

## User Report

### Digital Endoscopy

#### All images under one button

Robin Timmer, MD, Antonius Mesos Group, The Netherlands  
Han Karsemeijer, Antonius Mesos Group, The Netherlands

“Now we’ve got what we always wanted.” The Department for Gastroenterology of the Antonius Mesos Group (AMG) in The Netherlands is the first Department to have JiveX at its disposal. JiveX is chosen by the AMG Hospital as the Multi Modality PACS next to their existing Radiology PACS. JiveX supports the entire process, from acquisition to viewing. Gastroenterologist Robin Timmer, MD and Information & Automation consultant Mr. Han Karsemeijer explain how it works.

#### From Support Arm to EPR

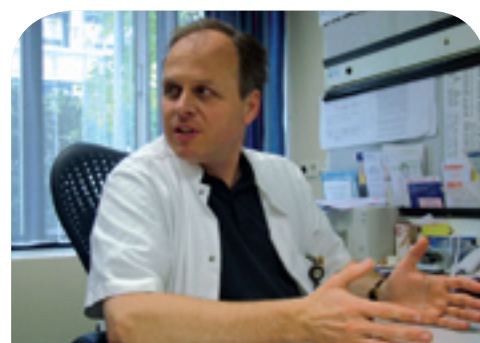
The AMG’s gastroenterology department had been looking for a solution to process digital endoscopy images for some time already. Timmer: “Until now, we printed video images on photo paper, but they were too time-consuming to work with. Now we can track important images and film much better and quicker.” The endoscopy rooms are provided with dedicated support arms carrying the computer monitors on which JiveX run. “I find my work schedule on this monitor and am able to select the patient I am about to examine. In the reporting room I select the most useful images, which are then sent to a central archive together with my examination report. The EPR can be used anywhere in the entire Hospital to view the images stored in the central archive.”

#### New images, new chances

Timmer is enthusiastic about his new system. “A report containing digital images has many advantages. Images add information to written reports, and later on you can review them for reference.



Antonius Mesos Group, Endoscopy



Robin Timmer, MD  
Gastroenterologist

You can compare them with previous images, which helps identify changes in the patient's condition. Interesting images can be used as teaching material, be shown to assistants for instance. And they can be used for consultation among the staff and to brief the physicians next on call. An image of the sigmoid, for example, enables us to show that we have done our examination well."

### ***Supporting the Hospital's processes***

JiveX has been fully integrated into AMG's IT architecture. Karsemeijer: "The entire process is supported by Alphatron hardware and software, combined with tailor-made solutions developed for this Hospital. We have built the interfaces with our scheduling module and the EPR ourselves. The integration of JiveX meant that we needed a supplier willing to help us develop such interfaces and connections. That is why we chose Alphatron. They were willing to invest in extensive support."

### ***No stand-alone application***

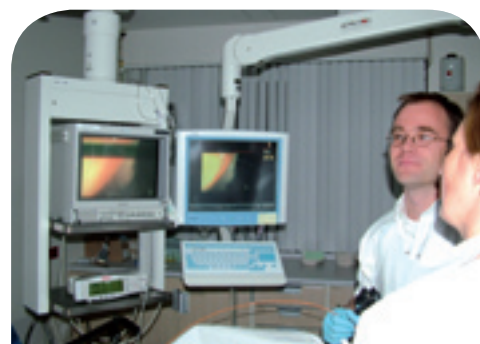
Other modalities can easily be linked into JiveX. "It is not only a stand-alone application for our department," says Timmer. Karsemeijer explains why: "For any individual physician a stand-alone solution would have worked just as well. But that is not our idea of a fully digital EPR. The advantages of JiveX are found on a higher organizational level, at the level of the Hospital as a whole or even above. Data are managed in a central location and made available on request to everyone. This enables us to guarantee that all data are available 24x7, both inside the hospital and out."

### ***Plug and play***

"A Hospital wide approach to image management requires a new way of thinking, from departmental solutions to generic solutions," says Karsemeijer. "Generic solutions only work if the Hospital's communication and workflow processes are standardized. We do that in accordance with the IHE protocol, and all images are stored in the DICOM format. By using only international and open stan-



**Han Karsemeijer,**  
Information & Automation consultant



**Endoscopic investigation at St. Antonius Hospital**

dards our EPR will become hardware independent and then we've come to a truly "plug and play" IT architecture."

## ***Total digitalization***

There is much demand for digitalization, Karsemeijer tells us. "We are on the brink of the total digitalization of all patient images. Basically, if a piece of hardware works as it should, all we need to do is plug it in. For other departments digitalization has become easier now, too. The next three modalities are ready to be integrated shortly after January 1st."

## ***Image selection***

The information each modality can send to the central archive will be limited. Karsemeijer: "Physicians must make a selection before archiving data. The idea is to prevent top-heavy documents from overtaxing the EPR's capacity. Consider CT scans, for instance. They are enormous files. Storing them all in one single archive may become difficult." Timmer adds: "An archive of selected images is more transparent too, and it will be easier and quicker to find what you need."

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By using the JiveX Review Client, which has been integrated into the EPR, the data in the archive can be accessed from anywhere in the Hospital. "A physician chooses which images he wants to review. These are then traced in the DICOM archive and shown on the EPR," Karsemeijer explains. Timmer: "We've got what we always wanted: one single image management system giving access to all the patient's images. Being able to review and compare data is a real improvement and will enhance our performance and quality."



*Robin Timmer, MD, at the finding conference*

▶ **Robin Timmer, MD**  
*Gastroenterologist*

*St. Antonius Hospital*  
Koekoekslaan 1  
3435 CM Nieuwegein, Nederlande  
Telefon: +31 (0)30 - 609 30 30

www.antonius.net  
r.timmer@antonius.net

▶ **Han Karsemeijer**  
*Information & Automation consultant*

*St. Antonius Hospital*  
Koekoekslaan 1  
3435 CM Nieuwegein, Nederlande  
Telefon: +31 (0)30 - 609 30 30

www.antonius.net  
h.karsemeijer@mesos.nl