RADIOLOGY DEPARTMENTS, GETTING THEIR ACT TOGETHER

How shared reading workflows can maximize resources, for better patient care

Interview with:

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As the role of the radiologist becomes more central to healthcare, radiology departments are being stretched. Patients and clinicians need imaging results fast, 24/7, while departments are being asked to control costs and maximize resources.

Achieving this balance requires increasing departmental efficiency, one way to do this is through a shared reading workflow that extends beyond the hospital walls. Sharing a reading workflow will let radiologists at different sites, and even from different facilities, receive reading tasks based on their availability or expertise – not their location.

More efficiency and services

A shared reading workflow offers plenty of advantages for hospitals, departments and radiologists alike:

- It is an effective way to provide complete, fast services when there is a shortage of radiologists.
- It speeds up reporting, because if one radiologist is busy, another can handle the reading.
- It allows every facility to offer 24/7 specialized medical image reading.
- It enables more efficient balancing of radiologist workloads.
- It supports telemedicine, so patients in less-served areas can still get the best care.
- It reduces duplicate exams for patients.
- And more.

But not every network or regional set-up is the same. So, Agfa has developed a vision to achieve the shared reading workflow in a flexible, vendor-neutral way, stage by stage, building on the Enterprise Imaging platform.
“Every image, anywhere”

When a patient needs imaging, an important step is to determine what images have already been made. It’s one thing to track down this information at the patient’s usual hospital. But what if, for whatever reason, the patient goes to a different facility? Finding the answer can then be quite complicated.

With the XERO exchange network, radiologists can, firstly, see if images have already been acquired at another hospital in the network and, secondly, access those images and their reports.

XERO doesn’t ‘push’ images and reports: they stay where they are, and the data is available on-demand. Caregivers (with access rights) at any of the networked hospitals can see them, whenever needed. The exchange network is vendor-neutral: it can include environments using the Enterprise Imaging platform, but also hospitals using other PACS systems.

XERO also supports remote reporting and report signoff, so patients can have imaging done at a different hospital than usual, but the data is immediately available to their treating physician at their local hospital.

“A shared reading workflow, with a “workflow orchestrator” in the driver’s seat”

The next level is when multiple sites want to share the reading workflow. This model can work even with different PACS systems in place. A hospital can setup parameters in the PACS so that certain studies are not to be read locally, e.g. images read “after hours” or images for a specific subspecialty that is not available at the hospital.

In those cases, the DICOM images that have been made locally and their clinical data are sent to the workflow orchestrator, which uses defined parameters to automatically determine where to send the study for reading.
Enhanced flexibility, with the “shared tasklist”

But how can radiology departments take greater control over how tasks are handled? The next evolution in the Enterprise Imaging shared reading workflow is a shared tasklist.

The workflow itself is quite simple:

1. The image-acquiring hospital publishes the images to a task list that is shared among the different entities in the network.
2. A reading radiologist picks the task from the list.
3. After he creates the report, it is automatically sent back to the original hospital.

The advantages of this “interfederated” model are clear:

1. The radiologist has much more control over the task. If, for example, someone picks up a task at one site but does not finish it, then there is the option to route it to someone else. Radiologists can also clearly see for which site and department they are completing a task. And if a radiologist at the originating site ultimately finds the time to do the reading himself, then the radiologist can still start the reading task at the site of origin.

2. Avoidance of costly interfaces between multiple systems that need constant maintenance. Data is streamed, so data isn’t physically moved or copied.

3. No additional software components are needed, since this solution works with a federated tasklist model.

Customization and standardization

We are ready to collaborate with customers to adapt the workflows to specific regional or national realities and to ensure processes are the same throughout the network. Standardizing processes not only makes it easier to implement the solution, but ensures that care quality is similar, regardless of where the study is made and reported.
Shared Reading Workflow

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