March 7, 2024

NOTICE

The Board of Directors of the Kaweah Delta Health Care District will meet in an open Academic Development Committee meeting at 4:00PM on Wednesday, March 13, 2024 in the Kaweah Health Medical Center – Support Services Building Copper Conference Room (2nd Floor) 520 West Mineral King Avenue.

All Kaweah Delta Health Care District regular board meeting and committee meeting notices and agendas are posted 72 hours prior to meetings (special meetings are posted 24 hours prior to meetings) in the Kaweah Health Medical Center, Mineral King Wing entry corridor between the Mineral King lobby and the Emergency Department waiting room.

The disclosable public records related to agendas are available for public inspection at Kaweah Health Medical Center – Acequia Wing, Executive Offices (Administration Department) {1st floor}, 400 West Mineral King Avenue, Visalia, CA and on the Kaweah Delta Health Care District web page https://www.kaweahhealth.org.

KAWEAH DELTA HEALTH CARE DISTRICT
David Francis, Secretary/Treasurer

Kelsie K. Davis
Board Clerk, Executive Assistant to CEO

DISTRIBUTION:
Governing Board
Legal Counsel
Executive Team
Chief of Staff
http://www.kaweahhealth.org

KAWEAH DELTA HEALTH CARE DISTRICT BOARD OF DIRECTORS
ACADEMIC DEVELOPMENT

Wednesday March 13, 2024

Kaweah Health Support Services Building
520 West Mineral King – Copper Conference Room (2nd floor)

ATTENDING: Directors: Ambar Rodriguez (chair) & Mike Olmos; Lori Winston, M.D., Chief of Medical Education & Designated Institutional Official; Gary Herbst, CEO; Keri Noeske, CNO; Amy Shaver, Director of GME; Krystal De Azevedo, Manager of GME; James McNulty, Director of Pharmacy Services, Sean Oldroyd, DO; Mara Lawson; Lydia Marquez, Executive Assistant to the Chief of Medical Education & Designated Institutional Official, Recording

OPEN MEETING – 4:00PM

CALL TO ORDER – *Ambar Rodriguez*

Public/Medical Staff participation – Members of the public may comment on agenda items before action is taken and after it is discussed by the Board. Each speaker will be allowed five minutes. Members of the public wishing to address the Board concerning items not on the agenda and within the jurisdictions of the Board are requested to identify themselves at this time. For those who are unable to attend the beginning of the Board meeting during the public participation segment but would like to address the Board, please contact the Board Clerk (Kelsie Davis 559-624-2330) or kedavis@kaweahhealth.org to make arrangements to address the Board.

1. **CLINICAL EDUCATION** – Presentation of the Nursing Preceptor Program at Kaweah Health. *Mara Lawson, RN, Director of Clinical Education, Nursing Professional Development Practitioner*

2. **PHARMACY RESIDENCY PROGRAM ANNUAL PROGRAM REVIEW** - *Nicole Gann, Inpatient Pharmacy Clinical Manager & Cory Nelson, Ambulatory Pharmacy Manager*

ADJOURN – *Ambar Rodriguez*

In compliance with the Americans with Disabilities Act, if you need special assistance to participate at this meeting, please contact the Board Clerk (559) 624-2330. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to the Kaweah Delta Health Care District Board of Directors meeting.

Kaweah Delta Health Care District
ACADEMIC DEVELOPMENT COMMITTEE

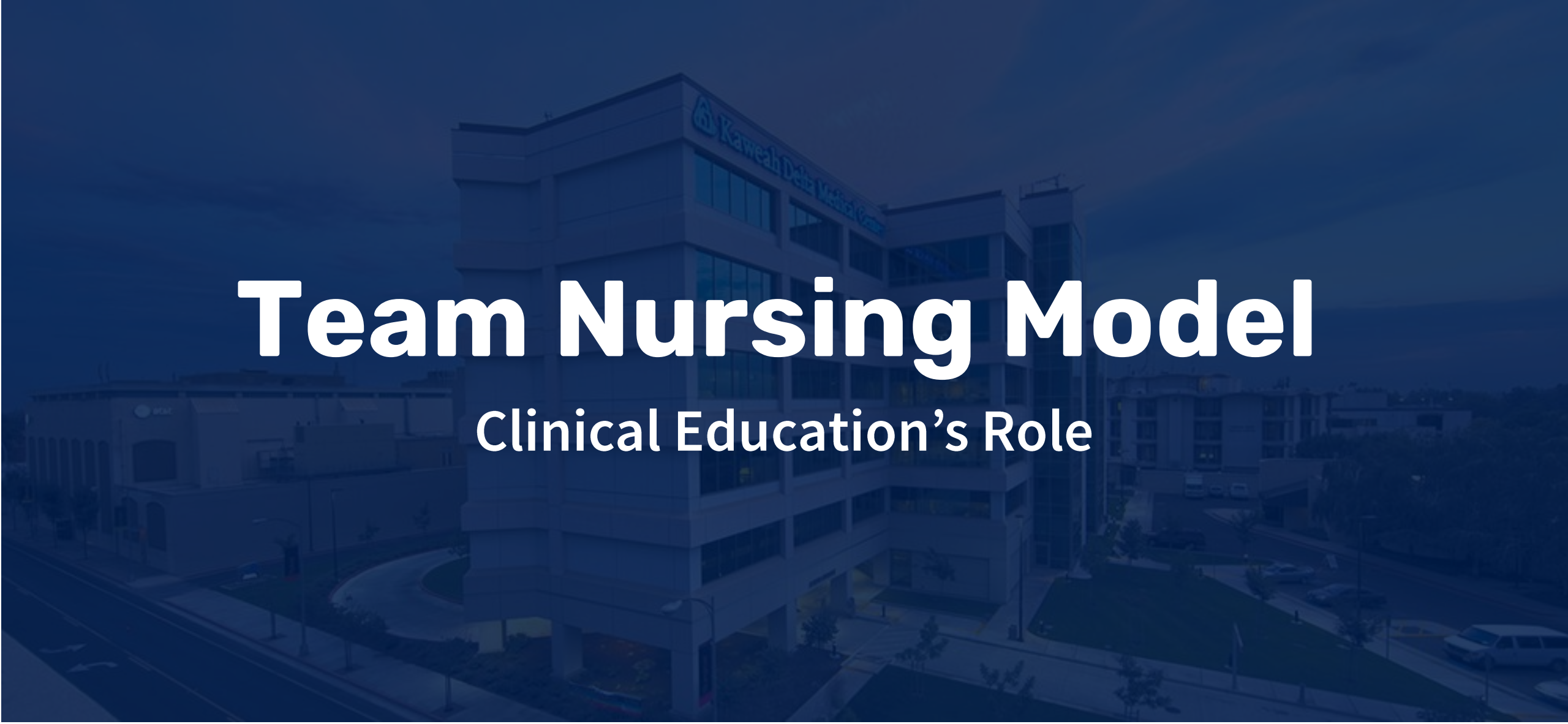
Mission and Purpose: The Academic Development Committee of the Board serves to strengthen our institutional pillar of empowering through education. Kaweah is a teaching health care organization and education is the foundation that enables Kaweah's teams to provide world-class care to our community in a constantly evolving medical climate. Members provide strategic guidance and support for the development and enduring success of our educational programs.

Specific Responsibilities: Review of GMEC oversight of GME including the Annual Institutional Review and annual program evaluations for all residency programs. Provide oversight of Annual American Society of Health System Pharmacists program reviews. Annual budget review and feasibility assessments for new & expanding programs. Collaborate with the Human Resources department and help with enterprise strategies for the education of our workforce. Monitor program retention and attrition along with compliance with ACGME, ABMS, CMS, ASHP and the Joint Commission. This committee will also serve to foster educational alignment with institutional goals and metrics.

3.13.24 Agenda:

Clinical Education - Presentation of Nursing Preceptor Program at Kaweah Health – Mara Lawson, RN, Director of Clinical Education, Nursing Professional Development Practitioner

Pharmacy Residency Program Annual Program Review – Nicole Gann, Inpatient Pharmacy Clinical Manager & Cory Nelson, Ambulatory Pharmacy Manager



Team Nursing Model

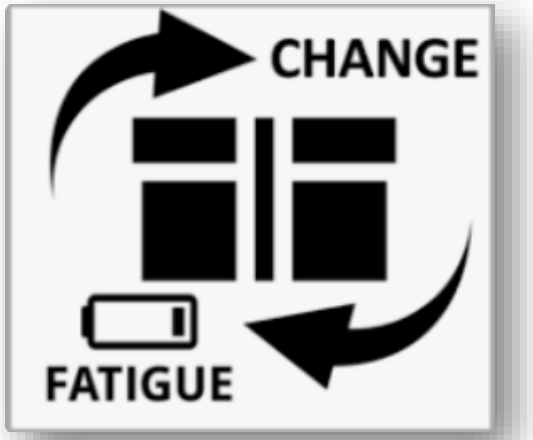
Clinical Education's Role

Background

- Industry moved away from LVNs in acute care
- Nursing shortage since early 2000s compounded by COVID pandemic
- RN contract labor costs not sustainable
- Nurse to patient ratio impacts patient care

Challenges

- Staff memory of why we went away from LVNs
- Unaware of what LVNs learn in school
- Lack of trust – “It’s my license”
- Current workforce consists of many new nurses
- LVNs changing from SNF to Acute Care mindset
- Change Fatigue!



Our Process

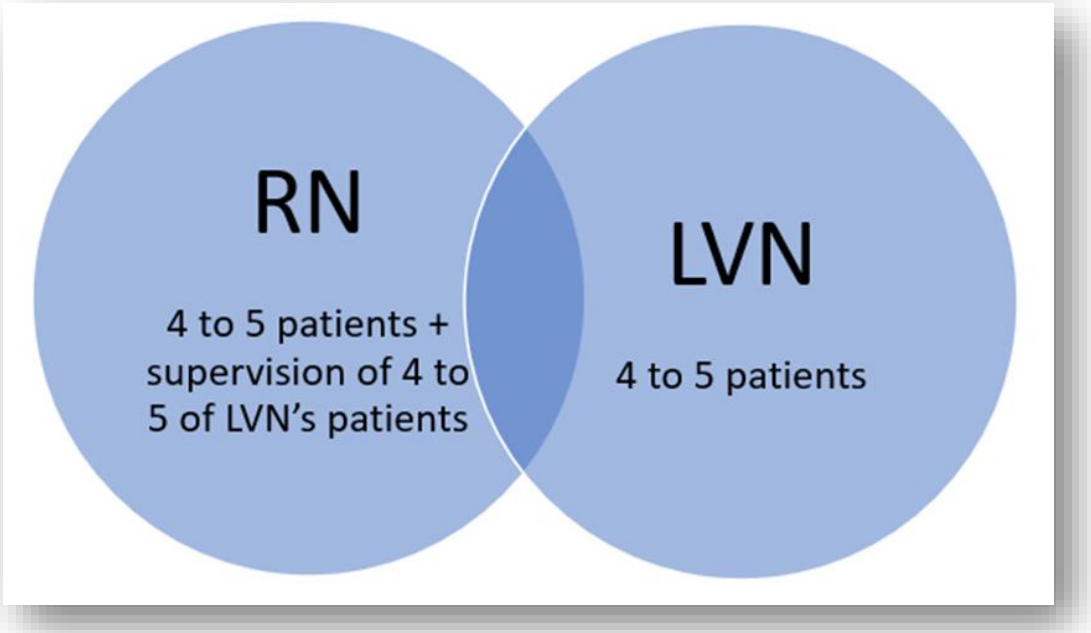
RESEARCH

- *Outside the Walls* –
  - What are other organizations doing?
  - Locally & nationwide
- Scope of practice –
  - Consulted BRN & BVNPT
  - Internal scope – more restrictive
- Input from front line nurses
  - Things to consider
- Workflows for all units
- Failure Mode Effect Analysis (FMEA)

Our Process

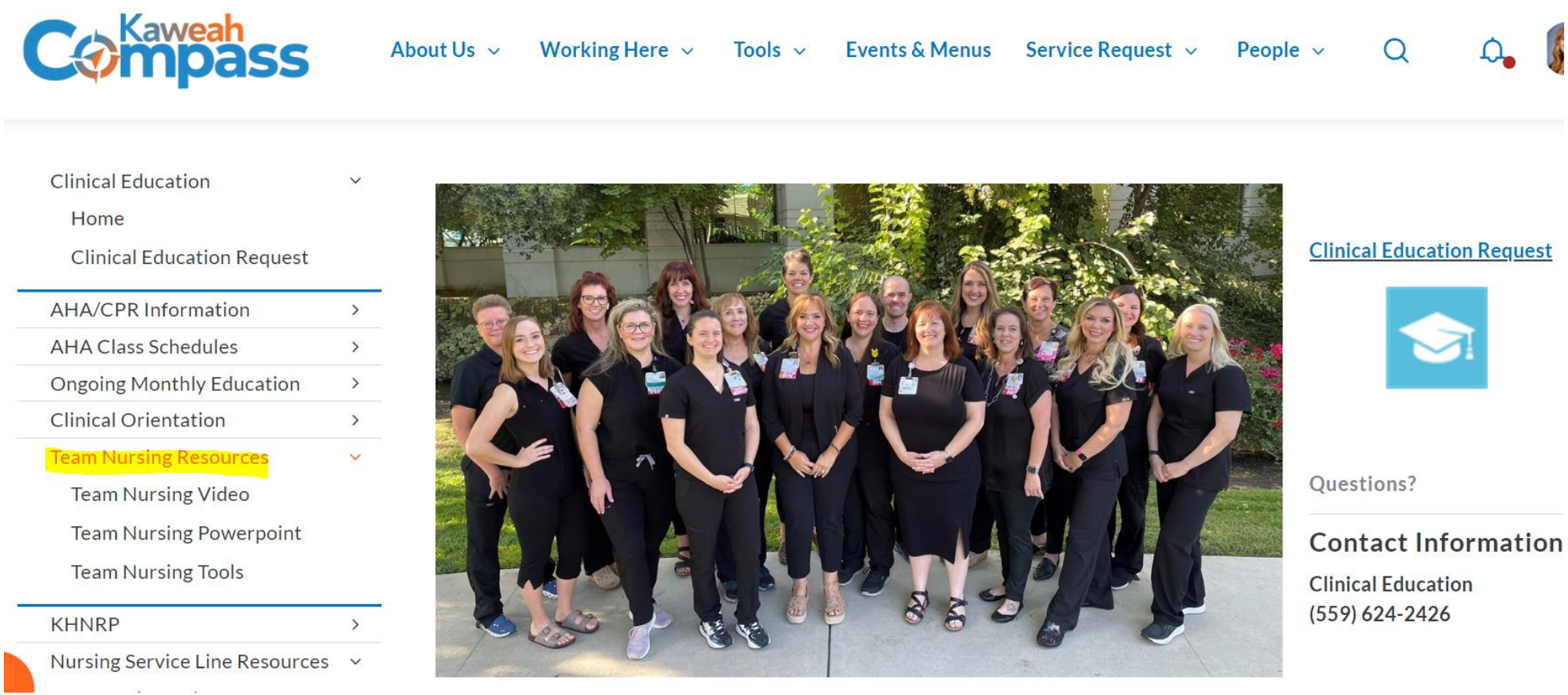
CREATE

- New model: 1 RN + 1LVN = Team Nursing
- Standardize orientation checklists (RN & LVN)
- Delegation Guidelines document (Yes/No)
- Nursing workflows
- Classes for RNs & LVNs – Director support
- Kaweah Compass page to house resources



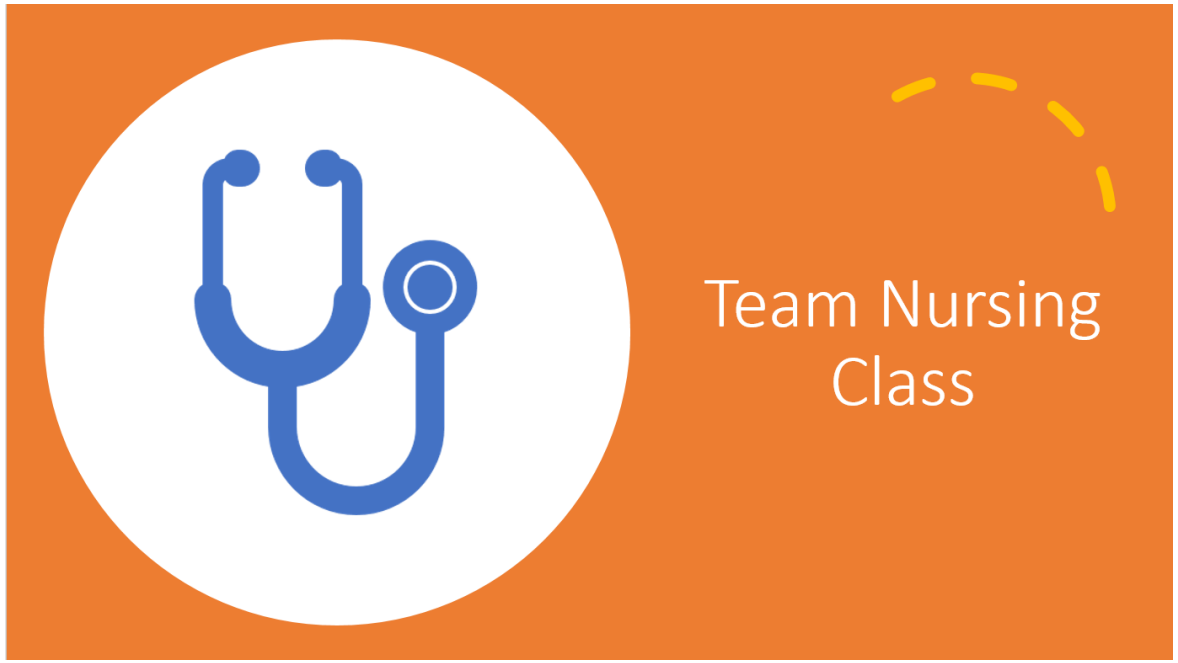
Our Process

CREATE



Our Process

CREATE



Agenda

- Why We're Here
- Orientation Plan
- Scope of Practice
- Delegation
- Workflow
- Patient Care Scenarios

Our Process

CHANGE


Kaweah Health Tasks and Responsibilities for RNs, LVNs, and CNAs

- This list of tasks & responsibilities is a guideline for Registered Nurses (RN), Licensed Vocational Nurses (LVN), and Certified Nursing Assistants (CNA) at Kaweah Health. In specialty areas where alternative clinical personnel are utilized you will need to refer to specific job descriptions for guidance.
- The LVNs & CNAs work under the direction & supervision of the RN. RNs delegate to LVNs based on the patient status & the LVN scope of practice. Both RNs & LVNs may assign tasks to CNAs, but the responsibility for care remains with the RN & LVN, based on their scope of practice.
- Must demonstrate competency

References: California Board of Registered Nursing, Nursing Practice Act; California Board of Licensed Vocational Nursing, LVN Practice Act; Department of Health Services, Title 22, RN Job Descriptions

RESPONSIBILITIES	RN	LVN	CNA	COMMENTS
Initiate RRT, Code Blue & CPR	Yes	Yes	Yes	
Nursing Care (within scope of practice)				
Data Collection	Yes	Yes	Yes	LVNs & CNAs collect data, which contribute to assessment & evaluation
Data Evaluation	Yes	No	No	
Identification of Plan of Care	Yes	No	No	
Evaluation of Interventions	Yes	Yes	No	
Electronic Health Record Documentation				
Initial Admission Assessment	Yes	Yes	No	
Transfer Assessment	Yes	Yes	No	
Shift Assessment	Yes	Yes	No	
Risk Screens • Johns Hopkins Fall Risk Assessment • Braden Skin Risk Assessment • Columbia Suicide Severity Rating Scale (CSSRS) • Nutrition Risk Screening • Broset Risk for Violence • Functional Screening	Yes	Yes	No	LVN notifies RN of abnormal/positive risk scores
Admission and Medication History	Yes	Yes	No	
Plan of Care (IPOC initiation)	Yes	No	No	
Plan of Care (interventions and goals met/not met)	Yes	Yes	No	
CIWA: initial and ongoing assessment	Yes	Yes	No	LVN notifies RN of abnormal/positive risk scores
Stroke				
Dysphagia Screening	Yes	No	No	
NIHSS	Yes	No*	No	*LVN can perform Neuro Checks
Secondary Skin Assessment	Yes	Yes	No	
Receiving/Reporting Critical Lab Results	Yes	Yes	No	LVN reports results to provider and RN
Providers Orders: Receive and Acknowledge Orders	Yes	Yes	No	RN/LVN cannot receive Prescriber orders
Standardized Procedures				
Initiate Standardized Procedures	Yes	No	No	
Follow orders per scope of practice and competency	Yes	Yes	Yes	
Patient Education				

- Orientation for existing break relief LVNs
  - Additional training for skills they didn't receive (central lines, handoff report, etc.)
- Sustainability:
  - Adding team nursing training to orientation plans for new nurses
  - Policies & resources – RN to Licensed Nurse
    - RN only items
  - Registered Nurse Residency Program → Licensed Nurse Residency Program

Our Process

EVALUATE

- Team Nursing taskforce
  - Dashboard items
- Survey nurses on team nursing units
- Trialing different models

Strengths

- Input from bedside nurses
- Utilizing full scope for LVNs
- Team nursing resources added to Kaweah Compass
- Partnership of unit leaders & clinical educators
- Education for existing nurses and new hires
- Expanded Nurse Residency Program
- Increased LVN pay to compensate for increased responsibility
- LVNs motivated to go back to school to become RNs because of team nursing

Weaknesses

- TIME - removed a lot of educators from normal duties
- Not fully staffed for LVN or RN positions
- Not popular model amongst nurses

Opportunities

- Expand Preceptor Class to include LVNs
- Expand Clinical Education to include LVN
- Change culture of our workforce to be supportive of team nursing

Threats

- Recruiting RNs & LVNs into team nursing model
- Retention of current staff
- LVNs not respected by some staff for their scope of practice & abilities
- LVN perception of doing the same work as RNs for less pay
- High patient acuities and high census makes this model challenging

Live with passion.

Health is our passion. Excellence is our focus. Compassion is our promise.

Kaweah Health

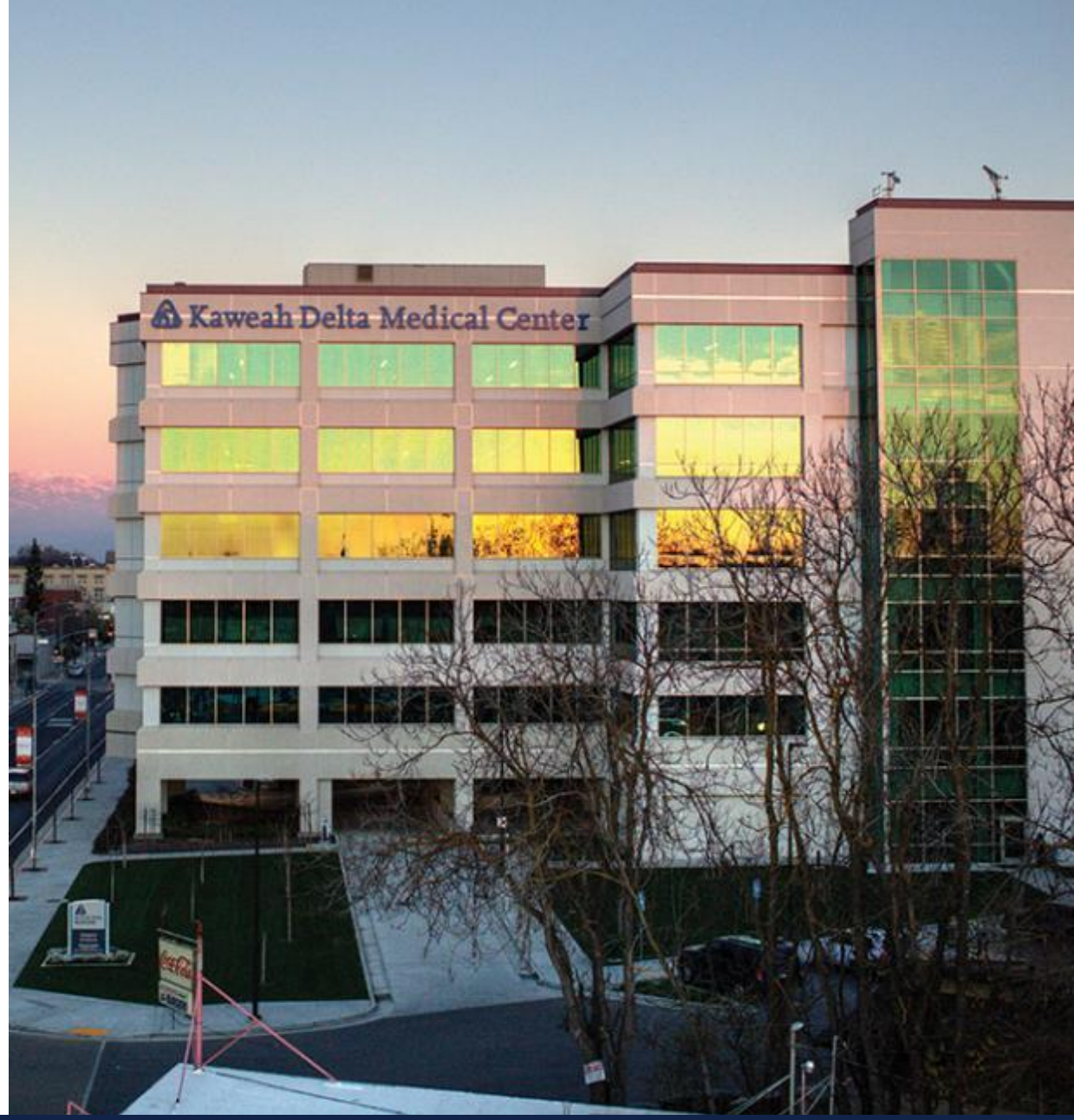
Pharmacy Residency Programs

PGY1 Pharmacy Practice and PGY2 Ambulatory Care

March 2024

Objectives

- Understand pharmacy training pathway
- Understand pharmacy residency accreditation
- Review Kaweah Health Pharmacy Residencies
- Assess current and future state of each pharmacy residency program
- Review value of pharmacy residencies to organization



Kaweah Health

Pharmacist Education

Pre-pharmacy Training

- 2-4 years of focused undergraduate training
- Majority have BS degree

Doctor of Pharmacy

- 3-4 year curriculum
- 1 year of non-didactic rotations

Pharmacy Residency

- 1-2 years
- Requirement of clinical pharmacist positions

In 2023 4,099 of 12,449 Pharm.D. graduates entered into a residency

Board Certification indicates advanced level of practice

ashp pharmacists advancing healthcare

Residency Accreditation

- Programs are evaluated based on set Standards
- Includes pre-visit work and a site visit from accreditors
- Accreditation is granted for 1-8 years

Kaweah Health

Pharmacy Residency

PGY1 Pharmacy Practice Residency

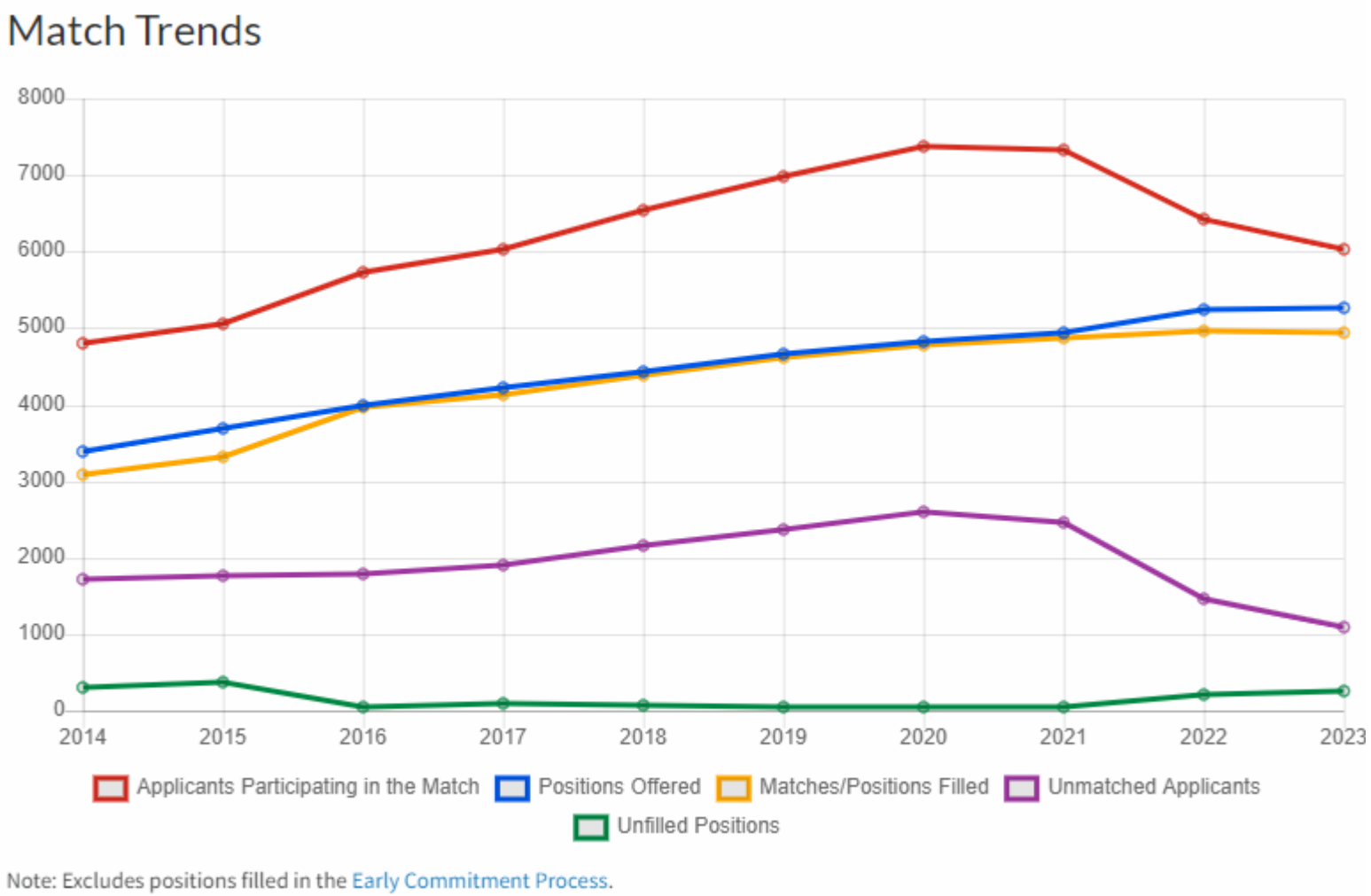
- One-year residency programs designed to develop clinical pharmacists responsible for medication-related care of patients with a wide-range of conditions
- Graduates are eligible for board certification and for PGY2 pharmacy residency training

PGY2 Residency Programs

- One-year residency program designed to build upon PGY1 while focusing in a particular area of practice
- Examples Include: Ambulatory Care, Critical Care, Emergency Medicine, Infectious Disease, Oncology, Pain and Palliative Care, Administration

Kaweah Health

Pharmacy Residency



ashp
pharmacists advancing healthcare®

2023:
6,019 Candidates competing for 5,256 Positions Nationwide

PGY1 Pharmacy Practice

Program Overview

- 2 Pharmacy Residents
  - Evidenced based practice
  - Practice leadership
- ASHP Accreditation Granted
  - October 2023
    - Pending final accreditation length
- Program Graduation Requires
  - Staffing Requirement
    - ✓ (340 hours per resident)
  - Research/Quality Improvement Project
  - Teaching Certificate Program
  - Formulary Projects

Program Structure

Hospital & Department Orientation (3 weeks)

Core Rotations:

- Ambulatory Care (4 weeks)
- Pharmacy Practice Management (4 weeks)
- Infectious Diseases (4 weeks)
- Internal Medicine 1 (4 weeks)
- Internal Medicine 2 (weeks)
- Critical Care (4 weeks)
- Pain Management (4 weeks)
- Emergency Medicine (4 weeks)

Longitudinal Experiences:

- Medical Emergency Response
- Formulary Management
- Residency Project
- Staffing
- Teaching Certificate Program

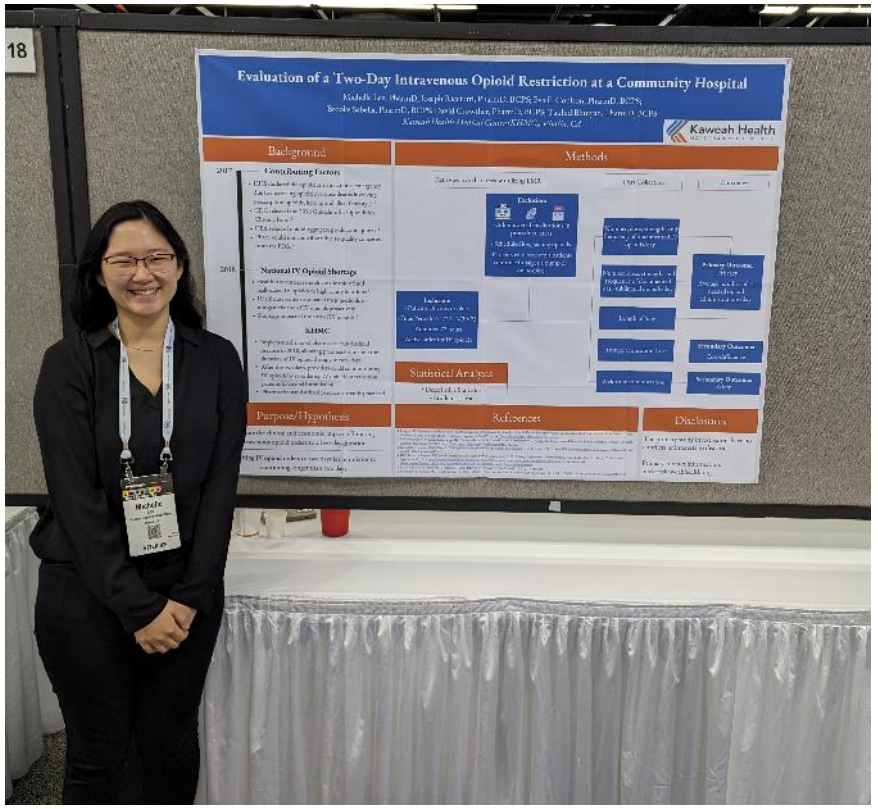
Program Structure

Project Work

- 2 half days per rotation
- Month of December
  - Includes ASHP Mid-year, Project Days, PTO

Electives (3 x 4 weeks)

- Anemia Management
- Advanced Pain
- Anticoagulation (inpatient)
- Critical Care II
- Drug Information
- Emergency Medicine II
- Informatics
- Pediatrics/NICU



PGY1 Program Structure Yearly Snapshot

Week	2022-23	Resident 1 Rotations Scheduled	Resident 2 Rotations Scheduled	Med Emerg Pager Schedule	Assigned Projects by Month	Resident Staffing Schedule: Resident 1	Resident Staffing Schedule: Resident 2
1	June 27 - July 1	Pharmacy Orientation	Pharmacy Orientation		ACLS		
2	July 4 - July 8						7/9-7/10
3	July 11 - July 15	ID	Internal Med 1 5T/4T		Start Recitations		
4	July 18 - July 22			1	One Formal Presentation	7/23 - 7/24	
5	July 25 - July 29			1	Assign Monograph/MUE		7/30 - 7/31
6	Aug 1 - Aug 5			1	Assign Research Project		
7	Aug 8 - Aug 12	Internal Med 1 5T/4T	ID	2	Start Staffing Component	8/13-8/14	
8	Aug 15 - Aug 19			2	One Formal Presentation		8/20- 8/21
9	Aug 22 - Aug 26			2	Present Research		
10	Aug 29 - Sept 2			2	Assign Lecture 1	9/3-9/4	
11	Sept 5 - Sept 9	Practice Management /Project Work	Order Entry	1	Work on Form Project 1		9/10-9/11
12	Sept 12 - Sept 16		Elective 1 Pediatrics/NICU	1	One Formal Presentation		
13	Sept 19 - Sept 23			1	Submit Research IRB	9/24/1945	
14	Sept 26 - Sept 30			1	Work on Lecture /Form 1		10/1-10/2
15	Oct 3 - Oct 7	Order Entry		2	Poster Abstract Due		
16	Oct 10 - Oct 14	Amb Care	ED Rotation	2	One Formal Presentation	10/15-10/16	
17	Oct 17 - Oct 21			2	Work on Form Project 1		
18	Oct 24 - Oct 28			2	Work on Lecture 1		10/29-10/30
19	Oct 31 - Nov 4			1	Receive IRB Approval	11/5-11/6	
20	Nov 7 - Nov 11	Elective 1 Pediatrics/NICU	Pain Management 4 weeks	1	One Formal Presentation		
21	Nov 14 - Nov 18			1	Start Data Collection		11/19 - 11/20
22	Nov 21 - Nov 25			1	Work on Lecture /Form 1	11/26-11/27	
23	Nov 28 - Dec 2			1	ASHP Poster Draft Due		
24	Dec 5 - Dec 9	ASHP	ASHP	None	Form Project 1 Due		12/10-12/11
25	Dec 12 - Dec 16	Pharmacy Operations	Pharmacy Operations	2	Poster at ASHP	12/17-12/18	
26	Dec 19 - Dec 23			1	Lecture 1 Due		
27	Dec 26 - Dec 30	PTO	PTO	None	Data Collection Research		12/30 - 1/1
28	Jan 2 - Jan 6	Elective 2 Drug Information	Cricital Care	1	One Formal Presentation	1/7-1/8	
29	Jan 9 - Jan 13			1	Assign Lecture 2		1/14-1/15
30	Jan 16 - Jan 20			1	Assign Form Proj 2		
31	Jan 23 - Jan 27			1	Data Collection Research	Staffing	
32	Jan 30 - Feb 3	Cricital Care	Amb Care	2	One Formal Presentation		Staffing
33	Feb 6 - Feb 10			2	Work on Lecture 2		
34	Feb 13 - Feb 17			2	Work on Form Project 2	Staffing	
35	Feb 20 - Feb 24			2	West State Abs Due		Staffing
36	Feb 27 - March 3	Pain Management	Practice Management /Project Work	1	One Formal Presentation		
37	March 6 - March 10			1	Work on Lecture 2	Staffing	
38	March 13 - March 17			1	Work on Form Project 2		Staffing
39	March 20 - March 24			1	Draft PPT Due Research		
40	March 27 - March 31	ED Rotation	Internal Med 2 3W	2	One Formal Presentation	Staffing	
41	April 3 - April 7			2	Lecture 2 Due		Staffing
42	April 10 - April 14			2	Work on Form Project 2		
43	April 17 - April 21			2	PPT Present KDHCD	Staffing	
44	April 24 - April 28	Elective 3 ED II	Elective 2 Informatics	1	One Formal Presentation		Staffing
45	May 1 - May 5			1	Form Project 2 Due		
46	May 8 - May 12			1	PPT at SSHP	Staffing	
47	May 15 - May 19			1	Draft Manscript Due		
48	May 22 - May 26	WSRC/Project	WSRC/Project	None	One Formal Presentation		Staffing
49	May 29 - June 2	Int Med 2 3W	Elective 3 Advanced Pain/Palliative	2	Western States PPT	Staffing	
50	June 5 - June 9			2	Teaching Portfolio		
51	June 12 - June 16			2	Manuscript Due	Staffing	Staffing
52	June 19 - June 23			2	Wrap up all Evals		
	Last Day	Project WrapUP	Project WrapUP			34 shifts	34 shifts

Rotations

Required Rotations:
Orientation
Infectious Diseases
Practice Managemt
Critical Care
Internal Med I & II
Pain Management
Emergency Medicine
Ambulatory Care

Longitudinal Exp:
Staffing
Research Project
Formulary Mngmt
Med Emergency

Elective Rotations: (choose 3)
Acute Coag
Emergency Medicine
Drug Information
Informatics
Advanced Pain
Pediatrics
Anemia Management
Ambulatory Care

Staffing
Commitment: Every 3rd weekend
Estimated start time: July
December Transition: These 4 weeks will be reserved as time to attend ASHP, work on research project; operations training and project follow up; confirm future learning experiences ; schedule and take PTO

Portfolios

Residency Portfolios must be updated by the resident on a regular basis. RPD will monitor the resident to ensure portfolios are kept up to date. Residents will be given a regularly scheduled time to ensure updates are completed.

Project Days

Residents will be given 2 half- day per month to work on longitudinal related projects (research, service, formulary)

Other

Residents will complete a teaching certificate through ASHP prepared by the University of Kentucky. Residents will have the opportunity to precept a pharmacy student during at least one learning experience. Elective rotations may be extended to 6 weeks to allow for the resident to further customize their learning experiences.

Presentations

1 presentation per rotation (excl conc/long); ASHP poster at Mid-Year ; 2-3 didactic lectures (teaching certificate), Formal presentation research project to KHMC staff, Sierra Society (CSHP) & WSC; Other presentations may be assigned by preceptor PRN; Substitution of project for presentation with approval by preceptor & RPD (limit 2X)

PGY1

S

- Strong clinical acute care experiences in a variety of settings
- Talented and experienced preceptors
- Improves employee satisfaction & provides professional development
- Partnerships with UCSF strengthens resident experience

W

- Team rounding limited to certain patient care units
- Difficulty recruiting and retaining to rural area

O

- KH has extensive medical residency programs to further integrate training
- Almost 65% KH retention rate of residents after completion of residency

T

- Current economic climate has caused a decrease in resident applicant pool (ultimately impacts clinical pharmacist recruitment)
- Decreased # of inpatient jobs after residency completed

Kaweah Health

Ambulatory Care PGY2

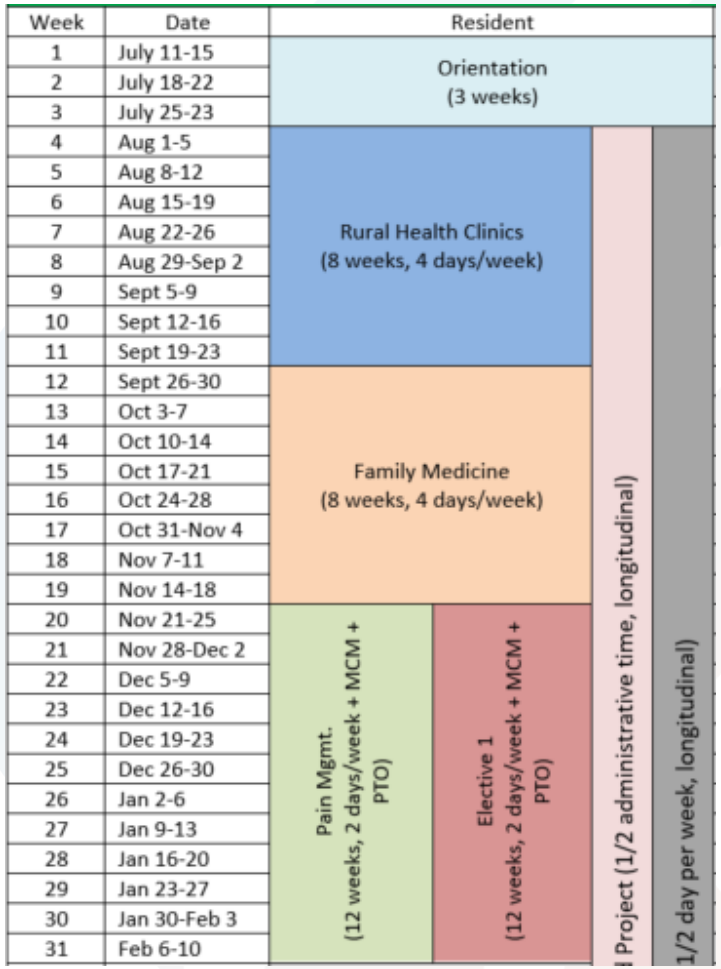
- First PGY2 program in the Central Valley
  - 2018-2019 Residency Year
- ASHP Accreditation Granted
  - July 2, 2018
  - Anticipated next accreditation: May
- Early Commitment option for PGY1s interested in PGY2

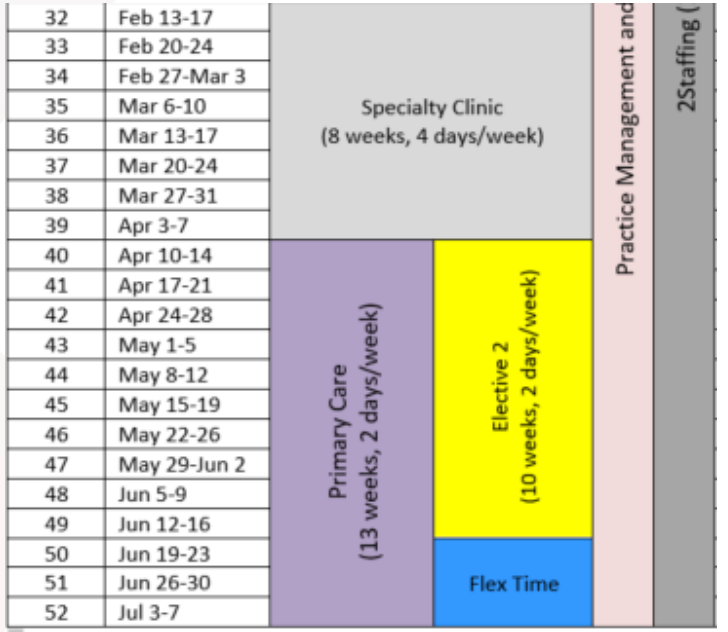
- Program Graduation Requires
  - Research Project
  - Business Plan for a Pharmacy Service Line
  - Staffing Hours – coverage of pharmacist shifts

PGY2

- Required Block Rotations (4 d/w):
  - Family Medicine (8 weeks)
  - Specialty Clinic (8 weeks)
  - Rural Health Clinic (8 weeks)

- Required Block Rotations (2 d/w):
  - Pain Management I (12 weeks)
  - Primary Care (12 weeks)



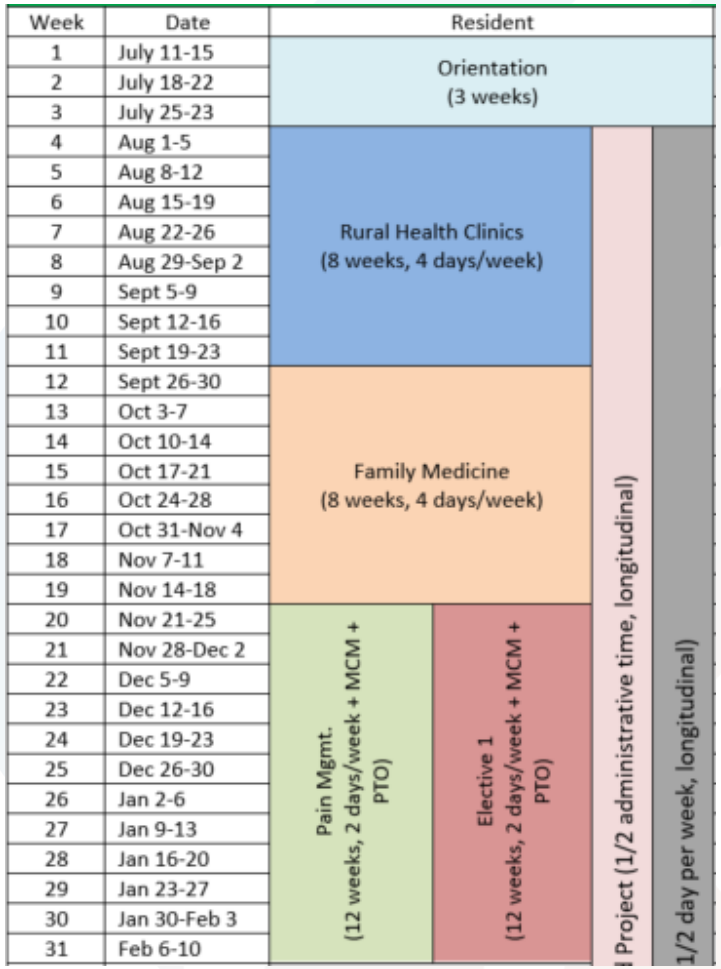


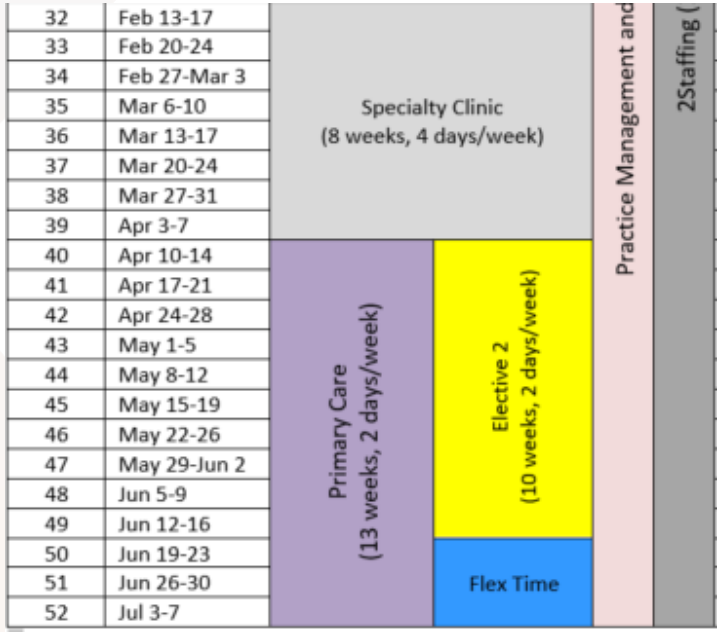
Kaweah Health

PGY2

- Required Longitudinal:
  - Staffing (1/2 day per week)
  - Practice Management and Leadership
  - Scholarship and Teaching

- Elective Rotations (2 d/w):
  - Pain Management II
  - Cardiology
  - Nephrology
  - Endocrinology
  - Will explore other options based on resident interest





Kaweah Health

PGY2

S

- Strong clinical patient interactions/responsibility
- Talented and well-trained preceptor team
- Variety of practice settings
- Partnerships with UCSF and UMN to strengthen resident experience

W

- Limited elective experiences, especially in specialty areas (MH, ID)
- Moderate interaction with medical residents
- Difficulty recruiting to rural area

O

- KH has extensive medical residency programs to further integrate training
- Key Medical Group as potential partners in training
- Could seek partnership with Fresno areas to provide elective opportunities

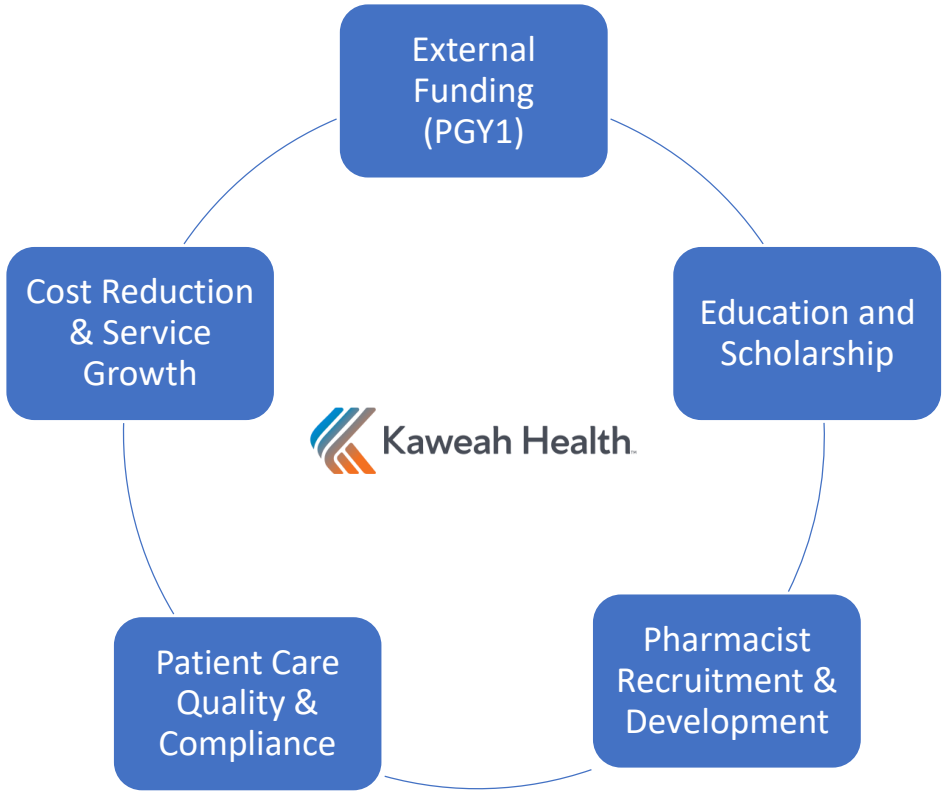
T

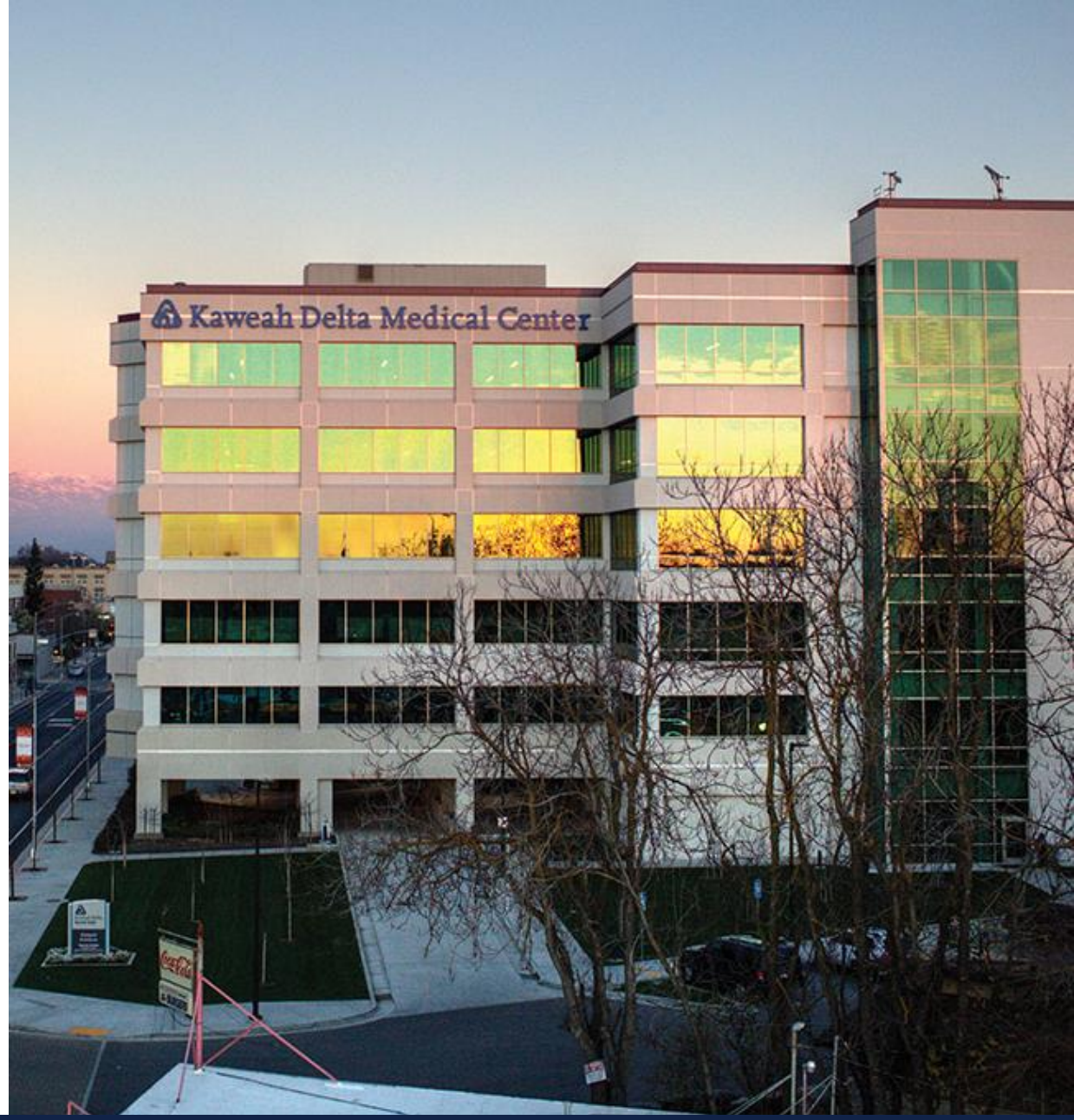
- Kern Medical Center started a PGY2 in Ambulatory Care in 2022
- PGY1 programs with a strong ambulatory care focus

Kaweah Health

Why?

Benefits to the Organization





Pharmacy Resident Value Added

To the Organization and Community

- Supports Patient Care
  - Expands the reach of the current clinical pharmacist as resident can:
    - Attend Code Blues and RRTs
    - Makes recommendations to improve medication therapy
    - Complete consults, therapeutic interchanges and automatic adjustment
    - Expands outpatient clinic volume
- Improves the Quality of Health Care Services
  - Completion of residency related quality improvement and/or research projects
    - Example Projects: Implementation of long-acting antipsychotic service line, review of clinical outcomes of pharmacist-managed type-2 diabetes mellitus, Implementation of Cerner smart template to improve consult workflow, Impact of ED RPh interventions on use of LMWH over UFH
- Supports Medical, Nursing and Patient Satisfaction
  - Resource for medication information and medication therapy optimization
  - Participate in patient counseling or medication history review
  - Provide educational in-services
  - Reduction in complex visits for primary care providers
  - Improved patient care experience for patients with multiple chronic conditions/medications
- Cost Reduction
  - Reduce pharmacist recruitment costs by retaining current residents into open pharmacist positions
  - Residents cover inpatient pharmacist shifts on the weekends (680 hours/year) and ½ day per week outpatient (208 hours/year)
- Professional Development, Education and Scholarship
  - Provides for development of leadership/clinical skills of current pharmacist staff through precepting
  - Allows current pharmacist staff to contribute to research and/or quality improvement projects w/ opportunity for publications
  - Journal Club and Topic/Case Presentations for continuing education to current pharmacist staff

Example Resident Research

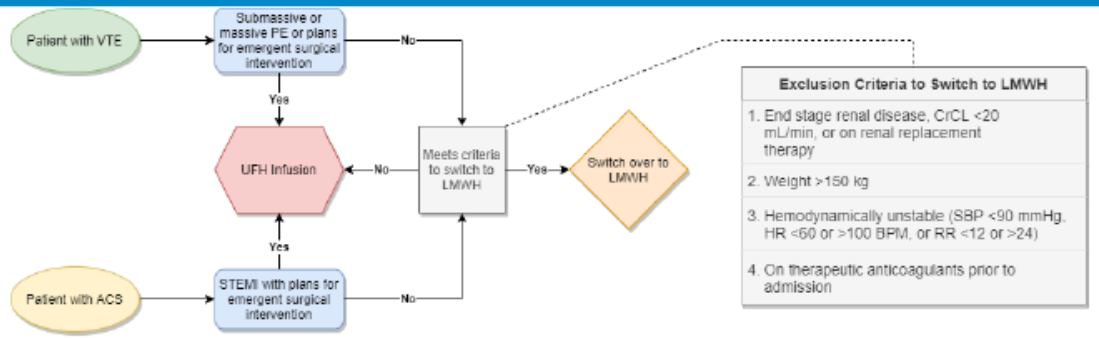
The Impact of Emergency Department Pharmacist Interventions on the Use of Low Molecular Weight Heparin over Unfractionated Heparin to Reduce Medication Error Rates

Jeanny An, PharmD; Kathryn Smith, PharmD, BCPS; Savannah Frady Lail, PharmD, BCPS, BCCCP; Christopher Mahaffey, PharmD, BCPS
Kaweah Health Medical Center, Visalia, CA

Background

- Unfractionated heparin (UFH) infusion and low molecular weight heparin (LMWH) are guideline recommended and FDA approved for acute coronary syndrome (ACS) or venous thromboembolism (VTE) treatment
- UFH infusions are prescribed more frequently compared to LMWH despite unfavorable characteristics that can lead to adverse outcomes and errors[1,2]:
  - ↑ risk of heparin induced thrombocytopenia
  - Close monitoring of partial thromboplastin time (PTT)
  - Narrow therapeutic range
- LMWH is a weight-based once or twice daily subcutaneous injection that does not require routine monitoring of anticoagulation activity[3]
- LMWH has lower medication error risk, and with the added ease of administration, may be initiated quicker in select patients with ACS or VTE
- Pharmacist-led effort to decrease error rates was implemented by recommending a LMWH whenever appropriate in patients with ACS or VTE

UFH to LMWH Switch Criteria



Research Purpose and Outcomes

Purpose:
- To quantify the ED pharmacists' interventions regarding the choice of initial parenteral anticoagulant and assess opportunities for optimization of prescribing practices for patients with ACS or VTE

Primary Outcome:
- The number of medication errors potentially prevented by the ED pharmacy team by recommending a switch from UFH infusion to LMWH in select ACS or VTE patients

Secondary Outcomes:
- Number of UFH infusions ordered for patients that met the criteria to switch to a LMWH that could have been intervened on
- Difference in time to initiation of anticoagulation

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Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

Jeanny An: Nothing to disclose
Kathryn Smith: Nothing to disclose
Savannah Frady Lail: Nothing to disclose
Christopher Mahaffey: Nothing to disclose

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Methods

DESIGN: Retrospective, quality improvement, medication use evaluation (MUE)

INCLUSION CRITERIA:
- Adult patients 18 years or older presenting to the ED from November 1, 2020 to September 30, 2021
- Confirmed diagnosis of ACS or VTE
  - ACS defined as unstable angina, non-ST-elevation myocardial infarction, ST-elevation myocardial infarction
  - VTE defined as pulmonary embolism or deep vein thrombosis

EXCLUSION CRITERIA:
- Patients admitted for non-ACS or VTE related problems
- Vulnerable patient populations such as children, pregnant women, and prisoners

PRIMARY OUTCOME DATA COLLECTION:
- Total number of pharmacy interventions made that switched UFH infusion to LMWH

SECONDARY OUTCOME DATA COLLECTION:
- Age, sex, weight, initial coagulation lab markers, initial indication, anticoagulation medication prescribed, baseline creatinine clearance (CrCL), history of ACS or VTE
- Hemodynamic status on admission, time to initiation of anticoagulation

MUE/HEPARIN AUDIT DATA COLLECTION:
- Diagnosis, unit location, weight used to calculate heparin dose
- Review MIDAS safety reporting system for known errors
- Medication errors to be identified with heparin infusions:
  - Incorrect weight programmed and used to calculate initial bolus and maintenance dose
  - Incorrect initial heparin bolus dose given
  - Not ordering PTT levels at the correct time or levels not drawn on time
  - Inappropriate adjustment of heparin infusion rates
  - Not administering the needed heparin boluses

Results/Conclusions

In progress

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Poster # 1128614

Implementation of a Cerner Smart Template Powerform to Improve Pharmacist Consult Workflow

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Background

- At Kaweah Health, the value of pharmacist participation in the vancomycin consult service is apparent, however, the current consult workflow process, as mapped in Figure 1, could benefit from optimization.
- There are many redundant steps in the current documentation process and the data mining in order to complete the vancomycin work up is time consuming.
- The goal of this project is to analyze current workflow and then redesign and implement a new workflow to support completion of vancomycin consults utilizing new Smart Template Powerform functionality within the EHR thus eliminating unnecessary steps and streamlining workflow.
- Improvement of workflow could be beneficial to optimizing the efficiency of the daily activities performed by the clinical pharmacists, potentially capturing additional time in the pharmacist day for continued focus on other essential clinical pharmacist activities
- The results of this study could show the benefit of implementing a new Powerform into the pharmacists' workflow and could lead to further improvement of the EHR system to provide pharmacists time to focus on other clinical aspects of their job.

Objectives

- Purpose:
  - Improve the efficiency of current pharmacist workflow for vancomycin consult management
- Objectives:
  - Primary: Reduce redundancy in the documentation process and decrease manual data mining of clinical patient information measured by the time to complete a vancomycin consult
  - Secondary: Increase pharmacist work satisfaction with the vancomycin consult service

Acknowledgements

- The primary research team would like to thank the individuals and institutions involved with this pharmacy research opportunity from Kaweah Health Medical Center
- The primary study investigators have no relevant financial or nonfinancial relationships to disclose. All images are free of copyright & approved for commercial use.
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Figure 1: Current workflow steps

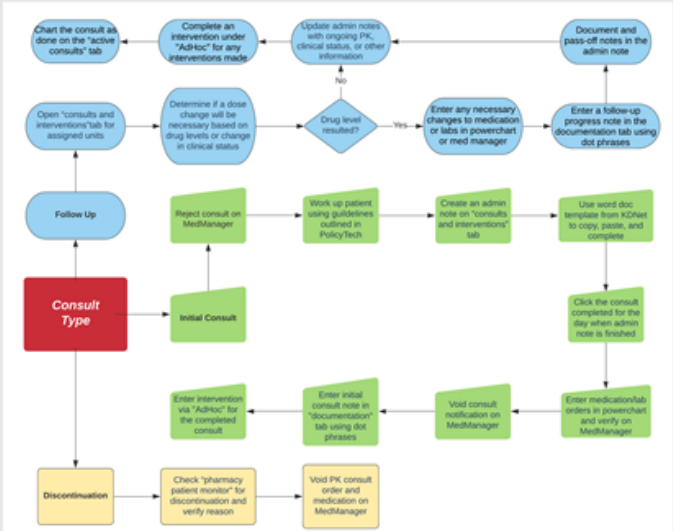

Figure 2: Proposed new workflow steps are mapped out below removing many of the duplicate documentation steps.

Study Design

- This quality improvement project will involve implementation of a new Powerform with Smart Template functionality within the EHR system aimed to improve and streamline the pharmacist workflow process.
- Pre- and post- implementation measurements of the time to complete a vancomycin consult as well as differences in work satisfaction of the pharmacist will be measured and reported as part of the implementation process.
- Primary objective:
  - Data collection of the time to complete a consult will be accomplished using completed pharmacist intervention forms on the EHR during a two-week window both before and after implementation of the new form template.
  - Pre-implementation data will be pulled using an existing KD Hub Discern Report while post-implementation data will be pulled from a new KD Hub Discern Report compatible with the new Powerform.
  - Data points to be collected include the following: date, type of consult, time started, time completed, estimated time to complete, patient floor, pharmacist shift, and pharmacist name
- Secondary objective
  - Data collection for work satisfaction will be accomplished using an electronic survey tool and emailed pre and post implementation of the new workflow to all pharmacists participating in the vancomycin consult workflow and the difference in scores will be reported as an outcome measure of the intervention

Results

- Initial facilitation meeting to determine new workflow has been completed.
- Pre-implementation surveys will be sent out in December. Powerform implementation will go live in the new year with post-implementation surveys to follow

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Implementation of a Standardized Inpatient Electronic Health Record Based Oral Chemotherapy Monitoring Process to Improve Pharmacist Workflow

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Background

- The utilization of oral chemotherapy (OC) agents has been increasing due to increased market availability of oral agents as well as ease of administration and convenience for the patient.
- A majority of OC medications utilized at Kaweah Health Medical Center are non-formulary agents.
- Institutional guidance at Kaweah Health Medical Center defines the necessity of pharmacist involvement in OC monitoring.
- Current policy defines specific agents that require review by two chemotherapy competent nurses and/or a clinical pharmacist. For agents not specifically listed in the policy, a chemotherapy competent nurse or pharmacist should perform a review to determine if the agent warrants additional review.
- The current procedure for documentation of initial review and monitoring of OC can be optimized.
- Kaweah Health Medical Center has developed PowerForm templates within the electronic health record (EHR) as a means to document assessments, monitoring and interventions for other select medications.

Objectives

- Improve efficiency of pharmacist assessment and documentation for ongoing monitoring of OC medications
- Increase pharmacist work satisfaction through the implementation of an new workflow
- Increase pharmacist compliance with documentation of initial review and ongoing OC monitoring

Disclosures

- The primary study investigators have no relevant financial or nonfinancial relationships to disclose.
- All images are free of copyright and approved for commercial use.
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Figure 1: Process Map of Current Monitoring Workflow

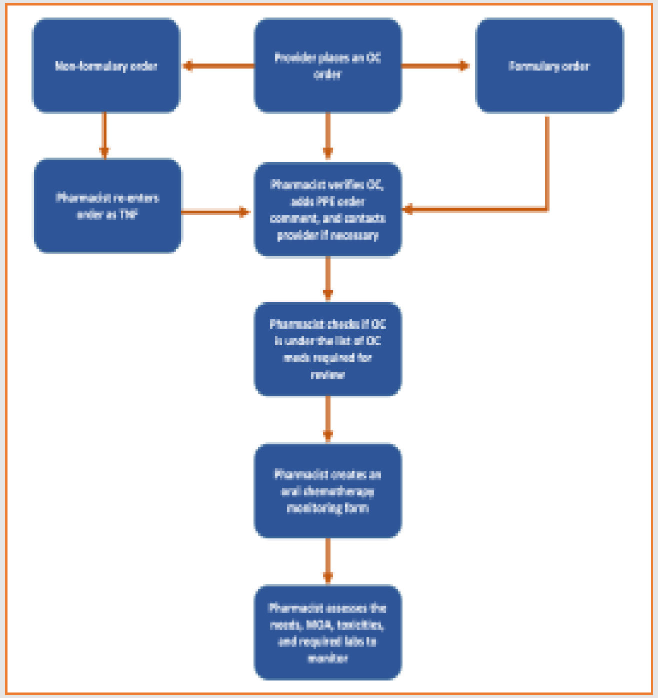
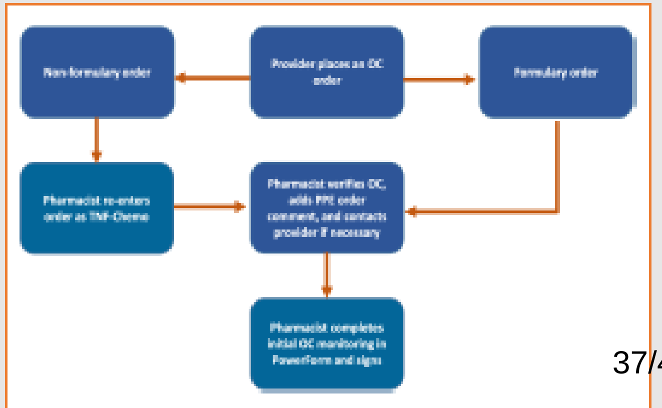


Figure 2: Process Map of Revised Monitoring Workflow



Study Methods

- Single center quality improvement project

<u>Outcomes</u>

- Time to complete OC monitoring
- Pharmacist satisfaction with the workflow
- Overall compliance rate of OC precaution order comments and documentation of OC monitoring

<u>Data Analysis</u>

- Data collection for time requirement and pharmacist satisfaction will be collected using an electronic survey tool and emailed pre- and post-implementation of the new workflow to all pharmacists participating in the OC monitoring.
- Data collection for the overall compliance with OC precaution order comments and documentation of OC monitoring will be collected via chart view for a 3 month period pre- and post-implementation of the new workflow.
- Results will be analyzed using descriptive statistics.

Research Timeline

- Pre-implementation surveys sent out in November 2022.
- PowerForm implementation date is to be determined.
- Post-implementation surveys will be completed post-implementation of new monitoring workflow.

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Pharmacy Residency Retention Rates

Class Year	PGY1 Retention Rate	PGY2 Retention Rate
2015	100%	
2016	100%	
2017	50%	
2018	0% [100% PGY2*]	
2019	0% [50% PGY2]	100%
2020	50% [50% PGY2]	n/a
2021	0%	0%
2022	50%	0%
2023	100%	n/a
2024	0% [50% PGY2*]	100%

*Resident retained into KH PGY2 Program

Pharmacist Retention, Development and Satisfaction

- Inpatient Clinical Pharmacists (50 pharmacists)
  - >78% of Pharmacists have completed PGY1 residency
  - 22% of Pharmacist have completed PGY2 residency or Fellowship training in specialty areas
  - >45 % of Pharmacists have obtained BCPS or related certification
- Ambulatory Care Pharmacists (6 pharmacists)
  - 5/6 pharmacist have completed 2 years of post-graduate training
  - 3/6 (3/4 eligible*) board certified (BCACP, BCPS, BCGP, BCPP)

- Highly skilled pharmacists look for job opportunities that include residency programs

- Residency Programs promotes workplace energy, practice reflection, innovation and enhanced focus on quality improvement

- Resident Projects enhance workplace experience

- Retention of current resident offsets recruitment, orientation and training costs

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