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WAYS TO
THREAD MED
ADMIN
THROUGH
YOUR





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### Here's How:



Students deserve UNLIMITED practice because nurses should NEVER feel unprepared when they administer medication.

Before using sim2grow, our customers were *unsatisfied* when it came to their med admin training. The number of times students passed meds in clinical was *just not enough* to master the skill. Equipment to teach students to safely administer medication in the lab was often outdated, too complicated, or incomplete to get the job done right.

As nurse educators we were in the same boat. There *had* to be a better way to teach med pass... We wanted a complete med room to bedside solution to teach students to *safely* pass meds. It did not exist, so we created it ourselves!

Quick set-up with no upkeep was a must-have. Nurse educators didn't get a degree in computer programming or pharmacy and shouldn't need one just to run the sim equipment! We took the hassle out so you can focus on what matters—THE STUDENTS.

Nurses should never feel unprepared when passing meds. sim2grow's total medication administration training solution provides unlimited practice. Build confidence in the safety of the nursing program. Don't let students struggle any longer.

Start integrating medication administration into your entire curriculum in the following ways.

- 1. Skills Lab
- 2. Simulation
- 3. Remediation
- 4. Disruption
- 5. Classroom-Fundamentals
- 6. Classroom-Pharmacology
- 7. Classroom-Case Study
- 8. Pre-clinical warm up
- 9. Medication Reconciliation
- 10. Escape Room
- 11. SBAR-unfolding case
- 12. Documentation
- 13. Assessment
- 14. Patient Education
- 15. Dosage calculation
- 16. Critical Thinking/Clinical Judgement
- 17. Peer mentoring program
- 18. Incident/occurrence report
- 19. Speaking Up
- 20. Prioritization

### 1. Skills Lab

2. Simulation Skill acquisition is the most obvious use case for the sim2grow medication administration training solution. No need for students to practice in a vacuum. Administer meds in the context of a patient scenario complete with an eMAR. Use deliberate practice until students develop muscle memory.

- Psychomotor skills are finally mastered.
   Barcode scanner dexterity is no longer a stumbling block.
- Accomplish EVERY critical element of safe medication practice with sim2grow. Complete ALL the Rights. Perform the 3 checks starting at the med dispensing unit through to the bedside final check. The system resets instantly between use, maximizing the practice time. Practice repeatedly until it is second nature.
- As students become more skilled and comfortable, level up the expectations. Add other technical skills. This includes:
  - opening packaging aseptically
  - drawing up and administering parenteral meds
  - collecting relevant data and documenting it in relation to any particular medication.

Medication administration should be part of nearly every simulation scenario for nursing students.
Relying on med pass in the clinical setting is inadequate exposure for this critical skill.

- Using "time-warp" in simulation allows students to evaluate the physiological effects of medications on their patients.
  - Medication administration in simulation provides an opportunity for students to become comfortable calling a provider for a new order.
- Critical thinking can be refined during simulation and debriefing as it relates to medication.
- The results of decisions and/or errors can be allowed to play out in simulation. This is in opposition to in clinical where the instructor is obligated to intervene.
- Students can see firsthand how they are the final gatekeepers between the patient and a medication error.

### 3. Remediation



Students are not cookie cutter duplicates. They have different learning styles. Some students take longer to pick up on things. Others may have an educational plan with accommodations. Hands-on practice in the nursing lab provides the repetition that may allow an "aha moment". They finally get it and are ready to master the next concept. Medication administration remediation is easy with sim2grow's solution.

- Students save screenshots of their work so faculty do not need to stand right beside the student.
- Passing any number of meds can be assigned to students. They go at their own pace to review the steps. The system doesn't allow for shortcuts documentation cannot occur until the right patient and the right medication are scanned.

Medication disruption simulations can be designed to include distractions as the medication is being prepared and/or at the bedside. Debriefing after the experience can uncover significant insights, including high risk situations. Ways to avoid being distracted and to avoid being a distraction are points to be emphasized.

### 4. Disruption



### 5. Classroom-Fundamentals

The initial content presentation of medication administration is enhanced by bringing the sim2grow medication administration solution right into the classroom.

- Save valuable lab practice time by familiarizing students all at once in the classroom.
- The iPad screen is easily shared onto a classroom screen by using an HDMI cable and an adaptor.

# 6. ClassroomPharmacology

Bring pharmacology lectures to life with practical application. Create patient cases within the sim2grow system that can be used to:

- emphasize dosages, mechanisms of action, and interactions.
- include assessment findings that may contraindicate proceeding with administration.
- enhance the realism of pharmacology case studies with the eMAR side of the sim2grow system.
- Use the eMAR when discussing and calculating weight-based dosage medications for pediatric and adult cases.

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### 7. ClassroomCase Studies

Case studies are a great tool in the flipped classroom pedagogy. Level up these table top simulations by adding the realism of an eMAR. A significant amount of information can be presented in the eMAR that require "discovery" by the students. Information gathering skills can be honed and clinical judgement can be developed!

### 8. Pre-clinical warm up

Skill decay is a real thing—especially for novices. After winter and summer breaks, assign students a set of med pass practices in the skills lab before returning to clinical sites.

- Students and clinical instructors will appreciate the skill refresh and boost in confidence so that the limited time spent in clinical is maximized.
- Many clinical sites limit what students are allowed to do during patient care. When med passes are not permitted, include extra practice in the lab to compensate.



### 9. Medication Reconciliation



Polypharmacy is an ever-growing patient care challenge. Nurses are often faced with a discrepancy between the medications ordered and those the patient usually takes at home. A simulation-based activity to practice med reconciliation with a realistic eMAR can help students understand their role in preventing medication interactions, duplications, or dose inconsistencies.

- This simulation can be set up easily as a table top simulation with a bag full of prescription bottles labeled with medications and an eMAR in the sim2grow total solution.
- Add one or two unexpected twists:
  - trade and generic names,
  - o allergies,
  - same med from a different pharmacy,
  - and a prescription bottle with a different patient name.

Teamwork and communication are required skills to be successful in an Escape Room simulation-based activity. It is an engaging way to reinforce medication administration principles such as:

- Medication Names (generic vs trade names)
- Dosage calculations
- Appropriate dose
- Side effects and adverse effects
- Relevant clinical data

10. Escape Room

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### 11. SBARRunfolding case

Simulations are often designed with the patient experiencing a status change. These unfolding cases require a call to the provider with new medications ordered. End the pretend with sim2grow's "Reveal Later" feature. Orders can be hidden until the appropriate time in the simulation without a break in the fictional contract.

 Students put together their thoughts in the SBARR format. Practice calling a provider and requesting additional treatment.



### 12. Documentation

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Medication administration should not be overlooked when teaching documentation. Students need to practice this repeatedly to improve the skill and prevent skill decay. Scaffold the patient cases to increase complexity as progress is made within and between courses. Students should collect and document relevant findings and data that relates to any medication. This improves documentation skills, assessment skills, pharmacology knowledge and the development of clinical judgement.

Sandstorm, Linda(F) MR #. 54631 Room 5 Bed 1			DOB: May 4, xx (81 yo) Provider: Dr. Grover Allergy: Ink								MEDICATION ADMINISTRATIO RECORD
AMOXICILLIN		500 mg	РО	Routine	G	iven	•	Omitted	, (see notes)	Notes	
Three Times Daily					Time			Initia	ls		
HUMULIN R		4 units	SUBQ	Routine	G	iven	•	Omitted	, (see notes)	Notes	
AC and HS	check FS blood glucose				Time			Initia	ls		
HYDRALAZINE 25		25mg	РО	Routine	O G	iven	•	Omitted	, (see notes)	Notes	
Once Daily					Time			Initia	ls		
LACTATED RINGERS		75 ml/hour	IV	Routine_IV	G	iven	•	Omitted	, (see notes)	Notes	
Continuous Infusio	n				Time			Initia	ls		
MULTIVITAMIN		1 tab	РО	Routine	O G	iven	•	Omitted	, (see notes)	Notes	
Once Daily					Time			Initia	ls		
,											

9:24:17 AM Student Nurse

Assessment findings are best presented in the context of a full patient scenario. A key puzzle piece is awareness of medications the patient takes. The eMAR provides many cues to questions the students should be asking the patient and expected assessment findings. The task trainer, mannequin, or standardized patient can confirm or counter the picture the student has formulated. Appropriate actions can then be taken. Here are some ideas:

- betablockers and the impact on blood pressure and heart rate
- tardive dyskinesia in a patient taking dopamine-receptor-blocking medications
- a skin rash in a patient taking a medication contraindicated with sun exposure. Is the rash related to sun exposure or an allergic reaction- what other assessments and questions would help determine the etiology of the rash?
- an out-of-range elevation in POC glucose monitoring in a patient on metformin. Is the patient correctly taking (or taking at all) the medication?







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**AFFORDABLE TOTAL MED ADMIN SOLUTION** 



The psychomotor steps of medication administration are only one aspect of a complex and critical skill. Performing the steps in correct order but with the wrong dose of medication can be life threatening. Practicing dosage calculation should be repeated throughout the entire program in order to ingrain the significance of this step before the students are licensed and administering meds on their own.

- Dosage calculation is easier to grasp when done in context of a complete medication order being prepared for administration.
- Math errors are much more likely to be caught by the student when they see the logistical outcome of their calculations.
   Should I really need 2 syringes to hold the dose of this IM injection? Would I truly need to administer 6 pills of a single medication?

# 14. Patient Education

Properly educating patients about their medications can have a significant impact on the likelihood of a medication adverse event particularly after discharge. As an embedded participant in simulation the "patient" can guide the student in addressing some of these situations:

- why the medication is being administered
- side effects to look for and report
- use of lay terminology
- confirming understanding/teach back
- what to do if the patient refuses a medication
- any special steps associated with the medication- empty stomach/with food, remain upright, importance of timing, what to do if a dose is missed

# 15. Dosage calculation





### 16. Develop Clinical Judgement

Simulation is a critical component in preparing students for success on the Next Generation NCLEX. Clinical judgment must be applied to all aspects of nursing practice, and the simulation lab is a safe place to develop this complex way of thinking about gathering, processing, organizing and acting on patient cues. Medication administration incorporated into a simulation provides many opportunities to exercise skills found in layer 3 of the NCSBN Clinical Judgement Measurement Model: recognize cues, analyze cues, prioritize hypothesis, generate solutions, take actions and evaluate outcomes.

Develop simulation-based activities structured for deliberate practice so time is allocated for students to piece together each of the layer 3 skills to determine where things went wrong (or right), come up with a new approach and test it out to see if it works. Conversely, if things went well the students can identify what steps were taken to avoid poor outcomes and reinforce the best practices they followed as they repeat with deliberate practice.

"Pay it forward" is an excellent strategy when you need to extend limited faculty resources. Peer mentors assigned to assist novice students with medication administration go through a mentor training class covering the use of a standardized performance rubric and best practices in providing feedback. In helping classmates with skill building the mentors are refreshing their own skills in the process. This program develops leadership skills, effective communication skills and builds confidence in both the mentor and mentee. It also creates a sense of comradery among students at different levels in the program. Peer mentors:

- follow med admin checklists to provide immediate feedback
- acting as embedded participants playing the role of a patient can ask the student questions about the medication (see 14)

# Peer mentoring program



### 18. Incident Reporting

In the safety of the simulation or practice lab, students can be allowed to make a mistake and learn from it. One of the activities that needs to be completed after an error is noted, is an incident report. Students can be guided through this process in a simulation-based activity.

A simulation can be developed in which the "off-going" nurse committed a medication error that the students identify while they are caring for the patient. This simulation allows student the opportunity to report the situation to the charge nurse and complete the necessary steps outlined in the policy and procedure guides.

Debriefing will provide a platform for students to discuss their fears and concerns surrounding errors. And reporting nursing colleagues. It is also a great time to dispel incorrect notions some may have or summarize current events as they relate to nursing medication errors.

Nurses are often the last gatekeeper between a patient and an error. Being able to effectively speak up as a healthcare team member is a challenge for many nurses.

Medication administration is a high-risk area for adverse situations. A simulation designed around speaking up about a medication concern has practical translatable application to clinical practice.

### 19. Speaking Up

Translating classroom learning into clinical judgement exercises is achieved in simulation-based activities with prioritization embedded in the learning objectives. Prioritizing care can be done with a building block process across the curriculum. Caring for a single patient with competing priorities can help hone the skill of determining the appropriate nursing action to complete first. The student learns to recognize and analyze cues in order to prioritize patient care hypotheses.

- When should med admin occur in the sequence of my nursing actions?
- Should I change the dressing before or after administering pain medication?
- When should I draw peak and trough labs in relation to administering antibiotics?

As students grow in the program, prioritization simulations stakes are increased and two or more patients are being cared for at a time. As it relates to medication administration, consider including:

- Which of the student's patients gets medications first?
- Routine vs PRN medications what is the priority?
- STAT medications and the associated assessments that should be monitored
- When there is a "line" at the medication dispensing unit, which nurse should be using the equipment first- and how can they speak up for their patient?

#### 20. Prioritization



#### **BONUS:**

use some or all of these techniques in conjunction with other healthcare programs as IPE- Respiratory, OR Tech, Med Tech, LPN



### sim2grow Med Admin Training

#### Stop improvising with partial solutions



3 EASY Steps

Schedule Demo **Choose System Unlimited Practice**