

# UC San Diego

## Independent Study Projects

### **Title**

Practice Clinical Cases in Pharmacology, Hematology, and Infectious Disease

### **Permalink**

<https://escholarship.org/uc/item/9v53v1zr>

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## Practice Clinical Cases in Pharmacology, Hematology, and Infectious Disease

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### ***Overview and Rationale***

In medical school, students are faced with many unique challenges. One such challenge is synthesizing countless facts and integrating them to apply to real world scenarios. Working through practice cases and question sets serves as one of the best ways to apply these concepts and assess one's own understanding. At UCSD School of Medicine, first and second year medical students complete weekly quizzes to assess their understanding of the subject matter and to prepare for block exams. However, there is always room for supplementation of these methods. This question bank, with practice clinical scenarios in pharmacology, hematology, and infectious disease will address this issue. This will help provide students with further opportunities to apply broad concepts to real scenarios and enhance their confidence and understanding in these subject areas. These clinical cases were prepared by drawing on real patients and situations that I experienced during the clinical years of medical school. This will aid students in solidifying their knowledge base and will facilitate their success from the preclinical years to real medical practice.

### ***Objective and methods***

The primary objective of this project is to provide students with a substantial additional resource to help supplement their understanding of these important topics. This will help prepare them for medical school examinations as well as for performance on the clinical wards. With this in mind, several case scenarios were prepared in the different topics. Online and text

resources are referenced following answer explanations. The clinical scenarios were also edited for clarity, accuracy, and relevance by experts in the fields of general internal medicine, pharmacology, and hematology. These scenarios are presented in a “questions only” format as well as a “tutor mode” format. The “questions only” format presents all the questions for a particular topic at once. In the “tutor mode” format, the cases and questions are immediately followed by answers and explanations so that students may evaluate themselves as they work their way through the question sets.

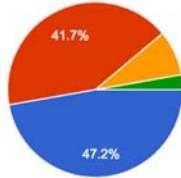
A brief survey was conducted of first and second year medical students at UCSD to help determine the optimal way to present and disseminate the question sets (see figure 1). Firstly, this survey reveals that a significant proportion of students supplement learning from textbooks and lectures with question banks. This validates this project as a potentially useful study tool. Also, since the majority of students prefer to do questions from a single subject at a time, these clinical scenarios will be presented as separate sets by subject rather than mixed together. The final question involves how best to disseminate this study resource among medical students. The overwhelming majority of students share study materials through social media (such as Facebook). The first time that this project is disseminated, it can be done so by social media. However, this raises concern that, in the future, this valuable resource will be forgotten. Regardless, this completed project will be distributed to current medical students through social media, through course websites, and through shared UCSD School of Medicine class forums to reach a wide initial audience.

**How do you and your classmates access and share study materials for class?**



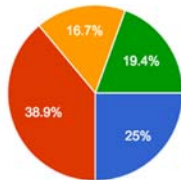
We mostly use the course website through the MedEd portal	17	75%
We use class forums on the MedEd portal	0	0%
We mostly share on Facebook	27	75%
We share materials by personal email or email listserves	0	0%
Other	8	22.2%

**When preparing for an exam, I learn best by...**



Using USMLE World or some other question bank	17	47.2%
Reading textbooks and going over lectures	15	41.7%
Group study	3	8.3%
Other	1	2.8%

**When I do practice questions, I prefer**



Doing 20 questions or less at once, all on the same subject	9	25%
Doing more than 20 questions on a single subject	14	38.9%
Doing 20 questions or less, with questions from multiple subjects	6	16.7%
Doing more than 20 questions on multiple subjects	7	19.4%

Figure 1. How do medical students study?

***Achievements and future considerations***

This question bank provides a clinically relevant review of high yield core concepts in pharmacology, infectious disease, and hematology. It will serve as an invaluable resource for medical students to help prepare for tests, to help prepare for clinical work on the wards, and to generally augment their confidence with the subject matter. One major anticipated future challenge is maintaining awareness of the existence of this tool. As mentioned earlier, a large proportion of students share materials by social media. This requires that several students in a social media network are aware of this resource and decide to disseminate it among their peers. While this may function for the near future, there is concern that awareness of this resource will diminish in the distant future. One way to address this issue is to maintain access

to the materials through course websites. Additionally, faculty leaders for each of these subjects should be made aware of this resource. These faculty leaders can then coordinate with student liaisons to increase awareness of this (and all) potential study resources. This set of clinical scenarios will provide an invaluable study resource for the next generation of medical students here at UCSD (as well as elsewhere). If future students develop similar tools in other subjects, these can truly become invaluable comprehensive resources for future medical students.