DEVELOPMENT OF AN APPLIED PHARMACEUTICAL CALCULATIONS STUDY UNIT

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INTRODUCTION

The entry requirements for the undergraduate degree Bachelor of Science (Honours) in Pharmaceutical Science, the first of two cycles to be eligible for a degree in pharmacy, were changed to include mathematics at intermediate level. The change in requirements led to the need for a shift from teaching mathematical concepts to applied calculations for the pharmaceutical setting.

AIM

To develop a study unit for the teaching of calculations used in the pharmaceutical setting for the first year students reading for a Bachelor of Science (Honours) in Pharmaceutical Science.

METHOD

- The study unit was developed by reviewing literature material related to calculations for pharmaceutical sciences.
- Topics to be included in the study unit were selected based on their use in the pharmaceutical setting, relating to both the clinical and pharmaceutical technology aspect.
- The number of lecturing hours allocated for the study unit were also taken into consideration.

RESULTS

- The study unit carries 4 ECTS
- A total of 28 hours were allocated for the study unit to be delivered as 14 sessions of 2 hours each. This model will provide the opportunity for class work and discussion since estimated student number per class is between 20-30 students.
- A total of 10 topics were identified for inclusion in the study unit (Figure 1).

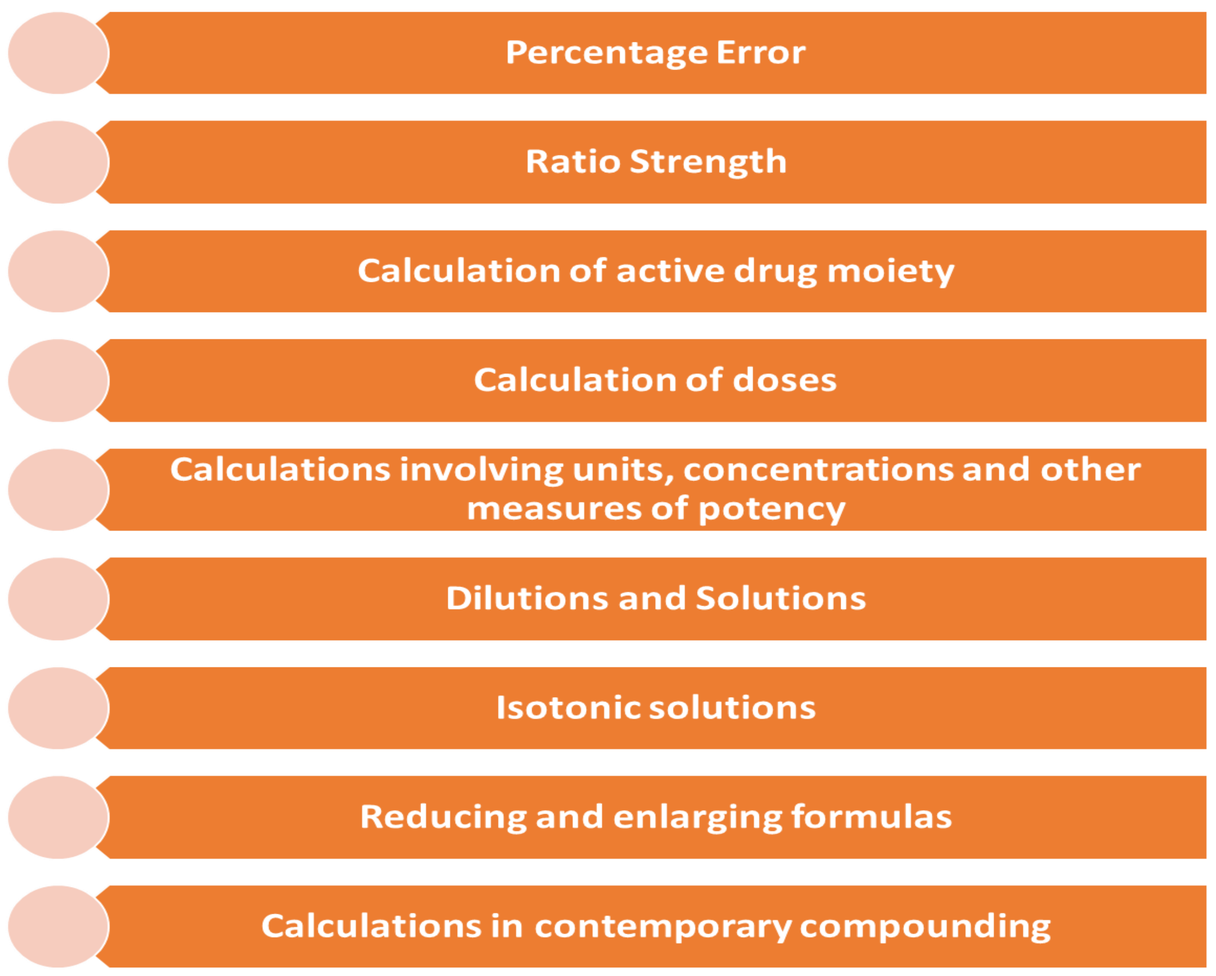

Figure 1: Topics selected for the study unit

DISCUSSION

The introduction of this study unit will enable students to apply mathematical principles and calculations to the process of preparation of pharmaceutical dosage forms, pharmaceutical analysis and determination of doses of medicines. This study unit will help students to understand the fundamentals of pharmaceutical calculations and reinforce their knowledge about the need for these calculations in settings related to pharmaceutical and clinical pharmacy settings.