

Expansion of MyDispense to Simulation Activities and Assessment in a Certified Pharmacy Technician Training Program

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Objective

To expand the functionality of MyDispense to the training of pharmacy technicians

Background

- MyDispense, an online pharmacy simulation, allows students to develop and practice their dispensing skills in a virtual learning environment to learn from mistakes without risking patient harm.
- In 2016, Yale New Haven Health (YNHH) implemented a pharmacy technician training program, with a curriculum of 15 weeks combined didactic and simulation hours (296 hours total), followed by experiential learning.
- Prescription verification and fact-finding exercises through the MyDispense platform are skills that are essential to the role of a pharmacy technician in the community setting.

Methods

MYDISPENSE CASES
Technician training coordinator supervisor, faculty members with experience in MyDispense, and experiential pharmacy students created cases target towards pharmacy technician activities.

MAP TO EDUCATIONAL STANDARDS
Activities were aligned with current American Society of Health-System Pharmacists (ASHP)-Accreditation Council for Pharmacy Education (ACPE) Accreditation Standards for pharmacy technician education and training programs.

PILOT SESSION
Six technician training student participants completed the assigned MyDispense activities during an in-person simulation session at the YNHH pharmacy technician training program. Time for assessment completion and final assessment scores were collected and described with means and standard deviations

12

Cases developed via MyDispense for Technician Training, accounting for 12-14 hours towards simulation

Figure 1. MyDispense Exercises with corresponding ASHP-ACPE Accreditation Standards

Exercise Description	ASHP/ACPE Standard
Identify a patient allergy to a prescribed drug & dispense an appropriate medication	3.1
Obtain all required personal health information and updating patient profiles to reflect the most current and correct information	3.1
Identify a prescription with no errors, and complete the label generation and dispensing process (up to pharmacist verification)	3.2
Identify a dosing error on a prescription that would otherwise result in toxicity & escalate to RPh	3.2
Identify missing date on a prescription	3.2, 3.3
Identify patient who requires pharmacist counseling when asking a question about medication with potential drug interactions	3.3
Calculate appropriate volumes of medications (e.g., antibiotics for reconstitution) & choose appropriate ancillary labels to place on medication bottle	3.4
Identify medications with mandated Risk Evaluation and Mitigation Strategies (REMS)	3.6
Identify patient's medication adherence via medication fill history, and calculating correct day supply	3.7
Recognize a product recall, identify the correct procedures and proper communication required	3.12
Identify expired medications in the pharmacy, communicate to patient and assist in finding another pharmacy with medication in stock	3.19
Identify a medication as hazardous.	4.2
Identify dispensing processes, rules and regulations specific to controlled substances	5.1

1

Final assessment encompassing 5 exercises developed



SCAN HERE
Full description of ASHP/ACPE Accreditation Standards

Discussion

58 (\pm 24) minutes

Time to Final Assessment Completion
(mean \pm SD)

N = 6

27/41 (\pm 6) points

Final Assessment Scores
(mean \pm SD)

N = 6

- This proof-of-concept was a success as students completed the cases and final assessment.
- The size of the cohort limits the ability to draw conclusions but this expansion to pharmacy technician education was proved possible and will be continued for future cohorts
- Eventually, correlation of assessment score to first-pass attempt of the Pharmacy Technician Certification Examination (PTCE) will be assessed.
- Future research will include more student cohorts across 2 separate institution's training programs launching in August 2023, and correlation of assessment score to first-pass attempt of the Pharmacy Technician Certification Examination (PTCE).

AREAS IDENTIFIED FOR QUALITY IMPROVEMENT

- 01 Consistent feedback on label directions and patient fact-finding information
- 02 Minor edits to improve directions and feedback

Conclusion

MyDispense, a student pharmacist dispensing simulation, was able to expand to pharmacy technician student training, requiring minimal adjustment for dispensing skills specific to technician scope of practice. Exercises will be shared on the MyDispense Content repository for interested faculty and those involved in technician training program and/or preparation for the Pharmacy Technician Certification Examination (PTCE).

References

1. American Society of Health-System Pharmacists and Accreditation Council for Pharmacy Education. ASHP/ACPE accreditation 261 standards for pharmacy technician education and training programs. Published July 10, 2018.
2. Doyno CR, Holle LM, Puente R, Parker S, Caldas LM, Exum B. Expansion of MyDispense: A Descriptive Report of Simulation Activities and Assessment in a Certified Pharmacy Technician Training Program. *Pharmacy*. 2023; 11(1):38. <https://doi.org/10.3390/pharmacy1101003>