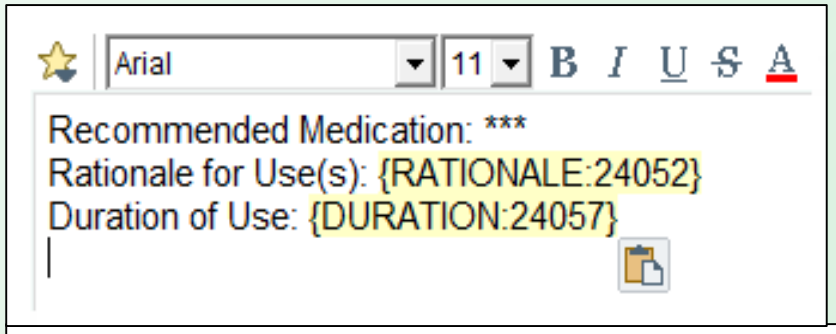
- We performed a poll of consultees, asking their impression of our CL team performance
- The chart on the following slide shows their impressions of our recommendations
- As found with chart review, we did well with medication name and dose, but poorly with rationale or duration

86 hospitalists and APPs: Response Rate = 29 (33.7%)

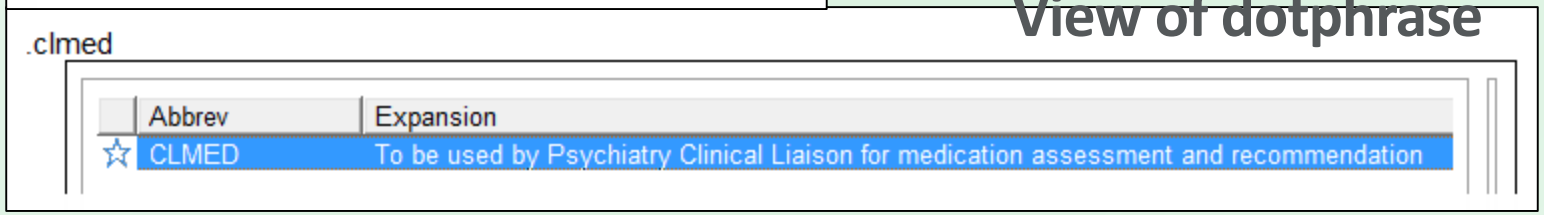
Communication of: … n= 29	1- Not satisfied at all	2	3	4	5 - Extremely satisfied
Medication name	0.00% 0	0.00% 0	3.45% 1	41.38% 12	55.17% 16
Medication justification or rationale	0.00% 0	10.34% 3	34.48% 10	37.93% 11	17.24% 5
Dose	0.00% 0	0.00% 0	10.34% 3	44.83% 13	44.83% 13
Frequency of this medication	0.00% 0	0.00% 0	6.90% 2	44.83% 13	48.28% 14
Short term and long term plan	0.00% 0	27.59% 8	41.38% 12	24.14% 7	6.90% 2
Communicating medication recommendations clearly via documentation (EMR)	0.00% 0	6.90% 2	10.34% 3	41.38% 12	41.38% 12

We created an Epic smart phrase: ".clmed"

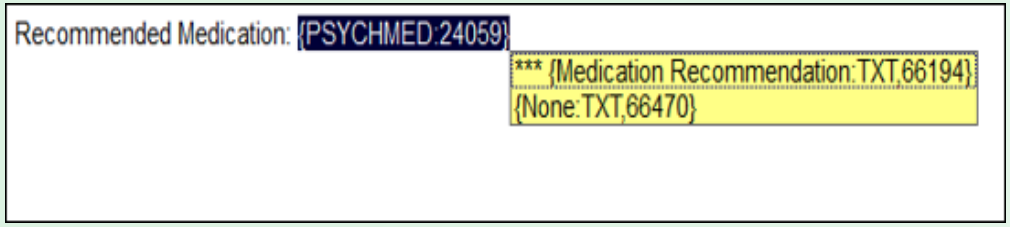
– DO component of PDSA



View of dotphrase



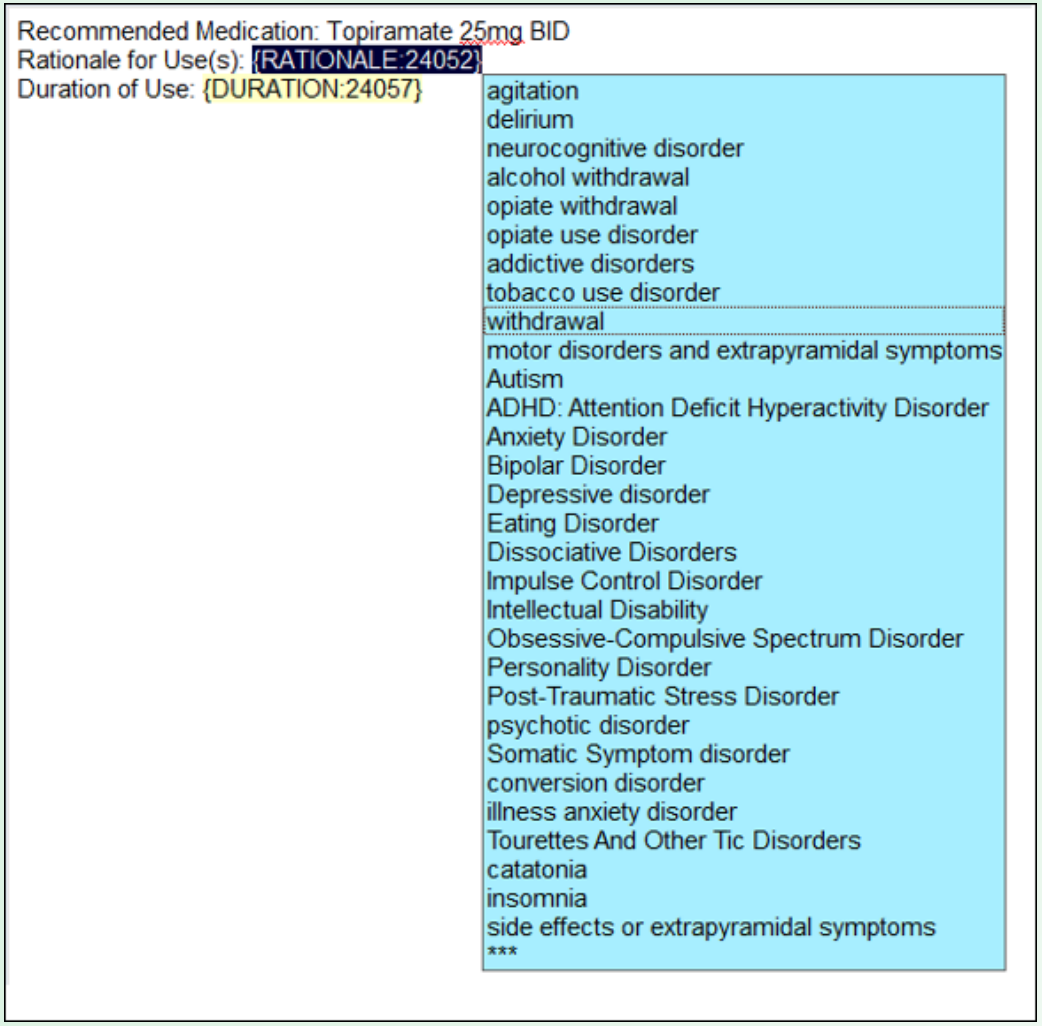
Choose "none" if no med recommended



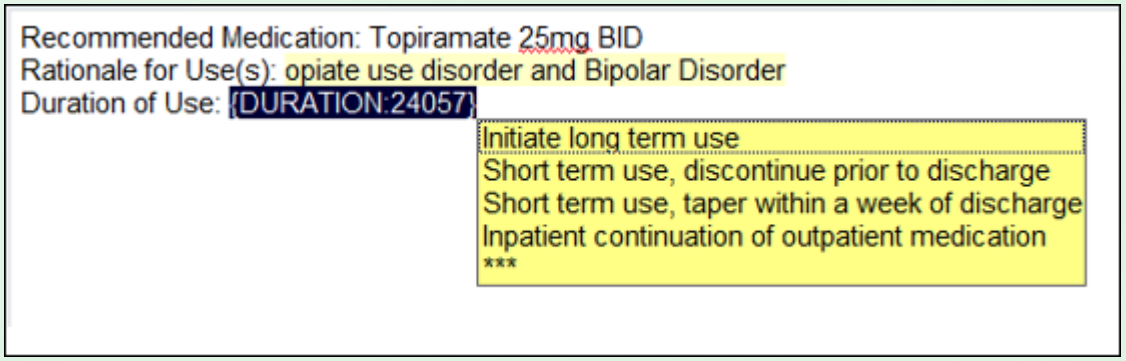
Smart phrase: .clmed view in Epic

Choose from list
for medication rationale

Major DSM categories and
Common consultation problems



Epic smart phrase: .clmed – DO component of PDSA



The Dot phrase (or smarttext) is now available in the national Epic Library!

QI process – STUDY the data

- 1 month of data - not a failure or success
- 128 patients seen
- 351 notes by 24 psychiatrists
- Smart text used in 32% (114/351)
- Why?
- Hypothesis: MD documentation usually copies and pastes
  - is it a true yes (MD completed all 3 fields in Epic tool)?
  - copy/paste doesn't work…

QI process – STUDY the data and adjust methods

Initial CL notes
128 notes, 54% success

Chart review of "failures" for first notes to elucidate etiology

Possible errors: Patient definition, copy/paste, "no medication"

59 charts reviewed manually

11 (8.6%) no consult – EMR definition of CL consult was incorrect

18 (14.1%) included the smart text – copy/paste

7 (5.4%) had smart text frame - no med rec and "none" not selected

Remaining 23 (18%) or were true failures

Challenges we faced and thank you to **Teresa Pollack**, our Quality Leader at Northwestern Memorial Hospital

- IT communication was a process to build the smart phrase
- Building a report through quality department to gather data required significant effort
- Rebuild with improvements (option for “no medication”, appearance, alphabetical listing for rationale)
- The smart text remains cumbersome to fill out
- It is a “failure” when notes are copied
- Report currently counts completed vs not completed rather than each medication

QI process – ACT - adjust method

- From this sample, what do we want to measure?
- How much pain (redoing all med recs daily) is worth it?
- Capture all notes, or first note only?
    - Strengths – successes of implementation!
    - Soft launch - no formal education, sent an e-mail
    - Need follow up survey of colleagues

QI process PDSA

- Continue PDSA Cycle! Back to DO and STUDY and ACT
  - Follow up on survey of colleagues (when?)
  - Explore options for capturing data more accurately
  - Survey people utilizing the dot phrase
  - Patient level data?
  - Work with other sites to determine broad applicability

Online resources ACLP webpage!

- Opportunity to join a national QI project
- New webpage with resources!
- https://www.clpsychiatry.org/member-resources/quality-and-safety-resources/
- Planned:
  - Developing online curriculum
  - Dave Kroll video
  - Online showcase of outstanding peer reviewed Quality and Safety projects presented at ACLP

Project 2: Improving the documentation of medication justification on psychiatry consults

Brady B. Lonergan, MD
Clinical Fellow in Psychiatry
Brigham Health
Boston, MA

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Problem Statement

- Hospital credentialing agencies increasingly require clinicians to document justification for starting new medications in hospitalized patients.
- In our system, C-L psychiatrists document the indication for medications 57% of the time.
- Failure to document justification may result in downstream medication errors, and within the next 2-5 years may impact performance in quality payment programs.

Preliminary Research

- External research
  - Literature search
- Internal research:
  - Stakeholder analysis
  - Baseline documentation rate

Association Between Lack of Documentation and Medical Errors

- The National Coordinating Council for Medical Error Reporting and Prevention (NCCMERP) recommends that prescriptions include the indication to reduce medical errors.

- The Australian Commission on Safety and Quality in Health Care's National Inpatient Medication Chart (NIMC) require prescribers to document medication indication when inputting orders so as to reduce medical errors.

Literature Review

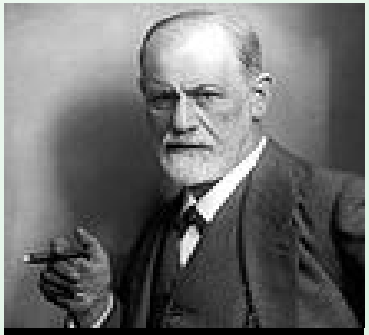
Schiff, Seoane-Vazquez and Wright

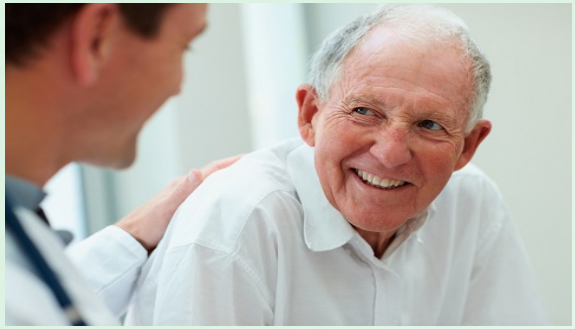
- Positives
  - Improve safety
  - Better educate patients
  - Improve communication within health care team
  - Facilitate medication reconciliation
  - Improve documentation
  - Improve appropriate use of medications
- Negatives
  - Documentation/time burden
  - Limited evidence base
  - Complexities in defining/creating indications

Baysari et al.

- Positives
  - Improved communication among staff
  - Prompt for medication review
- Negatives
  - Time limitations
  - Cross coverage
  - Risk of workarounds

Stakeholder Analysis: soliciting input from those involved on all sides (attendings, trainees, primary teams, etc.)





Stakeholder Analysis Findings

- Symptom rather than condition
- Indication subject to change
- Medication with multiple indications
- Built into EMR
- Often omit unless evident uncertainty
- Burdensome/time limitations
- Home medications
- Incorrect indication

Cause and Effect Diagram

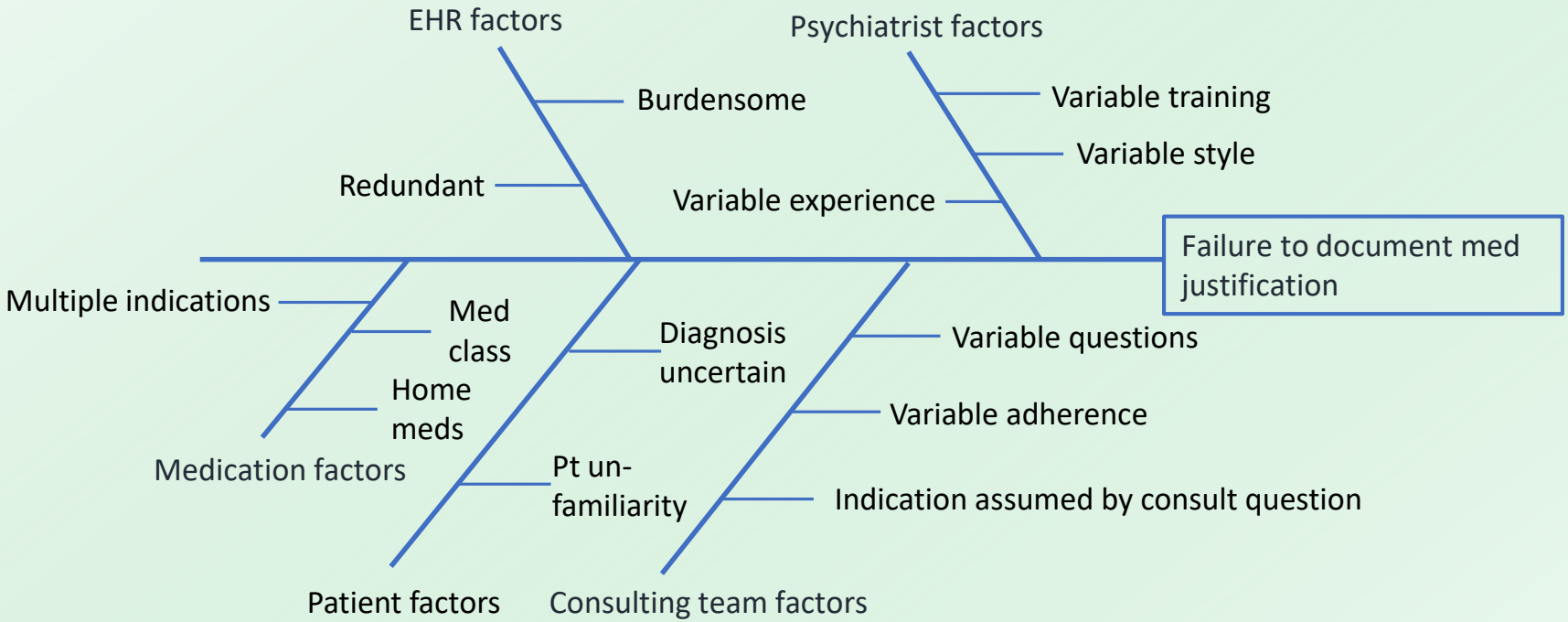


Chart Audit

- Inclusion Criteria: initial evaluations 9.9-9.11.2019 on the BWH CL service
- Total: 24 initial encounters
- Exclusion Criteria: no medication recommendations
  - 3 encounters screened out for no medication recommendations
  - Complete Indication: 57.1% (12 of 21)
  - Partial Indication: 28.6% (6 of 21)
  - No Indication: 14.3% (3 of 21)

Chart Audit

- Medications with indications for agitation, sleep, anxiety or substance related processes were more likely to be outlined in the note

- Complete Indications
  - Agitation: 33.33% (4 of 12)
  - Sleep/Anxiety: 16.67% (2 of 12)
  - Substance: 58.33% (7 of 12)

- Partial Indications
  - Agitation: 50% (3 of 6)
  - Sleep/Anxiety: 16.67% (1 of 6)
  - Substance: 33.33% (2 of 6)

Chart Audit

- Medications listed without complete or specific indications outlined were frequently home medications
  - Partial Indication Home Meds: 50% (3 of 6)
  - No Indication Home Meds: 33.33% (1 of 3)

Chart Audit

- Trainees spending a majority of their clinical time on the CL service were more likely to outline indications for medication recommendations
  - CL Fellows
    - Fellow 1: Complete Indication 100% (5 of 5)
    - Fellow 2: Complete indication 50% (1 of 2); Partial Indication 50% (1 of 2)
    - Fellow 3: Complete Indication 100% (3 of 3)
  - Addiction Fellow: Complete Indication 100% (1 of 1)
  - Residents
    - PGY2: Complete Indication 33.33% (1 of 3); Partial Indication 33.33% (1 of 3)
    - PGY3: Complete Indication 0% (0 of 2); Partial Indication 50% (1 of 2)
    - Neurology Rotator: Complete Indication 20% (1 of 5); Partial Indication 60% (3 of 5)

Outcomes to Measure

- Process: % audited charts with medication justification
- Balance: trainee satisfaction

Aim Statement

Specific, Measurable, Achievable, Relevant, Time-Specific

- We plan to increase the % of audited charts with correct documentation of medication justification from a baseline of 57% to 80% by March 1, 2020.

Priority/Payoff matrix

	Easy	Difficult
High-Impact	Dot phrase in EMR containing template and pre-populated rationales Adjust template for initial evaluations	Indication prompt in EMR
Low-Impact	E-mail notification to trainees and staff	In person training for trainees and staff

Proposed Intervention

Stage	Description
Intervention	▪ Adjust template for initial evaluations 12.1.2019
PDSA Cycle #1	▪ Chart audit post intervention 3.1.2020
PDSA Cycle #2	▪ TBD
Conclusions	▪ TBD

The National QI Project

How we're doing so far

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Our aim statement:

By March 30, 2020, at least three participating fellows will have completed at least 2 PDSA cycles on the project entitled, "Improving the documentation of medication justification on psychiatry consults."

Our data so far:

Trainee	Problem Statement	Stakeholder Analysis	Baseline Data	Fishbone Diagram	Pareto Chart	Aim Statement	Priority/Payoff Matrix	PDSA Cycle #1	PDSA Cycle #2
Brady	x	x	x	x		x	x		
Victor	x								
Jackie	x	x	x	x		x	x	x	

Successes:

- People are excited about the idea
- We are on track to achieving our aim

Pitfalls:

- Getting everyone on a call at the same time has not worked out well → coordination and teaching have not materialized effectively (i.e., are we really filling a gap?)
- Not all prospective participants are interested in the problem → recruitment has not been high

“Act” for AY2020

- Video QI didactic to go on the ACLP website
- Give participants a choice about which problem they want to tackle in their projects (collectively)
- Schedule monthly phone conferences in advance and share minutes
- Other ideas?

Our Website

- https://www.clpsychiatry.org/member-resources/quality-and-safety-resources/