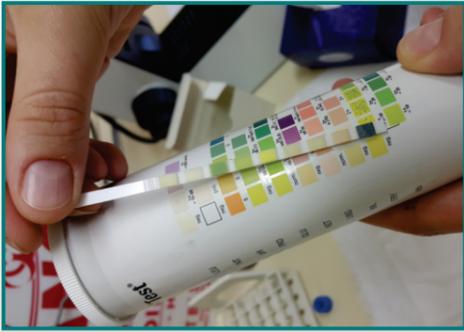


# Did unsupervised practice of clinical pathology procedures in a Skills Laboratory improve examination confidence and performance?



Third year veterinary undergraduate students (n=180) were exposed to two supervised practical sessions of 2.5 hours duration within the clinical pathology module. The class was divided into 7 groups and each group consisted of 25-26 students. Three staff members (lecturer, resident and technologist) were present to teach and assist students during the practicals. Each student group was exposed to haematology related laboratory procedures (making and staining a blood smear, microscopic blood smear evaluation, performing a packed cell volume, total protein measurement using a refractometer and performing an in-saline agglutination preparation with microscopic evaluation) during the first practical session. The second practical session consisted of a full urinalysis that included an organoleptic, physical and chemical evaluation and a microscopic sediment evaluation. After the practical exposure, 45 of the 180 students were randomly selected to do the clinical pathology examination, while the remaining students were randomly allocated to one of the three other examination panels (Small Animals, Production Animals, Equines). Students were assigned to the different stations on the day of the examination.

For the first time this year students had the opportunity to utilise the clinical pathology laboratory working stations in the newly opened Skills Laboratory to practise all the above mentioned procedures before the examination. This additional practice was not compulsory and was unsupervised. The Skills Laboratory registered a total of 219 visits for clinical pathology procedures in the four days before the examination. These visits were of 0-30 minutes (n=29), 30-60 minutes (n=38), 2-3 hours (n=18) and 3-4 hours (n=2) duration, with the majority of visits taking 1-2 hours (n=132). Ten students visited the Skills Laboratory three times to

practice procedures, 41 students twice and 107 students visited once. Out of the 180 students, 158 (88%) visited the Skills Laboratory.

Thirty-one of the 45 students doing the clinical pathology exam filled in a questionnaire about the usefulness of the unsupervised Skills Laboratory practice before the examination. Thirty of the 31 students did visit the Skills Laboratory to practise, of which 20 students visited once, 9 students twice and one student three times. Eighty-four % of questioned students (26/31) said that the additional practice opportunity helped them to become confident in the procedures, that they were less stressed about the examination and that their performance in the examination would not have been the same without it. Additionally, all students that had used the Skills Laboratory and filled in questionnaires enjoyed practising clinical pathology procedures in the Skills Laboratory.

Feedback from internal as well as external examiners indicated that students were more confident, better prepared and performed better than in the previous year. Direct comparison of marks of this year's examination to last year's was not possible as some other factors were also changed (differently structured examination, marking in rubrics etc.).

In conclusion, subjective feedback evaluation showed that the additional practice opportunity had a positive effect on the students' confidence, competence, stress levels and overall examination performance. It also showed that the majority of students made full use of this learning opportunity even without any prior experience in a Skills Laboratory.

