

# MedPresence® Bibliography



#### **Preface**

An ever-growing list of new applications and medical devices, coupled with the sheer complexity of today's multi-disciplinary procedures means that real-time access to clinical collaboration, 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.

Potential issues may include: physical collaboration limitations, infection control concerns, security, lost productivity, travel time, and costs.

Unlike telemedicine, where the physician and patient converse over the internet, clinical telecollaboration between healthcare providers is intended to share a clinical discussion.

MedPresence is an enterprise telecollaboration solution that enables procedural teams to quickly bring needed expertise into a procedure space virtually from across the organization, around the world, and at anytime.

#### **Potential Clinical Benefits**

- · Optimize health outcomes with expertise sharing and rich collaboration.
- · Optimize infection control by limiting the number of experts in the procedure or operating room.
- $\cdot$  Share live or saved MedPresence sessions for teachable moments.
- · Provide an immersive experience with two-way audio, video, and telestration.

#### **Potential Economic Benefits**

- · Enable new collaboration models, resulting in more efficient problem-solving and increased productivity.
- · Reduce liability and costs associated with patient infection and longer lengths of stay, by limiting number of individuals in the operating room.
- · Lower travel costs for subject-matter experts needed in complex procedures.
- · Gain access to technical support virtually and reduce operating room downtime.

#### **Potential Security Benefits**

- · Safeguard the integrity of sensitive information with encrypted video streams and secure storage.
- · Invite remote experts securely in and keep unauthorized users out.
- · Rest assured the technology has been tested by industry experts—Black Hills Information Security— to help protect against unauthorized access and use of information.

## The following is a list of publications that demonstrate some of the applications for procedure space telecollaboration in the clinical space.

Information contained in the publications referenced in this bibliography may reflect the manner in which medical devices and related products are actually used by physicians in hospitals and clinics. As you may know, physicians, in their practice of medicine, may use medical devices and pharmaceuticals in any manner they deem to be in the best interest of their patients even if the device or pharmaceutical is not cleared or approved by the U.S. Food and Drug Administration (FDA) for such uses. This is typically called "off-label" use. Olympus does not approve of any off label use that may be discussed in any of the articles referenced in this bibliography.

For your ease of use, the titles of the publications are hyperlinked to the PubMed.gov National Library of Medicine. MedPresence and Telecollaboration

## International Teleproctoring in neurointerventional surgery and its potential impact on clinical trials in the era of COVID-19: legal and technical considerations

Orru' E, Marosfoi M, Patel NV, Coon AL, Wald C, Repucci N, Nicholson P, Pereira VM, Wakhloo AK. International teleproctoring in neurointerventional surgery and its potential impact on clinical trials in the era of COVID-19: legal and technical considerations. J Neurointerv Surg. 2020 Dec 21:neurintsurg-2020-017053. doi: 10.1136/neurintsurg-2020-017053. Epub ahead of print. PMID: 33443115; PMCID: PMC7754670.

#### Doing More with Less: Surgical Training in the COVID-19 Era

Doulias T, Gallo G, Rubio-Perez I, Breukink SO, Hahnloser D. Doing More with Less: Surgical Training in the COVID-19 Era. J Invest Surg. 2020 Sep 22:1-9. doi: 10.1080/08941939.2020.1824250. Epub ahead of print. PMID: 32959688.

#### Telemedicine and telementoring in the surgical specialties: A narrative review

Huang EY, Knight S, Guetter CR, Davis CH, Moller M, Slama E, Crandall M. Telemedicine and telementoring in the surgical specialties: A narrative review. Am J Surg. 2019 Oct;218(4):760-766. doi: 10.1016/j.amjsurg.2019.07.018. Epub 2019 Jul 18. PMID: 31350010.

#### Telementoring of Surgeons: A Systematic Review

Erridge S, Yeung DKT, Patel HRH, Purkayastha S. Telementoring of Surgeons: A Systematic Review. Surg Innov. 2019 Feb;26(1):95-111. doi: 10.1177/1553350618813250. Epub 2018 Nov 22. PMID: 30465477.

#### Telesurgery: Past, Present, and Future

Choi PJ, Oskouian RJ, Tubbs RS. Telesurgery: Past, Present, and Future. Cureus. 2018 May 31;10(5):e2716. doi: 10.7759/cureus.2716. PMID: 30079282; PMCID: PMC6067812.

# Public Perception of Telemedicine and Surgical Telementoring in the Pediatric Population: Results of a Parental Survey

Abdulhai S, Glenn IC, McNinch NL, Craner D, Chou E, Ponsky TA. Public Perception of Telemedicine and Surgical Telementoring in the Pediatric Population: Results of a Parental Survey. J Laparoendosc Adv Surg Tech A. 2018 Feb;28(2):215-217. doi: 10.1089/lap.2017.0294. Epub 2017 Nov 21. PMID: 29161181.

#### Effectiveness of Telementoring in Surgery Compared With Onsite Mentoring: A Systematic Review

Bilgic E, Turkdogan S, Watanabe Y, Madani A, Landry T, Lavigne D, Feldman LS, Vassiliou MC. Effectiveness of Telementoring in Surgery Compared With On-site Mentoring: A Systematic Review. Surg Innov. 2017 Aug;24(4):379-385. doi: 10.1177/1553350617708725. Epub 2017 May 11. PMID: 28494684.

## Educational implications for surgical telementoring: A current review with recommendations for future practice, policy, and research

Augestad KM, Han H, Paige J, Ponsky T, Schlachta CM, Dunkin B, Mellinger J. Educational implications for surgical telementoring: a current review with recommendations for future practice, policy, and research. Surg Endosc. 2017 Oct;31(10):3836-3846. doi: 10.1007/s00464-017-5690-y. Epub 2017 Jun 27. PMID: 28656341.

## Rural surgeons would embrace surgical telementoring for help with difficult cases and acquisition of new skills

Glenn IC, Bruns NE, Hayek D, Hughes T, Ponsky TA. Rural surgeons would embrace surgical telementoring for help with difficult cases and acquisition of new skills. Surg Endosc. 2017 Mar;31(3):1264-1268. doi: 10.1007/s00464-016-5104-6. Epub 2016 Jul 21. PMID: 27444835.

#### The evolution of surgical telementoring: current applications and future directions

El-Sabawi B, Magee W 3rd. The evolution of surgical telementoring: current applications and future directions. Ann Transl Med. 2016 Oct;4(20):391. doi: 10.21037/atm.2016.10.04. PMID: 27867943; PMCID: PMC5107399.

#### Project 6 Summit: SAGES telementoring initiative

Schlachta CM, Nguyen NT, Ponsky T, Dunkin B. Project 6 Summit: SAGES telementoring initiative. Surg Endosc. 2016 Sep;30(9):3665-72. doi: 10.1007/s00464-016-4988-5. Epub 2016 Jun 6. PMID: 27270593.

#### Surgical telementoring: A new model for surgical training

Snyderman CH, Gardner PA, Lanisnik B, Ravnik J. Surgical telementoring: A new model for surgical training. Laryngoscope. 2016 Jun;126(6):1334-8. doi: 10.1002/lary.25753. Epub 2016 Mar 24. PMID: 27010229.

#### Novel Uses of Video to Accelerate the Surgical Learning Curve

Ibrahim AM, Varban OA, Dimick JB. Novel Uses of Video to Accelerate the Surgical Learning Curve. J Laparoendosc Adv Surg Tech A. 2016 Apr;26(4):240-2. doi: 10.1089/lap.2016.0100. Epub 2016 Mar 31. PMID: 27031876; PMCID: PMC4845634.

#### **Evolving Educational Techniques in Surgical Training**

Evans CH, Schenarts KD. Evolving Educational Techniques in Surgical Training. Surg Clin North Am. 2016 Feb;96(1):71-88. doi: 10.1016/j.suc.2015.09.005. PMID: 26612021.

#### Trans-Atlantic Telementoring with Pediatric Surgeons: Technical Considerations and Lessons Learned

Bruns NE, Irtan S, Rothenberg SS, Bogen EM, Kotobi H, Ponsky TA. Trans-Atlantic Telementoring with Pediatric Surgeons: Technical Considerations and Lessons Learned. J Laparoendosc Adv Surg Tech A. 2016 Jan;26(1):75-8. doi: 10.1089/lap.2015.0131. Epub 2015 Dec 24. PMID: 26698191.

#### Telementoring: The Surgical Tool of the Future

Ponsky TA, Schwachter M, Parry J, Rothenberg S, Augestad KM. Telementoring: the surgical tool of the future. Eur J Pediatr Surg. 2014 Aug;24(4):287-94. doi: 10.1055/s-0034-1386646. Epub 2014 Aug 11. PMID: 25111278.

#### <u>Safe Introduction of Laparoscopic Colorectal Surgery Even in Remote Areas of the World: The Value of a</u> Comprehensive Telementoring Training Program

Forgione A, Kislov V, Guraya SY, Kasakevich E, Pugliese R. Safe introduction of laparoscopic colorectal surgery even in remote areas of the world: the value of a comprehensive telementoring training program. J Laparoendosc Adv Surg Tech A. 2015 Jan;25(1):37-42. doi: 10.1089/lap.2014.0191. Epub 2014 Dec 3. PMID: 25469662.

#### Commercial videoconferencing for use in telementoring laparoscopic surgery

Guo Y, Henao O, Jackson T, Quereshy F, Okrainec A. Commercial videoconferencing for use in telementoring laparoscopic surgery. Stud Health Technol Inform. 2014;196:147-9. PMID: 24732496.

## <u>Surgical telementoring in knowledge translation—clinical outcomes and educational benefits:</u> <u>A comprehensive review</u>

Augestad KM, Bellika JG, Budrionis A, Chomutare T, Lindsetmo RO, Patel H, Delaney C; Mobile Medical Mentor (M3) Project. Surgical telementoring in knowledge translation--clinical outcomes and educational benefits: a comprehensive review. Surg Innov. 2013 Jun;20(3):273-81. doi: 10.1177/1553350612465793. Epub 2012 Oct 30. PMID: 23117447.

#### A comprehensive review of telementoring applications in laparoscopic general surgery

Antoniou SA, Antoniou GA, Franzen J, Bollmann S, Koch OO, Pointner R, Granderath FA. A comprehensive review of telementoring applications in laparoscopic general surgery. Surg Endosc. 2012 Aug;26(8):2111-6. doi: 10.1007/s00464-012-2175-x. Epub 2012 Feb 15. PMID: 22350150.

#### Mentoring and telementoring leads to effective incorporation of laparoscopic colon surgery

Schlachta CM, Lefebvre KL, Sorsdahl AK, Jayaraman S. Mentoring and telementoring leads to effective incorporation of laparoscopic colon surgery. Surg Endosc. 2010 Apr;24(4):841-4. doi: 10.1007/s00464-009-0674-1. Epub 2009 Aug 26. PMID: 19707821.

#### A model for longitudinal mentoring and telementoring of laparoscopic colon surgery

Schlachta CM, Sorsdahl AK, Lefebvre KL, McCune ML, Jayaraman S. A model for longitudinal mentoring and telementoring of laparoscopic colon surgery. Surg Endosc. 2009 Jul;23(7):1634-8. doi: 10.1007/s00464-008-0221-5. Epub 2008 Dec 6. Erratum in: Surg Endosc. 2009 Jul;23(7):1639. Kent, Sorsdahl A [corrected to Sorsdahl, A Kent]. PMID: 19067069.

#### Telementoring: an application whose time has come

Rosser JC Jr, Young SM, Klonsky J. Telementoring: an application whose time has come. Surg Endosc. 2007 Aug;21(8):1458-63. doi: 10.1007/s00464-007-9263-3. Epub 2007 May 5. PMID: 17484009.

#### Telementoring During Endovascular Treatment of Abdominal Aortic Aneurysms: A Prospective Study

Di Valentino M, Alerci M, Bogen M, Tutta P, Sartori F, Marty B, von Segesser L, Gallino A. Telementoring during endovascular treatment of abdominal aortic aneurysms: a prospective study. J Endovasc Ther. 2005 Apr;12(2):200-5. doi: 10.1583/04-1421.1. PMID: 15823067.

#### Telepresence and telementoring in surgery

Latifi R, Peck K, Satava R, Anvari M. Telepresence and telementoring in surgery. Stud Health Technol Inform. 2004;104:200-6. PMID: 15747980.

#### Telemedicine: Teleproctored Endoscopic Sinus Surgery

Burgess LP, Syms MJ, Holtel MR, Birkmire-Peters DP, Johnson RE, Ramsey MJ. Telemedicine: teleproctored endoscopic sinus surgery. Laryngoscope. 2002 Feb;112(2):216-9. doi: 10.1097/00005537-200202000-00003. PMID: 11889372.

#### Real-time Internet connections: Implications for surgical decision making in laparoscopy

Broderick TJ, Harnett BM, Doarn CR, Rodas EB, Merrell RC. Real-time Internet connections: implications for surgical decision making in laparoscopy. Ann Surg. 2001 Aug;234(2):165-71. doi: 10.1097/00000658-200108000-00005. PMID: 11505061; PMCID: PMC1422002.

#### Minimally invasive surgical training solutions for the twenty-first century

Rosser JC Jr, Murayama M, Gabriel NH. Minimally invasive surgical training solutions for the twenty-first century. Surg Clin North Am. 2000 Oct;80(5):1607-24. doi: 10.1016/s0039-6109(05)70248-6. PMID: 11059723.