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LETTERS TO THE EDITOR

Multidisciplinary tumor boards present technical and financial challenges in the COVID-19 era



We read with interest the commentary by Gross et al.¹ regarding multidisciplinary tumor (MDT) boards as videoconferences during the coronavirus disease 2019 (COVID-19) pandemic. Of note, the authors mention that MDT performance is variable and dependent on several factors including clinical inputs, radiology, pathology, and meeting management.² Videoconference tumor boards may become more common due to mitigation of travel time, easier involvement for multiple specialists, and ability to share comprehensive diagnostic data among participants. However, we would add that these MDTs are not without substantial financial costs.

We utilized available salary data for physicians, mid-level providers, and registered nurses.³ Published average hours for various health care providers were used to calculate hourly wages, and collectively, these data were used to estimate mean costs per MDT, as well as annual costs for MDTs across nine subspecialties at a single academic center. We found that the estimated annual cost of these nine tumor board meetings was \$648 182.52 for physician compensation, and \$797 667.56 annually for all providers (Table 1).

We agree with Gross and others that in oncology, MDT boards are a commonly promoted practice in management and decision making for the complex care of cancer patients.⁴ However, it is important to recognize that technical issues, participant issues, and limitations affecting the interactions among decision makers can pose challenges, which could have negative implications for patient outcomes. Therefore, the introduction of videoconferences in routine MDT boards could benefit from standardized procedures, and as the authors suggest, distribution of these regulations among attendees could improve efficiency while simultaneously bolstering patient-centered care and reducing related financial costs.

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Table 1. Total costs of MDTs for all providers annually		
Provider	Mean annual salary	Annual MDT costs (\$)
Gynecologic oncology	320 000.00	59 758.40
Medical oncology	380 000.00	165 039.88
Neurological surgery	617 000.00	34 449.48
Neurology	292 000.00	12 450.88
Pathology	318 000.00	93 232.60
Pulmonology	343 000.00	6059.04
Radiation oncology	486 000.00	144 479.76
Radiology	428 000.00	81 393.60
Surgical oncology	384 000.00	59 285.60
Thoracic surgery	584 000.00	20 164.56
Urology	422 000.00	7870.72
	Physician total	684 184.52
Advanced practice registered nurses	108 000.00	55 382.40
Registered nurse	80 000.00	57 100.64
	Nonphysician total	112 483.04
	All providers annual total	796 667.56

Mean annual salaries for physicians, advanced practitioner registered nurses, and registered nurses are presented. Annual multidisciplinary tumor (MDT) board costs were created from average number of providers per meeting and number of meetings per year.

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DISCLOSURE

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REFERENCES

- Gross MW, Läubli H, Cordier D. Multidisciplinary tumor boards as videoconferences—a new challenge in the COVID-19 era. Ann Oncol. 2021;32:572-573.
- Soukup T, Petrides KV, Lamb BW, et al. The anatomy of clinical decisionmaking in the multidisciplinary cancer meetings. A cross-sectional observational study of teams in a natural context. *Medicine*. 2016;95: 24-31.
- **3.** Schroeder BA, Graber JJ, Cuevas E, NCOG-75. Estimated physician cost of a neuro-oncology multidisciplinary team tumor board meeting at a single academic center. *Neuro-Oncology.* 2020;22:ii146.
- Fleissig A, Jenkins V, Cat S, Fallowfield L. Multidisciplinary teams in cancer care: are they effective in the UK? *Lancet Oncol.* 2006;7(11): 935-943.

Estrogen and COVID-19: friend or foe?



We have read the paper by Montopoli et al.¹ reporting the possible coronavirus disease-19 (COVID-19) protective role of antiestrogenic therapy in women treated for breast and ovarian cancer. Since the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection outbreak in December 2019, it has been shown that the majority of patients hospitalized for COVID-19 are males.² These