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Letter to the Editor

Re: Roman Sosnowski, Hubert Kamecki, Steven Joniau, Jochen Walz, Zachary Klaassen, Joan Palou. Introduction of Telemedicine During the COVID-19 Pandemic: A Challenge for Now, an Opportunity for the Future. Eur Urol 2020;78:820–821

We read with interest the article by Sosnowski et al [1] on the efficacy and safety of remote medical counselling and the need to train physicians and support patients in adopting electronic consultations in urology in light of the coronavirus disease 2019 (COVID-19) pandemic. However, medical students should also receive training early and be included in telemedicine practices as they have an essential future role to play. Thus, we propose strategies for the inclusion and training of medical students in telemedicine and address challenges in this transition.

For medical students, the pandemic has led to a radical shift from face-to-face teaching to online education. The suspension of clinical placements has hindered undergraduate clinical teaching, raising concerns about the unknown consequences on future doctors' competence. In urology, as in other surgical specialties, elective procedures have been cancelled because of COVID-19 and students are losing valuable clinical experiences, potentially affecting training. Moreover, the opportunity to take part in the management pathway for seriously ill patients is limited given their susceptibility to COVID-19 [2]. Losses in experiential learning may reduce specialty interest and career selection, which correlate with early specialty exposure, leading to adverse long-term ramifications for urology as a specialty [3].

To mitigate negative effects from reduced clinical exposure, students should be invited to participate in virtual multidisciplinary team meetings and online outpatient clinics, which facilitate clinical skills practice and maintain specialty engagement. Notably, virtual mentorships in neurosurgery are highly rated by students in assuring trainee development [4]. The implementation of such initiatives in urology should be encouraged, as this would ensure continued support of students throughout their training.

Undergraduate medical education should be reformed to reflect the increasing adoption of telemedicine practices by training students in the use of telehealth systems and their

limitations. Medical students should receive technical telemedicine training, with emphasis on providing bespoke care adapted to individual patient needs [1]. In urology, the vast majority of patients are older adults, often with comorbidities. While these patients will benefit from a lower risk of contracting COVID-19 [5], they are also likely to face technical challenges in using telehealth tools. Along with urology specialists, students should learn to triage patients suitable for telemedicine by considering patients' capabilities and preferences [1]. Moreover, telemedicine brings new risks to data privacy and students should be trained in privacy and data protection regulations [5]. Finally, urology often involves intimate health issues, so establishing adequate doctor-patient rapport is vital. Medical education should focus on training students to provide comfort and reassurance to patients who are reluctant to use telehealth tools. Mastering telecommunication and online delivery of clinical skills is crucial for future doctors [2].

Medical education faces a difficult transition ahead. Medical students will have to be trained in telemedicine, in addition to traditional care delivery, while adapting to virtual learning amidst the pandemic. We urge the European Association of Urology to encourage medical education reforms for the inclusion of medical students in telemedicine services to keep the specialty attractive to the upcoming generations.

Conflicts of interest: The authors have nothing to disclose.

References

- [1] Sosnowski R, Kamecki H, Joniau S, Walz J, Klaassen Z, Palou J. Introduction of telemedicine during the COVID-19 pandemic: a challenge for now, an opportunity for the future. *Eur Urol* 2020;78:820–1.
- [2] Margel D., Ber Y. Changes in urology after the first wave of the COVID-19 pandemic. *Eur Urol Focus*. May 13, 2020, In press. <https://doi.org/10.1016/j.euf.2020.05.001>.
- [3] Gómez Rivas J, Rodríguez Socarrás M, Somani B, et al. Undergraduate education for urology in Europe. Where do we stand? *Eur Urol* 2020;78:381–4. <http://dx.doi.org/10.1016/j.eururo.2020.05.037>.
- [4] Guadix SW, Winston GM, Chae JK, et al. Medical student concerns relating to neurosurgery education during COVID-19. *World Neurosurg* 2020;139:e836–47. <http://dx.doi.org/10.1016/j.wneu.2020.05.090>.



- [5] Novara G., Checcucci E., Crestani A., et al. Telehealth in urology: a systematic review of the literature. how much can telemedicine be useful during and after the COVID-19 pandemic? *Eur Urol.* 18 June, 2020, In press. <https://doi.org/10.1016/j.eururo.2020.06.025>.

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