A Medication Administration System
Designed
By Frontline Staff
KP MedRite

Context / Project Overview
In the United States alone...

- **7,000 deaths each year are caused by medication errors** *
- **1.5 million people each year are “harmed” by medication errors**
- **1 medication error per day per hospital patient**
- **$3.5 billion is spent each year treating medication injuries**

*1999 report “To Err is Human: Building a Safer Health System”
KP MedRite

In 2007…

- **Cross-regional Focus on Medication Administration**
- **Sponsors: Quality and Safety, Patient Care Services and KP HealthConnect**
- **3 Pilot Kaiser Hospitals**

Hayward  
West Los Angeles  
South Sacramento
KP MedRite

Where did KP MedRite come from?
I. Insight from field observations & research
   • Constant interruptions of nurses & inconsistent processes
   • Clinicians want focused time; Patients want to participate

II. Staff & patients brainstormed & tried ideas
   – Cross Regional “Deep Dive” held at KP’s Garfield Innovation Center
   – Nurses, physicians, pharmacists, and other experts attended
   – Generated hundreds of ideas that led to KP’s MedRite solutions
III. Developed human centered solutions
• Clear and safe med admin process
• “No Interruption wear” i.e. sash, vest
• Zones for focused work

IV. Positive results measured & celebrated “MedRite”
Metrics

» **Decrease in:** Interruptions, Time to perform medication administration
» **Increase in:** On time med passes, In-room Documentation, Clarity/Ease of the process
KP MedRite

What is KP MedRite?

MedRite is a safer, warmer and more reliable medication administration experience for nurses and patients.

• For the RN
• For the Patient
• For managers and educators
• For other staff

Finally, it’s a system designed by the frontline for the frontline.
KP MedRite

What are the Benefits?

• Normalized, easy to follow, medication administration process
• Warmer way of giving medications
• Consistent timely delivery of scheduled medications
• Fewer medication errors
Components
KP MedRite

Components

- Process
- No Interruption Wear (NIW)
- Sacred Zone

Workflow

A space
KP MedRite

Process

The step by step workflow for RNs to administer medications.
Components

Process

- Review MAR
- Verify Correct Time
- Enter Med Room
- Put on NIW

- Check Allergies
- Pull Medication(s)
- Verify Right Patient
- Verify Right Medication
- Verify Right Dose
- Verify Right Route

- Go to Patient’s Room
- Gel or Wash Hands
- Turn down TV/radio
- Turn on Lights
- Verify Correct Patient using 2 identifiers

- Explain the Med and its purpose to the patient (Verifies Right Med 2nd time)
- Ask Patient if they have any questions
- Re-Verify Dose
- Re-Verify Route
- Re-Verify Time

- Administer Medication
- Document on MAR
- Gel or Wash Hands
- Remove Sash
- Exit Patient Room
No Interruption Wear (NIW)
The tool that helps minimize interruptions during Medication administration.
Field Testing -
The “No Interruption Wear” evolution

Deep Dive 4/07
SoSAC 5/07
Hayward 6/07
Hayward 6/07
West LA 9/07
KP MedRite

The Sacred Zone
An area marked out in front of the PYXIS with tape.
KP MedRite

• To conclude:
  – KP MedRite is a medication administration system that was created and designed by frontline staff
  – This new medication administration system focuses on:
    • A standardized workflow process
    • Non-interruption wear
    • Creating a “sacred zone”

• KP MedRite was created to keep both patients and nurses safe during the medication administration system.
Questions
Pilot Data

- **Interruption**: Outcomes
- **Time to Administer Medications**: Outcomes
- **Nurse Satisfaction**: Outcomes
- **Non-Nurse Satisfaction (MD, NA, UA, PT, RT)**: Balancing
- **Reliability**: Process
Pilot Data - Interruptions

Average Interrupts Per Med Pass (n=68)

- **Baseline**: 1.0
- **OneMonth**: 0.8
- **TwoMonth**: 0.6

- **WLA - 2A**: 1.0, 0.8, 0.6
- **WLA - 3W**: 0.6, 0.4, 0.3
- **HAY - 3CW**: 0.4, 0.3, 0.2
- **HAY - 3E**: 0.1, 0.1
Pilot Data - Time per Med Pass

Average Time Per Med Pass (n≈68)

Baseline | OneMonth | TwoMonth

- WLA - 2A: 13:15
- WLA - 3W: 10:45
- HAY - 3C W: 09:44
- HAY - 3E: 07:44

KP MedRite
Pilot Data - Nurse Satisfaction

Percent of Nurses Satisfied with the Med Admin Process (n=17)

Baseline | OneMonth | TwoMonth
----- | ----- | -----
WLA - 2A | 46% | 94%
WLA - 3W | 80% | 94%
HAY - 3CW/E | 78% | 95%
KP MedRite

Pilot Data - Non-Nurse Satisfaction

Percent of Non-Nurses Satisfied with the Med Admin Process (n=19)

- WLA - 2A
- WLA - 3W
- HAY - 3CW/E
KP MedRite

Pilot Data - Reliability

Percent of Med Passes where all five basic steps were completed (n=68)

Baseline | OneMonth | TwoMonth
---|---|---
WLA - 2A | 37% | 79% | 84%
WLA - 3W | 33% | 74% | 81%
HAY - 3C W | 28% | 68% | 74%
HAY - 3E | | |
Training Techniques

This section describes different techniques you can employ to educate staff. KP MedRite should be trained in its entirety; meaning all three components together. The Process “contains” how and when to use the NIW and Sacred Zone.

- Staff Meeting review of entire process
- One-on-One Training
- Theme Weeks
- Simulation
- Peer-to-Peer Training

- Ceremony
- Non-Nurse Staff Meetings
- Patient Education

See Techniques for Process

See Techniques for Process
Training: Education Techniques

KP MedRite is based on literature review, natural workflows and direct observation. It is designed to be both warm and efficient.

Training to the Process at the pilot sites incorporated several techniques to assist many learning styles:

• Staff Meeting review of entire process
• One-on-One Training
• Theme Weeks
• Simulation
• Peer-to-Peer Training
• Ceremony
• Non-Nurse Staff Meetings
• Patient Education
Training: Education Technique 1: Staff Meetings

**Staff Meeting to Review the KP MedRite Process**

It is imperative that the KP MedRite Process be reviewed in its entirety. Staff Meetings and huddles at the beginning of shift change are ideal times for this activity. The purpose is to give the nurse both an overview and an end-to-end feel for the whole process. It is not expected that the staff will remember every step at this point.

Ideally, nurse champions or peers would provide this overview with the support of leadership.

**Recommendation**

On week one, review the entire KP MedRite process with every shift at the start of shift change.

On weeks two through four, review the entire KP MedRite process with every shift at least 1 time per week.
Training: Education Technique 2: One-on-One Training

**Process**

This type of training is highly focused and personalized for the individual nurse.

During implementation it is ideal to have educators, leadership and experienced peers available to observe and offer one-on-one feedback.

**TIP:** Observers should have the KP MedRite Process in hand during the implementation/observations. This will allow the observer to follow along, and then use the KP MedRite Process as a teaching tool immediately following a med pass with the nurse. Begin by telling the “trainee” about something they did right, before teaching them how to do something better.

**Recommendation**

Provide one-on-one training/observation of nurses (of at least one med pass), during the first week of implementation to reinforce the KP MedRite process and create a baseline for future training.
By focusing on a Theme each week, it will allow the educators and staff to methodically work through the KP MedRite process and increase competency.

The KP MedRite Process has been “chunked” into 5 groupings as indicated by the cartoons on the left.

It is not expected that nurses will be 100% compliant on day one; however you should see compliance increase over time.

**Recommendation**

Each week focus on one or two “chunks.”

Make the theme known at the start of the shift change.

Make posters of the “chunk” and post in high traffic areas.
Process

Simulation is an important technique in increasing competency and assisting nurses to become more comfortable.

Simulation can occur in group settings such as staff meetings or at the start of shift change, or one-on-one.

The “warm” side of the KP MedRite process is the increased patient involvement. This can also be the hardest piece for the nurse to incorporate. You may want to simulate this piece several times to increase the nurse’s comfort level.

Recommendation

Conduct at least 2 – 3 simulations during the first week of implementation.
Training: Education Technique 5: Peer-to-Peer Training

This technique includes KP MedRite nurses conducting the previously discussed techniques:
Staff Meeting Review, One-on-One, and Simulation

Peer-to-Peer training is an excellent option if you have KP MedRite champions available to you. KP MedRite Nurse Champions often have “insider” tips, tricks, and the trust of the other nurses; and can give first-hand KP MedRite examples.
One very cool technique is the use of ceremony.

One hospital had a nurse from a KP MedRite Unit hand out the NIW to new KP MedRite nurses. The KP MedRite nurse reviewed the Process and then placed the NIW onto each nurse. It created a wonderful sense of induction.

Recommendation
Create a ceremony of giving the NIW to the nurse as a way of recognizing the importance of reducing the distractions nurses encounter while giving medications to our patients.
Training: Education Technique 2: Non-Nurse Staff Meetings

It's vital that all care team members, from the MD to the housekeepers, be aware of the importance of KP MedRite, and how to interact with nurses wearing NIW. NIW is not meant to prevent emergency communications with the nurses; however, it is meant to maintain the integrity and safety of administering medications. All staff will need to assess whether they should interrupt this sacred process when interacting with a nurse wearing NIW.

**Recommendation**

Ask to be put on the agenda of each of the different staff meetings effected by KP MedRite/NIW. Use the stories, research and data from the sites to bring folks on board. Help explain how their role in reducing interruptions will also help to reduce medication errors to our patients. Their support improves patient safety.

**Tip**

Find a champion from each group prior to the meeting to partner with you on the communication message.
Training: Education Technique 3: Patient Education

Patients are an integral part of KP MedRite and should be oriented on both the process and NIW.

Recommendation
Add KP MedRite to your patient orientation packets, and verbally orient patients to KP MedRite when admitted to the unit.

Tip
If your medical center has a Patient Advisory Council or other committee that involves patients, tap into that group for support. Relaying the “voice of the patient” is an excellent way of reminding clinicians and support staff of the importance of KP MedRite.
Resistance is a function of disruption. It is natural and normal and an inevitable emotional (not logical) response to some change whether the change is viewed as positive or negative.

It is also an indirect expression of an underlying concern.

Resistance is good when it surfaces problems, finds errors, or makes a good idea better – when it’s overt.

Resistance is bad when it is covert or driven underground to sabotage or exhibit malicious compliance. But, believe it or not resistance is manageable.
Other tools to help individuals manage their own resistance

Use these communication messages and handouts to help individuals acknowledge if they view the changes related to KP MedRite as positive or negative.

Remember that nurses and patients are not the only people impacted by this change. In order to minimize interruptions during the process, the entire hospital team is involved; physicians, pharmacists, therapists, EVS workers, transporters, etc. They are important players in this work and the following strategies are valuable for better understanding and addressing their experience as well. (Refer to the “Training Techniques” section for tips for communicating KP MedRite and the benefits to these team members).

The following strategies are designed specifically for each of the reactions to change, positive or negative.

This information is found in the change packets.
Types of Change…

**Minor: “Minor Disruption”**
Minor alterations to the Frame Of Reference resulting in minimal disruption and resistance

**Moderate 1st Order: “Frame Bending”**
Moderate alterations to Frame Of Reference resulting in significant resistance

**Major 2nd Order: “Frame Breaking”**
A new Frame Of Reference must be created, resulting in maximum disruption and resistance
An extremely helpful tool

**Pre-Implementation**
- Educate and communicate to all staff on your unit the KP MedRite process (overview and background).
- Announce to ancillary services the start of KP MedRite (overview and background).
- Order sashes ---- expect 3-4 wks for delivery.
- Arrange Quiet Zone through Engineering.
- Print and laminate Process Cartoon.
- Choose champion nurses who can effectively model principles of KP MedRite and be a resource for staff.
- Pre-implementation Process Metrics and CalNOC (if your unit chooses to use).

**Implementation**
- Plan on making Implementation Day a celebration. (Ex. sashing ceremony, balloons, treats, etc).
- Daily review of KP MedRite at all start of shift huddles during implementation week.
- Demonstrate simulations of a med pass using KP MedRite.
- Managers/Asst. Managers rally with the staff to openly understand the value and purpose of the process.
- Managers/Asst. Managers to round with patient/families to introduce them to the sash and the process.
- Facility-wide communication to ancillary staff on Implementation week.
Questions