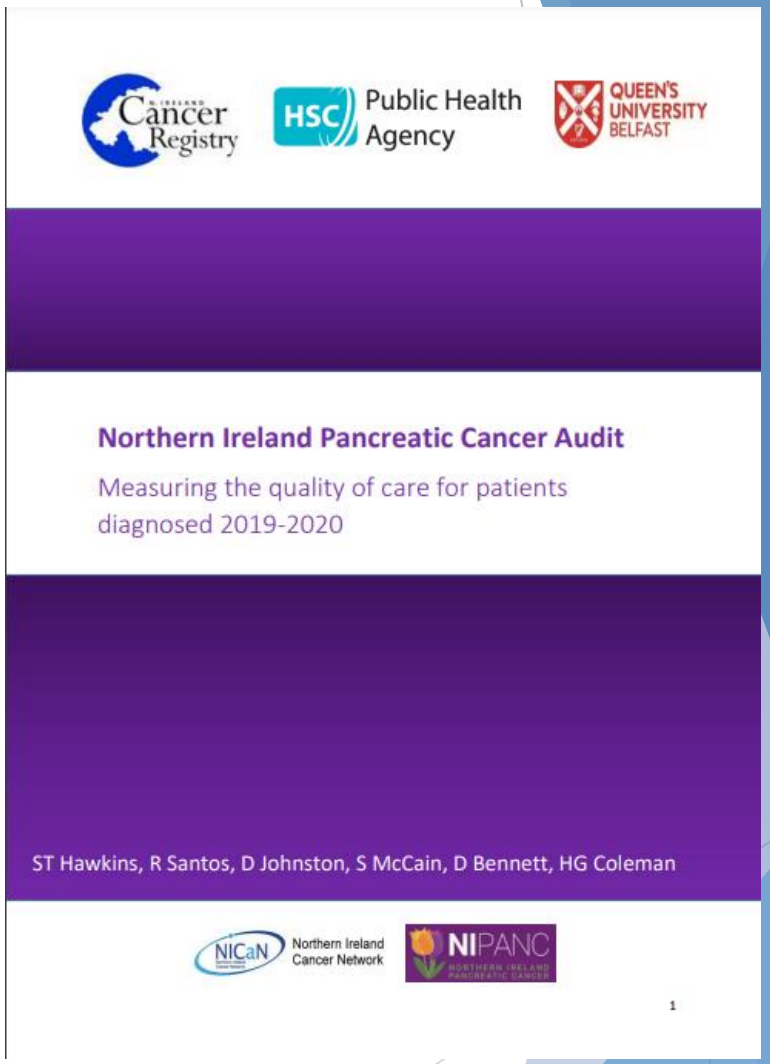
Northern Ireland

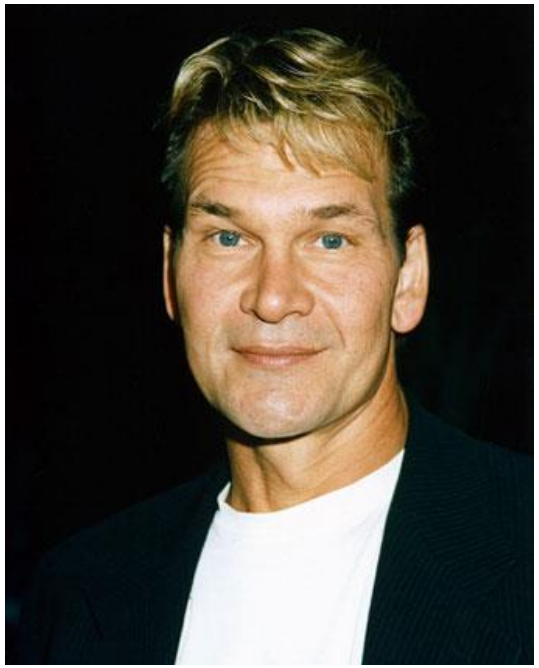
Pancreatic Cancer Audit

Measuring the quality of care for patients diagnosed 2019-2020

Mark A Taylor



"I was a fortunate and happy man. After that, this blow arrived. And now I am paying the penalty for this fortune and happiness."

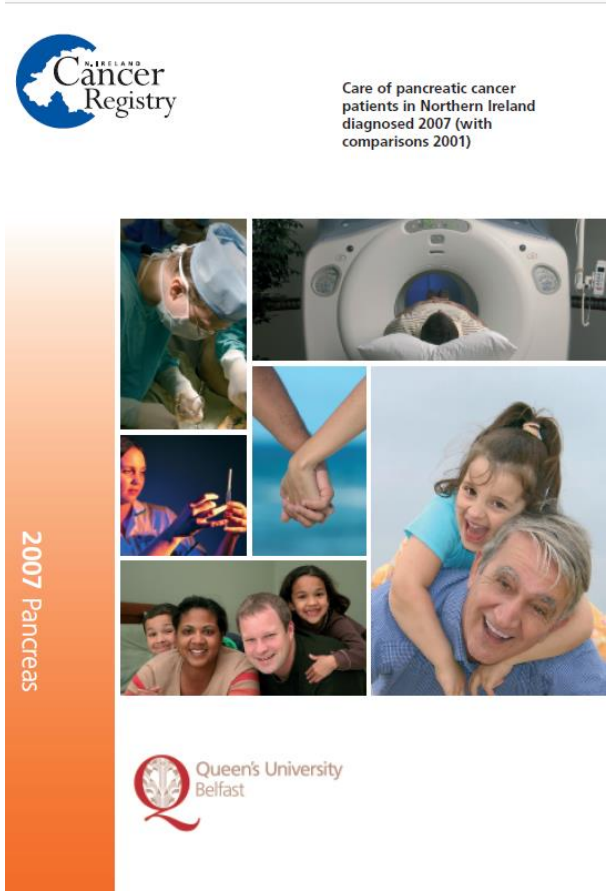


"I keep dreaming of a future, a future with a long and healthy life, not lived in the shadow of cancer but in the light,"

Background to Pancreatic Cancer audits

- Regular audits of cancer services in Northern Ireland not routinely undertaken.

- Last NI Pancreatic Audits - 2001 and 2007



England 55.5M

Scotland 5.5M

Wales 3M

Northern Ireland 1.8M

Methodology

Data items for collection identified through:

1. Data dictionaries of 2007 NICR audit
2. Input from NICR epidemiology professionals, nursing and surgical colleagues.
3. Review of evidence-based guidelines e.g. NICE.

- Incidence data (ICD10 C25) - extracted from NICR
- Three Cancer Intelligence Officers (CIOs) manually added clinical data using electronic sources – e.g. NIPACS (Radiology), Labcentre (Pathology), CaPPS (MDT data)
- Surgical, nursing and clinical colleagues added further clinical data - for items CIOs could not view.

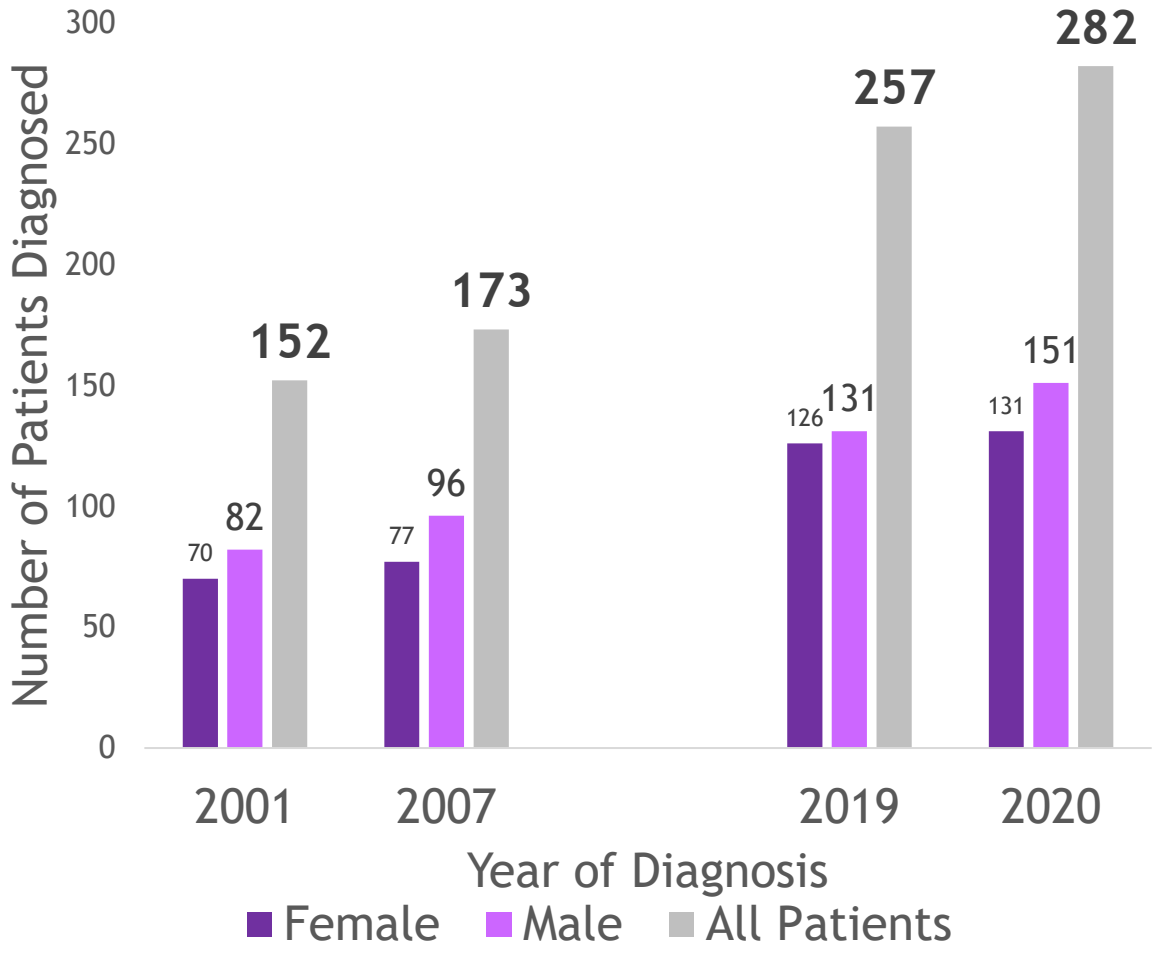
Aims

- Northern Ireland-wide data on pancreatic cancer patients - to compare with other future national audits
- To monitor how cancer services compare with **NICE guidelines** - diagnosis, multidisciplinary team management and management.
- To assess how pancreatic cancer services have **changed from previous population-based audits** (2001 and 2007) and identify areas for improvement
- To evaluate potential inequalities in treatments received by patients according to Trust, Socio-Economic status, age, sex, etc.
- The impact of **the COVID-19 pandemic** on services, patient presentation and outcomes with comparison to the pre-COVID-19 era

NIPANC NORTHERN IRELAND PANCREATIC CANCER

N. Ireland Cancer Registry

Number of patients by sex and audit year



- In total for 2019-2020 - 539 patients - of which 257 diagnosed in 2019 and 282 diagnosed in 2020.
- Patient numbers increased by 86% from 2001 audit.
- Despite health service restrictions due to COVID 19 - higher number of incident pancreatic cancers in 2020 compared to previous years.

Referral

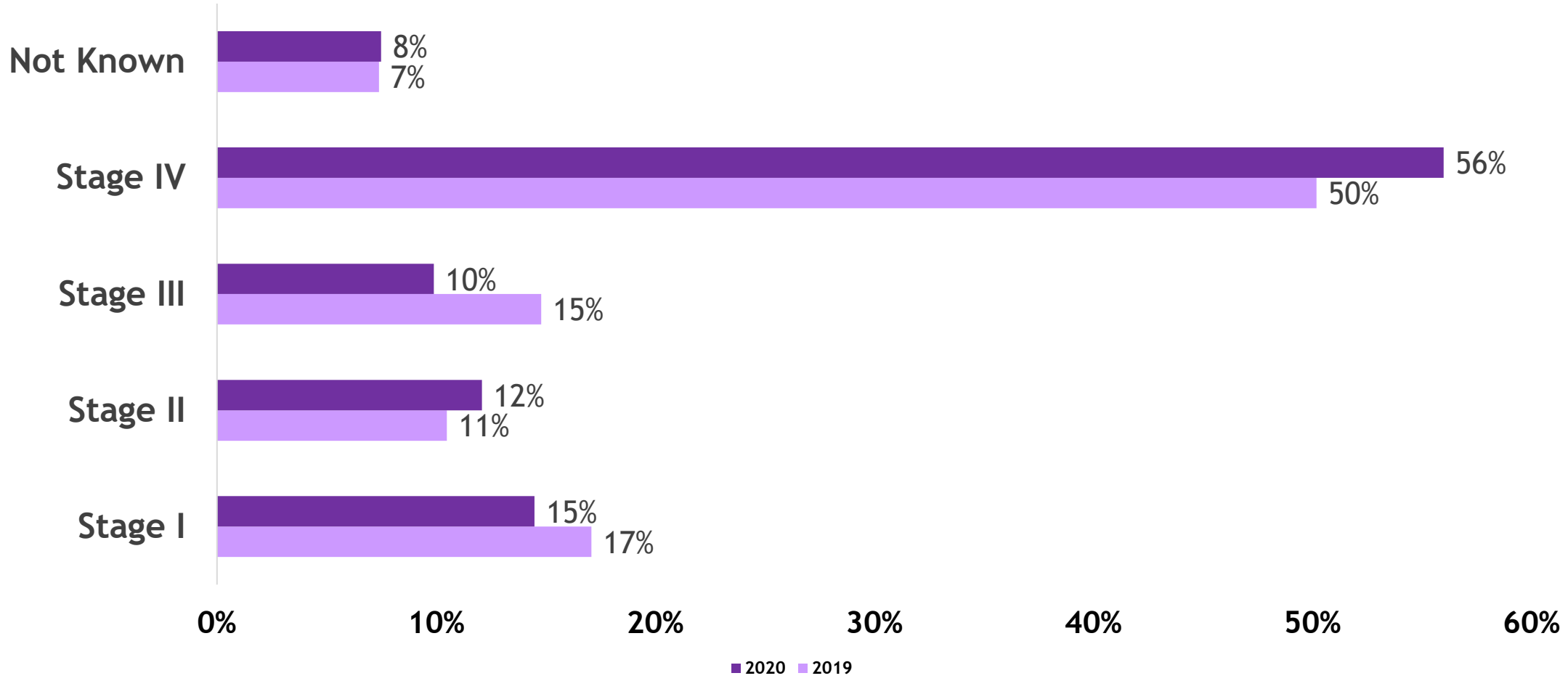
Source of Referral by Year of Diagnosis

Source of referral	2019 n=*(%)	2020 n=270**(%)
Direct from GP	66 (27%)	101 (37%)
GP to A&E	<5	15 (6%)
Emergency Admission	106 (43%)	115 (43%)
Referral to outpatients via other outpatient clinic	31 (13%)	22 (8%)
Other	34 (14%)	17 (6%)
Not Known	6 (3%)	0 (0.0%)

Symptom status

	2019	2020
Asymptomatic	23 (9%)	13 (5%)
Not Asymptomatic/Symptom status not known	234 (91%)	270 (95%)

Stage at diagnosis



Hospital Stay
(for any reason 30 days prior to diagnosis)

Hospital Stay	Stage I-III n=206 (%)	Stage IV n=287 (%)	Stage Not Known n=38 (%)
Emergency Admission n=192 (%)	50 (26%)	128 (67%)	14 (7%)
Elective Admission n=218 (%)	110 (50%)	98 (45%)	10 (5%)
No Hospital Stay n=121 (%)	46 (38%)	61 (50%)	14 (12%)

PET-CT

NICE guidelines NG85 (2018) recommend that fluorodeoxyglucose **positron emission-CT-scanning (FDG-PET/CT) is offered to patients who have localised disease on CT scanning who will be having treatment** (surgery, radiotherapy and systemic therapy).

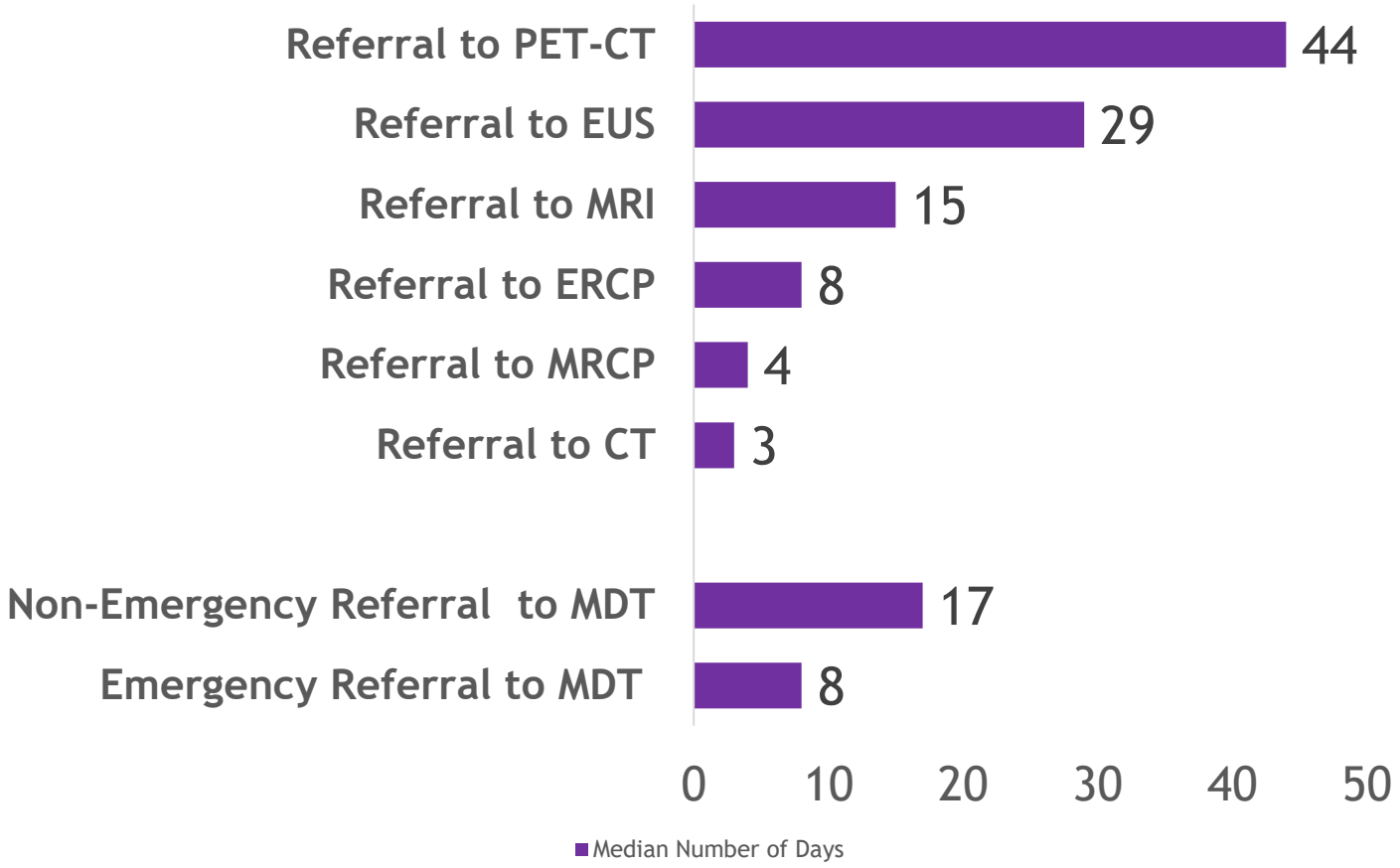
Frequency of patients with incident stage I-III pancreatic cancer treated with curative intent (surgery, radiotherapy or chemotherapy) who received FDG-PET/CT diagnosed 2019-2020, NI

	2019 n=* (%)	2020 n=36(%)	Total n=90 (%)
Patients that received FDG-PET/CT	<5	12 (33%)	15 (17%)

NIPANC NORTHERN IRELAND PANCREATIC CANCER

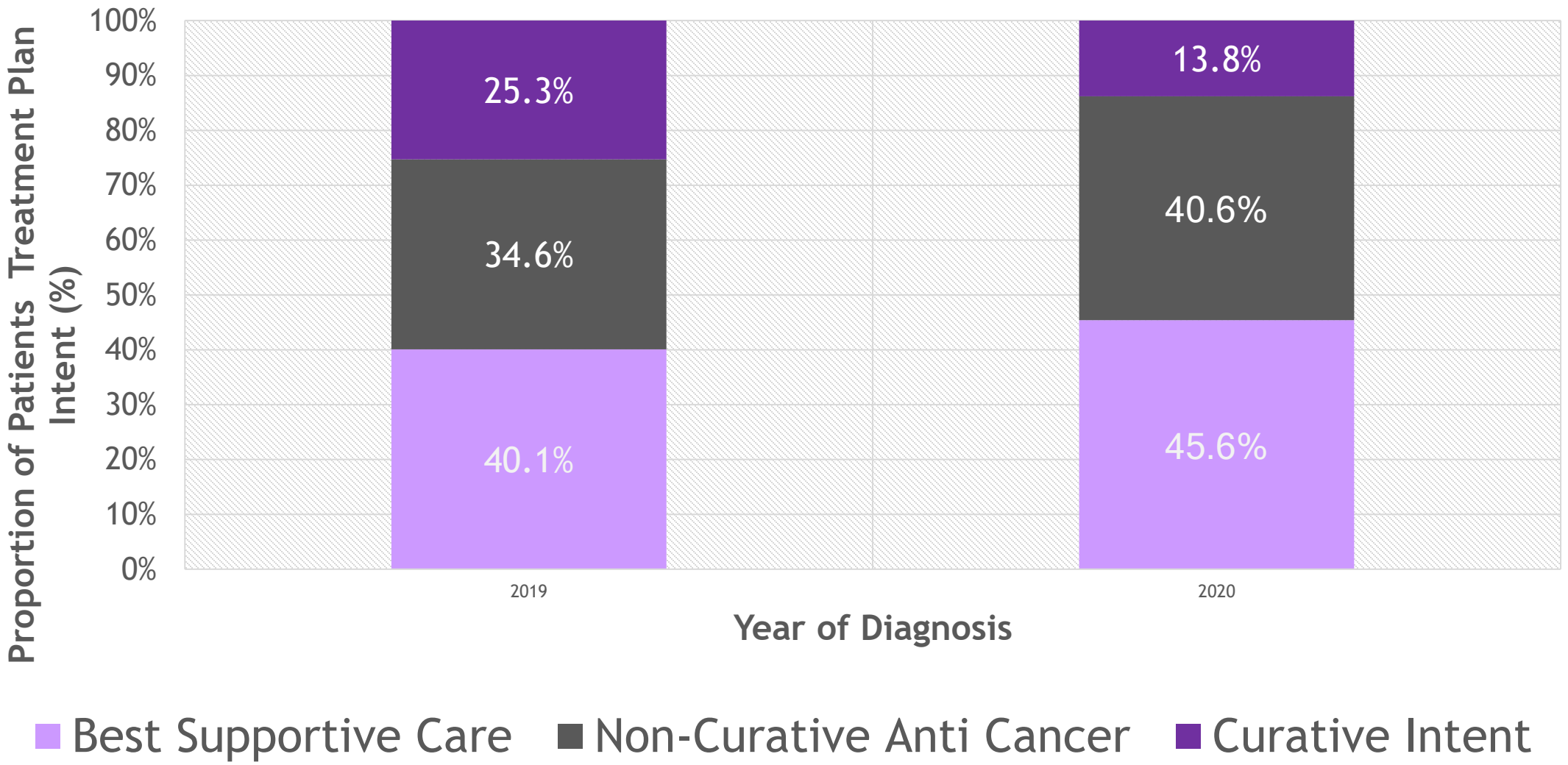
N. Ireland Cancer Registry

Time from referral to diagnostic intervention



- Patients referred via emergency services have MDT quicker than patients via non-emergency routes.
- In 2020 - improvements in time from referral to; CT scan, ERCP, MRCP and MRI.
- Longest time from referral to staging investigation - PET-CT (44 days) and EUS (29 days)

Treatment plan intent for patients diagnosed with pancreatic cancer 2019-2020, NI

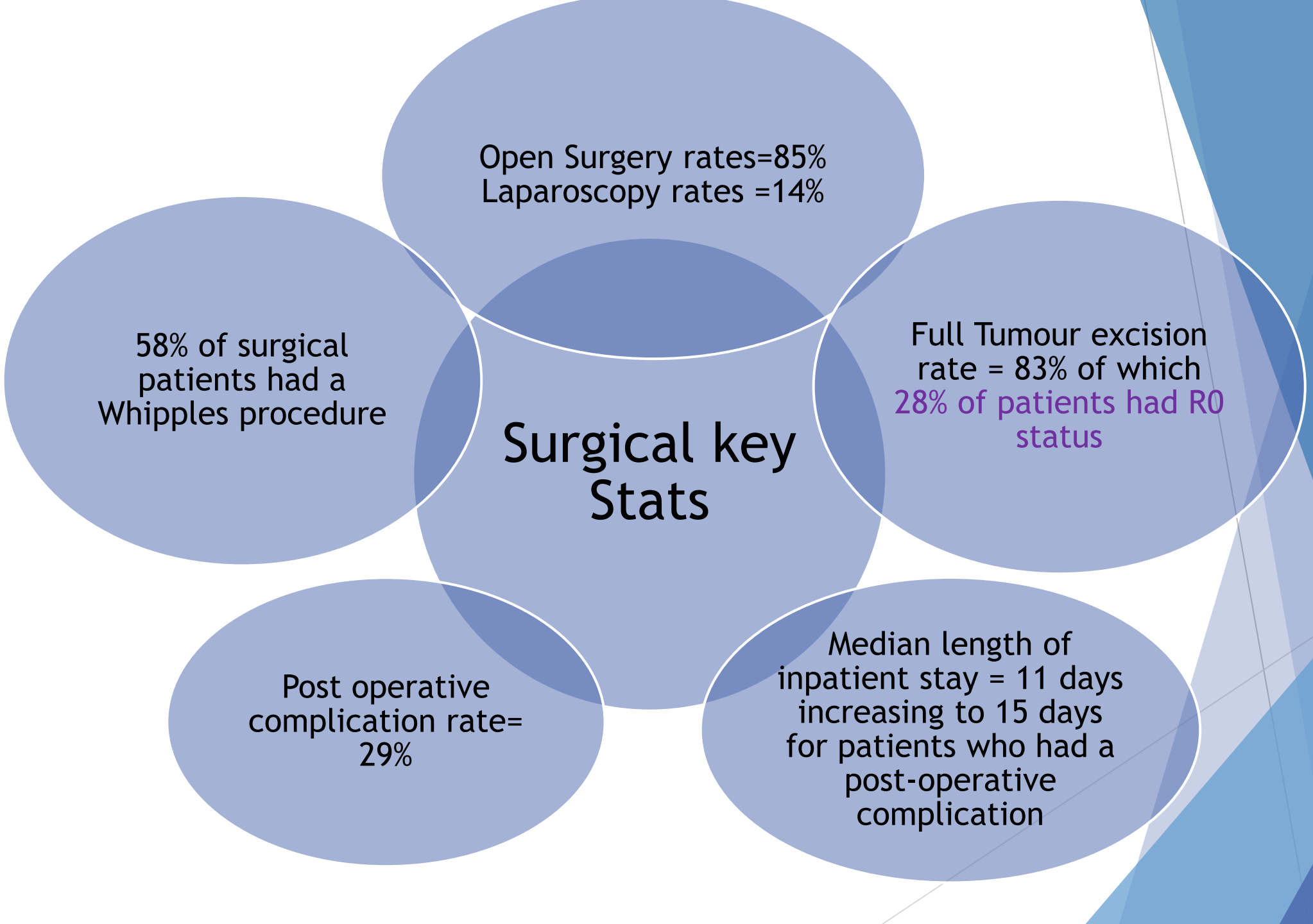


Median wait times (in days) from referral to first treatment, by treatment type and treatment intent for pancreatic cancer patients diagnosed 2019-2020, NI

		Referral to First Treatment		
First Treatment Type	Year of diagnosis	Total number in analysis	Median	IQR p25-75
Curative Surgery 1st Treatment	2019	n=44	60 days	33-118 days
	2020	n=23	59 days	41-99 days
Curative definitive or neo-adjuvant oncology	2019	n=12	72 days	57-92 days
	2020	n=14	79 days	61-104 days
Palliative Oncology	2019	n=49	68 days	53-97 days
	2020	n=56	65 days	54-84 days

Changes in Treatment 2019-2020

Treatment Type	2019 n=257	2020 n=283
Curative Surgery	54 (21%) →	33 (12%)
Oncology	86 (33%)	88 (31%)


Open Surgery rates=85%
Laparoscopy rates =14%
58% of surgical patients had a Whipples procedure
Surgical key Stats
Full Tumour excision rate = 83% of which 28% of patients had R0 status
Post operative complication rate= 29%
Median length of inpatient stay = 11 days increasing to 15 days for patients who had a post-operative complication

Time Matters

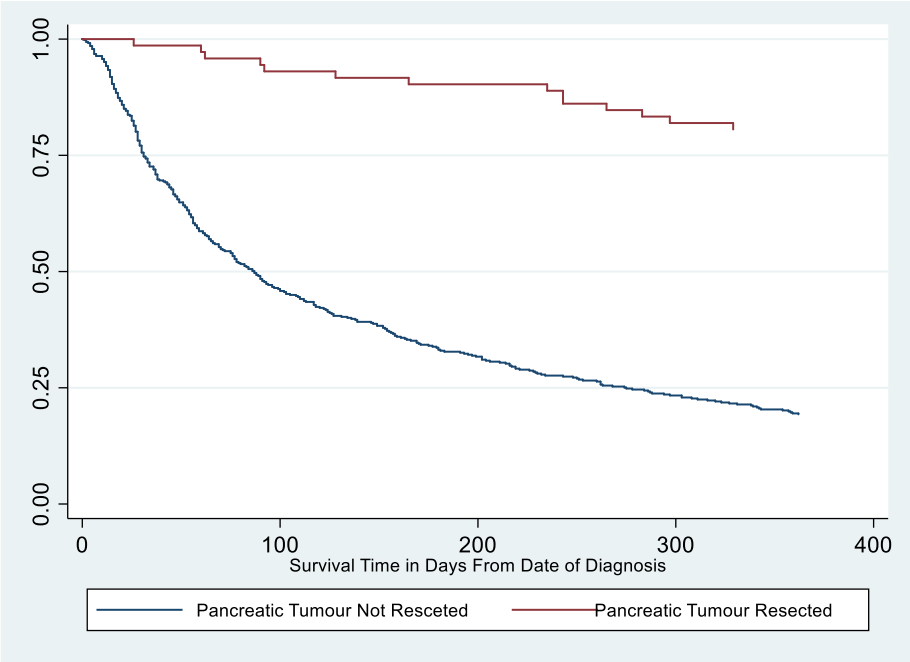
Key Survival Stats….

NIPANC NORTHERN IRELAND PANCREATIC CANCER

N. Ireland Cancer Registry

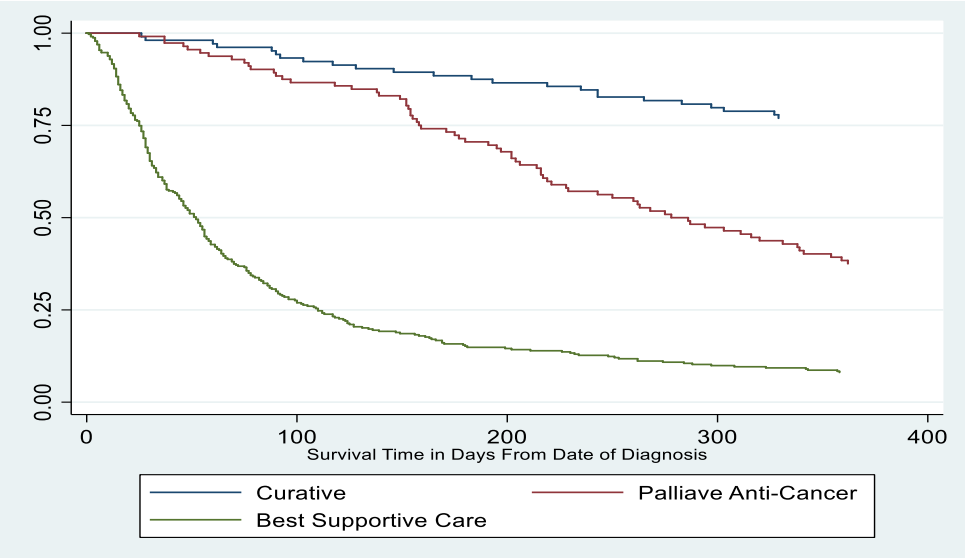
Survival for pancreatic cancer patients diagnosed 2019-2020 by treatment status

KM Survival for pancreatic cancer patients diagnosed 2019-2020 by resection status



Resection Status Status	Time	Survival (%)
Pancreatic Tumour resected	3 months	93%
	6 months	88%
	1 year	76%
Pancreatic Tumour not resected	3 months	46%
	6 months	31%
	1 year	16%

KM Survival for pancreatic cancer patients diagnosed 2019-2020 by treatment plan received.



Treatment Plan received	Time	Survival (%)
Curative	3 months	93%
	6 months	86%
	1 year	72%
Palliative Anti-Cancer	3 months	89%
	6 months	70%
	1 year	36%
Best Supportive Care	3 months	28%
	6 months	13%
	1 year	6%

How to create impact with results

- In order to create impact…. Audits need to be cyclical to monitor changes over time …in particular where recommendations have been made for improvement.

- In order for results to have greater meaning partnership with peer nations is important with the view to benchmarking results for further understanding of patient care

- To use our data-source intensively to aid the pursuit of Research!

NIPANC NORTHERN IRELAND PANCREATIC CANCER

N. Ireland Cancer Registry

Future Plans

- Utilising dataset for further research is currently underway and will be developed upon.
- Rich dataset as basis for further exploration including survival analysis.
- Proformas, data capture plan & analytical code - can be adapted for further audits + improve efficiency
- Data can be linked to other datasets, e.g. Biobank, for long term studies.

ACKNOWLEDGEMENTS

Northern Ireland Cancer Registry/ QUB

- **Mrs Sinéad Hawkins**
- **Dr David Donnelly**
- Professor Anna Gavin
- Dr Damien Bennett
- Deirdre Fitzpatrick
- **Bernadette Anderson**
- **Brid Morris-Canter**
- **Marsha Magee**
- NI Cancer Registry IT staff
- Mr Ralph Santos
- Dr Andrew Kunzmann
- Dr Victoria Cairnduff

Clinical collaborators

- **Prof Mark A Taylor**
- **Mr Stephen McCain**
- **Miss Dorothy Johnston**
- Miss Jessica Lockhart
- Miss Claire Jones
- Dr Martin Eatock
- Dr Richard Turkington
- Dr Paul Kelly
- Alex McAfee
- All HPB Healthcare professionals who contributed to design.

Funding:

- **NIPANC**
- The Northern Ireland Cancer Registry (NICR) is funded by the Public Health Agency and is based in Queen's University, Belfast.
- NICR uses data provided by patients and collected by the health service as part of their care and support.