

# Accelerate Your Surgical Skills with Telementoring

MedPresence: Our Secure, Cost-Efficient and Sustainable Model of Surgical Care



## The Future of Surgical Education What Is Telementoring?

Real-time access to clinical consultations, technical support, training, clinical education and best practices are more important than ever before, but physically bringing experts into a procedure room is not always possible, feasible or desirable.

Surgical telementoring is intended as a complementary measure for the experts providing guidance to a less experienced learner from a remote location. By using information and knowledge technologies without directly controlling the surgery locally, experienced mentors help surgeons develop their surgical skills to a greater level of proficiency for complex surgeries. The technology is reliable and is ready for implementation at most institutions.

78.6%
[of asked surgeons]
felt that telementoring would be useful to their practice [...].4



#### Connecting Health-Care Teams within and beyond the Hospital Walls Proven Benefits of Mentoring Virtually

- Perceived benefits of surgical telementoring include improved surgical exposure, increased extent of tumor resection [...]
- Telementoring may be an effective means of improving adoption of new surgical techniques, ultimately improving patient care.<sup>2</sup>
- MedPresence enabled me swap between images from multiple sources with complete spatial and situational awareness, without any significant lag or delay in communication.<sup>3</sup>

**Dr. Vitor Mendes Pereira (Toronto, Canada)** 

- [...] 78.6% [of asked surgeons] felt that telementoring would be useful to their practice, and 69.8% thought it would benefit their hospitals [by] [...] learning new techniques (46.5%) [and by giving] intraoperative assistance with unexpected findings (39.0%).4
- Lower exposure rates by enabling experts to consult virtually: Opening the door of the operating room is associated with increased environmental contamination.<sup>5</sup>
- It has been shown that telestrationsupplemented guidance may reduce the duration of the telementored session by more than 30%.6
- [...] due to its shorter surgery time and shorter hospital stays, the use of mentoring is anticipated to be more economical.<sup>7</sup>

<sup>&</sup>lt;sup>1</sup> https://pubmed.ncbi.nlm.nih.gov/27010229/

<sup>&</sup>lt;sup>2</sup> https://pubmed.ncbi.nlm.nih.gov/26698191

<sup>&</sup>lt;sup>3</sup> https://jnis.bmj.com/content/early/2020/12/20/neurintsurg-2020-017053; Emanuele Orru', Miklos Marosfoi, Neil V Patel, Alexander L Coon, Christoph Wald, Nicholas Repucci, Patrick Nicholson, Vitor M Pereira, Ajay K Wakhloo

<sup>&</sup>lt;sup>4</sup> https://www.ncbi.nlm.nih.gov/pubmed/27444835 Glenn IC., Bruns NE., Hayek D., Hughes T., Ponsky TA. – 21 July 2016

<sup>&</sup>lt;sup>5</sup> https://doi.org/10.1016/j.ajic.2018.03.005

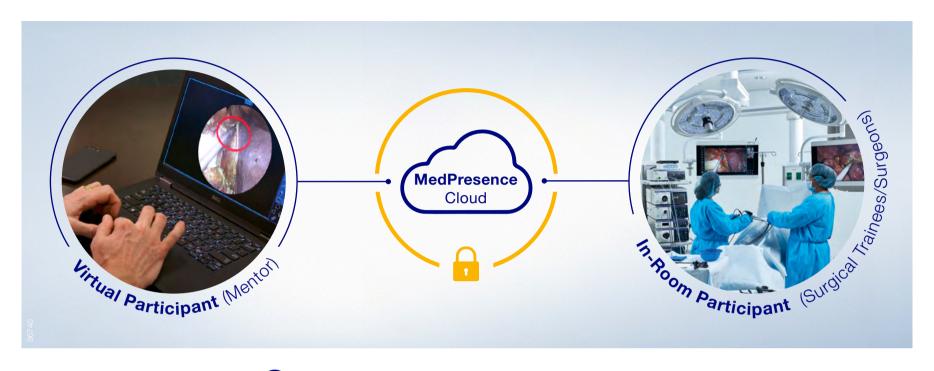
<sup>&</sup>lt;sup>6</sup> https://www.sages.org/publications/guidelines/educational-implications-for-surgical-telementoring-a-current-review-with-recommendations-for-future-practice-policy-and-research

<sup>&</sup>lt;sup>7</sup> https://scielo.conicyt.cl/pdf/abioeth/v24n2/1726-569Xabioeth-24-2-00167.pdf

#### MedPresence: Welcome to a World of Expertise

#### **Secure Live Telementoring**

MedPresence is a virtual-presence clinical collaboration solution that enables teams to quickly bring needed expertise into a procedure room from across the organization, around the world and at any time virtually.



#### **Clinical Benefits**



#### **Economic Benefits**



#### **Security Benefits**



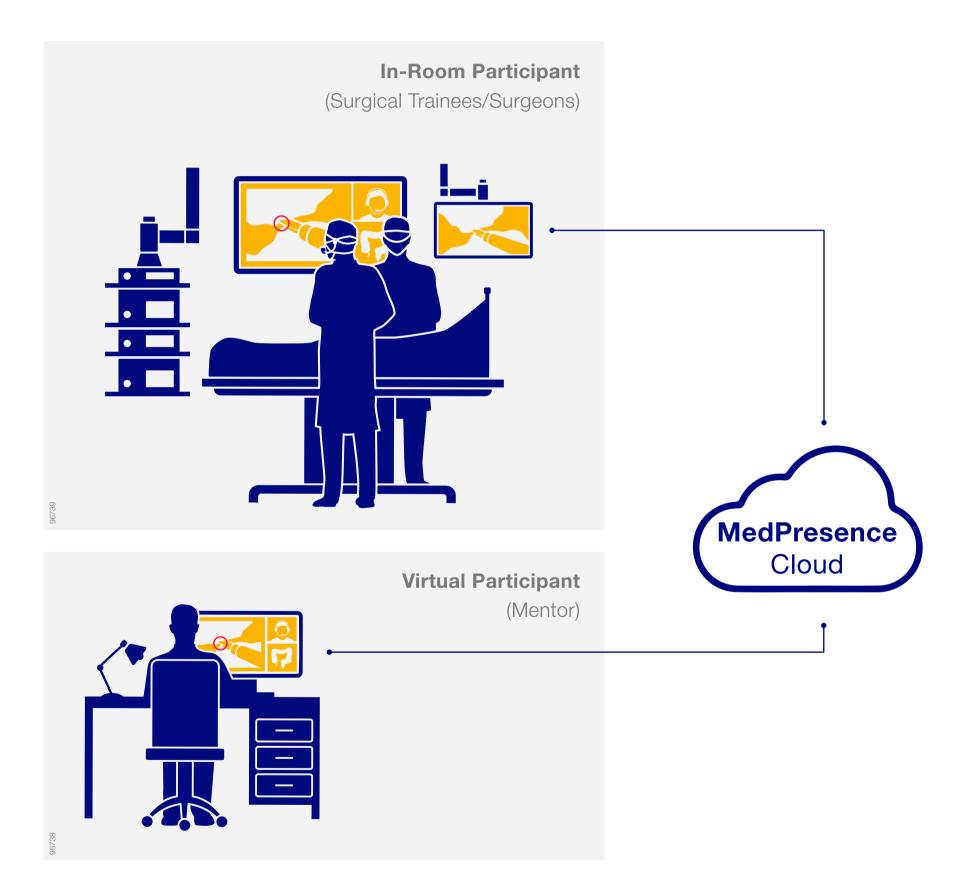
- · Peer-to-peer consultancy: Access to external consultants and their expertise, resulting in improved health outcomes.
- Optimized infection control by limiting the number of experts in the physical procedure or operating room (OR).
- Utilization of live or saved MedPresence sessions to train, educate and improve procedural techniques.
- · Support of **well-informed** decision-making in a critical procedure thanks to an expert opinion via virtual presence.

- Enabling new collaboration models resulting in efficient problem-solving and increased productivity.
- · Reduced liability and costs associated with patient infection and longer lengths of stay by limiting number of individuals in the OR.
- Reduced travel costs for subject-matter experts needed in complex procedures.
- Gaining access to technical support virtually and reducing the OR downtime.

- End-to-end security that includes encryption of MedPresence video streams (AES 256 encryption) and secure storage of MedPresence collaborators' data.
- · Industry-expert-tested solution to help **protect** against unauthorized access and use of information (Black Hills Information Security).
- Session access only for authorized participants (e.g. multi-step authentication scheme, AD integration).

### Accelerate Your Surgical Skills with Telementoring

#### **The Clinical Workflow**



As medical knowledge is constantly growing, technical modifications or changes of the product design, product specifications, accessories and service offerings may be required.



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