



# Galway Xperience

New frontiers: with Integrated Care Suite,  
cancer treatment knows no borders

Ground-breaking cross-border  
radiotherapy program enhances  
patient comfort and care

**AGFA**   
HealthCare





“When you’re told you have cancer, it’s not a light thing.”

Patrick McArdle  
patient

## CROSS-BORDER CARE PROJECT: SAOLTA UNIVERSITY HEALTHCARE GROUP (REPUBLIC OF IRELAND) AND ALTNAGELVIN AREA HOSPITAL (NORTHERN IRELAND, UK)

"When you're told you have cancer, it's not a light thing." And when that diagnosis comes, patients and medical staff alike want to be able to focus on one thing: care that leads to the best outcome.

But for Patrick McArdle, and others like himself in County Donegal in the Republic of Ireland, treatment involved making the long trip down to University Hospital Galway – multiple times.

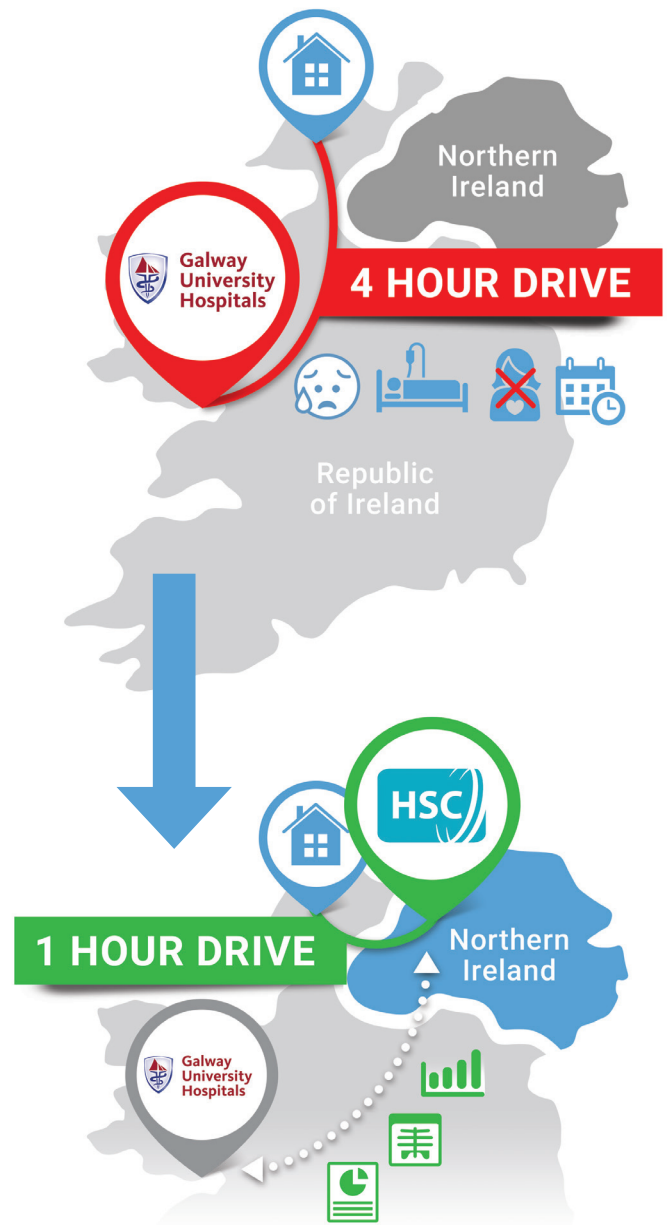
Now, a ground-breaking agreement between Saolta University Healthcare Group (Republic of Ireland) and Altnagelvin Hospital (Northern Ireland, UK) is helping patients get the radiotherapy they need, across the border – yet much closer to home.

### TREATMENT, NOT TRAVEL

County Donegal is in the very north of the Republic of Ireland, and west of the border with Northern Ireland. Its position means that the local general care hospitals in Letterkenny and Sligo are quite remote from the big care centers with specialist services, such as University Hospital Galway. But right over the border is the city of Londonderry/Derry – with Altnagelvin Hospital and its North West Cancer Centre, which offers state-of-the-art radiotherapy services.

"My neighbor had just been through treatment in Galway when I was diagnosed," recounts Patrick. "He told me it all went very well, they did an excellent job looking after him, and he even had the opportunity to play golf. But it's a journey of more than four hours to Galway, in each direction. To do my radiotherapy there, I would have to leave on Monday morning and stay all week, going home on Friday – for eight weeks!"

Patrick had heard of a new project to enable patients like himself to receive radiotherapy treatment at the North West Cancer Centre. After completing his hormone treatments in Galway, he asked his consultant doctor if he could travel to Londonderry/Derry – less than 1 hour away from his home – for the next phase of his care.



"Three weeks later, they had good news for me: I would do the radiotherapy in Londonderry/Derry. They could transfer all my documentation, X-rays, scans, etc. to the doctors in Altnagelvin Area Hospital. My wife could go with me to the center, each day. I was delighted about that," Patrick smiles.



## REAL-TIME IMAGES, AT THE POINT OF CARE

To provide smooth treatment for the cross-border patients, there is plenty that must be arranged behind the scenes. "This is the biggest healthcare project between these two governments," comments Dr. David Stewart, Lead Clinician in Oncology, Altnagelvin Area Hospital.

Referred cases are first discussed in a multidisciplinary meeting (MDT) with surgeons, radiologists and pathologists on both sides of the border. "Real-time availability of images is very important here. We aren't just looking at each other's faces, we are looking at the scans: radiology, MRI, bone, plus the pathology," Dr. Stewart explains.

After the MDT, the teams in Galway or Letterkenny and in Altnagelvin write referral letters, with all the clinical information, and the official pathology and radiology reports. "It is a legal requirement that I cannot accept a patient unless I have all the information," continues Dr. Stewart. "Furthermore, while we have state-of-the-art radiotherapy treatment systems, in order to provide the best quality of treatment, we must have access to high quality diagnostic images. This allows the doctor to outline the tumor so that the radiographer and physics team can target it with high accuracy, while reducing the toxicity to the surrounding structures as much as possible."

## THE HUMAN VIEW

"For the patients, it's very reassuring to know that the doctor already has all the information at the first visit. We have designed the clinic rooms with two computer screens, one of which can be rotated to enable the patients to see their images. Even though they have a limited understanding of medical imaging, they are interested in what is making them sick and in their care," Dr. Stewart comments.

"Since the end of November 2016, we've been accepting patients from Donegal for prostate cancer treatment, and more recently breast cancer. Soon, we'll also begin accepting patients for other cancer treatments," describes Dr. Stewart. The cross-border program will focus on the "larger" cancer groups, he explains, such as lung, breast, prostate, bladder and gastrointestinal cancers. For rarer types of cancer, the patients will still go to clinics in Belfast, Dublin or Galway, with highly specialized teams.



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**Gina Naughton**

RIS/PACS System Administrator,  
University Hospital Galway

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**Dr. David Stewart**

Lead Clinician in Oncology,  
Altnagelvin hospital,  
Londonderry/Derry

## TAMING THE WILD ATLANTIC WAY

While this cross-border treatment significantly eases the journey for patients like Patrick, the road to completing the national level project was complex. One key aspect was how to securely share images across the border.

"There were a lot of discussions around this," recalls Gina Naughton, RIS/PACS System Administrator, University Hospital Galway. "The clinicians in Altnagelvin, for example, need to see the most up-to-date patient record – ideally the live record. But with CDs or IEP (image exchange protocol), you only have a 'snapshot in time' of the patient's files and images."



University Hospital Galway is a long-term customer of Agfa HealthCare, with a managed services contract for the image management solutions and the XERO universal viewer. Dr. Garrett Durkan, Consultant Urologist, University Hospital Galway, explains: **"These patients are traveling long distances, so anything that minimizes the number of journeys is obviously of great benefit to them.** A patient can do scans in their local hospital, and with the Agfa HealthCare solutions we can then access the data electronically before meeting with the patient to discuss treatment.

The system also supports regional multidisciplinary team meetings with a **video link**, which we use for cases of urological cancer. We can see the remote images, and with all the clinicians in the room, as it were, we have what we need to determine whether the patient needs surgery, radiotherapy, chemotherapy, or a combination of treatments."

## RADALERT: URGENT RESULTS AT THE DOCTOR'S FINGERTIPS

When results reveal a critical or urgent situation, clinicians at Galway University Hospital immediately receive an alert on the RADAlert mobile phone app. They can access and read the entire report, no matter where they are, on- or off-site.



"They don't call the route from Londonderry/Derry down the north west coast the Wild Atlantic Way for nothing," says Colin Foley, Service Manager Agfa HealthCare Ireland. "It's madness for people to have to travel all that way – up to 5 hours' drive for some – and then still have to wait for their data to come after them. We needed to make it easy for them.

With the XERO Viewer already being used in the hospitals in Galway and Letterkenny, the issue was really about providing secure access to the relevant, live data. Otherwise, for example, if you are using IEP or CDs, and an addendum is later added, this information won't be accessible to everyone."



## IT TAKES A TEAM



A working group was set up including teams from Agfa HealthCare, the hospitals in Galway, Letterkenny and Altnagelvin, and clinicians on both sides. Gina Naughton describes: “The Integrated Care Suite was suggested as the solution. It would allow the clinicians in Altnagelvin to view the data within our system – e.g. the patient’s live record – in real time. Then if they wanted to do some reconstructions or further work with the studies, they could easily download the images from the web-based solution on to their own PACS to work in it. The solution would provide access to all of the patient’s images: not only from University Hospital Galway, but also from the local hospital in Donegal.

The timeframe for the project was very short: “We were first contacted about this project in June 2016, and had to go live with the Integrated Care Suite by November – some **six months**! To meet this very tight deadline, we divided the project into two phases. In the first phase, we ‘push’ the images into the Integrated Care Suite, where the clinicians can view and download them,” says Gina Naughton. “We’re now coming towards the second phase, which involves deeper integrations. This will allow us to automate certain tasks and limit the number of clicks required. For example, adding a patient to a care plan would take just one mouse click rather than two to four clicks,” Colin Foley explains.

“In addition, any images from Northern Ireland that need to come back to us from their PACS will be available to us, so if patients have follow-up treatment or scans in Altnagelvin, we can have have all those

images,” adds Gina Naughton. “Importantly, the images themselves don’t move – unless we want them to. They remain in the original PACS, unless a caregiver chooses to download them to another PACS. So, unnecessary image transfers don’t take up network space.”

### FOLLOW-UP

The cooperation continues for follow-up care. After their radiotherapy treatment in Altnagelvin, the majority of patients from Donegal County will be followed up – depending on the tumor type – in Altnagelvin or Letterkenny. Few patients will have to go back to Galway or Dublin for follow-up.



With the Integrated Care Suite up and running, the clinicians quickly learned how to use it. **“The doctors didn’t need specific training. The Integrated Care Suite is quite intuitive, and there are good video tutorials if they have an additional question, e.g. on using the XERO Viewer,”** comments Karen Carty, PACS Clinical Specialist, University Hospital Galway. “They can download images if they need to, for example, fuse images, but they can do most of the work on the Portal itself. There are options to manipulate images, compare them side-by-side, etc.”

Throughout the project, all the players kept a patient-centric vision. “Whenever we came to a roadblock within the project, we always had the patient and their journey as the focal point, this ensured we would find a solution to the issue or roadblock,” says Karen Carty.

**“The Integrated Care Suite is very patient-focused,”** Gina Naughton agrees. “That means the patient can be the center of care, and their data is available at the point of care. There is also a lot of potential for the future – e.g. we might develop questionnaires that can be sent out to the secure patient access part of the solution and patients can fill these out in advance of attending – a lot of functionalities of the Portal we haven’t yet explored because of the tight deadline to go live.”

“For us, the patient is our reason for being,” Gina Naughton highlights. “This value is taken from our hospital’s mission statement. And we need to keep that at the center of our focus all the time. You can lose sight of the patient sometimes when you are dealing with data. But for this project, the essence is that the Integrated Care Suite enables the doctors to have all the relevant data at the point of care. And that’s a big benefit to the patient.”

**“Personally speaking, I honestly can’t think of any way they could improve on the treatment I received,”** concludes Patrick McArdle. “Everything went very smoothly. I can only pay tribute to the doctors, radiographers and staff in Londonderry/Derry who put me through 37 treatments! I’m very happy to be here.”

***“The Integrated Care Suite is quite intuitive, and there are good video tutorials if the clinicians have an additional question, e.g. on using the XERO Viewer.”***

**Karen Carty**

PACS Clinical Specialist, University Hospital Galway



## PATIENT CONSENT

As Northern Ireland is a different jurisdiction, the patient’s consent is required in order to share the patient’s images. The Integrated Care Solution enables the hospitals to share only the images of the patients who have given this consent.

## SOLUTIONS:

### INTEGRATED CARE SUITE

- The Integrated Care Suite is an enabler for the delivery of better integrated care. It offers clear, user-friendly screen interfaces and the tools each stakeholder needs to prepare, follow and monitor the patient's healthcare.
- Galway University Hospitals' XERO universal image viewer functionality was extended within the Integrated Care Suite, allowing healthcare providers at Altnagelvin Hospital to **access and display patient data in real-time**, without needing to move or manage it.

### MANAGED SERVICES

- University Hospital Galway is a long-term customer of Agfa HealthCare. The cooperation includes a managed services contract for the image management solutions and the XERO Viewer.
- "With this contract, **we have an onsite engineer and this works extremely well**. They know our workflows. They are very familiar with our networks and the whole structure of all the applications that we have. That's probably the key to the success of the project," says Gina Naughton.

### DID YOU KNOW?

- Altnagelvin Area Hospital in Londonderry/Derry, Northern Ireland, UK, is an acute care hospital from the Western Health and Social Care Trust, with **472 inpatient beds and 36 outpatient beds**.
- In November 2016, the Trust opened its North West Cancer Centre radiotherapy facility in Altnagelvin. With this new unit, the Trust has increased radiotherapy capacity and **improved patient travelling times** by providing more locally accessible services.
- In the Republic of Ireland, certain patients from north to mid-Donegal, i.e. the catchment population of Letterkenny General Hospital (a total population of approximately 110,000 people), can also receive radiotherapy treatment at Altnagelvin.
- The Saolta University HealthCare Group in the Republic of Ireland was established in 2012, and currently is comprised of seven hospitals, including the University Hospital Galway, Sligo University Hospital and Letterkenny University Hospital. The Group employs over **9,700 staff** serving a population of **830,000 people** in six counties and beyond, and has a total of **1770 beds**.

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