



Organization/ Institution

The Amphia Hospital is a tertiary medical teaching hospital with departments in Breda, Oosterhout and Etten-Leur. In the context of cancer treatments 1500 patients are referred annually for radiotherapy to the Verbeeten Institute, with departments in Tilburg, Breda and 's Hertogenbosch.

Project

To establish a XDS-register for the exchange of patient data in West and Mid Brabant regions (The Netherlands).

Project duration

From the 1st of October 2011 until March 2013 (images/reports from the Amphia Hospital to the Verbeeten Institute). Subsequently expanding functionality and connection to the St. Elisabeth Hospital in Tilburg.

Situation

Situation before the 1st of March 2013

The radiology and or nuclear medical images were transferred from a CD/DVD from the Amphia Hospital to the Verbeeten Institute. Correct read-in and burning of these CD's/DVD's often caused problems. Files or even data sets were not complete. Quality was not always optimal (original data was not always sent). Also some manual actions were needed to show data on the system of the doctor. In addition, lab results and letters between institutions were not transparent to both parties. And there was no registration who has access to what data?

Also in view of the expectation that data flow between the Amphia Hospital and the Verbeeten Institute will grow, an automated solution has been realized. A solution that can also be used for the communication between other hospitals in the region and the Verbeeten Institute. In addition the Amphia Hospital has the ambition to – in a similar fashion – to automate data transfer concerning patients who are referred from hospitals in the region.

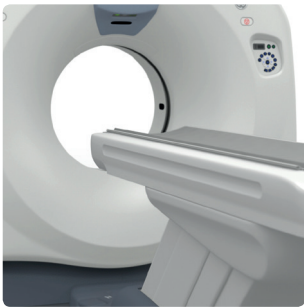
Aim of the project

In the past communication between the Amphia Hospital and the Verbeeten Institute was realized with paperwork. The result was incomplete and delayed data transmission, while a lot of manual work was done.

Plan of action

The Amphia Hospital, the Verbeeten Institute and the St. Elisabeth Hospital have founded the UPZuid foundation (exchange of patient data South), for the purpose of the exchange of patient data based on XDS. This foundation is the administrator of a regional XDS dossier, hosted by a company called Intermax. Thereby software of the company Forcare has been used. The company Enovation provides support. In the first phase of the project (until the 1st of March 2013) a XDS register has been realised for accessing images and related reports of the Amphia Hospital for the purpose of the Verbeeten Institute. In addition other medical data in the Amphia Hospital is accessible for radiotherapists of the Verbeeten Institute by means of an Epic-viewer. In this way it is possible that a patient – who receives multiple treatments such as radiotherapy – can start with both treatments.





In the second phase of the project (until the 1st of January 2015) the following functionalities are developed:

- Connecting of the St. Elisabeth Hospital for receiving images of trauma patients of the Amphia Hospital, and receiving of images of the Verbeeten Institute.
- Linking of the regional register UPZuid with the XDS register of RijnmondNet for referring patients of the Amphia Hospital to Erasmus UMC (this has already been tested in a Proof Of Concept (POC)).
- Execution of a POC for connection of the Meddex patient portal whereby patients of the Amphia Hospital can see images and reports at UPZuid, but also see other medical details via Epic Mychart. In the course of 2015 exchange of patient details will be possible between the Verbeeten Institute and the St. Elisabeth Hospital and vice-versa from the St. Elisabeth Hospital to the Amphia Hospital. Thereafter other hospitals in West and Mid Brabant will be connected tot the XDS register.

Results

For the exchange of images between the Amphia Hospital and the Verbeeten Institute use is made of the IHE profile Cross Enterprise Document Sharing for Imaging (XDS-i), for the relevant reports, the IHE profile Cross Enterprise Document Sharing (XDS). See attached list of integration profiles for the first phase of the project. Advantage is that images and reports are faster digitally available for radiotherapists of Verbeeten Institute. With the result that treatment of the patient can start earlier. In practice a difference of 1 or 2 weeks in transit time of the treatment process. Moreover fewer mistakes will be made by eliminating the processing of CD's/DVD's. When needed radiotherapists can import images and reports of the Amphia Hospital into systems of Verbeeten Institute.

	IHE Actor	Vendor
Consistent Time (CT)	Time Client	All Vendors
Audit Trail and Node Authentication (ATNA)	Secure Application	Forcare
	Audit Repository	Forcare
Cross Enterprise Document Sharing (XDS)	Document Consumer	Forcare
	Document Source	AGFA, ENOVATION
	Document Registry	Forcare
	Document Repository	Forcare
Cross Enterprise Document Sharing for Imaging(XDS-I)	Document Consumer	Forcare
	Document Source	AGFA, Forcare
	Document Registry	Forcare
	Document Repository	AGFA, Forcare
Patient Demographics Query (PDQ)	Patient Demographics Consumer	Forcare
	Patient Demographics Supplier	Epic, ENOVATION
Basic Patient Privacy Consents (BPPC)	Consents Consumer	Forcare
	Consents Creator	ENOVATION
Enterprise User Authentication (EUA)	Kerberos Authentication Server	Microsoft
	Client Authentication Agent	Forcare
	Kerberized Server	Forcare
Cross Enterprise User Assertion (XUA)	X-Service User	Forcare
	X-Service Provider	Forcare