

# Remote Clinical Support and Telepresence in the endovascular Operating Room, in the age of SARS-CoV-2 (COVID-19) and beyond

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## Introduction

The COVID-19 pandemic has largely brought a halt to current life as we know it. In many parts of the world, there is some form of lock-down<sup>1</sup>. This is not only limiting daily activities<sup>2</sup>, but also severely limiting the possibilities for the employees in healthcare<sup>3</sup>.

## The added value of clinical representatives in The Netherlands in the operating room

- Providing product education and training
- Consultant for case planning and case support in the operating room/cath lab
- Able to gain recognition as a go-to person and as a product expert

## The extra-added value of a Field Sales Associate (FSA) working for W. L. Gore & associates is the support they provide

- Device accountability reconciliation
- Quality record and maintenance during audits and regulatory inspections
- Participating in process improvement initiatives
- Maintaining compliance with training expectations
- Guidance on device suitability: if they think a Gore device would not be suitable for a patient, they say so.

## Do's and Don'ts of a FSA in The Netherlands in the operating room

The FSAs are trained and must adhere to the laws and regulations, such as operation theatre access, compliance and GDPR<sup>4</sup>, to avoid liability and confidentiality issues.

## In the age of COVID-19

In the Netherlands, a 'set of rules' has been agreed for the healthcare sector by the national Outbreak Management Team<sup>5</sup>. As a consequence most industry representatives are banned from the operating room. This is for the safety of the patient, the hospital employees and also the FSAs.

## Literature

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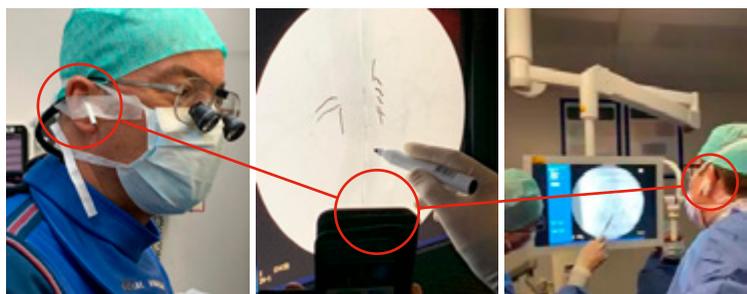
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## Solution

The first solution that comes to mind is telemedicine. The ethics of telemedicine is outlined by the World Medical Association<sup>6</sup>. In literature some obvious advantages are reported, together with gaps<sup>7</sup>. Telemedicine is mainly used to enhance collaboration<sup>8</sup>. There is the worldwide willingness to accelerate the introduction of Telemedicine in many fields of healthcare, simplifying regulations to allow the use of scientifically valid products. However the use of telemedicine in the Operating Room is already feasible with proven and available technology<sup>9</sup>.



We used for telepresence of the FSA, APPLE FACETIME<sup>®</sup> and APPLE AIRPODS<sup>®</sup> with one AIRPOD<sup>®</sup> in one ear of the two key operators (image 1).

Communications were two ways, from the operators to the FSA and vice versa. The FSA was able to see real-time X-rays (image 2 and 3) and give direct feedback to the operators.

A complex procedure was performed with very good results, as expected if the FSA was present in the operating room. It was easy to expand communication seamlessly.

## Conclusion

The COVID-19 pandemic has given us the opportunity to explore alternative methods of case support, when access to the operating theatre is restricted. Telepresence is a safe and effective alternative for patients, physicians and FSAs to execute procedures without compromising quality. Remote case planning and support will have a valuable place in the post-pandemic activities, as well.