

## Press Release

In real-life, pharmacists and other healthcare providers may encounter rare diseases, genetic abnormalities, adverse drug events, or medications that were not covered in great detail or at all during their core curriculums (didactic or experiential). Unfortunately, limited information regarding rare diseases and orphan medications is found in common pharmacy or medical education textbooks. The academia literature did not retrieve any unique required or elective courses that focused on rare disorders either. Albeit the condition rare and interesting or first time encounter, patients expect healthcare providers to be knowledgeable of the disorder and treatment. Thus, a novel 1.5-unit course (15 contact hours) rare disease elective course was created and implemented in an accelerated pharmacy program using case-based pedagogy and andragogy. The course curriculum focused on the pharmacist's role in rare disorders such as methemoglobinemia, neuroleptic malignant syndrome, immune thrombocytopenia, porphyria, and others included in the National Organization for Rare Disorders (NORD) database. Learning was assessed through quizzes, SOAP notes, and an oral presentation. Students provided quantitative and qualitative feedback regarding the course.

All students (n equals 43) met or exceeded minimum competency levels on assignments. Assignments included short answer, essay, and fill-in-the-blank quizzes; medical progress notes created from mock hard-copy patient medical records; and an oral presentation on a rare disorder. Focused feedback on assignments was individualized for each student and disseminated electronically. All students enrolled in the course over a three-year period (n equals 43) were eligible to provide quantitative and qualitative feedback regarding the elective. The majority of students (n equals 33) rated the course favorably on standardized evaluations (weighted mean, 4.77; 5 equals strongly agree) and with qualitative comments.

Overall, the novel rare disease elective proved to be a popular course which filled a gap in the required pharmacy curriculum by emphasizing the role of the pharmacist in rare and interesting disorders. Students reflected that additional skill sets refined during the course far exceeded the various rare diseases covered and prepared them for the unknown in clinical practice. Ultimately, this ***Medical Education Course in Rare Diseases*** supported the value of incorporating rare disease education into the medical and pharmacy curriculums.

**For more information about the rare disease elective and medical education advancement, please contact:**

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