

## Telemedicine for Managing Cancer Pain. A Great Opportunity to be Exploited for Clinical and Research Purposes

### To THE EDITOR:

We read with great interest the article by Brenner et al (1). This survey and other similar attempts (2,3) highlight important aspects of telehealth-based applications in pain medicine and offer the possibility to report our experience, in an Italian context.

The study refers to the pandemic's first period when pain medicine services were delivered with great difficulty. In Italy, hospitals were converted into COVID-19 centers, and clinicians of all specialties were field-promoted resuscitators and intensivists. As pain therapists, we were among the first to be hired, leaving patients and their pain in the field. In the context of cancer pain, the matter was even more dramatic. We will hardly forget the screams of pain and the cries of patients who called us asking for help. In hospitals such as Istituto Nazionale Tumori of Naples (National Cancer Center, Pascale Foundation), pain clinics have been kept open instead often patients could not access them. There was a need for a quick solution.

Within the problem-solving process, we started making video calls (via smartphone) with patients and caregivers. Nevertheless, issues concerning information flow management and the need to guarantee privacy were raised. Amid the crisis, we adopted the IT platform implemented for COVID-19 cases and contacts traceability, and above all, to create a link between the various units involved in the calamity such as political authorities, and COVID units. The IT infrastructure (Platform "Sinfonia", Campania Region, Southern Italy) was progressively upgraded. Currently, it allows all the regulatory processes, including reservation, generation and sending of the link for connection, as well as data collection (e.g., imaging, laboratory tests, clinical data, etc.), storage, and security.

The proper care model to be followed was the second uncertainty. In the lack of guidelines and data from the literature, we developed a "hybrid" model with a first in-person visit (when possible) for preparation for telemedicine, legal and regulatory issues (consent acquisition), data collection, and patient training. This preliminary phase is important for establishing a relationship with the patient, for

diagnostic or therapeutic purposes as well as to acquire information on the patient's ability to use the technology. During remote consultation, clinicians interact with the patient and caregiver, evaluate the clinical condition, and assess the provided data. Other specialists can participate in a multiprofessional pathway. In-person reassessment (e.g., for interventional techniques) can be rapidly provided, and the patient can request additional remote or face-to-face consultations (4) (Fig. 1).

In the paper, the authors affirmed that "telehealth has the ability to increase access to care beyond the end of the pandemic"(1). At the beginning of our experience, we believed that, after an initial phase, the two modalities would find a balance. To our surprise, after 2 years, the number of face-to-face services remained stable (approximately 1,000 per year) instead remote consultations progressively increase (from 437 in 2021 to 237 in the first half of 2022). This means there are new working opportunities and the need to employ new resources. More importantly, integrated models of care can be promoted. Telemedicine can offer an incredible possibility since hospitals, territorial assistance, services, and information flows from different sources combine to design patient-centered pathways (Fig. 2).

The WHO defines telemedicine as "The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities" (5). Research is probably the most interesting aspect, and in these first steps of telemedicine, several research units worldwide are collecting data that will be used to define tailored models of care. We recently checked patient satisfaction to improve the process (4). Moreover, we are investigating several artificial intelligence methods useful to predict the features of patients that call for close control.

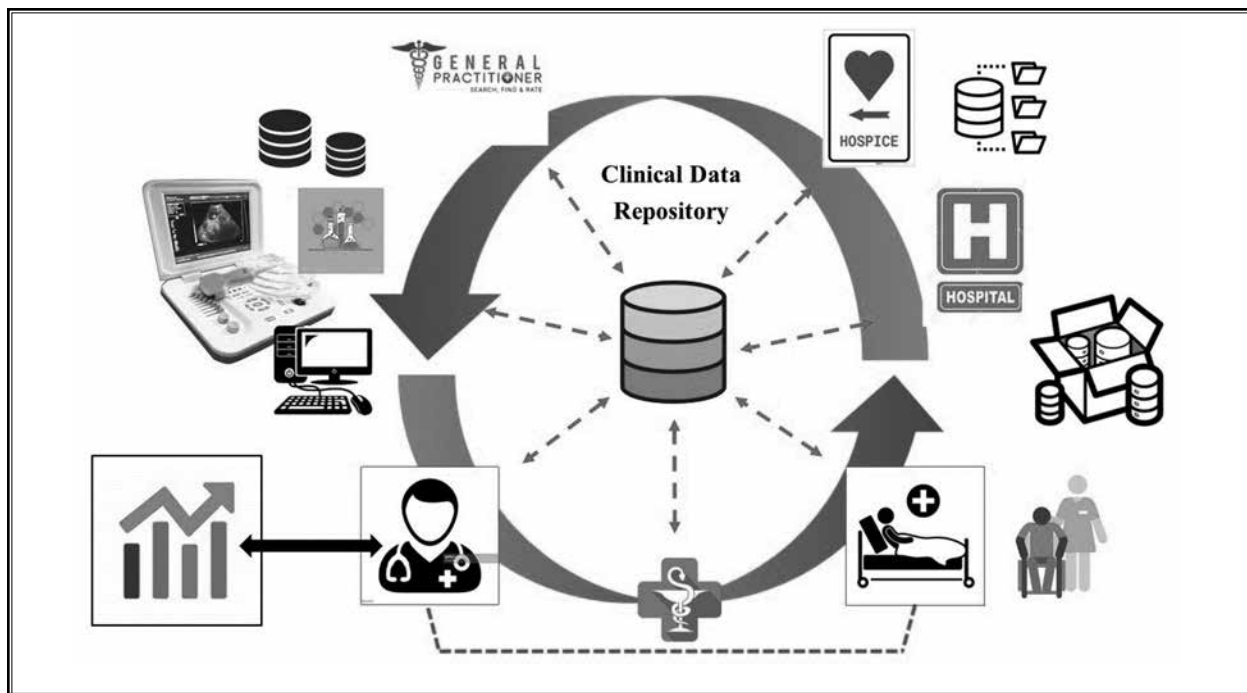


Fig. 1. Model of care for cancer pain management. Adapted from (2).

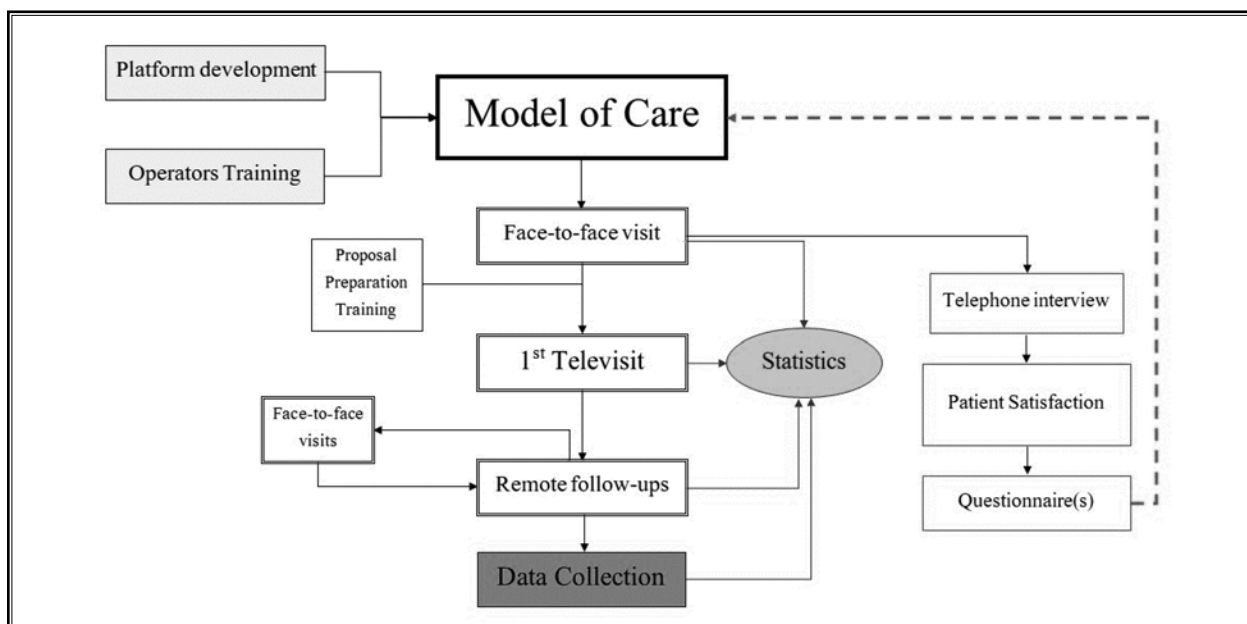


Fig. 2. An integrated telemedicine-based model of care.

In pain medicine, telemedicine can also be used to develop predictive models for automatic pain assessment (ClinicalTrials.gov NCT04726228).

Legal and regulatory issues, technical equipment,

patient and clinician training, modalities for clinical assessment, and follow-ups are a few problems to be solved. Accumulating clinical experiences will certainly clarify many doubts.

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## REFERENCES

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