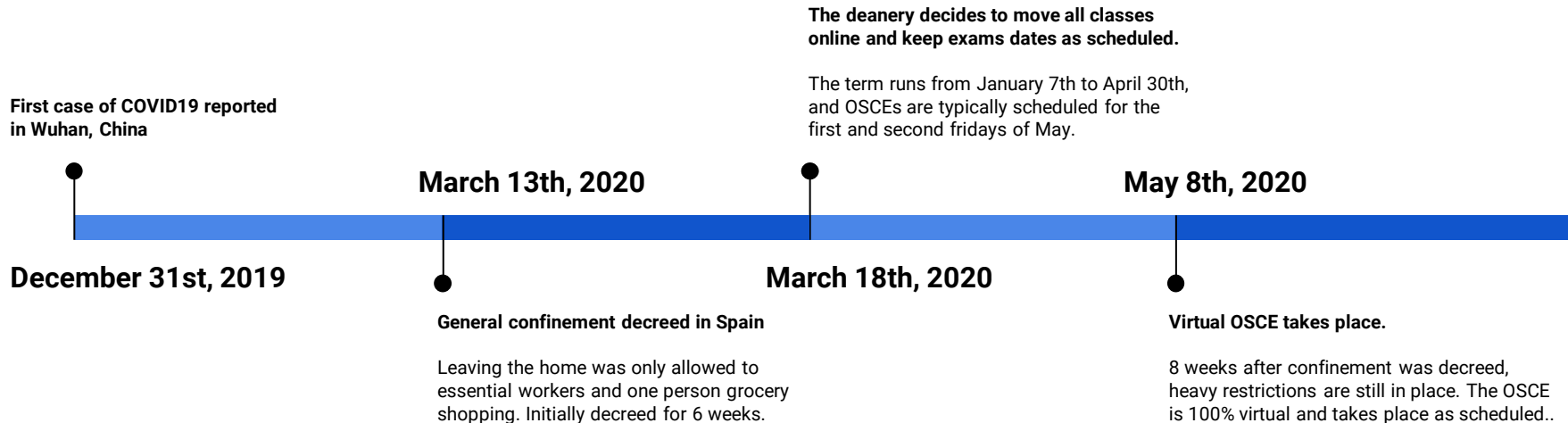
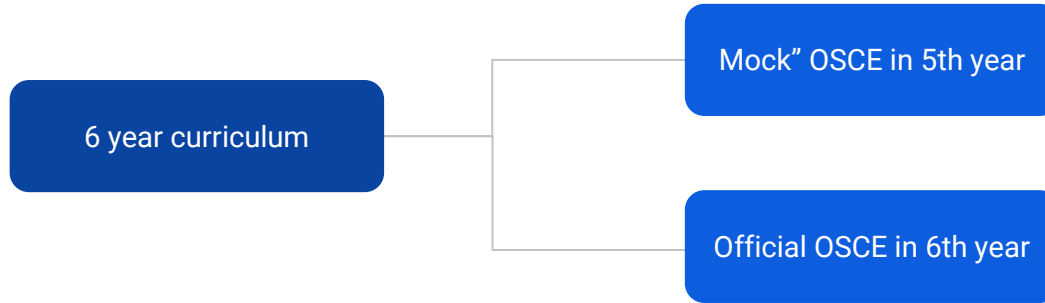


## Moving the OSCE online - our experience in the University of Navarra.

Comparison of results and student impressions with conventional face-to-face OSCEs.

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University of Navarra School of Medicine Simulation Center.





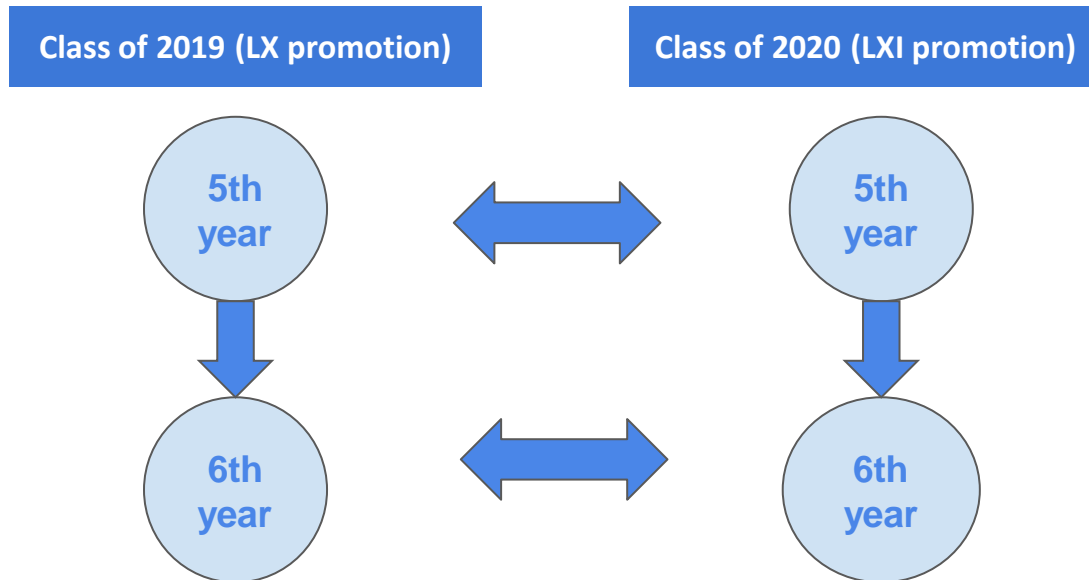
### Usual OSCE format at the Medical School of the University of Navarra:

1. 4 medical encounters with standardized patients.
2. Clinical skills examination (stitching, otoscopy, peripheral cannulae insertion, CPR...)
3. Clinical case - database search.
4. Clinical case - interpretation of radiological and lab tests.

### Virtual OSCE followed a similar structure:

1. 4 videos of clinical encounters followed by MCQs. 2 interactive.
2. Video and image - MCQ test of clinical skills.
3. Clinical case - MCQ test requiring database search knowledge and interpretation of lab and radiology results.

**METHODS.** Data was collected from the 5th and 6th year OSCEs from 2018, 2019 and 2020. We compared each promotion using t-tests and calculated the agreement using Bland-Altman misclassification index. Then we compared mean scores from the class of 2019 (LX promotion) and the class of 2020 (LXI promotion) 6th year OSCEs. Equivalence was assumed if the 95% confidence interval for the mean difference was  $<0.5$  points. Lastly we performed a between-promotions comparison for all the disciplines tested in the 6th year OSCE.



## Class of 2019 (LX promotion)

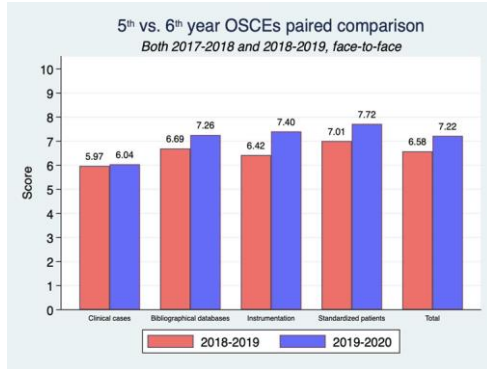


Figure 1. Comparison of the 5th and 6th year OSCEs for the 2019 class, both face-to-face. The students performed better at the 6th year OSCE, except for clinical cases.

## Class of 2020 (LXI promotion)

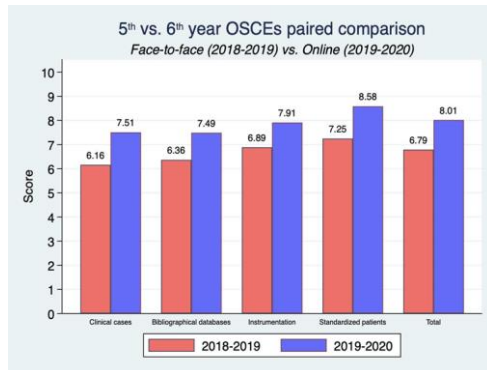


Figure 2. Comparison of the 5th and 6th year OSCEs for the 2020 class, the first face-to-face and the second online. There was significantly lower concordance in all areas.

## Class of 2019 vs class of 2020 - 5th year OSCE

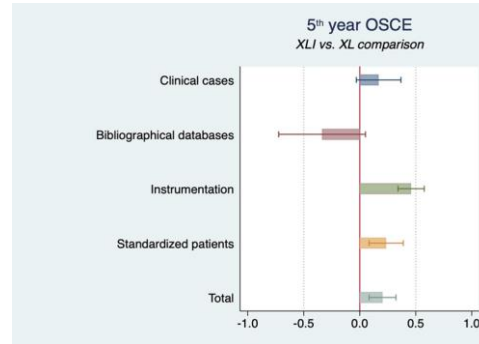


Figure 3. Comparison of results of the 5th year OSCE for both classes, both exams being face-to-face. Results differ in different areas, but the overall score is similar.

## Class of 2019 vs class of 2020 - 6th year OSCE

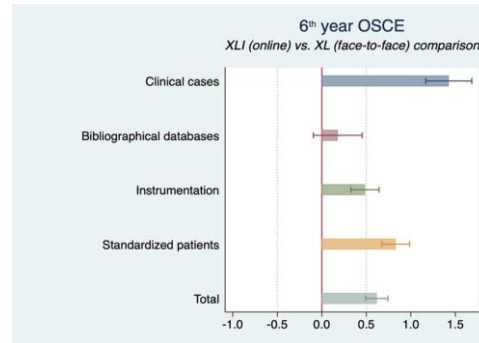


Figure 4. Comparison of results of the 6th year OSCE for both classes, with much better results for the class of 2020 (online test), except in the management of bibliographical databases which were computerized in both cases.

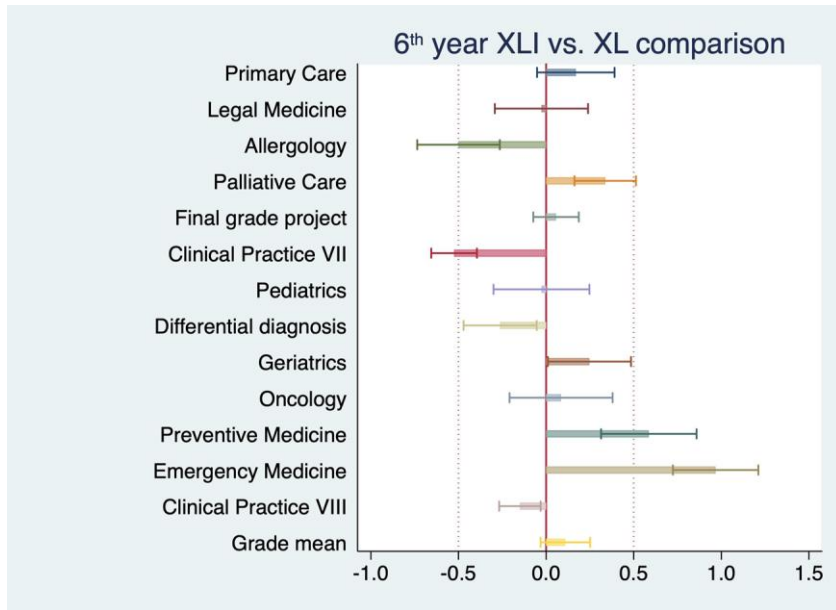
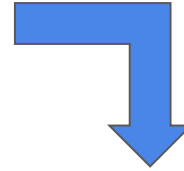


Figure 5. Results by discipline. First semester courses got lower grade than second semester courses, but considering the cutoff point of 0.5, both classes can be considered similar.



**RESULTS.** Both classes performed better in the 6th year than in the 5th year OSCE. The improvement was higher for the LXI promotion, resulting in worse 5th-6th test agreement (Bland-Altman index 8.16%) No differences were observed between both 5th year OSCEs, that followed the traditional format for both promotions.



**CONCLUSIONS.** The statistical and formal differences do not allow us to consider that both formats were equivalent. Also, multiple other factors such as situational stress or novelty may have played a role.