



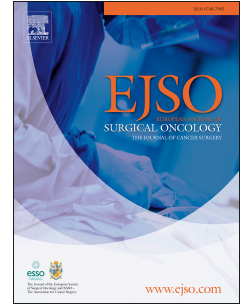
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# Journal Pre-proof

How technology can help in oncologic patient management during COVID-19 outbreak

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**Title:** How technology can help in oncologic patient management during COVID-19 outbreak

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Every country in the world is now facing the new pandemic disease caused by the SARS-CoV-2 virus, which is known to spread using droplets. Due to its transmission methods, the social distancing has entered in our routine in order to contain the spread of the novel coronavirus and this affect our everyday life in toto, including our routine clinical practice. The Lancet Oncology recently published an editorial<sup>[2]</sup> which describes the many clouds that are gathering on the world of oncology. The author concludes stating “ultimately, the situation might lead to substantial changes in how research and medicine are practiced in the future, such as reduced international travel and increased remote networking and telemedicine”. In a recent paper from *Marano et al.*<sup>[3]</sup> it is described their perspective on the management of cancer patient prior the admission and during the surgical procedures.

We would like to briefly report how the GI oncology MultiDisciplinary Team (MDT) of Sant’Andrea University Hospital, Sapienza University of Rome, Italy, reacted to the COVID-19 outbreak thanks to the implementation of a new technology.

In our institution, every Thursday since 2009 we gather in an Oncologic GI MDT meeting including more than 30 attendants of all grades (students, resident and consultant) from different specialties (surgical and medical oncology, radiotherapy, pathology, gastroenterology, radiology and nuclear medicine). More than 300 patients/years are discussed and a shared decision about treatment is taken.

Since March 9, 2020, when our Government decided to prohibit meetings in order to contain the spreading of COVID-19, our MDT was interrupted for two consecutive weeks. After an initial briefing, we transformed our MDT into a “Smart-MDT”, using a dedicated oncology platform “The NAVIFY® Tumor Board” (Roche Diagnostics Information Solutions; Belmont, CA)<sup>[4]</sup> (Fig. 1) This new platform is a cloud-based service where every clinician can insert any patient’s record in a single “file” needed for the multidisciplinary discussion, which guarantee a continuous and cohesive data gathering contrarily to separate file from every single specialty; everything is available to every member of the MDT prior to convening. It also allows to have a detailed record for every step the patient undergoes from the beginning of his treatment. After all the data gathering, the software generates a slideshow with a one-click procedure.

As conferencing tool, we selected a software freely offered by our institution included in the G Suite for Educational®: Hangouts Meet, which allows up to 250 participants and the screen sharing for the case-presenter.

The event and the invitation link is easily created through Google Calendar (Fig. 2).

Currently, we are at our fourth “Smart-MDT”. A total of 38 patients has been presented; no major problem has been encountered before, after and/or during the presentation. No major differences both in case preparation time compared to current methods and in duration of the MDT has been recorded between the “old-fashioned” face-to-face MDT and the new “Smart-MDT”. A shared therapeutic decision for all patients was possible.

Our experience with this new method of MDT is -of course- limited, but our first impression is positive. In time where social interactions should be limited to contain the spreading of the SARS-CoV-2, technology is coming to our rescue with an easy-to-use software.

## Conclusion

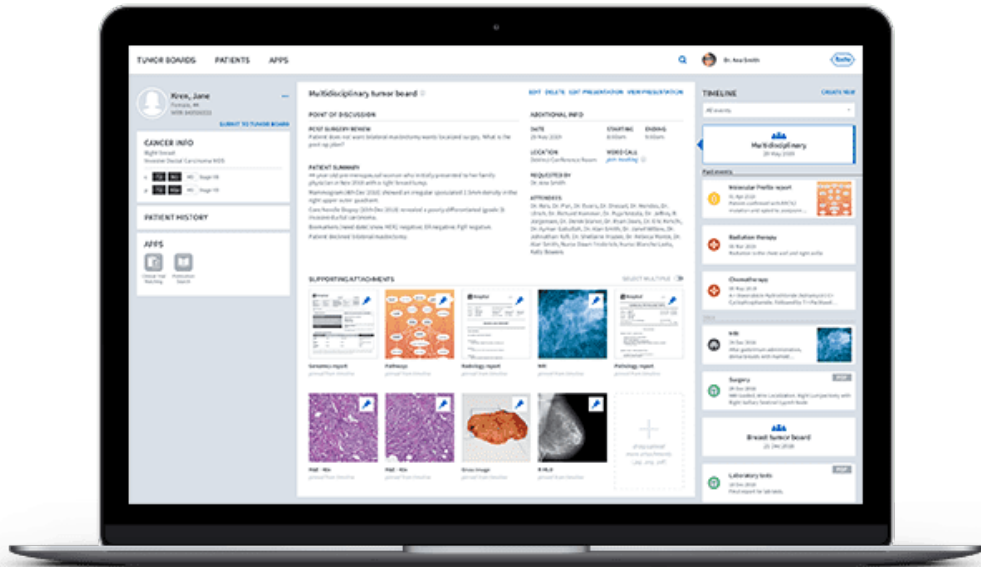
We would like to stress the importance of the MDT<sup>[1]</sup> and how every institution should make available a software of virtual meeting in order to continue with the multidisciplinary approach even in this time of pandemic disease, that is known to offer the best prospect for planning optimal management and improving clinical outcomes in oncological patients.

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**References:**

- [1] V. N. Kozak, A. A. Khorana, S. Amarnath, K. E. Glass, and M. F. Kalady, "Multidisciplinary Clinics for Colorectal Cancer Care Reduces Treatment Time," *Clin. Colorectal Cancer*, vol. 16, no. 4, pp. 366–371, 2017, doi: 10.1016/j.clcc.2017.03.020.
- [2] The Lancet Oncology, "COVID-19: global consequences for oncology," *Lancet Oncol.*, vol. 21, no. 4, p. 467, 2020, doi: 10.1016/S1470-2045(20)30175-3.
- [3] L. Marano, D. Marrelli, and F. Roviello, "European Journal of Surgical Oncology Cancer care under the outbreak of COVID-19 : A perspective from Italian tertiary referral center for surgical oncology," *Eur. J. Surg. Oncol.*, no. xxxx, pp. 19–20, 2020, doi: 10.1016/j.ejso.2020.04.004.
- [4] E. Krupinski, M. Comas, and L. Gallego, "A new software platform to improve multidisciplinary tumor board workflows and user satisfaction: A pilot study," *J. Pathol. Inform.*, vol. 9, no. 1, p. 26, 2018, doi: 10.4103/jpi.jpi\_16\_18.



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× MDT GI 177

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