



## Live streaming of the Masterclass in Endoscopic Submucosal Dissection at Quirónsalud Hospital in Málaga

### User

#### Digestive Endoscopy Unit of the Quirónsalud Hospital in Málaga



Hospital Quirónsalud de Málaga is one of the most prestigious medical-surgical centers in Andalusia and is part of the largest private hospital group in Spain. Its facilities have a surface area of more than 24,600 m<sup>2</sup>, 36 medical specialties and 8 operating rooms. It has 131 hospital beds and a staff of 900 professionals, 200 of whom are physicians and surgeons.

### Challenges

#### Live streaming of the Masterclass on Endoscopic Submucosal Dissection (ESD) techniques as a prelude to the "IV Jornada de Endoscopia Digestiva Avanzada" (IV Advanced Digestive Endoscopy Day)

Endoscopic Submucosal Dissection (ESD) is an innovative technique of advanced digestive endoscopy that allows the removal of incipient tumors of the digestive tract, performing superficial surgery of the organ and removing the layer where the tumor is located in a less invasive way.

The Masterclass aims to train and update knowledge, both locally and remotely, to endoscopy specialists from different public and private hospitals in Andalusia interested in this DSE technique.

It is required to record the session for later use and also allow remote participants to see, hear and interact with the surgeons.

The session was held on September 18, 2019 at Quirónsalud Hospital in Malaga as a prelude to the "IV Jornada de Endoscopia Digestiva Avanzada".

The Masterclass was organized by the Digestive System Service of Hospital Quirónsalud in Málaga and by INEDA (Instituto de Enfermedades Digestivas de Andalucía).

### Solución

#### Image integration system ORVM - Operating Room Video Manager & Media Server, for the management of image data and video produced in the operating room, including the acquisition, recording, broadcasting and retransmission by streaming of digestive endoscopies.

Remotely located participants were able to attend the DSE interventions live via streaming.

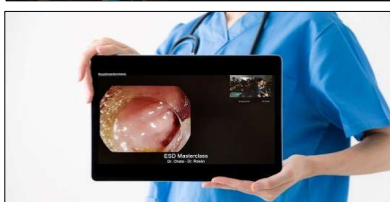
This event was carried out with an image integration system in the operating room, specifically with Azinsol's ORVM - Operating Room Video Manager & Media Server software modules for acquisition, recording, broadcasting and streaming retransmission. The objective of the live surgeries was that participants not present in the operating room could remotely attend the interventions, visualizing the same image that the surgeons saw through the endoscopy equipment, commenting with the students what was happening in the intervention and answering questions or doubts that they could raise in the operation in real time via Twitter.

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## Solution

The interventions were performed by Dr. Pedro J Rosón, Head of the Advanced Digestive Endoscopy Unit and of the Digestive System Service of the Quirónsalud Hospital in Málaga, organizer of the Masterclass, and by Dr. Ken Ohata, Senior Chief Doctor of Gastroenterology of the NTT Medical Center Hospital in Tokyo, a worldwide reference in this type of techniques.

These are some of the photographs of the recording and live streaming of the Endoscopic Submucosal Dissection (ESD) interventions, as well as the medical grade mobile cart used and its reception on a mobile terminal by remote participants of this Masterclass.



The technological means used to carry out the Masterclass were the following:

- Hardware elements: workstation on medical grade trolley equipped with double 24" high brightness touch screen monitor, signal acquisition device of the endoscopy equipment, ambient camera and wireless headset microphone, with the possibility also of second opinion through corporate videoconferencing.

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- Hardware elements: workstation on medical grade trolley equipped with double 24" high brightness touch screen monitor, signal acquisition device of the endoscopy equipment, ambient camera and wireless headset microphone, with the possibility also of second opinion through corporate videoconferencing.

- Software elements: ORVM - Operating Room Video Manager, for the recording and interactive management of the video produced in the operating room with the possibility of post-editing and export to Vimeo and YouTube platforms, as well as ORMS - Operating Room Media Server for the live streaming broadcast of the Masterclass to remote participants in any format (Windows, iOS and Android).

- Human elements: technical staff necessary for the realization of this recording and live interactive broadcasting of the interventions.

## Feedback

**"The system is powerful and versatile, as well as easy and intuitive"**

**"It is ideal for training professionals in endoscopy and for sharing techniques and experiences with other specialists."**

*"The system used is very powerful and versatile and at the same time extremely user-friendly and intuitive."*

*"We are very satisfied. It is ideal for training sessions and training of professionals in digestive endoscopy and to share techniques and experiences with other specialists at national and international level"*

Dr. Pedro J. Rosón Rodríguez

Head of the Digestive System Service and director of the Masterclass  
Quirónsalud Hospital in Malaga