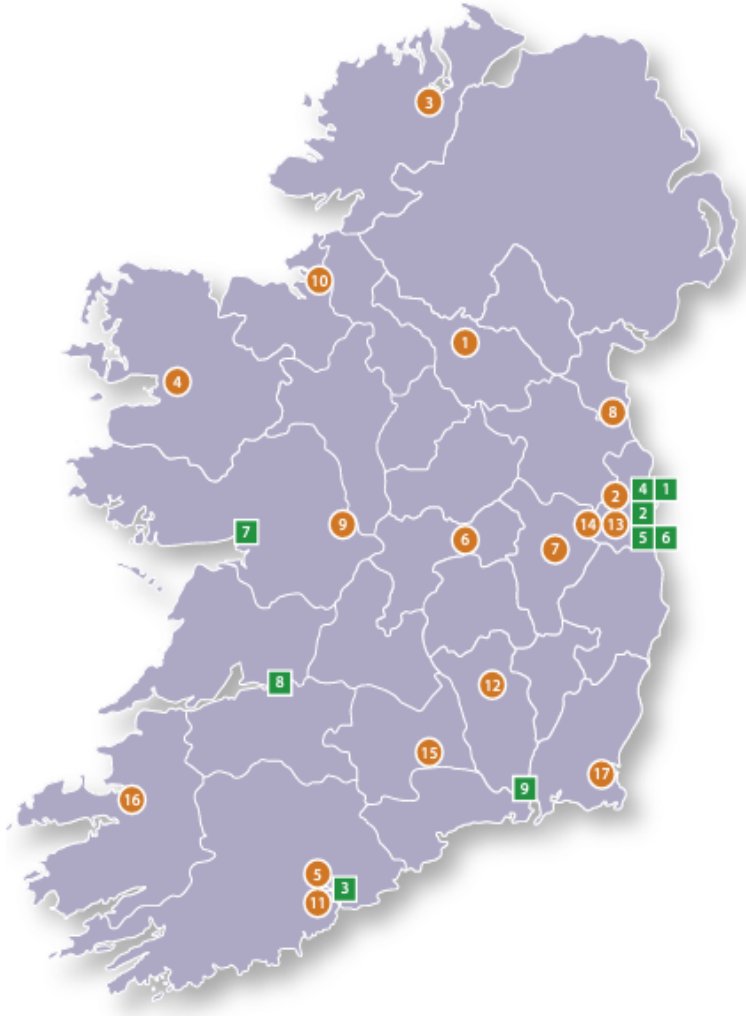
Digitising Cancer Care in Ireland with NCIS

Grant Carroll – National Cancer Information System Chief Pharmacist

Irish Cancer Services

- 9 Designated Cancer Centres
  - 8 adult
  - 1 paediatric
- 26 sites administrating Systemic Anticancer Therapy (chemotherapy)
- Population ~ 5m
- Patient care across sites



Designated Cancer Centres

1. Beaumont Hospital
2. CHI at Crumlin
3. Cork University Hospital
4. Mater Misericordiae University Hospital
5. St James's Hospital
6. St Vincent's University Hospital
7. University Hospital Galway
8. University Hospital Limerick
9. University Hospital Waterford

SACT Hospitals

1. Cavan General Hospital
2. Connolly Hospital
3. Letterkenny University Hospital
4. Mayo University Hospital
5. Mercy University Hospital
6. Midlands Regional Hospital Tullamore
7. Naas General Hospital
8. Our Lady of Lourdes Hospital Drogheda
9. Portiuncula University Hospital
10. Sligo University Hospital
11. South Infirmary Victoria University Hospital
12. St Luke's General Hospital Kilkenny
13. St Luke's Hospital Rathgar
14. Tallaght University Hospital
15. Tipperary University Hospital
16. University Hospital Kerry
17. Wexford General Hospital

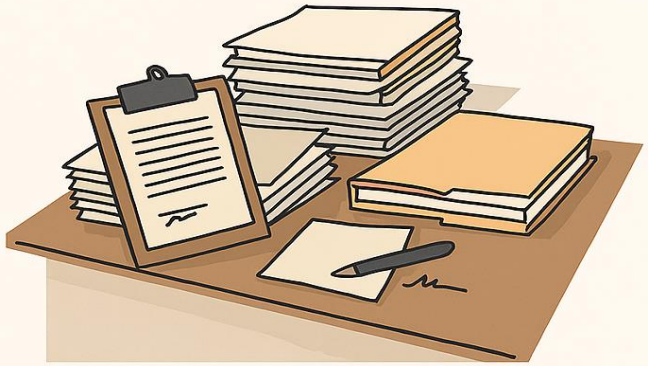
The Challenge

- Fragmented paper records across 26 hospitals
- Limited visibility of patient history and treatment plans
- Records that are challenging to read or access
- Potential for process inefficiencies

The Shift

The **National Cancer Information System (NCIS)** is transforming how this care is delivered by providing a single national digital cancer record.

Before NCIS



Manual workflows, paper-based processes

Fragmented records, limited digital data

Automated workflows, digital processes

Integrated records, comprehensive data

Introducing NCIS: A National Digital Platform

NCIS
National Cancer Information System

- Supports management of Systemic Anticancer Treatment (SACT)
- Provides a longitudinal, patient-centred care record
- Accessible across all cancer centres and hospitals

RECORDS AND MANAGES CRITICAL CLINICAL INFORMATION

SUPPORTS MULTIDISCIPLINARY TEAM MEETINGS (MDMS),

FACILITATES SAFE PRESCRIBING, PREPARATION & ADMINISTRATION OF ANTICANCER MEDICATIONS

PROVIDES A SINGLE SOURCE OF TRUTH FOR CLINICIANS

NCIS – The Solution

Treatment Decision (MDM)

c37.CancerCenter
Training Hospital

Patient Mr MENZIES, ERICK
D.O.B. 22.02.1952 (71)
NCIS ID 99999000125
Hospital ID 524722 (TRN)

General info | Diagnostics | Conference | Assessment | Therapy | Communication | Follow-up | Clinics

Personal info | Tumour case | Clinical history | Facility:

Basic data

Referring physician: dr test doctor — Oncology, Oncology
Primary consultant: Dr Doc Oncology — Oncology, Oncology Department, Hospital XX
Family doctor/Specialist: Test DR GP — General surgery, TEST DR GP long name
Comorbidities: 01.06.2004
E10.01 — 60 chars remaining
Type 1 diabetes mellitus with hyperosmolarity without nonketotic hyperglycaemic-hyperosmolar coma (NKHHC)

Primary diagnosis

Primary diagn. date: 01.05.2023
Primary diagnosis: C20 — Malignant neoplasm of rectum
Suspicion of
Free text [+ / -]: MSI High

Colorectal cancer

Tumour type: colon cancer
Localisation:
Tumour biology: Malignant primary site
Diagnosis confirmation: Clinical — on
Clinical TNM
TNM-Edition: 8th edition
T r cT2 m — N cN2 — M cM0
Grading: G1
UICC stage: III
ICD-O (morph.):
Restaging

Medication Order

Cycles: 13 • Days: 155

20 Jun 2023 - 20 Jun 2023 • Interval: 14 days after Cycle 2 FOLFOX-6 Modified
Cycle 3 FOLFOX-6 Modified 1 Day

	Time	Product	Dose	Status
Day 1 - Tue, 20 Jun 2023				
+ ✕	07:30	Ondansetron Tablet	16mg • Tabs: 2 x 8mg	PHYSICIAN-VERIFIED
+ ✕	07:30	Dexamethasone Tablet	8mg • Tabs: 4 x 2mg	PHYSICIAN-VERIFIED
+ ✕	08:00	**Oxaliplatin**	**126.79mg** • 80% (68mg/m² BSA Dubois)	PHYSICIAN-VERIFIED
+ ✕	08:00	Calcium folinate 10 mg/mL Solution for injection	745.84mg • (400mg/m² BSA Dubois)	PHYSICIAN-VERIFIED
+ ✕	10:00	**Fluorouracil**	**745.84mg** • (400mg/m² BSA Dubois)	PHYSICIAN-VERIFIED
+ ✕	10:40	**Fluorouracil**	**4475.06mg** • (2400mg/m² BSA Dubois)	PHYSICIAN-VERIFIED

Pharmacy Verification & Preparation

Med. no. 208950: **Oxaliplatin 5 mg/mL Accord Concentrate for solution for infusion 130mg** in 500mL Glucose 5% 500mL bag Viaflo - Including Overfill - non-PVC Baxter by intravenous infusion over 120 min, ERICK MENZIES, TRN - Training Ward for 20/06/2023 08:00

Achieved: 0 Act. ingr. injected (Oxaliplatin 5 mg/mL Accord Concentrate for solution for infusion) ed: 130mg
0%

Amount to be transferred: 20.00mL

Transfer:
Oxaliplatin 5 mg/mL Accord 100mg (Lot: 19238472981743829, Vial no.: 1)

Transferred: 20.00 mL

<ENTER> Continue

1x Complexity Band 2 (1 USE THIS BAND., TRAIN) (*)

Oxaliplatin 5 mg/mL Accord Con... infusion
100mg (Lot #: 1923847298...
Used: 0/2 Blocked: 0
In use: # 1
Remainder: 100mg (20.00mL)

Barcode Medication Administration

Cytotoxic Drug — Keep out of reach of children
Oxaliplatin 5 mg/mL Accord 130mg
(Oxaliplatin) Final Conc 0.23381 mg/mL
in 500mL Glucose 5%
Total Vol: 556mL by intravenous infusion over 120 min Med # 208950
ERICK MENZIES
Hospital Number: 524722 DOB: 22/02/1952
Admin due: Tue, 20/06/2023 08:00 (Day 1) Training Oncology/Haematology Day Ward
Store at: 2-8 degrees Celsius
Protect from Light Expiry: 16/06/2023 16:29
Reprint Training Hospital

More Than a System

A modern, digital platform designed to support cancer medicine delivery through:

- Enhanced medicines governance
- Improved patient information communication
- Safe, efficient medicines delivery
- Shared patient record across sites
- Effective data recording and reporting

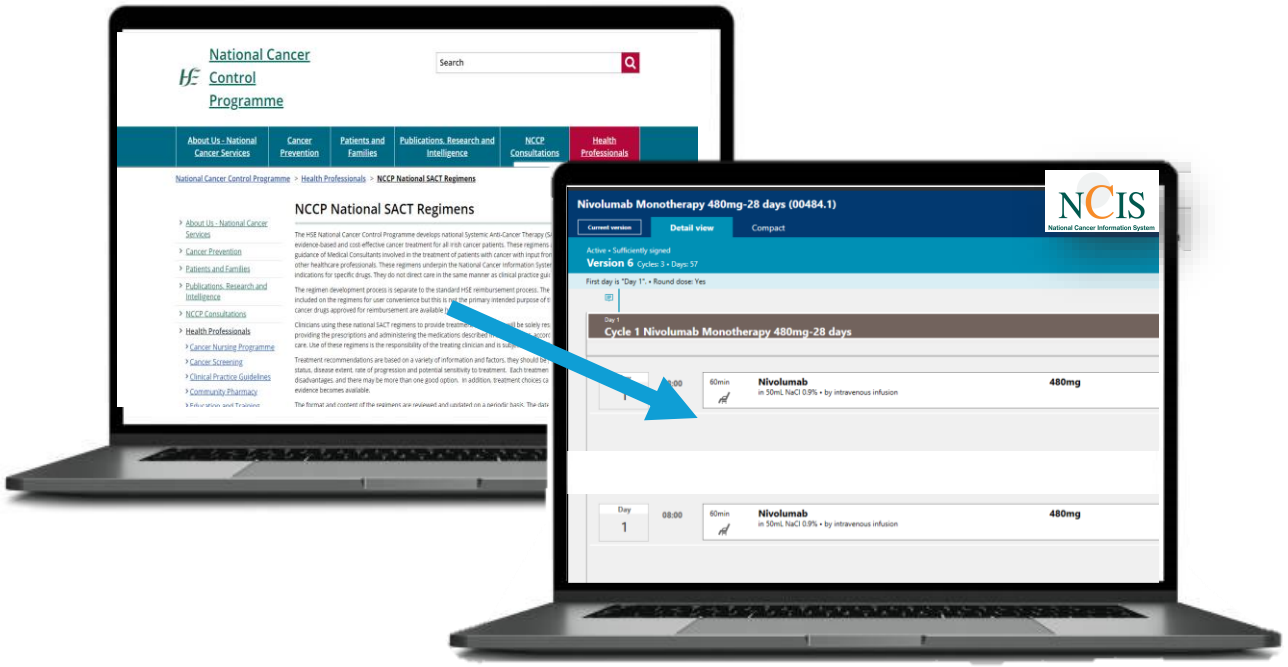
Underpinned by Standardisation

NCIS Standardisation

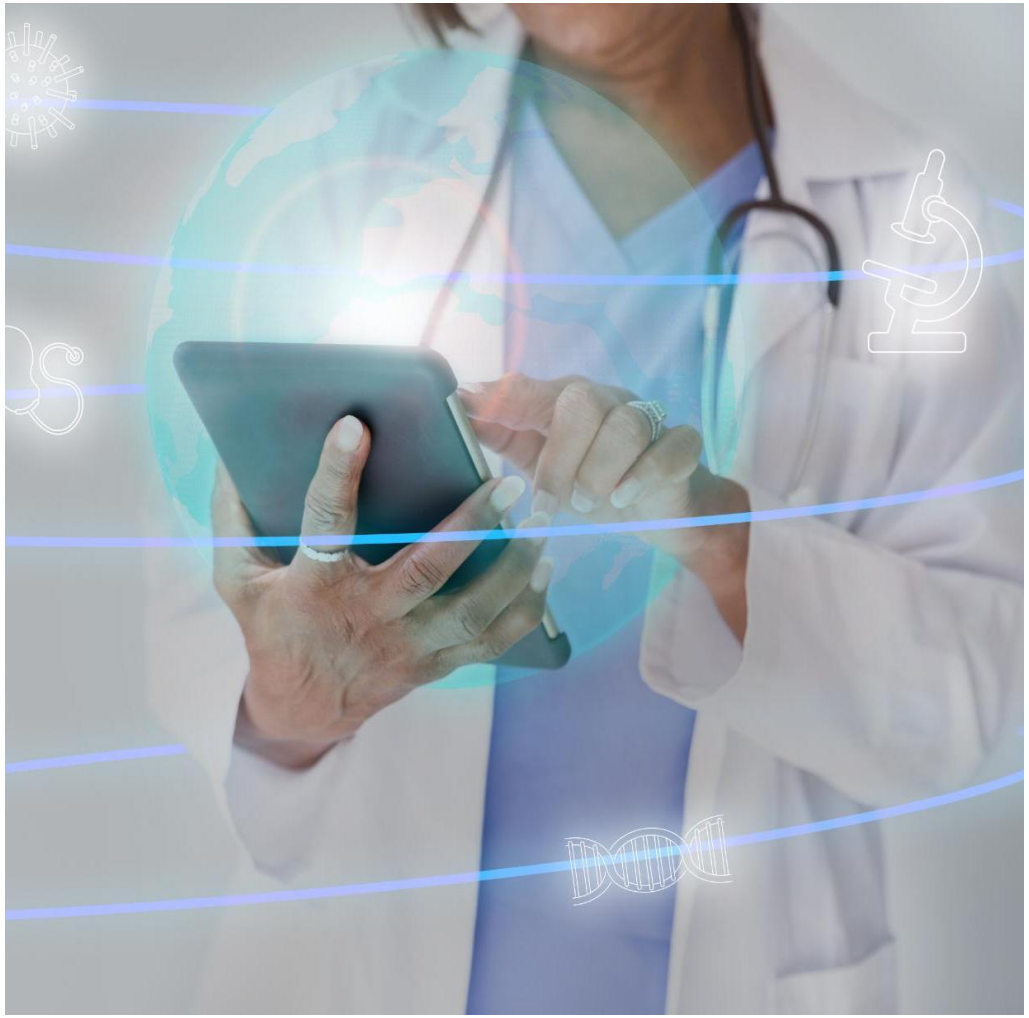
- **National Regimen Library:** Standardised treatment regimens nationally.
- **Single Source of Truth:** Centralised build and maintenance of a national drug file.
- **Streamlined Clinical Workflows:** Uniform assessment forms and templates
- **Improved Communication:** Standard documentation and workflows

Benefits

- **Optimised Resources**
- **Better Patient Care**



Delivering Efficiency and Intelligence



Real-Time Information Access

Collaborative Care Planning

Operational Efficiency Gains

Enhanced Data Integrity and Reporting

Ensuring Patient Safety & Care Quality

Digital Prescriptions Reduce Errors

Automated Dose Calculations

Standardised National Regimens

Safety Verification Processes

Better for the patients

"A true measure of the implementation was our ability to repatriate a patient from another hospital who has been unable to receive her treatment there as she was too unwell to travel. The Nursing & Pharmacy staff saw 1st hand how seamless the transfer of care was from one centre to another, and saw how NCIS facilitated the optimum & compassionate patient experience for the patient in question. Sometimes as they say 'seeing is believing' and I think this has demonstrated to staff how NCIS will improve the care we can deliver to our Oncology patients."

NCIS Project Manager

Better for Clinical Teams

Faster, safer prescribing and the ability to access and manage treatments with greater precision.

"For me the one of the benefits of NCIS is that the prescriber, nurses and pharmacists have **instant access to the most up to date prescription, notes, and medical results.** Prescriptions, dose calculations and adjustments are clear and easy to follow." — **NCIS Local User**

"All points in the process are now timestamped from planning of therapy to administration. For the first time we can track patient journeys and as we scale we will use this functionality to redesign patient flow" — **Change Manager**

"My patients appreciate that every doctor or nurse they meet has access to the same information at each point of care. It makes their experience feel seamless and connected." — **Oncology User**

A Foundation for the Future

NCIS lays the groundwork for next-generation digital innovation for cancer care

Patient-centred

Connected

Data-driven