

## Background

- Functional understanding of both state and national pharmacy laws and regulations is vital in pharmacy practice – assessed through the Multistate Pharmacy Jurisprudence Examination (MPJE)
- A significant downward trend in licensing exam scores in recent years exists<sup>1,2</sup>
  - In-state UConn graduates average 2009-2011 scores:
    - 94.12 to 98.45
    - Trended downwards to lowest average of 76.06 in 2016
  - Out-of-state students' 2012-2015 scores:
    - 87.3 to 96.92
    - Dropped to a 76.71 average in 2016
  - National average 2009-2014:
    - 93.94 to 96.05
    - Dropped to 83.77 in 2016
- Downward trend in MPJE scores, especially in UConn students, indicates potential need for new and different preparation methods
- MyDispense<sup>3,4</sup>
  - Community pharmacy simulation program developed by faculty from Monash University, adapted for use in US
  - Allows students to practice skills associated with dispensing medications
    - Students have the ability to ask patients and providers questions, interpret and fill prescriptions, and counsel patients
  - Provides a safe environment for students to practice skills without risk of harm to patients
  - Incorporated into several therapeutics courses at UConn School of Pharmacy
    - Simulation scenarios can be created focusing on state and federal pharmacy laws
- In Fall 2017, MyDispense exercises focused on law review incorporated into third-year case study course

## Objective

- Evaluate the baseline gap in functional understanding of pharmacy practice laws through exercises with the MyDispense community pharmacy simulator and students' perceptions of this method

## Methods

- Study approved by UConn's Institutional Review Board
- Participants: third–professional year UConn pharmacy students
- Case study course conducted each semester
  - Focuses on critical thinking and discussion to solve integrated problems related to prior coursework
  - MyDispense exercises focused on legal scenarios were incorporated into a session of this course for third year students who had completed PHRX 4051: Pharmacy Law and Ethics
- For participation in the course, students were required to complete 13 total MyDispense exercises
  - 8 individual exercises before class sections and 5 exercises in groups during class
  - Exercises included topics such as prescription fraud, substitution laws, recordkeeping requirements, and requirements for dispensing controlled substances
- Student assignments were graded for purposes of course
  - Feedback provided to students through MyDispense system immediately upon completion of each exercise
  - In-class and post-class feedback also provided as a review of commonly missed topics and areas of confusion noted during the sessions
- Following completion of all exercises
  - Students offered opportunity to provide feedback
  - 11-question survey administered through Qualtrics
- Study completed in November 2017

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. These exercises helped me recall pharmacy laws	1	2	3	4
2. These exercises helped me practice my understanding of pharmacy laws	1	2	3	4
3. I enjoyed this method of reviewing pharmacy laws	1	2	3	4
4. This method of reviewing pharmacy laws is more interesting than lecture	1	2	3	4
5. This method of reviewing pharmacy laws is more interesting than group discussion of a case	1	2	3	4
6. The use of MyDispense is relevant to pharmacy practice laws	1	2	3	4
7. These exercises focused on areas that were challenging to me	1	2	3	4
8. What changes do you recommend to the content of these exercises?				
9. List concepts/laws/scenarios that you feel more exercises should be focused on.				
10. List concepts/laws/scenarios that you feel fewer exercises should be focused on.				
11. Which exercises, if any, were most applicable to issues you have seen in practice, either working or on community rotation?				

Figure 1. Post-Class Student Survey

## MyDispense Samples

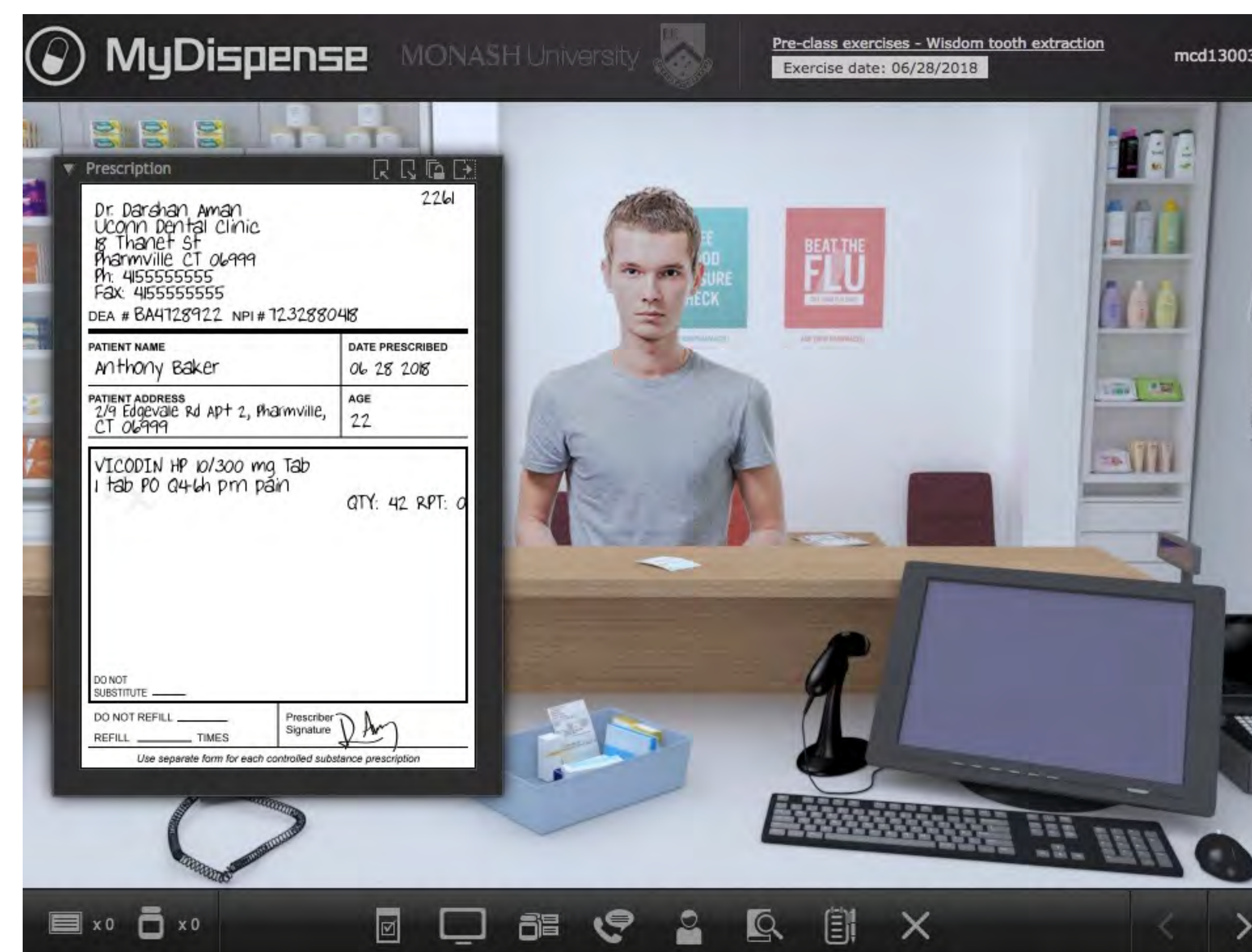


Figure 2. Example of a prescription fraud dispensing exercise. Students evaluate all information provided to determine a legal course of action in dispensing or not dispensing this prescription.

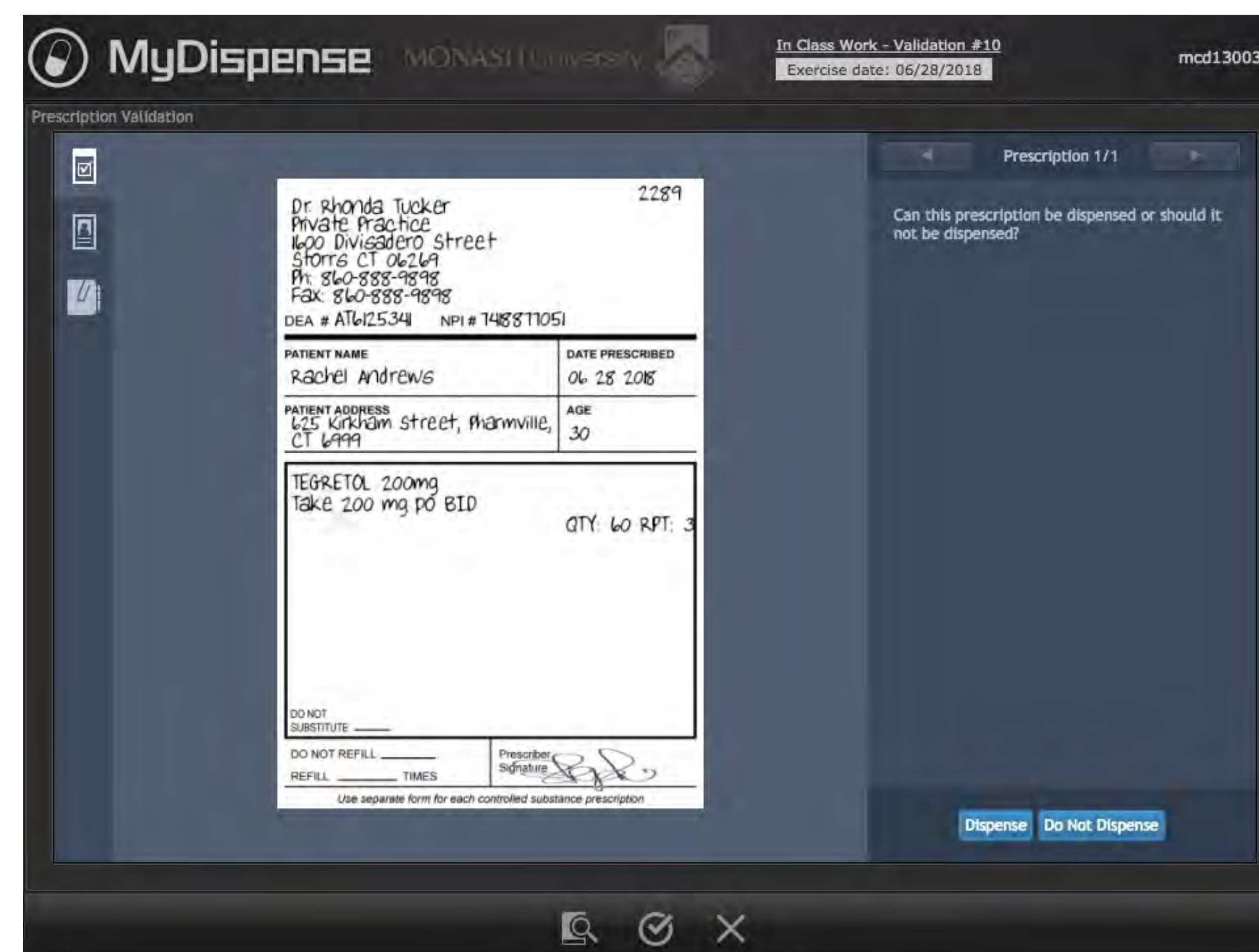


Figure 3. Validation exercise. Students evaluate the prescription for errors and omissions, then determine what action must be taken. For example, errors present in the prescription as written and the physician must be contacted, or the prescription does not meet legal requirements and cannot be filled.

## Results

Question	Mean Score on 4-Point Likert Scale (n=38)
1	2.95
2	3.08
3	2.87
4	3.21
5	2.58
6	2.87
7	3.25

Figure 4. Summary of quantitative survey data

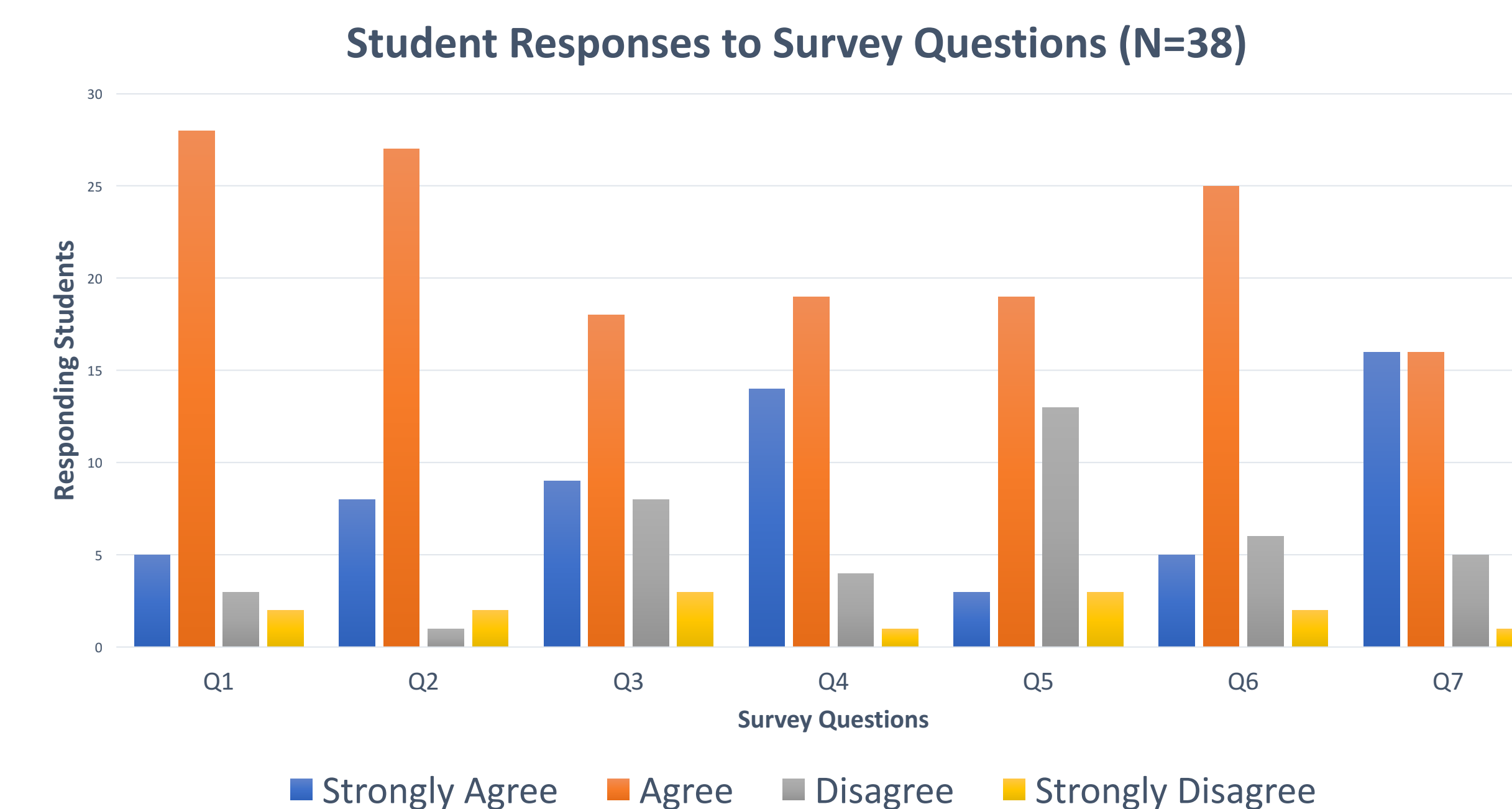


Figure 5. Student responses to scaled questions

## Conclusions/Discussion

- An established gap in functional understanding of pharmacy practice laws was identified at UConn School of Pharmacy
- Students indicated topics that should have a focus in future:
  - Documentation laws
  - Store policy vs. state/federal laws
  - Controlled substance-related activities
- Students indicated these exercises were challenging and the use of MyDispense in review of pharmacy laws is relevant
- Scored exercise data evaluated internally for curricular modification
- Planned curricular changes include:
  - Move law course from 2<sup>nd</sup> year Fall to 3<sup>rd</sup> year spring semester and increase credit load from 1 to 3 credits
  - Refine exercises to increase ease of use and target muddiest points identified by students

## References

- National Association of Boards of Pharmacy. Multistate Pharmacy Jurisprudence Examination Passing Rates for 2014-2016 graduates per pharmacy school. Provided to the UConn School of Pharmacy (personal communication, Associate Dean for Academic Affairs, Kathryn Wheeler, PharmD). February 2017.
- National Association of Boards of Pharmacy. Multistate Pharmacy Jurisprudence Examination Passing Rates for 2014-2016 graduates per pharmacy school. Available at: <https://nabp.pharmacy/wp-content/uploads/2017/02/2016-MPJE-Pass-Rates.pdf>. Accessed February 18, 2017.
- Feature Highlights: MyDispense 5. Monash University website. <https://info.mydispense.monash.edu/support/feature-highlights/>. Accessed 29 May 2018.
- Ferrone M, Kebodeaux C, Fitzgerald J, Holle L. Implementation of a virtual dispensing simulator to support US pharmacy education. *Currents in Pharmacy Teaching and Learning*: Volume 9, Issue 4, July 2017, Pages 511-520. <https://doi.org/10.1016/j.cptl.2017.03.018>