

If FASMEDO is not used, only the operator can see the deep operative field; but by using FASMEDO, the surgical assistant, anesthesiologist, and nursing assistant can easily share the operative field, which is useful for the practice of team medical care.

### From the academic point of view

In the past, images taken with a ceiling-mounted camera were used to archive highly difficult or rare surgeries, or to record for presentations at academic conferences was blocking. Also, the deep, angled operative field could not even be captured by the camera in the first place. Archiving valuable surgeries is in the public interest, and FASMEDO, which can easily record images with clear, unobstructed images, is ideal for our department, where we frequently perform difficult surgeries. It is a must have item.

### Summary =

FASMEDO is a device that can contribute to "improvement of education" and "improvement of medical safety", and is a must-have for all teaching hospitals and hospitals that perform highly difficult surgeries. I feel that without FASMEDO, it would be difficult to fully convey the appeal of surgery to the younger generation.



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### **FASMEDO FM-105 HS**

Passing on the fascination of surgery with wireless headlight camera

The Jikei University School of Medicine
Division of Vascular Surgery, Professor

Takao Ohki, M.D., Ph









# FASMEDO Passing on the fascination of surgery with wireless headlight camera

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Takao Ohki, M, D., Ph.D.



The FASMEDO wireless headlight camera (hereinafter referred to as FASMEDO) developed by Faspro Systems Inc. is unlike conventional headlight cameras, reason being the camera and light are mounted above the surgeon's line of sight, making it possible to share in real-time, the same operative field with the operating team.

### **FASMEDO** features and functions

- ① Compact and lightweight (approx.250g including battery), wireless, and can be paired with a PC or smart device for easy recording, and image capture.
  ② By connecting all three devices (FASMEDO, PC/Smart Device, monitor via HDMI) in the operating room, the operative field can then be shared and viewed from the same perspective as the operator. This enables learning staff and students to easily track and follow along with the procedure in real-time. The visual can also be shared with anesthesiologists and nurses improving educational and intra-operative work flow.
- ③ Post-surgery images and videos can be downloaded to a PC to create an archive, which is useful for presentations at academic conferences, etc.
- ④ Remote sharing via WIFI connectivity. LIVE STREAMING is possible with WIFI, not only within the operating room but also remotely.



## Improving Educational Efficacy and Passing on the Attractiveness of Surgery

At Jikei University School of Medicine, Vascular Surgery, FASMEDO is used as an educational tool for trainees and students in daily vascular surgery. In endovascular surgery and laparoscopic surgery which uses a fluoroscope or a laparoscope, there is no difficulty in sharing the surgical field. However, in open laparotomy and thoracotomy procedures, it is difficult to share the operative field with trainees. Pausing mid-surgery in order to share important points occur frequently without FASMEDO. Trainees took turns standing in positions where they could see the operative field, causing pauses and affecting the progress of the surgery. Opportunities to see the operative field were naturally limited, causing trainees to spend idle time, thus decreasing motivation and deterring future prospects from pursuing a career in this field.



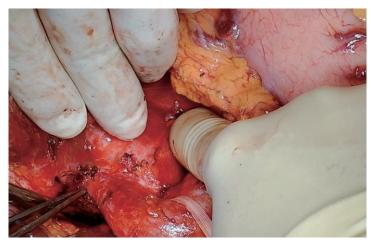
### Student practice before using FASMEDO

In the above photo, trainees are trying to actively participate, peering into the surgical field from afar. Assistant nurse had no choice but to pause in order to allow the students to gather around the operating table. Continuing to observe surgeries under these circumstances will inevitably lead to an increase in student's dislike for surgery, and pose medical safety problems.

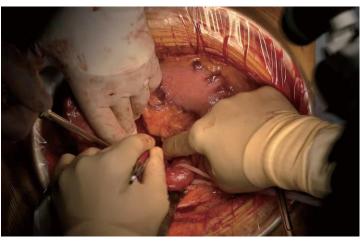
Furthermore, in a deep operative field that can only be seen from an oblique position by tilting the body, the camera suspended from the ceiling cannot dearly visualize the operative field. FASMEDO, being positioned on the surgeon, allows the trainees and the team to dearly see exactly what the surgeon is seeing.

Sharing the visual field comes naturally in laparoscopy and fluoroscopy. However with the FASMEDO headlight camera system, this can now be achieved in open surgery as well. Not only can we expect benefits from an educational standpoint, but by enabling greater access to the operator's field of view, we can expect trainees to become more involved and engaged in the procedure. I do not think it is an exaggeration to say Fasmedo is an essential tool for all teaching facilities.

### **FASMEDO Scene of student training during use**







Visualization Using over head camera



Students can clearly see the operative field in a special seat from the operator's perspective. Since the operator is tilted and peering in, the hepatic aneurysm behind the liver is clearly visible on his FASMEDO screen on the left, but neither the liver nor the aneurysm is visible on the ceiling-mounted camera on the right. In addition, FASMEDO allows students to observe the equipment from a distance from the operating table, facilitating the transfer of equipment between nurses and surgeon

#### **Voice of medical students**

Maruta Takashi M.D. (6<sup>th</sup> year medical student)

Before using Fasmedo, it was inconvenient for students to observe long surgeries because the operative field was very limited.

Now, I can clearly see each and every procedure performed by the surgeon, and I have become more fascinated and involved.

Chikatsu Nao M.D. (5<sup>th</sup> year medical student)
With FASMEDO, the perspective of the surgeon can be shared in real time, making it easier for me to understand what the operator is focusing on and understand better the operator's explanations. I am very grateful to professor Ohk and FASMEDO for the improved learning experience.

Chio Megumi M.D. (5<sup>th</sup> year medical student)

With the hanging camera, the operator's head sometimes hinders the operative field, and each time that happened, my concentration has been interrupted. With FASMEDO, the operative field is unobstructed, and images can be taken from angles that only the surgeon can see. That makes me feel as though i am actually standing in a surgery and learning.



### From the perspective of improving medical safety

As mentioned above, before the introduction of FASMEDO, when showing the operative field to medical students the procedure had to be temporarily interrupted. Negatively impacting the rhythm of the surgery.

By using FASMEDO, there is no need to interrupt the surgery for education. In addition, in the case of open surgery, it is extremely difficult for the nurses and anesthesiologists to see the operative field. Furthermore, in deep surgical fields, often time even the first assistant cannot see what the operator is manipulating. Since image and information sharing is the first step in achieving efficient team effort, the introduction of FASMEDO has dramatically improved the sense of unity in the surgical team. From this point of view, the use of FASMEDO has made it possible to improve medical safety and realize a higher level of teamwork.



