

CANCER CENTRE ANNUAL REPORT 2017





Contents

1	Foreword	
1.1	Professor Michael Kerin	4
1.2	Mr. Maurice Power	5
1.3	Dr. John Killeen	6
1.4	Professor Ciarán Ó hÓgartaigh	6
1.5	Dr. Kevin Clarkson	7
1.6	Dr. Ramona McLoughlin	7
1.7	Dr. Pat Nash	8
2	Diagnostic & MDM Programmes	
2.1	Radiology	10
2.2	Pathology	12
2.3	Multidisciplinary Team Meeting (MDM)	15
3	Surgical Specialties	
3.1	Colorectal Cancer	17
3.2	Bowel Screen Programme	21
3.3	Upper Gastrointestinal Cancer	23
3.4	Head and Neck Cancer	25
3.5	Skin Cancer	26
3.6	Symptomatic Breast Cancer	27
3.7	Breast Check Screening	29
3.8	Urological Cancer	31
4	Medical Specialties	
4.1	Lung Cancer & Thoracic Surgery	35
4.2	Endocrine Cancer	40
4.3	Palliative Medicine	41
5	Medical Oncology Programme	
5.1	Medical Oncology	44
5.2	Oncology Pharmacy	52
6	Radiation Oncology Programme	
6.1	Radiation Oncology	54
7	Oncology Nursing	
7.1	Oncology Nursing	58
8	Oncology Health & Social Care	
8.1	Dietetics	61
8.2	Multimodal Approach to Cancer Care	62
8.3	Occupational Therapy	63
8.4	Physiotherapy	64
8.5	Oncology Social Work	65
8.6	Speech and Language Therapy	66
9	Health Promotion Programme	
9.1	Health Promotions	68

10	Clinical Trials & Cancer Research	
10.1	Clinical Trials	72
10.2	Cancer Research at the Lambe Institute for Translational Research	73
10.3	Breast Cancer Research	74
10.4	Breast Cancer Research Developments and Achievements	74
11	Cancer Charities: Patient & Research Support	
11.1	Cancer Care West	76
11.2	National Breast Cancer Research Institute	79
11.3	Irish Cancer Society	80
12	Publications	
12.1	Cancer Research Publications	84



Foreword

1

Foreword

Professor Michael Kerin

*Chair, Cancer Strategy Group
Saolta University Health Care Group*



It is a pleasure to present this Annual Cancer Centre Report on behalf of all those who deliver cancer care across the Saolta Group. The incidence of cancer within the Saolta University Health Care Group has increased in recent years challenging those who deliver cancer care to be both innovative and increasingly resourceful in the way care is delivered to improve patient outcomes.

The primary aim of the Saolta Group Cancer Programme is to provide evidence-based care that is effective, safe, of high quality and patient-centred, supported by national standards and clinical guidelines. At the heart of our Cancer Programme is a team of specialists delivering high quality diagnostics and therapeutic care in a multidisciplinary environment supported by an active clinical trials and research programme. The Cancer Programme revolves around the activity of our Multidisciplinary Teams and the development of personalised treatment plans for all cancer patients.

I wish to acknowledge the dedication and commitment of all our professionals across the Saolta Group for the huge contribution they make to the Cancer Programme on an ongoing basis.

This report highlights the enormous high volume, complex, workload delivered by our dedicated multidisciplinary teams at the Cancer Centre at UHG and across the Saolta University Health Care Group Hospitals.

Cancer Care is evolving rapidly and it is vital to ensure that research is a strong component of our Cancer Care Programme. The most effective cancer centres worldwide have been developed by integrating high quality clinical cancer care with teaching, as well as with basic, translational and clinical research. We are achieving through the outputs from the Lambe Institute for Translational Research allied to the Clinical Research Facility Clinical Trials Programme. Our vision over the next 5 years is to build on our existing programmes of research, to ensure that cancer research is aligned with our cancer control priorities and integrated within our cancer care programme.

Two important developments, with potential to shape the future delivery of cancer services across the Saolta Group, were initiated in 2017, especially the proposed development of a Managed Clinical Network for Cancer and an agreement to undertake an options appraisal across the two GUH sites to explore the optimisation of both locations in delivering complex care across all specialties.

In December 2017, we held the Saolta NUIG inaugural Galway Cancer Conference at the Human Biology Building, NUI Galway, with presentations by local, national and international speakers. We hope to grow on its success in the years to come.

Finally, I wish to thank all who contributed to this report especially Geraldine Cooley, our Cancer Services Manager, Ciara Howley and the Cancer Information Team, the Cancer Strategy Group and all those who contributed across the Saolta Group Hospitals and beyond.

I look forward to further enhancing the Saolta Cancer Programme in the years ahead.

A handwritten signature in cursive script, appearing to read 'Michael Kerin', written in dark ink.

Professor Michael J. Kerin

Mr Maurice Power

*Chief Executive Officer
Saolta University Health Care Group*



As CEO of the Saolta University Health Care Group I am delighted to be associated with this the 6th Saolta Cancer Centre Annual Report. The Saolta Group prides itself as a leading cancer centre and has ambitious programmes for integrating high quality clinical cancer care with translational and clinical research to deliver a world class service to cancer patients across the Saolta Group region.

This report outlines and authenticates our achievements, activity and progress in 2017 across the various cancer specialties and I wish to thank the cancer leads and multidisciplinary teams for the immense work they accomplish daily in delivering a high quality complex cancer programme across the Saolta Group.

Our KPI performance across many tumour sites continue to improve and the performance of our Rapid Access Programmes are recognised nationally as some of the best achieving in the country.

In 2017:

- We started meaningful engagement with the National Cancer Information System (formerly MOCIS) national team as part of the first phase in the national roll out of NCIS with on site meetings at University Hospital Galway and Mayo University Hospital.
- We delivered on the National Cancer Control Programme (NCCP) implementation plans for the improvement of Rapid Access Services.
- We made progress in advancing our new state of the art radiation oncology build at University Hospital Galway in collaboration with the National Programme for Radiation Oncology and our colleagues in Estates.
- We strengthened our links with the Radiation Oncology Services at Altnagelvin in Derry referring additional Donegal patients across the border for External Beam Therapy (EBT).
- We engaged with our colleagues in Cancer Care West to progress a business case for the implementation of Robotic Surgery at UHG

I would particularly like to thank Professor Michael Kerin for his continued vision, dedication and leadership in strategically driving cancer service developments on behalf of the Saolta Group and I look forward with optimism to future developments in the cancer services programme in the years to come.

Mr Maurice Power, CEO

Dr John Killeen

Chair

Saolta University Health Care Group



As Chairman of the Board of Directors for the Saolta University Health Care Group, I am very pleased to welcome the publication of the 2017 Saolta Group Cancer Centre Annual Report.

This report highlights the excellent cancer services delivered across all the hospitals in the Saolta Group. This would not be possible without the enormous contribution of our staff in the many cancer specialty areas, and on behalf of the Board of Directors I wish to thank our staff for the excellent care they provide to our patients and for their commitment to a quality service.

Professor Ciarán Ó hÓgartaigh

President

National University of Ireland, Galway



It is my pleasure to endorse this report as President of National University of Ireland, Galway.

The role of an academic medical centre in the delivery of high-quality clinical care in an environment of research, education, training and innovation is highlighted in this report, which catalogues the high volume of clinical care allied to the University's research and education mission. I am delighted to see the spectrum of research opportunity that cancer care offers being harnessed in the academic manner detailed here.

The next few years offer exciting opportunities for our University and for this region. The establishment of an integrated NUI Galway / Saolta Cancer Centre will form a major component of that development.

The University's development in recent years of the Lambe Institute for Translational Research; the HRB Clinical Research Facility, CÚRAM the SFI-funded Centre for Research in Medical Devices, and the extensive clinical patient flow and research opportunities will allow coherent and sustained progress in education, training and research.

NUI Galway will continue to play a major part in this important mission, together serving our society.

Dr. Kevin Clarkson
Group Clinical Director
Perioperative Services



A considerable body of work was undertaken by the Perioperative Care Directorate during 2017 in conjunction with the project management office to develop the Saolta strategic plan. This focused on every discipline most of which have substantial involvement in delivery of structured cancer care within the group.

The strategic plan focuses on the next five years. A cancer clinical business unit is a likely evolving entity which will give clear focus for the group on the delivery of clinical cancer services within the national framework and best practice.

During the early part of 2018 I expect that we will successfully develop a robotic surgical service based at Galway University Hospital based on the initial success with robotic prostate surgery services.

We will continue to provide leadership around developing surgical oncology services principally through recruitment into both model three and four hospitals and aligning these services strategically in conjunction with Saolta, NCCP and the National Surgical programme.

Dr Ramona McLoughlin
Group Clinical Director
Medical Directorate



Cancer prevention, diagnosis and treatment is a priority within the Medical Directorate. Lifestyle and disease risk modification are an integral part of each patient contact.

The BowelScreen programme, now in its fourth year, is a continued success; with word-of-mouth driving uptake. The Rapid Access Lung Service, with a rapid access lung clinic and a one-stop Joint Thoracic Clinic is expanding, and a clinic-co-ordinator will shortly be in place to help deal with this. Clinical guidelines, referral pathways and KPIs for skin cancer were rolled out in line with the NCCP National Skin Cancer Group, and we welcome additional staffing from the NCCP. The Endocrine Cancer Programme stretches beyond Saolta into the South and South-west, and in 2018 linked with the National Clinical Programme for Rare Diseases.

Medical oncology across Saolta is expanding and capacity issues at GUH were addressed with an expansion in day ward activity this year. A longer-term solution to capacity is under review in an options appraisal. We also welcome the additional staffing from the NCCP. The implementation of the Haematology services review is one of the key projects for implementation in Saolta. In Radiation Oncology work on the build for the National Programme for Radiation Oncology continues, and we look forward to its completion. Palliative Care expansion to provide enhanced services across the Group is underway/planned in Galway, Mayo, Roscommon, Sligo.

Dr. Pat Nash

*Chief Clinical Director
Saolta University Health Care Group*



In 2017, The Saolta University Health Care Group welcomed the launch of the new *National Cancer Strategy 2017 - 2026*. Cancer prevention is a keystone of this Strategy offering the most cost-effective, long-term approach for cancer control. However, the projections for the next decade point to major growth in the incidence of cancer and in the demand for cancer services across all cancer specialties. With the incidence of cancer expected to double over the next decade, the Strategy aims to improve early diagnosis, quality of care and improve both outcomes and quality of life for cancer survivors in the decade ahead.

The Saolta University Health Care Group made significant progress under the previous national strategy but it recognises the huge body of work that needs to be undertaken over the next decade to deliver on the new National Cancer Strategy, which is both exciting and challenging at the same time. We look forward to enhancing the delivery of evidenced based high quality services across the region.

The Cancer Programme for the Saolta University Health Care Group provides complex, high volume multidisciplinary care to cancer patients across the region. It revolves around multidisciplinary teams and the development of personalised treatment plans for all cancer patients. Clinical Care is delivered in a network based approach with surgery and radiotherapy in the cancer centre and medical oncology across the region.

We believe in providing appropriate cancer care as close to home as possible and in 2017, the Saolta University Health Care Group Cancer Programme continued to expand and strengthen relationships with its cross border colleagues in the Western Health and Social Care Trust. Patients with colorectal, lung and bladder

cancers are now being referred as well as prostate and breast cancer patients to the new state of the art Radiation Oncology Facility in Altnagelvin for External Beam Therapy (EBT). This effectively means that Donegal patients can now access EBT for the majority of cancer specialties closer to home, no longer having to travel to Galway or Dublin for treatment.

Delivery of Cancer Care represents about a quarter of the entire clinical programme across the region. A key objective for the Saolta University Health Care Group in 2017, was working to strengthen the governance and oversight structures within the Saolta Group across all specialties. In 2017, as part of the Integrated Governance Programme for Saolta, a working group was established to progress towards a Managed Clinical Network. The working group, with the assistance of the Saolta Project Management Office, (PMO) made significant progress in 2017. Once finalised in 2018, this new governance structure will have the potential to deliver a transformative, funded clinical business model of cancer care.

Another key driver for change within the Saolta University Health Care Group over the next 5 years, will emerge with the publication of the **Clinical Strategy** in 2018. Much of the work has been completed in 2017 with specialty leads and *Directorate* Clinical Directors finalising individual strategies and agreeing key priorities to be included.

Finally, I wish to commend all those involved in the implementation of Wave 1 of the National Cancer Control Programme (NCCP) Improvement Plan following the Review of Rapid Access Services in 2016 and I look forward to sustaining and enhancing all our Cancer Services across the Saolta University Health Care Group in 2018 and beyond.



Diagnostic & MDM Programme

2

Radiology

Dr Clare Roche
Group Clinical Director



The Radiology Departments in Saolta Group provided a range of diagnostic, staging and surveillance imaging studies for oncology patients in 2017, including Computed Tomography, Ultrasound, Nuclear Medicine and Magnetic Resonance Imaging.

Total Activity Radiology - Saolta Group 2017:

Activity	GUH (UHG+MPUH)	SUH	LUH	MUH	PUH	RUH
PXR	111,232	61,830	63,719	66,992	28,075	15,442
US	12,962	9,362	9,007	9,258	7,471	2,681
CT	22,604	14,555	10,916	15,159	10,549	5,159
MRI	7,504	9,122	3,582	5,096	5,595	Service in PUH
IR	3,970	823	837	555	16	39
Fluoro	1,016	183	244	491	314	82
Nuclear	4,449	353	-	-	-	-
Mammo and US Breast	13,069	-	4,592	1,236	-	-
Dexa	306	-	705	-	632	-
Theatre	3,423	1,520	750	733	27	-
Total	180,345	97,748	94,352	99,520	52,679	23,403

Additional Capacity	GUH	SUH	LUH	MUH	PUH	RUH
Insource (Local)						
MRI (Weekends)	1660	-	-	36	-	-
Insource (Group)						
CT (to RUH)	-	-	-	-	-	1114
Outsource						
CT (MPIC)	2422	-	-	-	-	-
MRI (MPIC)	3147	-	-	-	-	-
Mammo (Sligo mobile)	189	-	-	-	-	-
MRI (PUH)	-	-	-	-	-	-

There is no 'inhouse' PET CT scanning service in Saolta Group.

In 2017, a total of 1,044 PET-CT scans were performed for Saolta patients including 96 from MUH, 334 from SUH, 117 from LUH and 497 from GUH.

Progress during 2017:

MRI: Continued additional MRI capacity by insourcing by scanning each weekend in GUH and outsourcing of MRI to external provider. These combined measures resulted in a very significant reduction in the MRI waiting list. Wait time at GUH for nonurgent MRI reduced to approximately 5 months (down from over 2 years in 2016).

A review of MRI capacity and demand for Saolta was completed and identified the need for a second MRI scanner on GUH site and one additional scanner elsewhere to provide additional capacity for the group.

Radiology department at GUH is constrained by size and as an interim measure a tender process for provision of a mobile/modular MRI on site at GUH was initiated and progressed throughout 2017.

LUH switched from AGFA PACs to NIMIS in September 2017.

A 'portal' for sharing of images of patients undergoing radiotherapy in Altenegelvin was set-

up to allow seamless transfer of information and reduce patient travelling time.

Work commenced on streamlining vetting categories across the group and nationally, in order to better evaluate waiting times.

Current challenges:

Insufficient capacity to meet demand in MRI, CT and Ultrasound, in particular. Ageing radiology equipment. Staff shortages, particularly in breast radiology.

PACS integration across the Saolta network is essential to facilitate image transfer and interpretation and streamline imaging for patients and clinicians, and to facilitate MDMs but requires integration between AGFA PACS and the NIMIS platform. This integration has not progressed due to constraints on the NIMIS side.

Oncology Multidisciplinary Meetings at GUH:

Multidisciplinary meetings continued throughout 2017, and constitute a significant additional workload for radiology. Additional radiology manpower has been requested to support these.

Cancer Site	Time of Meeting	Frequency	Outside Link Up
Symptomatic Breast (excl. BreastCheck)	Thursday 8 am	Weekly	LUH, SUH, MUH
Colorectal Screening (Polyp)	Thursday 12:45pm	Weekly	SUH, RUH
Combined Oncology	Tuesday 8am	3 per month	No Link Up
Endocrine	Monday 8am	2 per month	No Link Up
Gastrointestinal Cancer	Friday 9am	Weekly	LUH, MUH, SUH, RUH, PUH
Gynaecology	Friday 9am	3 per month	No Link Up
Haematology	Monday 12pm	Weekly	No Link Up
Head & Neck	Friday 12pm	Fortnightly	No Link Up
Lung	Monday 4:30pm	Weekly	RUH, MUH, SUH
Lymphoma	Friday 8am	2 per month	LUH, SUH, MUH
Skin	Monday 1pm	3 per month	No Link Up
Urology	Wednesday 8am	Fortnightly	LUH, SUH

In summary:

Demand for imaging continues to outstrip supply. The ability to continue to deliver timely imaging remains constrained by shortages in trained staff and equipment. Prolonged waiting times for MRI, CT and Ultrasound scans across the Saolta Group remain a clinical risk.

Pathology

Dr Helen Ingoldsby
Consultant Pathologist
Lead Clinician



The pathology departments of the Saolta University Health Care Group strive at all times to assure the enhancement of patient care with timely and accurate pathology diagnoses. Pathology departments are active in GUH, LUH, SUH, PUH and MUH. The departments provide a high quality diagnostic service to meet the national and European objectives of reducing cancer-related morbidity and mortality through early detection and appropriate service delivery. The departments also provide a high quality non-cancer-related service. This is achieved by providing a wide range of diagnostic and consultative services to clinicians and other service users. Advisory services are provided through numerous Multidisciplinary Meetings (MDMs), as well as by direct referral.

GUH is the largest histopathology department in the Saolta Group. Since 2009, the Division of Anatomic Pathology (DAP) at GUH has actively participated in the on-going development of the Faculty of Pathology's National Quality Improvement Programme. Total case numbers in the department increase each year, with a 12% increase from 35,173 in 2012 to 39,536 in 2017. Increased workload is largely due to expansion of clinical services including BreastCheck and BowelScreen, and additional endoscopy and theatre lists. GUH has the second largest number of cancer resections of the 8 cancer centres nationwide.

In addition to an increase in numbers, cases have also become more complex. There is greater need for the use of advanced diagnostic tests, and the current requirement of more detailed template-style reporting demands more tissue blocks be taken, and more complex

reporting detail be provided. With the advent of personalised medicine and greater availability of targeted therapies for cancer, it is increasingly important to integrate pathology reports which combine a histology-based diagnosis together with molecular pathology mutational analysis of the patient's tumour.

To this end, GUH provides advanced diagnostics with extensive immunohistochemistry, direct immunofluorescence and molecular testing. The molecular laboratory was established in 2009 with development of in situ hybridisation (ISH) analysis and the service expanded in 2012 to include mutation analysis. Current diagnostics performed include HER2 FISH for breast and gastric cancers, a colorectal cancer panel (KRAS, NRAS, BRAF), melanoma panel (BRAF, NRAS) and non-small cell lung cancer panel (EGFR, ALK, ROS-1). Almost 250 molecular biomarker tests and over 300 FISH tests were carried out in 2017. In early 2018 the monoclonal antibody pembrolizumab was approved as a treatment option for metastatic non-small cell lung carcinoma with >50% PDL1 expression. GUH is one of the Irish pathology laboratories which have developed and is now carrying out PDL1 immunohistochemical testing. To date, approximately 90 tests have been performed (includes referral cases from MUH) and this service is likely to expand in the future as PDL1 testing may be required for other indications.

The following data relates to pathology activity at GUH. Data is obtained from the departmental laboratory information system and from the DAP Molecular Laboratory. (Acknowledgements: Jennifer Ruane and Dr. Allan O'Keefe).

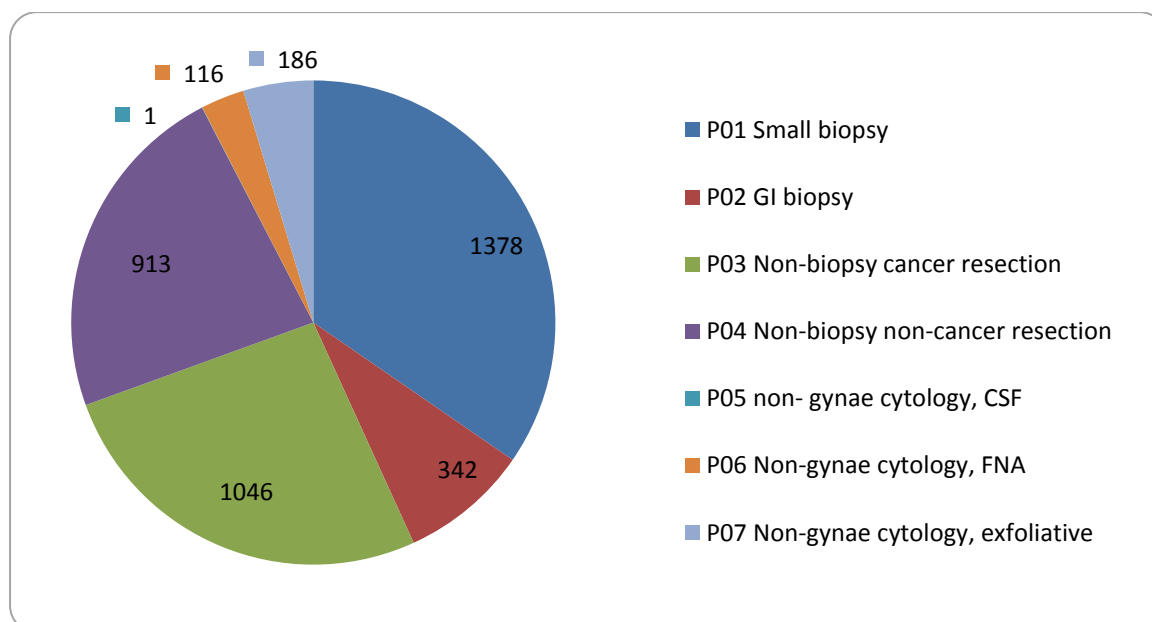
Division of Anatomic Pathology Workload at GUH 2017 (Data Source: Pathology GUH LIS)

Procedure Code		No. of Cases	No. of Specimens	No. of blocks
P01	Small biopsy	6153	12481	14233
P02	Endoscopic gastrointestinal biopsies	10276	20454	21970
P03	Cancer Resections	2241	5324	39311
P04	Non-biopsy non-cancer resection	17894	24069	46038
P05	Non-gynaecological cytology, CSF	103	103	10
P06	Non-gynaecological cytology, FNA	444	701	381
P07	Non-gynaecological cytology, exfoliative	2072	2562	862
P10	Autopsy, coroner	347	347	3649
P11	Autopsy, non-coroner/consented/house	6	6	267
Totals	All procedures	39536	66047	126721

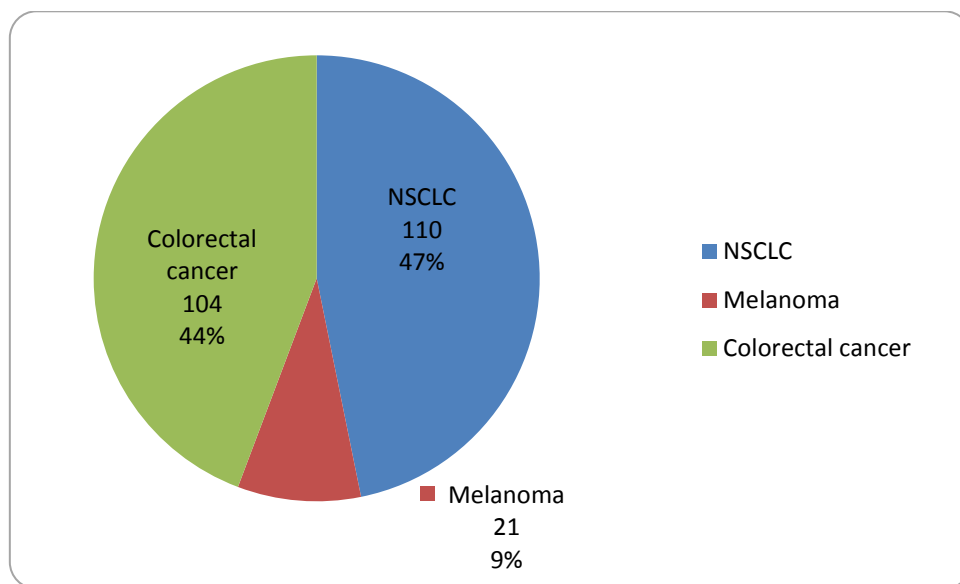
Pathology Case Detail (Data Source: Pathology GUH LIS)

Malignant Cases		Cases Discussed at MDM	
Surgical	6113	Non-gynaecological cytology	369
Cytology	276	Surgical	4182
Referral	328	Referred	217
Total Malignant Cases	6717	Total no. Discussed at MDM	4768

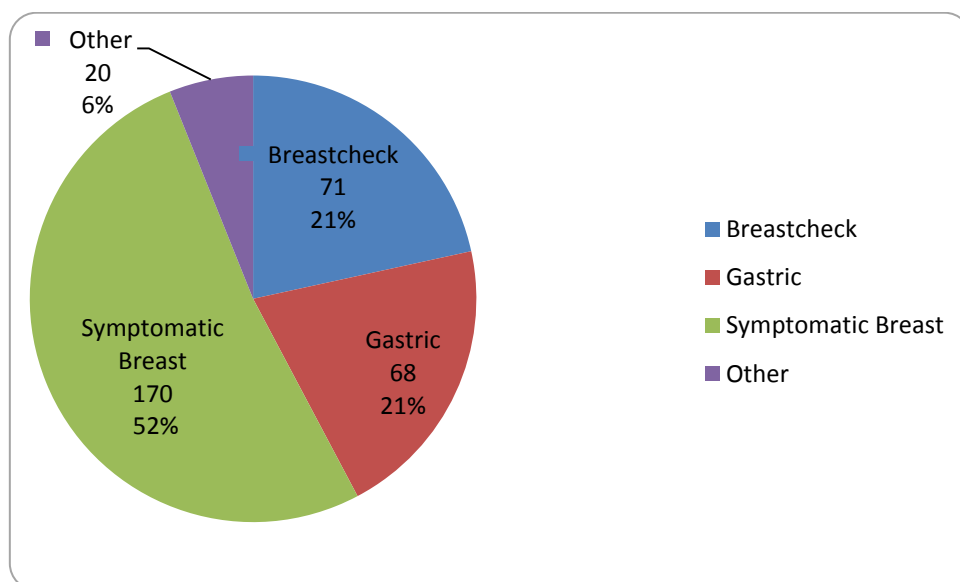
MDM Cases by Procedural Code 2017



Molecular biomarker tests performed 2017



HER2 FISH tests performed 2017



Multidisciplinary Team Meeting

Ms. Tina Howard & Ms. Brid Gavin-O'Connell

MDM Co-ordinators

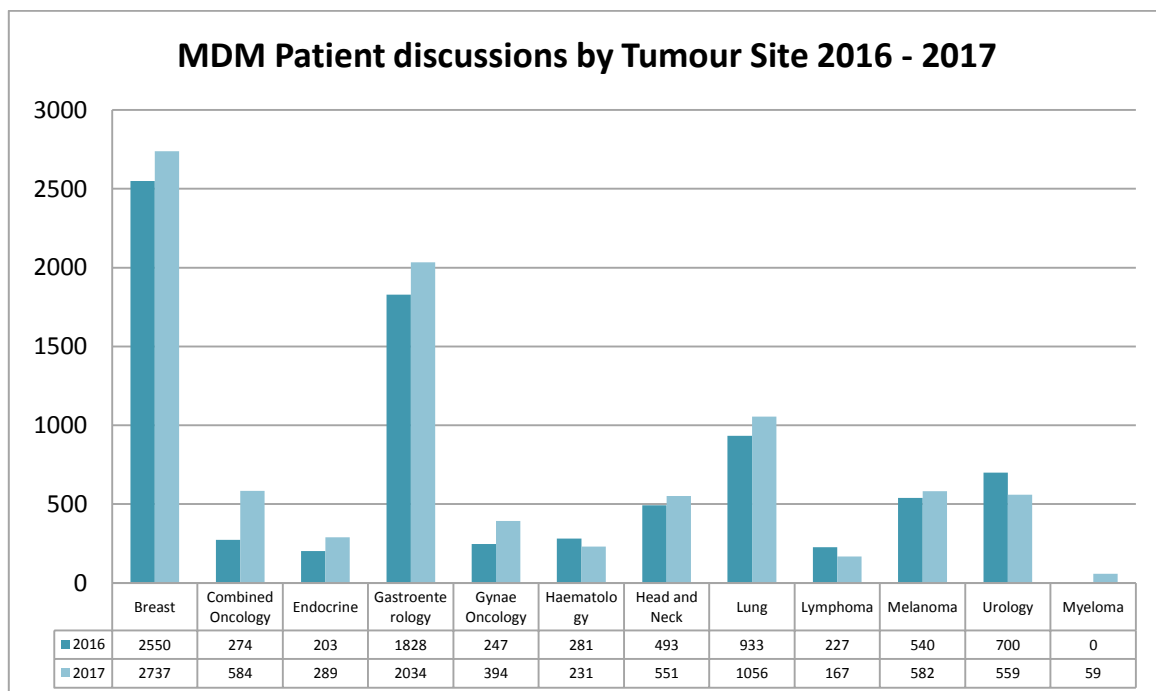


The Saolta Group Cancer Programme continues to be a high volume multidisciplinary care programme across the region. Multidisciplinary meetings are considered the hallmark of patient centred high quality care. The Multidisciplinary Programme within the Saolta Cancer Centre is considered one of the busiest in the country with an extensive schedule of meetings held on a regular basis covering many tumour sites.

Whilst the membership of each MDM can vary, it usually consists of Radiologists, Pathologists, Surgeons, Medical Oncologists, Radiation Oncologists, Clinical Nurse Specialists and Advanced Nurse Practitioners. The primary purpose of the multidisciplinary meeting (MDM) is to ensure best practice and to standardise patient care in line with NCCP guidelines. MDM's aim to confirm or ascertain a patient's diagnosis, establish the clinical and pathological stage of a patient's disease and by prompt, effective multidisciplinary decision making recommend a suitable clinical pathway of treatment and care for each patient.

There are 12 tumour site specific multidisciplinary meetings attached to the Saolta Cancer Centre Programme, hosted at UHG but with multisite video link connectivity to LUH, MUH, PUH, RUH & SUH and other hospitals nationally as appropriate.

While we have an MDM database at GUH, we need to progress with a Group wide MDM electronic system once we have Group wide PAS (IPMS) implemented. The NCCP has procured an MDM module as part of the national clinical information system for oncology (NCIS formerly MOCIS) and GUH and MUH are the pilot sites nationally involved in the roll out. It is anticipated that the other Saolta Group Hospitals will all be going live in the years ahead, which will greatly enhance our patient tracking and analysis functionality across the region. The following chart depicts MDM activity across the 12 tumour sites for 2016 & 2017. Significantly, there was an overall 12% increase in recorded activity for the MDM Programme from 2016 to 2017.





Surgical Specialities

3

Colorectal Cancer

Mr Mark Regan
Consultant Surgeon
Lead Clinician



Professor Oliver McAnena, Consultant Surgeon
Mr Myles Joyce, Consultant Surgeon
Mr Aisling Hogan, Consultant Surgeon
Mr Eddie Myers, Consultant Surgeon
Mr Joseph Garvin, Consultant Surgeon

Olivia Dunleavy, CNS
Anna O'Mara CNS
Mary Quigley, Stoma Care Nurse Specialist
Aisling Dunne, Stoma Care Nurse

As one of the four cancer types making up more than half of all newly diagnosed cancers in Ireland (excluding non-melanoma skin cancer), and accounting for up to 14% of all cancers diagnosed over the period 1994 – 2014, colorectal cancer has a significant impact on families in this country.

The stage at presentation is a significant indicator of survival in all cancer types. This has not changed significantly over time in Ireland. The percentage of late stage (III and IV) colorectal cancer presentations nationally, remains at a high level. In the period 2008 -

2013, the percentage of late presentations was still over 48%.

This can impact significantly on survival rates. The table below (*The National Cancer Strategy 2017- 2026*) shows survival at one and five years for cancers diagnosed 2008 - 2012; by stage at diagnosis. What is significant is the improved outcome for patients with early stage diagnosis: a 95% survival rate for colorectal cancer at 5 years post diagnosis.

Cancer Type	Survival one year after diagnosis		Survival five years after diagnosis	
	Stage I	Stage IV	Stage I	Stage IV
Colorectal Cancer	98%	49%	95%	10%

The challenge for the health system is to increase the proportion of patients diagnosed at an earlier stage of their disease. If this can be achieved, for example by improving access to diagnostics, greater education of the population and by greater uptake of the BowelScreen Programme, then, not only will patient outcomes be enhanced but patient survival will be improved in the years ahead.

In the Saolta University Health Care Group, the Rectal Cancer Programme is centred at UHG and delivers care to the entire West and North West of Ireland and is closely affiliated to the other hospitals within the Saolta Group including Mayo University Hospital, Sligo University Hospital, Letterkenny University Hospital, Portlinculla University Hospital and Roscommon University Hospital.

On site complex surgery is delivered at UHG by Mr Mark Regan, Mr Myles Joyce, Prof Oliver Mc Anena, Mr Eddie Myers, Ms Aisling Hogan and

Mr Joe Garvin which includes a full range of open and laparoscopic procedures for primary and recurrent colorectal cancer: segmental colonic resection, anterior resection, low anterior resection, colo-anal restorative surgery. colo-anal and ileo anal and pouch surgery with open and endoscopic surgery transanal surgery. There is also a full range of endoscopic interventions available including polypectomy, stenting and endomucosal resection. The colorectal programme is closely aligned with the BowelScreen Programme with all BowelScreen detected cancers referred to UHG, discussed at the GUH GI MDM and treated at UHG. Specialist colorectal nurses (CNS), Ms Olivia Dunleavy and Ms Anna O'Mara provide a wide range of services to all of the colorectal cancer patients diagnosed at UHG both preoperatively and post operatively.

As part of the multidisciplinary team there is access to a full complement of associated clinical and support services. All colorectal cancer

patients are discussed at the Joint Upper & Lower GI Multidisciplinary Meeting, which is attended by Colorectal Surgeons, GI Radiologists, Pathologists, Medical Oncologists, Radiation Oncologists and the specialist nursing support. This is a multisite MDM, with links to LUH, SUH & MUH and in 2017, a link was established with the North West Cancer Centre in Altnagelvin enabling Donegal patients to be referred for Radiation Oncology to the new Radiation Oncology Unit in Derry.

Strategically, we are planning to move towards Robotic Colorectal Surgery in 2019 at UHG,

where recently Robotic Surgery for Prostate patients commenced.

The Rectal Programme at University Hospital Galway is aligned with the National Cancer Control Programme (NCCP) and is required to deliver care in line with a national suite of Key Performance Indicators (KPI's). There were 141 new rectal cancers diagnosed across the Saolta Group in 2017 with 46% having radical surgery as highlighted in the table below:

NCCP Rectal Cancer Returns 2017	Jan - June		July - Dec		Total	Total	Total
	GUH	LUH	GUH	LUH	GUH	LUH	Saolta
Newly Diagnosed rectal cancer patients referred to the cancer centre	55	9	58	19	113	28	141
The total number of patients with newly diagnosed primary rectal cancer who underwent radical surgery	26	9	21	9	47	18	65
The total number of <u>BowelCheck</u> patients with newly diagnosed primary rectal cancer who underwent radical surgery	5	n/a	3	n/a	8	n/a	n/a

Colorectal/Stoma Care OPD 2017

(Mary Quigley, Stoma Care CNS)

The Colorectal/Stoma Care Programme has again had a very busy year with overall activity increasing by 4% in 2017 when compared to 2016. All aspects of the service have shown growth but specifically the 17% increase in the number of oncology related stomas created, which has impacted on the number of reversals of temporary stomas due to lack of bed capacity. In 2017, we also noted that a number of our patients on Chemotherapy had at least one admission with an acute kidney issue.

Patients return to the *outpatient nurse - led stoma clinics* for support & follow up care which has resulted in a steady rise in outpatient and inpatient review activity. However, the absence of a HSE Community Stoma Care Services is a deficit in the continuum of care for the patient. It not only puts a considerable amount of pressure on the stoma care service in GUH but from a patient perspective if there was Community

Stoma Care Service available, patient experience could be greatly enhanced by not having to travel to hospital for a service that could be delivered nearer to home. To help improve the support in the community we offer Public Health Nurses (PHN's) the opportunity to complete our foundation course in Stoma Care. This is a distance learning module with a one day practical workshop.

As in previous year, we continue to host "**A Stoma in your life**", our annual patient information evening. This has again proven to be a very successful event with large numbers attending and using the evening as a way of sharing experiences and networking. The focus is on "**Quality of Life**" and "**Peer Support**". This is an opportunity for ostomates to meet with the CNS and make contact with people with an ostomy, share their stories and talk about their lives as they live today.

Stoma Care Activity 2017 (Data Source: Mary Quigley, Stoma Care CNS)

Procedure	Activity
Pre-assessment clinic activity	35
Pre-op siting/counselling (<i>no stoma created</i>)	37
New Stoma created (<i>81% oncology related</i>)	205
Reversal of Stoma	31
Inpatient review (<i>established stoma patients with problems e.g. chemo/radiotherapy related</i>)	337
Outpatient clinic appointments	867
PEG consultations (oncology related)	15
Entercutaneous Fistula	14
Telephone triage/support (oncology related)	2034

The tables below give a snapshot of colorectal HIPE activity at UHG for 2017

Colorectal Procedures	Inpatient	IS Day Case	Total	Inpatient Bed Days
Colectomy	121	-	121	1810
Anterior resection of rectum	50	-	50	632
Rectosigmoidectomy or proctectomy	25	-	25	492
Total proctocolectomy	8	-	8	107
Resection of small intestine	7	-	7	170
Excision lesion or tissue rectum or anus	7	-	7	64
Bx of abdomen; peritoneum or omentum	6	1	7	100
Panendoscopy	5	1	6	305
Laparotomy	3	-	3	49
Rigid sigmoidoscopy with excision	2	-	2	14
Exam proc on rectum or anus	2	2	4	102
Application/insertion/removal procedure on stomach	2	-	2	132
Generalised allied health interventions	510	-	510	-

Portiuncula University Hospital

*Mr Eddie Myers, Consultant Surgeon
Mr Joseph Garvin, Consultant Surgeon
Ms Aine Kennedy, Colorectal and Stoma CNS*

In 2017 there was a total of 85 new cases of colorectal cancer diagnosed in Portiuncula University Hospital (23 rectal cancers and 62 colon). Referrals are mainly received through ED and Out Patient Department as well as through bowel screen (NCCS) and from other hospitals within the Saolta Group.

The colorectal service in Portiuncula is led by Mr Eddie Myers and Mr Joseph Garvin. As per NCCP guidelines all patients are discussed at a weekly MDM in GUH which Portiuncula connects to via video link. This meeting is attended by all members of the MDT- Colorectal Surgeons, GI Radiologists, and Pathologist, Medical and Radiation Oncologists and Clinical Nurse Specialists. Following staging, patients follow a standard treatment pathway to primary surgical treatment, neoadjuvant chemo-radiotherapy or primary chemotherapy and patients are regularly reviewed again within this meeting. These patients also avail of CT and MRI within Portiuncula for diagnosis and surveillance as well Medical Oncology review at the weekly Outpatient Clinic

The surgical service comprises of:

- 2 Surgical outpatients per week
- 3 endoscopy lists per week
- 2 operating elective lists per week in PUH
- 1.5 operating lists per week in GUH

In Portiuncula this service is supported by Aine Kennedy Colorectal and Stoma CNS. This role includes coordinating the colorectal MDM from the Portiuncula site and collating data from this meeting and compiling this data in accordance with NCCP guidelines. This is then submitted bi-annually to GUH. As well as co-ordinating patient care and follow up within Portiuncula and other hospitals within the Saolta Group.



BowelScreen Awareness Event held at PUH, left to Right: Aine Kennedy, CNS Colorectal & Stoma Specialist, Louise Anne McGrath, CNMI, Dr Michael Cassidy and Mr. Eddie Myers, Consultant Surgeon

Bowel Screen Programme

Dr. Eoin Slattery

*Consultant Gastroenterologist
Lead Clinician*



*Mary Cassidy, BowelScreen RANP, SUH
Amy Carroll, BowelScreen CNS, RUH
Deirdre Diver, BowelScreen RANP, LUH
Deirdre Gallagher, BowelScreen RN, GUH*

The Saolta University Health Care Group continues to contribute to the provision of Bowel cancer screening for the West of Ireland population. Four of the Saolta Group hospitals are Bowelscreen centres. Over the course of 2017 almost 1000 patients were screened for colorectal cancer throughout the Saolta Group via the Bowelscreen programme

University Hospital Galway, BowelScreen

GUH commenced screening in May 2013 as part of the National BowelScreen Programme, currently aimed at those aged 60-69 years old. To date over 1600 colonoscopies have been performed following a positive FIT, or Faecal Immunochemical Test.

UHG Pathology Department reports on all the pathology detected in BowelScreen colonoscopies carried out in Saolta University Health Care Group and all cases are reviewed at our weekly polyp MDM. Similarly all surgeries on cancers detected as part of BowelScreen in the Saolta Group are treated in UHG, after discussion and planning at the GI Cancer MDM.

In 2017 UHG performed 313 colonoscopies with 251 patients having a pre-malignant polyp identified leading to an adenoma detection rate (ADR) of 63.82%, the second highest ADR of all BowelScreen units throughout the country. Ten patients with cancer were identified, 15 patients subsequently underwent surgery for cancer or large polyps that were not endoscopically resectable.

Since 2015 UHG has also provided a regional complex polyp service for the Saolta Group. Large, complex polyps that previously would have required surgery may now be removed through advanced techniques known as endoscopic mucosal resection (or EMR). In 2017, UHG performed 24 such procedures.

Letterkenny University Hospital, BowelScreen

Letterkenny University Hospital commenced Screening in November 2014 as part of the Bowel Screening programme. The service provides bowel screening for 60 – 69 year olds in most of Co. Donegal (south Donegal is covered by Bowel Screen in Sligo University Hospital). The bowel screen service in LUH is facilitated by the Registered Advanced Nurse Practitioner (RANP) in Gastroenterology Deirdre Diver.

All Bowel Screen patients are pre-assessed by the RANP and if deemed suitable attend for colonoscopy to LUH. By the end of December 2017 a total of 571 clients had a screening colonoscopy following a positive FIT test, 399 clients had polyps detected and 31 clients had cancers detected. The continuing care pathway for these clients includes referral to the surgical and or wider MDT at UHG.

The success of bowel screening at LUH is attributed to the huge dedication and commitment of the endoscopy and wider MDT team. The Endoscopy Unit at LUH continues to demonstrate its commitment to maintain & develop a quality endoscopy service.



Pictured: Deirdre Diver LUH, RANP in Gastroenterology

Roscommon University Hospital, BowelScreen

In 2017, Roscommon University Hospital entered its fourth year as a screening site with the National BowelScreen Programme. The screening patients are supported and guided through their experience within Roscommon University Hospital, and possible referral onwards, not just by the BowelScreen CNS, but by a wide team of dedicated staff. The whole team strives towards providing all patients that attend the endoscopy service in Roscommon University Hospital with a positive patient's experience. In 2017, RUH performed 238 colonoscopies of whom 118 had polyps detected and 10 had cancers detected.

Roscommon University Hospital commenced performing Bowel Screen colonoscopies in March 2014. All Bowel Screen colonoscopies are performed by Mr Mohammed Eldin (Clinical Lead and Consultant Surgeon), Mr Liam McMullin (Consultant Surgeon) and Mr Tapas Chatterjee (Associate Specialist in Endoscopy). Since commencing Bowel Screening almost 820 index screening colonoscopies and 130 surveillance colonoscopies have also been performed in RUH.

A total of 46 bowel cancers have been detected since 2014. The Colorectal Clinical Nurse Specialist, Olive Cummins, meets with all patients diagnosed with a bowel cancer. The Colorectal CNS provides these patients with support and acts as the patient's advocate, ensuring patients receive an efficient diagnostic work up and referral to GUH/PUH for treatment.

The staff at RUH are dedicated to providing a service that is patient centred and of the highest standard, aiming to meet all national Key Performance Indicators. The success of bowel screening at RUH is attributed to the huge dedication and commitment of the Endoscopy and wider MDT team. The Bowel Screen service in RUH is facilitated by Amy Forde, the Registered Advanced Nurse Practitioner (RANP) in Gastroenterology. Amy Forde was accredited as the RANP in Gastroenterology by the National Nursing & Midwifery Board of Ireland (NMBI) in September 2017.



Amy Forde RANP and Olive Cummins CNS promoting Bowel Cancer Awareness month at RUH

Sligo University Hospital, BowelScreen

Sligo University Hospital commenced screening in May 2013, to date over 870 patients have been screened in the endoscopy unit, across a wide geographical area. Currently the unit is screening from the third round of positive FIT (Faecal Immunochemical Result) results. Clinical lead for the programme in Sligo is Dr Kevin Walsh, Consultant Gastroenterologist. In 2017, 208 screening colonoscopies were completed with 172 of those screened having had polyp pathology. These were reported by the GI pathologists involved in BowelScreen based in UHG. Over the course of the year, 3 patients were referred to Dr. Eoin Slattery Lead Clinician, Consultant Gastroenterologist for EMR (Endoscopic Mucosal Resection). 7 patients had a detected malignancy; following discussion at both the BowelScreen polyp multi-disciplinary team meeting and subsequent GI Cancer MDM underwent surgery in UHG.

Throughout 2017, the endoscopy unit in SUH continued to lead out on quality initiatives and meet the K.P.I's as set by the National Screening Service through their commitment and dedication in delivering a high quality service to all our patients.



Pictured: Mary Cassidy, SUH, RANP, Gastroenterology



Upper Gastrointestinal Cancer

Mr. Chris Collins
Consultant Surgeon
Lead Clinician



Professor Oliver Mc Anena, Consultant Surgeon
Anna O Mara, CNS, Upper GI Cancer
Aoife Quinn, CNS, Upper GI Cancer

2017 was a particularly active year for the Upper Gastrointestinal Programme at GUH with unprecedented referral numbers and increasing complexity of cases. We are now well established as one of the three designated Upper GI satellite centres nationally with Cork University Hospital and Beaumont Hospital Dublin with St James Hospital, Dublin, being the National Centre for Upper GI cancer.

The Upper GI Programme at University Hospital Galway is led by Mr Chris Collins and Professor Oliver Mc Anena, specialist surgeons dealing with high volumes of cases resulting in better outcomes for patients undergoing complex procedures. Over the years advances in surgical techniques have seen increased use of less invasive procedures for Upper GI surgery, which have reduced length of stay and improved patient experience. Robotic surgery has recently begun in GUH and it is expected that this will expand to both upper and lower GI surgical cases in the near future.

Surgery is the cornerstone of treatment for Upper GI cancer; however, gastro-oesophageal cancers are unfortunately rarely diagnosed early as symptoms of early tumours are non-specific and often vague. Symptoms include difficulty swallowing, reduced appetite and weight loss. The majority of our patients with tumours suitable for resection require multi-modality treatments including radiation therapy, chemotherapy and then resection.

Internationally, best practice recommends that all cases are discussed at Multi Disciplinary Team meetings (MDM) and this has revolutionised approaches to cancer treatment over the past decade. MDMs have delivered a number of improvements in the quality of care and patient outcomes. They are seen as the 'gold standard' in terms of cancer patient management and have made a substantial contribution to reducing treatment variation.

The MDM is well embedded and forms an integral part of the Upper GI Programme at UHG. Every Upper GI cancer patient is discussed at the weekly MDM, held on Friday. Individual patient care plans are agreed and subsequently implemented by the MDM team of specialists to optimise patient treatment and maximise patient outcomes. MDM provides enormous training opportunities for medical and associated health professionals, and we are now linked with six sites across the Saolta University Health Care Group. In 2017, there were over 1800 patients discussed at the Joint Upper & Lower GI multisite MDM held in UHG.

We wish to acknowledge the work of our esteemed colleague and CNS, Anna O Mara, who is shortly taking up another post. Anna's role within the Upper GI Cancer Programme at UHG as the Clinical Nurse Specialist (CNS) was an integral part of coordination of patient care and treatment. We wish Anna all the best and thank her for her dedication to the Upper GI programme since its inception, and we also welcome Aoife Quinn, to the team as the new CNS to the Upper GI programme.

The CNS supports each patient and co-ordinates patient transfers to UHG from the other Saolta Hospitals including Portlinculla University Hospital, Roscommon University Hospital, Mayo University Hospital, Sligo University Hospital and Letterkenny University Hospital. They provide education and supportive care to each patient and their families at time of diagnosis, treatment, pre and post operatively and following discharge. The CNS is the single point of contact for the patient and acts as the patient advocate ensuring that individual patients are supported at every point of the cancer journey which is an invaluable service to patients.

Research is the cornerstone of any academic institution and we have been contributing to international studies in chemotherapy (Neo-

AEGIS clinical trial), and immunotherapy (Checkmate 577 clinical trial) as well as surgical databases such as OGAA (oesophago-gastric anastamotic leak audit). We are also collecting and bio banking samples of patients for lab-based research. A prehabilitation and nutrition intervention study in upper GI cancers has just begun in association with Cancer Care West. We expect this will have a huge impact on patient outcome and quality of life going forward.

Key strategic priorities for the Upper GI Programme in next 5 years

- RFA (radiofrequency ablation) equipment has been purchased for Galway University Hospital. This is planned to start in January 2019 in conjunction with Dr. Eoin Slattery, Clinical Lead Endoscopy, Saolta University Group.
- This will allow the development of an EMR (endoscopic mucosal resection) service in Galway so that patients do not have to travel to Dublin. Following this, we plan to develop an ESD (endoscopic submucosal dissection) service at GUH for early gastric cancers.
- A further Upper GI surgeon is being recruited in order to lead on minimally invasive and robotic Upper Gastrointestinal surgery. In conjunction endoscopic ultrasound (EUS) will be delivered at University Hospital Galway, which could operate from the endoscopy suite.
- Theatre capacity and access: Dedicated laparoscopic theatre access and access to robotic surgery is necessary to advance the Upper and Lower GI Programmes at UHG.

NCCP Upper G.I. Returns (Data Source: KPI Returns 2017)

2017	GUH	GUH	Total
	Jan - June	July – Dec	Full Year
New Diagnosis Patients	54	51	105
Newly diagnosed patients with radical surgery as their first treatment	20	20	40

Upper GI Activity in 2017

The incidence rates for adenocarcinomas are increasing annually in developed countries and research is attributing this to western lifestyles. In line with 2016, there were over one hundred newly diagnosed Upper GI malignancies in 2017, (n = 105) almost equally distributed between oesophageal and gastric cancers. Adenocarcinomas accounted for 50% of all oesophageal cancers diagnosed. There were 24 cases of squamous cell carcinoma diagnosed over the twelve months.

The nature of Oesophageal Cancer is that patients present at an advanced stage of the

disease. Consequently, this limits treatment options for many patients. However, all individualised treatment plans are decided by our specialist multidisciplinary team in consultation with the patient in line with international clinical guidelines and evidence based practice.

In 2017, 40 patients underwent radical surgery, either as their first treatment or following neo adjuvant treatment, this was broken down into 16 oesophagectomies and 24 gastrectomies.



*GUH Oesophageal Cancer Lollipop Day
Mr. Mark Regan Colorectal Surgeon,
Mr. Chris Collins Upper G.I. Surgeon,
Ms. Aoife Quinn Upper G.I. CNS,
Ms Judith McLucas Business Manager
Perioperative Directorate*

Head and Neck Cancer

Ms. Orla Young

*Consultant Otolaryngologist, Head & Neck Surgeon
Lead Clinician*



Carol Brennan, CNS ENT

University Hospital Galway, as the Level 4 Hospital and Cancer Centre is the tertiary referral centre for Head and Neck cancer for the West of Ireland and beyond. General Practitioners and the other Saolta Group Hospitals refer patients to the Head & Neck department at GUH for diagnosis and treatment.

It is well recognised that dentists too play an important role in the prevention and early detection of mouth, head and neck cancer. They see many patients on a regular basis for routine dental check-ups, where the oral cavity is fully examined and may lead to the early detection of mouth cancer and therefore better outcomes for patients.

The Head and Neck cancer programme at UHG is provided by the Otolaryngology, Head and Neck Department (ENT) and the Department of Maxillofacial Surgery.

The ENT Department consists of five consultant surgeons; Professor Ivan Keogh, Mr Peter Gormley, Mr John Lang, Ms Mona Thornton & Ms Orla Young and a team that includes a senior and junior SpR, registrars, two SHO and one intern. Outpatient clinics are held on a daily basis at UHG, once a week in MUH and once fortnightly in RUH. The Maxillofacial department consists of two consultants Mr Patrick McCann and Mr Tom Barry and a team of registrars. Maxillofacial outpatients are held at GUH and PUH.

In 2017, the Head and Neck oncology Multidisciplinary Team was extremely busy with 551 patient discussions taking place over the 12 month period, representing an 11% increase in mdm activity from 2016. The specialist team is comprised of Consultant Surgeons, Medical Oncologists, Radiation Oncologists, Radiologists, Pathologists, Clinical Nurse Specialist, Speech and Language Therapist and MDM Co-ordinator.

The Clinical Nurse Specialist, Ms Carol Brennan is a critical link between Surgical Oncology Services in ENT and Maxillofacial Departments and the Radiation and Medical Oncology Services. Carol

provides support; information and advice to the HANO patients from investigation stages to diagnosis, through treatment and long term follow up.

Karen Malherbe, our Senior Speech & Language Therapist provides assessment and management of swallowing, voice and speech difficulties that may arise for head and neck oncology patients. Karen follows the patient from initial diagnosis and surgery through to radiotherapy treatment by providing support to patients who may experience swallowing difficulties during their treatment. Speech and Language support is provided to both inpatients and outpatients at UHG.

Last year there were again over 120 head and neck cancer patients diagnosed and treated at University Hospital Galway.

Trans Oral Laser Microsurgery continues to be our treatment of choice for cases of early glottic carcinomas. Using CO2 laser, early laryngeal cancers can be excised trans-orally under general anaesthetic. This provides an excellent alternative treatment option for patients to the standard 6 week External Beam Radiation Therapy (EBT). Currently, UHG is one of the highest volume TLM centres in the country with on average 18 – 20 patients being treated annually.

The National Cancer Control Programme (NCCP) has recognised the UHG Head and Neck Oncology Programme for its multidisciplinary strength, with the presence of specialist surgeons from both ENT & Maxillofacial Departments and Plastic surgeons for major reconstructive surgery.

The presence of onsite Radiation Oncology & Medical Oncology, along with a dedicated Clinical Nurse Specialist and Speech and Language Therapy support and Palliative Care services means that patients attending the Head and Neck Oncology Programme at UHG, have direct access locally to world class care at University Hospital Galway.

Skin Cancer

Mr Padraic Regan

*Saolta Group National Skin Cancer Lead
Galway University Hospitals*



It is widely acknowledged that non melanoma skin cancers are the most common cancer in Ireland. The prevalence of malignant melanoma both invasive and in-situ is arising across all age groups. This accounted for 5% of all cancers in women and 3% of cancers in men.

In 2017 with Galway University and Roscommon University Hospitals, there were 1491 cases of basal

cell carcinomas diagnosed and 735 squamous cell carcinomas with 235 cases of the squamous cell carcinoma in-situ. There were 153 cases of malignant melanoma diagnosed and there were 130 melanoma in-situ/lentigo maligna.

This represents a 33% increase in invasive melanoma diagnosed in 2017 as opposed to 2016.

Skin Cancer Data 2017 (Data Source: Pathology)

Basal Cell Carcinoma	Squamous Cell Carcinoma	Squamous Cell Carcinoma in situ	Malignant Melanoma	Malignant Melanoma in situ	Other Cancers
1491	735	235	153	130	108

Across the Saolta Health Care Group, there are a number of clinics and facilities for patients with potential skin cancers. There are designated skin cancer triage clinics to assist with the diagnosis of urgent skin cancers and there are See and Treat clinics based in GUH, PUH and RUH. Of the total number of patients seen in both Dermatology and Plastics Surgery, there are 6830 new patients to both Departments with 11,069 reviews. An analysis of these figures reveals that there is some 45% of the new attendees to both departments having a potential cutaneous malignancy. In broad terms, this

implies that 2,850 of these patients will be seen and treated for a potential malignancy. Within the 11,069 reviews, we believe that 30% of these will be reviews for cutaneous malignancy, this gives us 3,300. So in total, approximately 6,000 patients per annum are seen in GUH alone for the management of pre malignant or malignant cutaneous conditions (Source HIPE data)

Patients are also facilitated in the Plastic Surgery and Dermatology General Outpatients. See *table below*:

Total New Patients seen 2017 (Data Source: PAS)

No. of clinics	New Attendees	Return Attendees	New DNA	Return DNA	Total	% New DNA	% Return DNA
1033	6830	11069	585	1159	17899	8%	9.5%

The Saolta University Health Care Group's Skin Cancer MDM is established at Galway University Hospital for a number of years with satellite links to Roscommon. It is held three times per month and all patients with a diagnosis of a malignant melanoma and usual other tumours and complex squamous cell and basal cells are discussed. There were 582 patients discussed at the MDM in 2017 which is a 10% increase on the number of patients seen in 2016. The MDM is attended by Consultant Plastic Surgeons, Dermatologists, Medical Oncologists, Radiation Oncologists, Radiologists and Pathologists

with the view of determining treatments for the management of melanoma and for advanced squamous and basal cell carcinomas. I believe that up to 30% of patients are referred for or both a Radiation Oncology and Medical Oncology opinion. We as a group continue to have a nominee on the NCCP, for which the purpose is to ensure the eight cancer centres and associated hospitals develop a cohesive national network by devising standardised clinical practice, referral pathways and key performance indicators for patients with skin cancer.

Symptomatic Breast Cancer

Mr. Ray McLaughlin

Consultant Breast Surgeon

Lead Clinician, Symptomatic Breast Unit



Judith McLucas, Business Manager

I am delighted to report that the Saolta Symptomatic Breast Service continues to be a high volume multidisciplinary breast cancer service across a range of specialties. The ongoing contribution from Radiology, Pathology, Radiation Oncology, Medical Oncology, Surgery and Nursing ensures a successful multidisciplinary approach and better outcomes for patients.

In 2017, we recorded another successful year for the Symptomatic Breast Service across the Saolta University Health Care Group with over 13,000 outpatient attendances and 426 new breast cancer diagnoses.

Patients are seen at Triple Assessment Clinics held at the Symptomatic Breast Centre at University Hospital Galway and the satellite centre in Letterkenny University Hospital where they have same day imaging and biopsies performed to facilitate early diagnosis. All patients who have a biopsy are discussed at the weekly multidisciplinary meeting. The Sligo Surveillance Mammography Mobile initiative continues to offer patients who are 5 years post diagnosis an annual mammogram on the site of Sligo University Hospital. These mammograms are read by our consultant radiologist colleagues in UHG ensuring good clinical practice.

There were over 2,700 patient discussions at the Symptomatic Breast Service Multidisciplinary meeting in 2017 reflecting the continuously high levels of activity around the programme. This ensures that patients are diagnosed, staged and

treated in a timely manner and have a better experience and improved outcomes overall.

I wish to extend my sincere thanks to all those who have worked tirelessly to ensure that the breast programme continues to perform as a world class service for patients and service users.

Our performance against the National Cancer Control Programme key performance indicators continues to place us among the best in the country as patients with urgent symptoms are seen within two weeks and have their imaging and biopsies performed on the same day. Access for routine referrals continues to be challenging but we continue to proactively manage these referrals on an ongoing basis. We welcome the appointment of a locum second breast surgeon at LUH in 2017, this should add resilience and sustainability to the breast programme at LUH in the years ahead.

The strong link with the Breast Cancer Research Facility at the National University of Ireland, Galway is invaluable. This world class research programme based in the Lambe Institute for Translational Research and led by Professor Michael Kerin focuses on developments and improvements in clinical outcomes for breast cancer patients. The breast cancer team is actively involved in research contributing to and leading out on major publications.

The following tables depict breast care activity across the Saolta University Health Care Group for 2017:

Symptomatic Breast Outpatient Clinic Attendance data 2017 (Data Source: SBU)

Outpatient Clinic Statistics	GUH	LUH	Total
No. of OPD Clinics per week	12	6	18
Designated Cancer OPD Clinics	5	3	8
New patients	5128	1672	6800
Review patients	5276	1119	6395
Total No. of patients seen	10,404	2791	13195

Symptomatic Breast Service Cancer diagnoses 2017 (Data Source: SBU)

Performance Parameter	GUH	LUH	Total
No. of new patients diagnosed with cancer	343	83	426

Symptomatic Breast Cancer Surgical Interventions 2017 (Data Source: SBU)

Surgical Intervention	GUH	LUH
Wide Local Excision	188	34
Excision of Margins	24	6
Mastectomy	85	34
Sentinel Node Biopsy	161	44
Axillary Clearance	54	23
Breast Reconstruction procedures (immediate)	37	6

Breast Cancer Procedures 2017 (Data Source: UHG HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Excision procedures on lymph node of axilla	200	263	463	927
Excision of lesion of breast	119	384	503	372
Biopsy of breast	6	471	477	57
Simple mastectomy	93	0	93	606
Reconstruction procedures on breast	58	5	63	412
Subcutaneous mastectomy	13	0	13	74

BreastCheck

Dr. Aideen Larke

*Clinical Director & Lead Consultant Radiologist
BreastCheck West*



Mr. Karl Sweeney, Lead Surgeon

Dr Anna Marie O'Connell, Radiologist

Dr Catherine Glynn, Radiologist

Dr. Margaret Sheehan, Lead Pathologist

Ms Jennifer Kelly, Unit Manager

M. Joan Raftery, RSM

BreastCheck – The National Breast Screening Programme plays a central role in diagnosis and management of breast cancer in Ireland, providing free mammograms to women aged 50-65 every two years. BreastCheck, a national population based screening programme, lies within the Health & Wellbeing Directorate.

Breast cancer remains the most commonly diagnosed cancer in women in Ireland with over 2,700 women diagnosed each year. Survival has improved as a result of screening, symptomatic detection and improved treatment options. Through providing regular mammograms, BreastCheck works to reduce mortality by detecting breast cancer at the earliest stage, when a woman has more treatment options available and her chosen treatment is likely to be less extensive and more successful.

The BreastCheck Western Unit opened in Galway December 2007 to deliver a high quality screening service to almost 80,000 women in the large

geographical catchment area in the West and North West of Ireland. This includes counties Galway, Mayo, Sligo, Donegal, Roscommon, Leitrim, Clare and Tipperary North Riding. Eligible women are invited to attend either the BreastCheck Screening Unit in Galway University Hospital or one of the BreastCheck mobile units across the region, for mammographic screening on a two year call and re-call programme.

In accordance with best practice, international guidelines, and the BreastCheck Clients' Charter, each mammogram is read by two independent experienced breast radiologists. Women with abnormal mammogram results are asked to return to a triple-assessment clinic with additional mammographic views and ultrasound examinations. If any suspicion of cancer remains, an ultrasound- or stereotactically-guided biopsy is performed. All biopsy results are discussed at a multi-disciplinary team meeting, and patients are informed of their result within five working days.



Performance Parameters for Western Region 2017

Performance Parameter	Western 2017
Number of women screened	36,955
Number of women re-called for assessment	1,332
Re-call rate	3.6%
Number of woman diagnosed with cancer	198



*Pictured: Ms. Joan Raftery, RSM,
Mr. Karl Sweeney, Lead Consultant Surgeon,
Ms. Jennifer Kelly, Unit Manager
& Dr. Aideen Larke, Clinical Director*

In 2017, 53,188 women were invited for a screening mammogram and 36,955 attended, representing an uptake rate of 70% which compares favourably with other screening services.

1,332 women had an abnormal mammogram and were recalled to triple assessment clinic.

In 2017, the BreastCheck Western Unit diagnosed a total of 198 women with breast cancer. This cancer detection rate is similar to other national and international breast screening services

BreastCheck delivers an annual programme evaluation report. This confirms that the targets laid out at the beginning of each year are being met and that the level of high quality service is consistent

BreastCheck commenced the first stage of age expansion rollout in 2015. The programme age will extend to 69 years of age; however that is to be phased in incrementally by one year, every year for the next 5 years. Therefore as of 2017, the age included women aged 66.

BreastCheck is part of the National Cancer Screening Service, which also encompasses CervicalCheck - The National Cervical Screening Programme, BowelScreen - The National Bowel Screening Programme and Diabetic RetinaScreen - The National Diabetic Retinal Screening Programme.



Urological Cancer

Mr Garrett Durkan

*Rapid Access Prostate Clinic (RAPC)
Consultant Urological Surgeon
Lead Clinician*

Mr Eamonn Rogers, Saolta Lead Consultant Urological Surgeon

Mr Frank D'Arcy, Consultant Urological Surgeon

Ms Catherine Dowling, Consultant Urological Surgeon

Mr Syed Jaffry, Consultant Urological Surgeon

Mr Nadeem Nusrat, Consultant Urological Surgeon

Mr. Paddy O'Malley, Consultant Urological Surgeon

Mr Killian Walsh, Consultant Urological Surgeon



Muriel Moloney, CNMII, RAP

Rachel Dalton, CNS, RAP

Deirdre Horan, Staff Nurse, RAP

Muriel Walsh, Staff Nurse, RAP

Rapid Access Prostate Clinic (RAPC)

The Rapid Access Prostate Clinic at University Hospital Galway serves the West & North West of the country and beyond as patients from Offaly, Tipperary and Westmeath are often referred to the service by GP's from these areas. Tertiary referrals for complex cancer surgery and robotic radical prostatectomy are also referred from the urology department at University Hospital Limerick.

Of the 8 designated cancer centres in Ireland, the Rapid Access Programme at UHG is recognised as the busiest and best performing prostate service in the country (NCCP Review of Rapid Access Services 2016). This is reflective of the unusually high incidence of prostate cancer in the West. According to the Central Statistics Office (CSO) 2016 Census, in the 15 – 64 age group, Saolta University Health Care Group has a higher incidence of prostate cancer (157.8/ 100,000) than the national rate (141.8/ 100,000).

The Rapid Access Prostate Clinic was established at UHG in 2009 and since then men with suspected prostate cancer are referred by GP's across the Saolta University Health Care Group and are seen within 20 working days of receipt of referral. The programme has grown exponentially since opening and it now stands as the busiest RAP service in the country. In 2015, two new consultant urologists were added to the team greatly complementing the existing skillmix of those already in the programme allowing even the most complex urological cancer cases to be seen and treated at University Hospital Galway.

'One-stop' prostate assessment clinics take place each week lead by Consultant Urologists, Mr Garrett Durkan, Mr Paddy O'Malley and Ms C Dowling. Professor Peter McCarthy and Dr Claire Roche hold two additional biopsy clinics in Radiology. Patients attend review clinics at RAPC for biopsy results and further investigations.

In addition, Mr G Durkan holds a Rapid Access Prostate Clinic in University Hospital Limerick and patients who require surgery travel to UHG. On

average approximately 27 patients from the Limerick RAP programme have surgery in Galway each year with both open radical prostatectomy (ORP) and robotic assisted radical prostatectomy (RARP) being provided as deemed clinically appropriate.

As well as surgery, patients with localised/locally advanced prostate cancer are treated with a combination of seed brachytherapy, external beam radiotherapy (EBRT) and hormone therapy at the Radiation Oncology Department at UHG. In 2017, we continued to refer Donegal patients for EBRT to the new Radiation Centre, in Altnagelvin Hospital in Derry with many Donegal patients choosing to take up this offer, reducing their travel time to treatment. The referral to Altnagelvin is made through our Radiation Oncology department following a consultation with Dr Cormac Small, Consultant Radiation Oncologist, UHG.

The successful Robotic Assisted Radical Prostatectomy programme continued for public patients attending RAPC in partnership with the Galway Clinic, with 84 patients undergoing robotic prostatectomy in 2017 delivered jointly by Mr Gareth Durkan, Mr Paddy O'Malley. Ms Catherine Dowling and Mr David Bouchier-Hayes. However, following a year of planning and development in 2017, we are happy to announce that Robotic Surgery was recently launched at University Hospital Galway. This is a tremendous enhancement to the Rapid Access Prostate Programme locally, making the most advanced technology available to our patients. The use of robot assisted surgery is revolutionising patient treatment across the world and is rapidly becoming the treatment of choice for both surgeons and patients. We wish to acknowledge the support of senior management within Saolta, the NCCP and the significant contribution of our partners in Cancer Care West.

We would also like to formally acknowledge the support given to the Rapid Access Robotic Programme over the years by our colleagues in the Galway Clinic.

Multidisciplinary Team (MDT) Meetings

Excellent support is provided to the Uro-Oncology MDM meetings fortnightly by our colleagues in Radiology and Pathology. Given the high incidence of this disease in our region, there is now a requirement to increase the frequency of our Uro-Oncology MDM to once weekly and incorporate a dedicated Prostate Cancer MDM to exclusively discuss prostate cancer cases. This we hope to achieve in 2018.

Our colleagues from Sligo University Hospital (SUH) and Letterkenny University Hospital (LUH) join the MDT by videoconferencing so that urological cancer cases from across the Saolta University Health Care Group are discussed at one forum. Our Radiation Oncology and Medical Oncology teams also attend the MDM facilitating close collaboration, inclusion of patients in clinical trials and streamlining rapid treatment for patients.

National Cancer Control Programme Key Performance Indicators

Since its inception in 2009, the Rapid Access Prostate service has submitted KPI reports to the National Cancer Control Programme on a monthly, quarterly and annual basis. The reports validate the consistently large volumes of patients attending the programme, the high rate of prostate cancer diagnosis and the quality measurements in terms of excellent performance to national standards.

Remarkably, the number of new referrals and the number of diagnosis in 2017 mirrors that of 2016, with again over 600 new referrals and over 300 men diagnosed with a prostate cancer. However, despite the high number of new referrals in 2017, there was a 14% improvement in compliance with the national KPI with 99.3% of patients referred given an appointment within 20 working days. This is truly a commendable achievement in terms of performance against national KPI's and in no small manner reflects the huge body of work that occurs regularly at RAP clinics by all staff involved.

Rapid Access Prostate Clinic (RAPC) Attendance 2017 (Data Source: KPI Monthly Returns 2017)

Patient Type	Number of Attendance
Total of new patients	602
Total of review patients	2606
Grand Total	3208
Total number of new primary diagnoses	309

Quarterly Activity at Rapid Access Prostate Programme UHG 2017

	Q1.	Q2	Q3	Q4	2017	Access KPI
Attendance at RAPC	170	150	149	133	602	
Attended within 20 working days	166	150	149	133	598	99.3%
Diagnoses by quarterly classification	101	75	63	70	309	
Number of Prostate Surgeries					104	
Robotic Surgeries in Galway Clinic					84	



MOVEMBER 2017

GUH information stand. Rachael Dalton Clinical nurse specialist prostate cancer & Fionnuala Creighton Daffodil nurse

Nursing Programme within Rapid Access Prostate Service

Our Clinical Nurse Manager, Muriel Moloney, successfully coordinates the Rapid Access Prostate Assessment clinics at University Hospital Galway. Muriel is supported by staff nurses Deirdre Fallon and Muriel Walsh and Clinical Nurse Specialist (CNS), Rachael Dalton, working closely with the excellent clerical team who ensure patient referrals are processed efficiently and appointments are given within KPI. Patients are triaged and assessed at rapid access clinics within 20 working days.

The nursing team provide men and their families with diagnosis support following receipt of a diagnosis of prostate cancer. We provide our patients with appropriate literature on their diagnosis, information on their local cancer support groups, contact details for the rapid access prostate clinic and a contact number for our dedicated prostate cancer nurse support telephone line. We co ordinate staging investigations and patient follow up with clinic visits to optimise efficiency within the unit.

Importantly, we communicate with patients and their families to appropriately assess patient's needs and provide relevant support. The CNS acts as a key worker and a liaison between the patient and other members of the multidisciplinary team throughout the patient's care continuum.

We have successfully implemented nurse led PSA and review clinics since late 2016 and in 2017 these clinics continued to grow. At these clinics we monitor patients for prostate cancer reoccurrence and complete an individualised patient needs assessment. This assessment is specifically designed to monitor and treat side effects related to prostate cancer treatments. The CNS runs this review clinic alongside consultant Urologist Mr Garrett Durkan. Our nurse led PSA and review telephone clinics are supporting the move towards patient supported self management which we aim to develop further in 2018.

Prompted by the high prostate cancer survival rates and the potential impact of surgery and other treatments on patients, the Prostate Cancer Information and Support Group was established.

This group was developed to provide men with information and support to cope with the impact and possible side effects of prostate cancer and its treatments. The Information and Support sessions are held in the Cancer Care West Support Centre in Galway. At each event there are approximately 15 participants and each session is facilitated by the CNS and a Chartered Clinical and Counselling Psychologist. Each session is focused on a particular topic and includes a presentation by the relevant specialist healthcare professional/guest speaker as appropriate. The following key topics were addressed at this Information and Support Series:

- Intimacy and sexual function.
- Urinary incontinence and pelvic floor exercises.
- Adjusting to living with prostate cancer.
- Treatments for sexual dysfunction.
- Diet and exercise.

Our colleague and Registered Advanced Nurse Practitioner, (RANP) Ger O'Boyle, in the Radiation Oncology Department had a very busy year in 2017, seeing over 200 patients in the RANP led specialised erectile dysfunction clinic held for men suffering from this complaint, following radiotherapy and radical prostatectomy treatment for prostate cancer. The RANP also runs a telephone follow up clinic for prostate patients post radiotherapy. To further enhance the Rapid Access Programme, Dr Mary Rogan, GP and Psycho-sexual counsellor provides a counselling service for men experiencing distress as a result of erectile dysfunction.

For November 2017, the urology unit working closely with the Daffodil Centre in UHG continued to work to provide men with information on the prevention of illness and early diagnosis of cancer. Along with our scheduled support group evening we held a men's health event in the Salthill Hotel Galway. Working with CROI and Diabetes Ireland we offered attendees blood pressure, BMI and diabetes screening and provided attendees with information on a variety of health related topics. Our keynote speaker for the evening was Mr Garrett Durkan who provided attendees with an overview of the specific health needs of men, encouraging men to think more about their health and lifestyle behaviours and choices.



Medical Specialities

4

Lung Cancer & Thoracic Surgery



Dr David Breen
Consultant Respiratory Physician
Lead Clinician, Interventional Pulmonologist
Imelda Fleming, CNMII
Claire Davy, CNS
Jacinta Murphy, SN



Dr Alan Soo
Consultant Thoracic Surgeon
(Thoracic Surgery Lead)

Marie Cloonan, CMNIII
Fiona Burke, CMNII

Lung Cancer is the 3rd commonest cancer diagnosed in Ireland but is the primary cause of cancer related deaths. *The National Cancer Registry Ireland, Dec 2017* reported Lung cancer incidence rates of 48.1/100,000 for males and 35.6/100,000 for females in counties Donegal, Leitrim, Sligo, Galway, Mayo and Roscommon combined.

The table below highlights the mortality rates for Trachea, Bronchus & Lung Cancer for Ireland as a whole and for the Saolta region in both males

and females respectively. The data is presented as 5-year age standardised death rate per 100,000 populations in the years 2010 – 2016.

The mortality gap between female and male death rates have narrowed both in the Saolta region and Ireland nationally. The data demonstrates an increase in female death rates from lung cancer in the Saolta Group from 40.9 to 43.1/100,000 in the period 2010 – 2016. This occurred while death rates in the male population have remained stable at 67.3/100,000.

National Trend (Data Source: DOH: PHIS; M3 5 year age standardised mortality data)

Area	Cause of Death	Sex	2010-14	2011-15	2012-16
Ireland	Trachea, Bronchus & Lung Cancer	Female	47.5	47.2	47.1
Saolta	Trachea, Bronchus & Lung Cancer	Female	40.9	42.9	43.1
Ireland	Trachea, Bronchus & Lung Cancer	Male	79.4	78.4	74.8
Saolta	Trachea, Bronchus & Lung Cancer	Male	67.3	68.1	67.3

Lung cancer Services, Galway University Hospitals (GUH)

The Lung Cancer service is centred around the rapid access lung clinic (RALC) which coordinates referrals received from primary care.

The Rapid Access Lung Programme (RAL) commenced at GUH in 2011 with the support of the National Cancer Control Programme (NCCP). It aims to provide direct access to Consultant Led Assessment and diagnostic services for patients with suspected lung disease or cancer of the lung.

This service co-ordinates rapid assessment and access to diagnostic services through Merlin Park and ensures that all cases of (presumed) lung cancer are discussed at the Lung Cancer

Multidisciplinary meeting which ensures discussion of cases with a panel of lung cancer physicians representing the specialities of respiratory medicine, Thoracic surgery, Medical Oncology, Radiation oncology and Radiology. In addition new confirmed diagnoses of lung cancer attend a Joint Thoracic Clinic which is attended by respiratory physicians, thoracic surgery, medical oncology and radiation oncology. There is also a close collaboration with palliative care services.

Since the launch of the RAL programme at GUH in 2011, there has been a year on year increase in overall attendances and new cases of cancer diagnosed through this route.

The RAL programme at GUH is led by Dr D Breen, Consultant Respiratory Physician & Interventional Pulmonologist, supported by respiratory SpRs and Lung cancer CNS. Ms Imelda Fleming is the Clinical Nurse Manager II supporting the RAL and together with Staff Nurse Jacinta Murphy, they both provide invaluable support to the service and offer significant support to patients as they go through the complex and frequently rapid care pathway. We wish to acknowledge the excellent support provided by Claire Davey, Clinical Nurse Specialist and we also extend our best wishes to Claire in her new role as CNMII of the Haematology Oncology Day Ward at UHG. In addition we would like to acknowledge the invaluable work and service improvements implemented by Imelda Fleming and offer her our full support as she embarks in a new phase of her career as a candidate Advanced Nurse Practitioner (cANP) in RAL.

We look forward to welcoming new members to the lung cancer team in late 2018/2019.

The ANP post will allow development of a number of new initiatives in the the RAL programme, including a robust smoking cessation programme, survivorship clinics under established protocols and pulmonary nodule services. In time, these new services will reduce the numbers attending the Joint Thoracic Clinic thus ensuring a better pathway for all attending the service.

We hope that this will also allow us to further improve support to patients with newly diagnosed lung cancer and ensure that all patients have a named keyworker during their pathway. This includes the crucial role of patient advocate and to provide essential psychological and emotional support to patients during their treatment.

The Rapid Access Lung Clinic (RALC) runs weekly on a Monday afternoon at UHG and to ensure continuity, a Wednesday or Friday Clinic is held on Bank Holiday weeks. Once assessed in the RALC, a diagnostic plan is agreed and followed through via Unit 8 in Merlin Park with invaluable support from the Imaging Centre at Merlin Park University Hospital (MPUH). The Primary goal of the assessment in Merlin park is to provide a one-stop shop for lung cancer

patients and to ensure that diagnosis and stage are obtained on a single clinic visit. Patients can have their staging CT scan followed by an endoscopic procedure which can include a bronchoscopy, EBUS (Endobronchial Ultrasound), EUS (Oesophageal Ultrasound), pleural procedures, neck ultrasound and sampling of lymph nodes, soft tissue ultrasound and sampling. To meet the growing demand on the RAL service, we have recently extended the diagnostic facilities in Unit 8 clinic from 1 day to 2 days a week.

Patients with a Lung Cancer diagnosis are discussed at our weekly Multidisciplinary Team Meeting (MDM) held directly after clinic on a Monday evening. In addition to all new cases discussed from GUH, there is a video link to Sligo, Mayo & Roscommon University Hospitals thus ensuring that the majority of lung cancer cases across the Saolta Group are discussed with the MDT in the Cancer Centre at UHG. This is a Key Performance Index of the lung cancer service and we continue to strive to ensure that all patients are discussed through this forum.

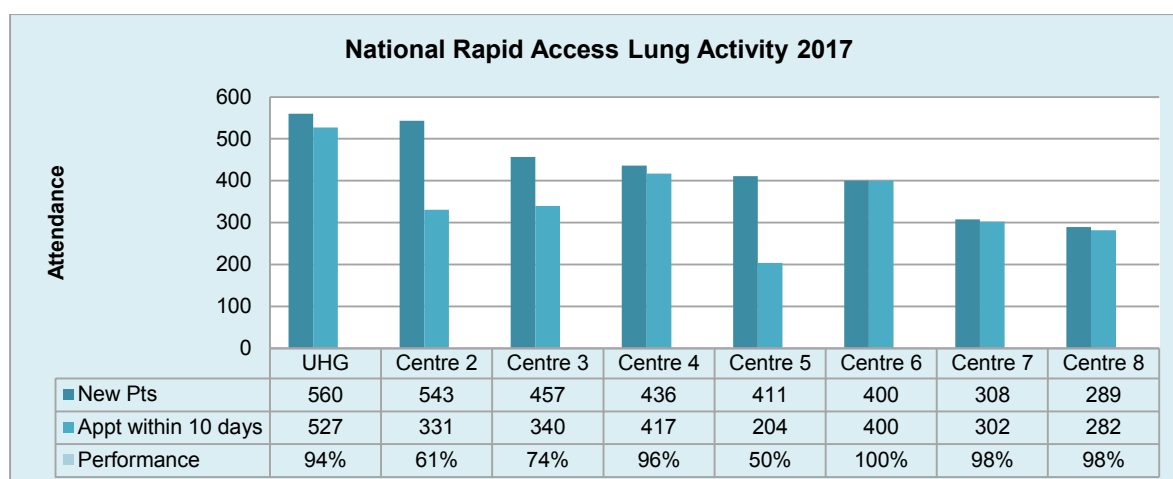
Patients do not return to the RAL Clinic for review, they attend the Joint Thoracic clinic held each Thursday, where they have access to multiple consultants involved in their care at a 'One Stop' clinic including medical oncologists, radiation oncologists and thoracic surgeons. I wish to extend my thanks to our extensive multidisciplinary team, who support the Rapid Access Lung Cancer Programme on an ongoing basis. In addition to the specialties above I also wish to acknowledge the ongoing support from radiology and interventional radiology

The overall performance of the Rapid Access Lung Programme at GUH is monitored by the lead lung cancer physician within the service together with support from the CNM and administration staff. In addition, reports are generated both on a monthly and quarterly period and submitted to senior management within Saolta. In addition, monthly performance reports are submitted to the National Cancer Control Programme. The following table sets out the consistently high level of performance of RAL in 2017, with the service achieving over 90% compliance in each of the four quarters and an overall yearly performance of 94%.

Rapid Access Lung Programme 2017 as NCCP Returns

Reporting period	Q1 Jan - March	Q2 April- June	Q3 July- Sept	Q4 Oct - Dec	2017
Attendances at RAL (new patients)	143	141	134	142	560
Attended within 10 working days	129	134	124	140	527
KPI Performance	90.2%	95%	92.5%	98.6%	94.1%
Total number of review patient attendances at Joint Thoracic Clinic					1625
Total attendances at the Rapid Access Lung Programme					2185

This data compares favorably to results from each of the other rapid access services in the other 7 cancer centres in Ireland. The most striking feature, is the high level of new patients attending the RAL at UHG and the equally high number of patients accessing the service within 10 working days, making it the busiest and best performing RAL service in the country. Whilst, our annual performance is recorded at 94%, not only has our RAL Programme seen more new patients than any other RAL service but it has seen more new patients **within 10 working days** than any other RAL service in the country as depicted below.



Future Developments 2019

It is the goal of the Lung Cancer Service to continually strive for service improvement on a yearly basis.

The current plan for 2019 is to implement and develop new clinics including a survivorship program, which will be the first dedicated public lung cancer survivorship programme in Ireland. In addition, we aim to commence a nodule clinic and a parallel Smoking Cessation Programme to run alongside the rapid access and Joint Thoracic clinics.

We look forward to the arrival of new staff to the service including new nurses in the roles of CNM and CNS; this will allow us to provide greater

support and dedicated keyworkers to our new lung cancer patients. In addition we are delighted to have approval for a lung cancer co-ordinator to ensure both improved patient tracking and data collection.

Finally we will continue to improve the range of diagnostic services through the lung cancer program including a new peripheral navigation system for peripheral non-visible lesions and a replacement program for our ultrasound scopes through a central procurement process.

The overall aim is to provide continued service improvements and therefore the best possible service to patients with (presumed) lung cancer.



Photo by permission of patient and Cardiothoracic staff

Thoracic Surgery

The Department of Thoracic Surgery at UHG is the only dedicated thoracic surgery centre in the west and is one of four NCCP designated thoracic surgery centre. In UHG, we are dedicated to the treatment of diseases of the chest. We aim to provide evidence based surgical treatment for thoracic diseases to the highest standard. In order to achieve that aim, we continuously strive to expand our armamentarium of treatment options and employ cutting edge technologies. The unit also perform regular audits and research to ensure we in UHG provide the most up to date care ensuring the best outcomes for our patients.

At UHG, patients will be cared for by a multidisciplinary team of surgeons, specialised nurses and allied health professionals, all bringing their expertise in their relevant fields ensuring the best outcome.

The service works closely with the respiratory service and providing a service for patients referred from all hospitals within the Saolta University Health Care Group.

In UHG, the thoracic surgery department provides all aspects of thoracic surgery.

Our thoracic surgeons treat the following diseases:

- Lung cancer
- Benign diseases and tumors of the lung
- Chest reconstruction after major trauma or surgery
- Pectus surgery for chest wall deformity
- Lung volume reduction surgery for emphysema
- Mediastinal tumors and diseases (including the surgical treatment of myasthenia gravis)
- Mesothelioma
- Pleural diseases (including pneumothorax, infections and pleural effusions)
- Chest wall tumors

- Sympathectomy for hyperhidrosis (excessive sweating)
- Plication for diaphragm paralysis

In UHG, we are very proud of our care pathway. The care pathway starts with referral largely from the Joint Thoracic Clinic following the weekly lung multidisciplinary meeting. The department also accept direct referrals from physicians and GPs.

Since 2016, all patients undergoing thoracic surgery are enrolled in the ERAS programme (Enhanced Recovery After Surgery).

The Thoracic ERAS programme in UHG includes the following:

Pre assessment: All referred patients undergo a pre assessment to assess suitability of surgery. Here, patients get further opportunity to discuss their surgical treatment with the surgeon. Based on assessment, potential complications are identified and counter measures instituted and discharge planning performed.

Pre-habilitation: The pre-habilitation programme is carried out by a team of thoracic physiotherapists based in Merlin Park Hospital. There, the patients will undergo detailed fitness assessment. Following that, a personalised exercise programme is developed for each patient prior to surgery.

Post op pain management: This is performed in conjunction with the Pain Service at UHG. Patients are given a prescription for pre operative pain relief at their pre assessment appointment.

Admission: Patients are admitted the evening prior to or the morning of surgery (DOSA- Day Of Surgery Admission) and will go to the PACU (Post Anaesthesia Care Unit) for a night following surgery. This is for close monitoring of vital signs, analgesia and chest drainage.

Carbohydrate Loading pre-operatively.

Digital monitored chest drain (Medala Thopaz® suction unit) is used post operatively in keeping with international best practice.

With the introduction of the Thoracic ERAS programme, the hospital length of stay has been reduced and patients are able to be discharged earlier in a better physical condition.

In 2017, we have successfully introduced our minimally invasive programme for both lung resection and resection of mediastinal tumour (i.e. VATS lobectomy and thymectomy). These latest technique allow the team to perform surgery on less fit patients who previously may

be turned down for surgery and allow swifter recovery.

The team in UHG is also dedicated to research. Research projects carried out by the department has been presented in both national and international meetings and winning the prestigious Sylvester O'Halloran prize.

Thoracic activity 2017

Lung resection surgery	Activity	Total
Lobectomy (16 VATs Lobectomies)	73	95
Bi Lobectomy	1	
Sleeve resection	1	
Pneumonectomy	1	
Wedge resection	19	
Blebelectomy/Pleurectomy/Pleurodesis		
Blebelectomy/Pleurectomy/Pleurodesis		16
Vats x/pleural bx		18
Resection of Mediastinal mass		2
Decortication		10
Thymectomy/Thymic cyst		8
Mediastinoscopy		14
Open lung biopsy		1
Re-exploration post surgery		1
Rib resection		1
Thoracic sympathectomy		1
Pectus repair		1
Bronchoscopy		2
Pericardiac cyst		1
Total		171

Endocrine Cancer

Dr Marcia Bell

*Consultant Endocrinologist
Lead Clinician*



The Endocrine Cancer Programme at UHG has grown exponentially over the years and aims to provide the highest standard of care and expertise to patients with thyroid and endocrine cancer across the Saolta University Health Care Group and beyond with the catchment area now extending to parts of Munster and the Midlands. Complex cancer cases are referred from the other hospitals within the Saolta University Health Care Group to University Hospital Galway for therapeutic care.

The Endocrine Programme at UHG consists of a dynamic multidisciplinary team of physicians, surgeons, radiologists, chemical pathologists, medical and radiation oncologists, nursing and administrative staff all involved in the enhancement of the patient experience. The Endocrine Programme has specialist expertise in intra – operative parathyroid hormone (iPTH) measurement and sestamibi localization for parathyroid disease.

We were delighted in 2017 to welcome Professor Aoife Lowery, Consultant Surgeon to the Endocrine Programme.

The Multidisciplinary Team Meeting is the cornerstone to expert patient care and in 2017 there were 289 patient discussions at the Multidisciplinary Meeting (MDM) at UHG. The primary purpose of the MDM is to ensure best practice and to standardise patient care. Our MDM meeting occurs twice monthly for consultants to discuss individual patients and outcomes. Care

pathways for each individual patient are decided at the multidisciplinary meeting. Outcomes and recorded by the MDM co-ordinator and documented on the MDM database post discussion. This multisite MDM links with St Luke's University Hospital in Dublin with a view to maximising the effectiveness of case discussions.

We refer our neuro endocrine cancer patients to the National Neuro Endocrine Cancer Control tumour Programme in St. Vincent's in Dublin and we also link into their multidisciplinary meetings to discuss suspected cases. Neuroendocrine tumours present numerous complex clinical problems and are considered one of the rarer cancers in Ireland.

We are actively involved in both basic and clinical research to improve outcomes for patients with endocrine and thyroid cancer in collaboration with other clinicians and research staff both in Ireland and abroad.

In the future, thyroid tumours will benefit from and require genetic testing in the same way that breast, colorectal, ovarian and endometrial cancers will benefit from genetic testing. As a Saolta Group Cancer Centre, we need to position ourselves strategically to enable the development of a Cancer Genetics Programme in Galway that will deliver local genetic testing to our thyroid patients and those diagnosed with the more common tumour types.

The following tables highlight the level of activity related to the Endocrine Programme in 2017:

Endocrine Procedures 2017 (Data Source: HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Thyroidectomy	43	0	43	113
Parathyroidectomy	31	1	32	91
Excision proc on lymph node of neck	7	2	9	24
Adrenalectomy	10	0	10	90
Generalised allied health interventions	26	0	26	286
Total HIPE activity coded to Endocrine Cancer	258	52	310	1324

Palliative Medicine

Dr Dympna Waldron

*Consultant Palliative Medicine
Lead Clinician*

*Dr Eileen Mannion
Dr Camilla Murtagh
Dr Sharon Beatty*

*Dr Cathryn Bogan
Dr Anna Cleminson*



Palliative Care Service Provision

Palliative care service providers are facing increasing challenges as advances in modern healthcare have led to new patterns of living with complex multimorbidity and complex needs. Currently the National Clinical Programme for Palliative Care is developing a Palliative Care Model of Care to provide a framework for the organisation of care for people with life-limiting or life threatening conditions. Essentially, it is a tool to help funders and providers ensure that people get the right care, at the right time, by the right team and in the right place.

Appropriate Integration of Specialist Palliative Care can decrease the reliance on the acute hospital sector; improve patient experience and satisfaction; improve patient quality of life and ensure improved continuity of care throughout the patient journey. Recent U.S. studies have demonstrated that palliative and cancer services working together had increased survival rates, improved outcomes and quality of life while reducing costs (Temel *et al.*, 2010; Greer *et al.*, 2012; Temel *et al.*, 2017).

Academic

Congratulations to Professor Dympna Waldron on her NUIG appointment as Professor of Palliative Medicine in recognition of her contribution to date to the published literature in Palliative Medicine and her ongoing commitment to research and education in this evolving field.

In 2017 we also welcomed two new Palliative Care Clinical Nurse Specialists to our service – Vanessa Waterson and Aine McNamara. On behalf of our team I would also like to thank our Clinical Nurse Specialist Patricia O'Brien for all her dedication and hard work during her years working with our service and we wish her well in her retirement.

The 5th 'Cuisle Beatha' International Palliative Medicine Conference was held in NUIG on the 10/11/17 and 11/11/17. An array of International, National and local experts gathered to discuss

and debate advances and challenges in the rapidly expanding area of Palliative Medicine.

Roscommon University Hospital

RUH was awarded two Irish Hospice Foundation (IHF) Design & Dignity grants for the provision of a Family Room adjacent to the wards for use by the families of Palliative Care patients, and for refurbishment of the mortuary at RUH. Both of these projects were completed in 2017 and we were delighted to welcome former President of Ireland Professor and current Patron of the IHF, Mary Mc Aleese, to perform the official opening of these facilities in RUH on 25/10/17.

Sligo University Hospital

2017 was another busy year for the Palliative Care Services based at the North West Hospice. North West Hospice is located on the campus of Sligo University Hospital and has a Hospital based Team, an 8 bed in-patient ward (3 single rooms and 5 bed ward) and a Community Team.

There was an overall increase of 214 referrals between 2016 to 2017. In 2017 a total of 685 new patients were seen within Sligo University Hospital. 68% of these, (471) were patients that had a cancer diagnosis.

The Palliative Care Team in Sligo University Hospital are integrated with Oncology/Haematology and visiting Radiotherapy Team. Location on-site means that there can be seamless transfer of patient's to the Hospice, when it is required and allows for Oncologist's, Haematologist's and Physician's to do Ward Round's to see their patients there which is very welcomed by Patient's and Families alike. We review patients on the Haematology/Oncology Day Ward on a regular basis and are available for palliative care telephone advice 24 hours a day.

The Hospital Palliative Care Service has One Consultant working with them two WTE Clinical Nurse Specialist's and a Registrar or SpR in Palliative Medicine.

Portiuncula University Hospital

2017 saw the continued expansion and development of palliative care services in Portiuncula University Hospital (PUH). We strive to provide person centred care and support, taking into account the patient's wishes, individuality, values and beliefs. The specialist palliative care team in PUH saw a total of 266 referrals in 2017. Of these, 232 patients were new to the service. We have seen a continued expansion in referrals for patients with non-malignant conditions. 24 hour support and advice is provided to staff through the regional palliative care consultant rota.

During 2017, the team sought to expand educational initiatives for staff in the delivery of compassionate and competent end of life care. An information campaign was held to promote a

culture of excellent end of life care within Portiuncula Hospital. Educational initiatives such as 'Final Journeys' and teaching sessions on 'delivering bad news' were delivered to enhance staff skill and confidence in the sensitive delivery of bad news to patient and family members. Mindfulness sessions were established to champion a culture of staff support within the hospital and are held weekly in the hospital chapel. The PUH remembrance service was initiated in 2017 to support bereaved family members and was well received.

Members of the palliative care team continue to participate in the Hospice Friendly Hospitals Acute Hospital Network to network and drive service development.

Palliative Care Referrals 2017

Galway University Hospital				Total
Inpatient Referrals	1080	Outpatient Referrals	58	1148
Roscommon University Hospital				
New Referrals	118	Nurse Visits	2414	2532
Sligo University Hospital				
New Referrals	685	-	-	685
Portiuncula University Hospital				
New Referrals	232	Review Referrals	34	266

**Refer to individual hospital submission for cancer related activity*



Medical Oncology Programme

5

Medical Oncology

Professor Paul Donnellan

Consultant Medical Oncologist GUH & MUH

Lead Clinician in Medical Oncology, Saolta Health Care Group



Galway University Hospital Medical Oncology

Medical Oncology plays a key role in the delivery of cancer care within the Saolta Group. Medical Oncology is an integral part of every multidisciplinary team engaged in the accurate diagnosis and staging of cancer patients and is exclusively responsible for the systemic anti-cancer therapy (SACT) component of their treatment. All SACT, including chemotherapy, immunotherapy, biologic agents, targeted therapies and endocrine therapies are delivered through this service.

Medical Oncology strives to deliver the best available treatment to cancer patients at the appropriate time and to improve on these treatments through participation in clinical trials.

The Cancer Clinical Trials Unit (CCTU) is a key component of medical oncology activity at GUH and across the Saolta Group. The CCTU recruits patients in medical oncology, haematology and radiation oncology studies through collaboration with Cancer Trials Ireland (*formerly* ICORG) and large international collaborative research groups NSABP, ECOG, EORTC, MRC etc.

Saolta Medical Oncology is led by 8 Medical Oncology consultants across the Saolta Group, 4 located at GUH with sessions in both Mayo University Hospital and Portiuncula University Hospital. There are 2 medical oncologists located at Sligo University Hospital and a further two at Letterkenny University Hospital. The Medical Oncology Units at Galway, Sligo and Letterkenny have inpatient wards and clinical trial staff in addition to the outpatient and day ward oncology services present at all 5 sites.

The Medical Oncology Programme across the Saolta Group is supported by a team of Advanced Nurse Practitioners and Clinical Nurse Specialists providing expert nursing care to cancer patients over the duration of their treatment and beyond.

The designated Cancer Centre for the Saolta Health Care Group is at Galway University Hospital, and this is where most of the medical oncology activity takes place. GUH has 4 medical oncologists with clearly-defined sub-specialty interests namely: Prof. Maccon Keane (breast); Prof. Paul Donnellan (genito-urinary & melanoma); Dr. Gregory Leonard (gastrointestinal); Dr. Sylvie Blazkova (lung).

Inpatient Service

A total of 25 inpatient beds are allocated to Medical Oncology at GUH. These are all single rooms located on Corrib Ward, in the newly built state-of-art ward block. These single rooms have greatly enhanced the inpatient experience for cancer patients at UHG. Unfortunately medical oncology inpatient numbers are always considerably in excess of 25 (usually 40-50 inpatients) and so many patients have to stay on other wards throughout the hospital. GUH is committed to accepting direct transfer of oncology patients admitted to its satellite services at Mayo and Portiuncula but with current inpatient allocation this is often simply impossible.

Outpatient Activity (OPD)

In 2017, 5,992 patients were reviewed at GUH and a further 1,836 and 824 seen at the satellite clinics at Mayo and Portiuncula University Hospitals respectively.

GUH oncology aims to see all new patients within 2 weeks of referral. (New inpatient consultations are seen within 24 hours.)

The OPD department at GUH is inadequate for the volume of cancer outpatients trying to access the service.

Oncology Day Ward GUH

The oncology day ward at GUH is used for SACT delivery by both medical oncology and haematology. In 2017, the GUH Oncology Day Ward was attended by 990 Medical Oncology patients with a total of 9,860 episodes of care.

The solitary NCCP Key Performance Indicator for Medical Oncology is the percentage of patients referred for treatment who commence treatment within 15 working days of referral. The target is for 95% of patients to commence treatment within that interval. In GUH, our returned KPI for 2017 range between 60-75%. New patients referred to ODW for SACT must wait for over 30 working days (6 weeks) to commence treatment, which is clearly unacceptable. As a result patients are often admitted to hospital to commence what should be day-treatment.

The ODW is in a modular building attached to the outpatient department and is clearly inadequate and unsuitable for the efficient or empathetic delivery of SACT to cancer patients.

Ambulatory Day Centre GUH (proposed)

The urgent provision of a new, large, purpose-built, adequately staffed, Ambulatory Day Centre (ADC) for cancer patients remains the top priority for Medical Oncology at GUH. This centre would have adequate space for all patients referred for treatment; OPD review clinics attended by

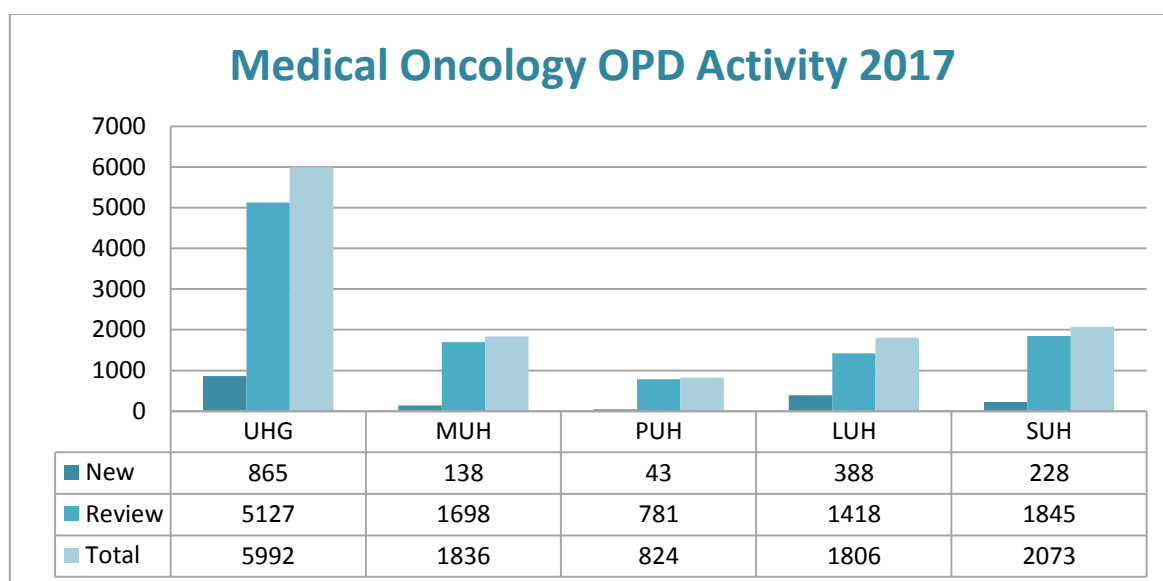
consultants; and clinical trials activity. This ADC would improve the delivery of SACT, remove the problem with OPD overcrowding, and have knock-on benefits on inpatient numbers at GUH. It would also have immediate benefits for patients attending Portiuncula, Mayo University Hospital, and the larger Saolta Health Care Group. The provision of an Ambulatory Day Care Centre for Medical Oncology is a key strategic priority for the Saolta Group.

The following pages contain a summary of activity in Medical Oncology Services across the 5 treating hospitals in the Saolta Group along with some updates directly from the individual units.

The medical care of cancer patients in the Saolta Health Care Group remains a major challenge. Improving the service will require a group wide approach and major investment. The Cancer Services Network (in development) should help in this regard.

Saolta Group Medical Oncology OPD Activity

Consultant-led Outpatient Clinics are held on all 5 Medical Oncology Units in the Saolta University Health Care Group. Outpatient activity has marginally increased in 2017 when compared to 2016. However, this is reflective of an increase in review rather than new attendances, with the volume of new activity largely remaining on par with 2016.



Inpatient Activity 2017 (Data Source: NQAIS)

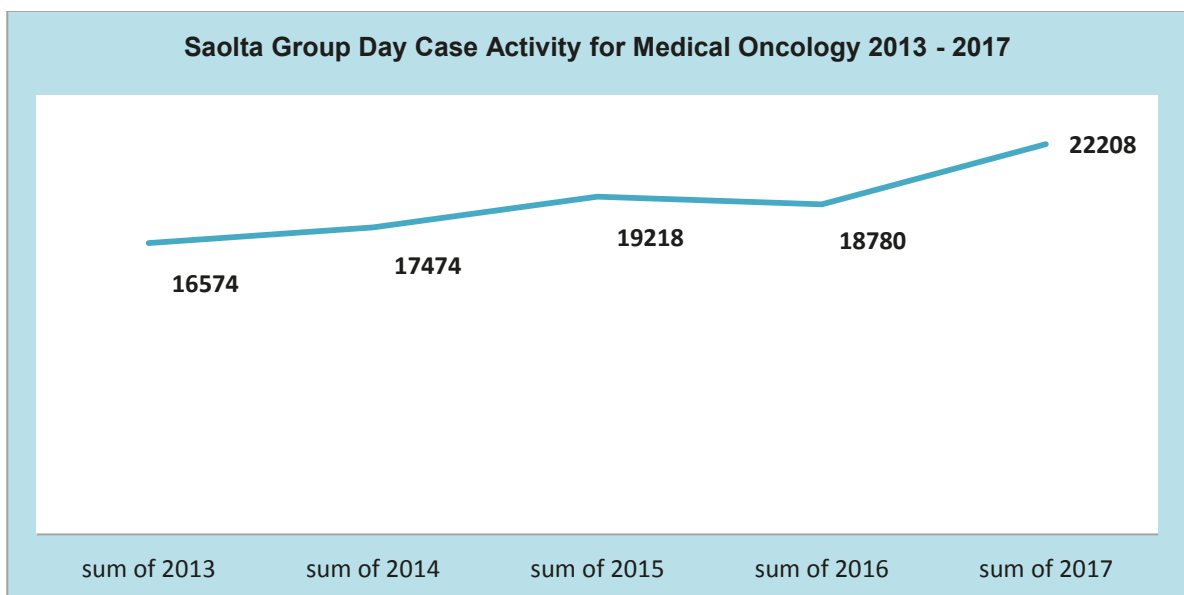
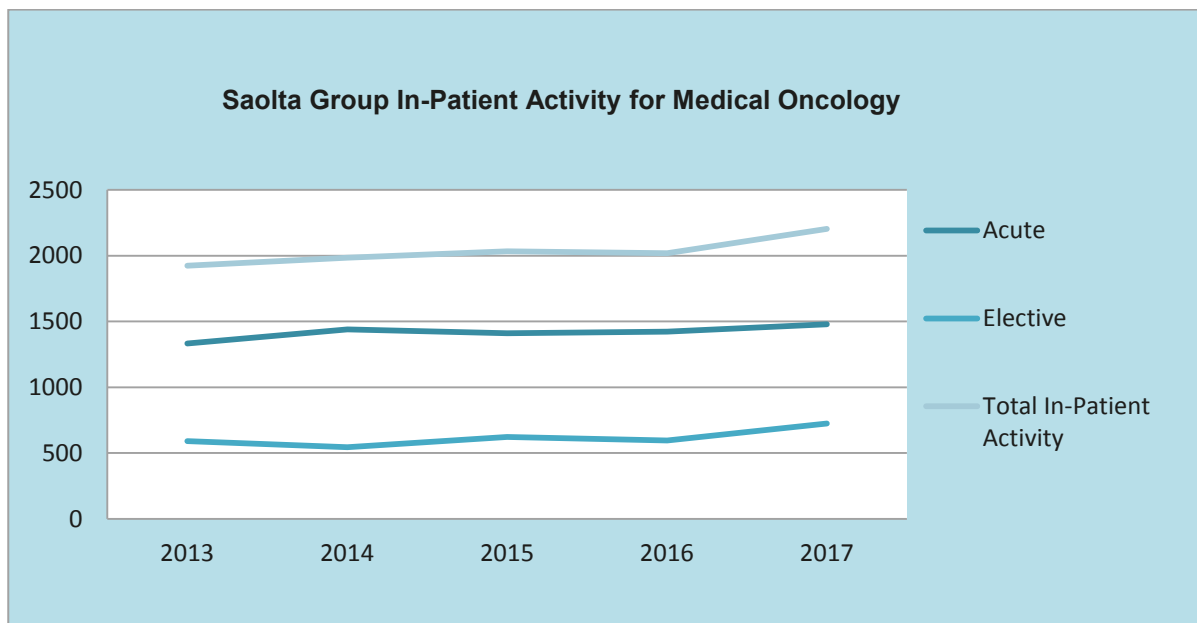
Overall, Medical Oncology inpatient activity increased in 2017. This increase in activity occurred in all the hospitals across the Saolta Group involved in the Medical Oncology Programme: UHG, LUH and SUH

As in previous years, due to lack of Ambulatory Care Centres across the Saolta Group Hospitals patients requiring emergency admissions must go through ED to access an inpatient bed.

The graph below shows an increase in both acute and elective inpatient activity in 2017 when compared to 2016.

Saolta Group Medical Oncology In-Patient Activity and Day Case Activity 2013 – 2017

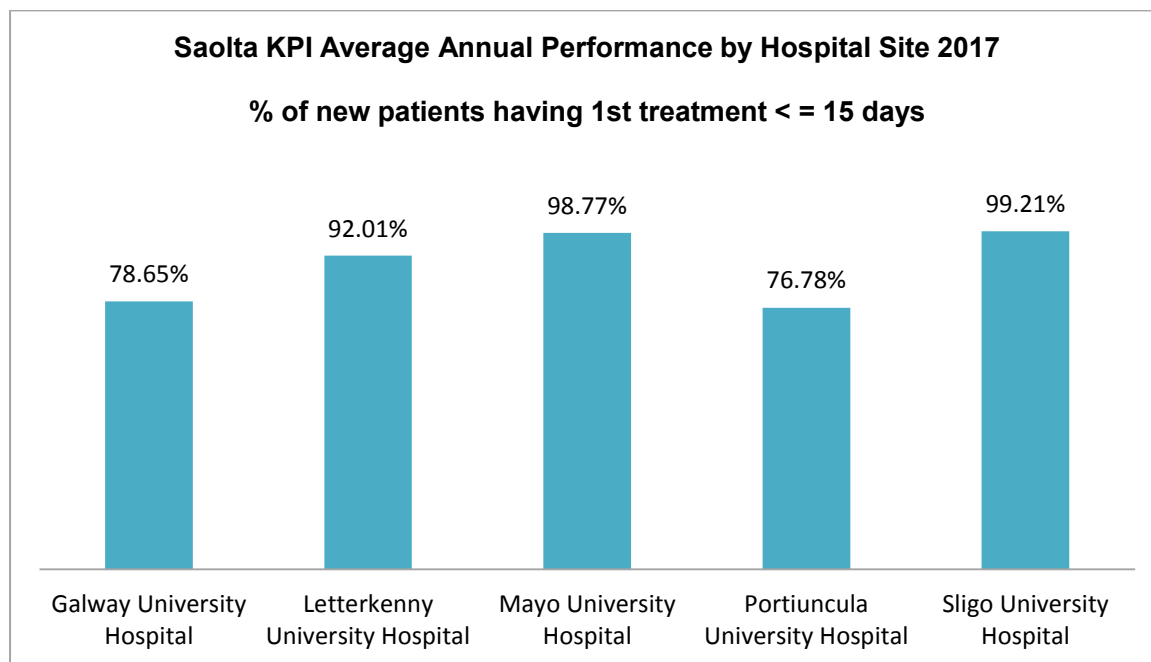
Both In Patient and Day Case activity remained at a consistently high level again in 2017, with over 2,200 inpatient admissions and over 22,000 day cases recorded for the Medical Oncology Programme across the Saolta Group as depicted in the graphs below.



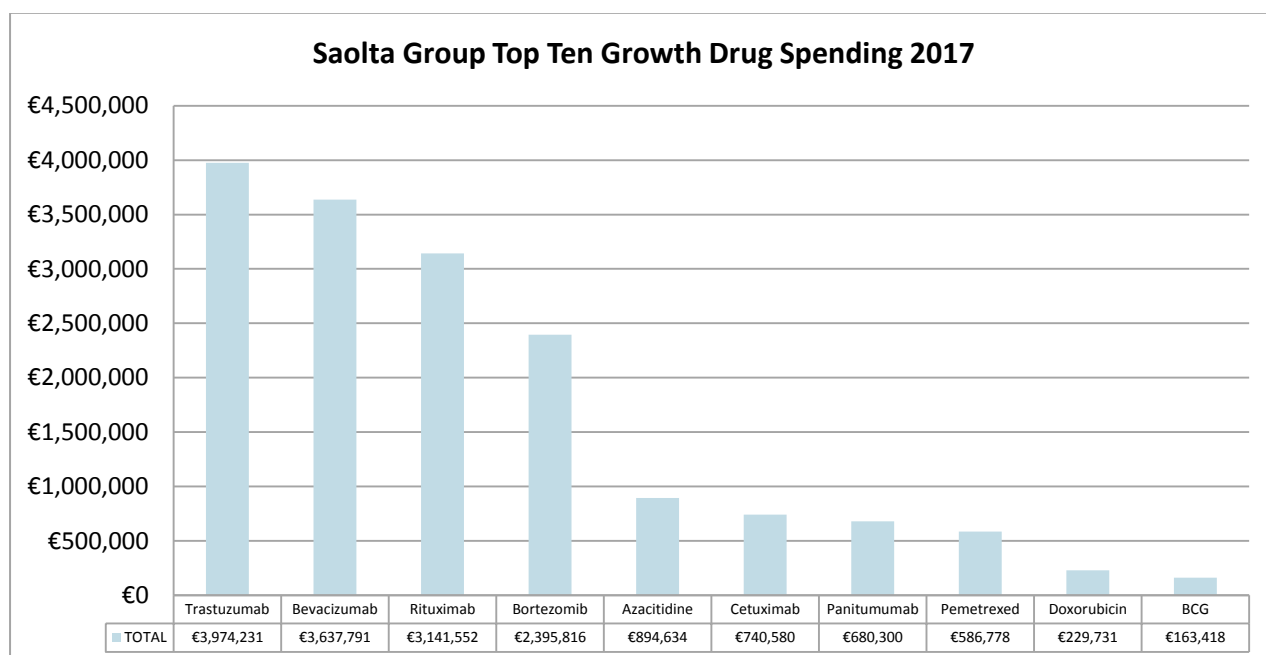
National Cancer Control Programme KPIs for Medical Oncology

The table below sets out the KPI performance for Saolta Hospitals for the full year 2017. The KPIs for systemic therapy is the time-to-treatment for patients commencing new treatment regimens in the day ward setting. This KPI is reported monthly by each site across the Saolta University Health Care Group. The target is that 95% of patients would receive the first cycle of their new treatment regimen within 15 days of the finalised treatment plan.

The capacity challenge across the Saolta Group Hospitals is significant. Demand is increasing but capacity is limited by infrastructural and other restricted resources. It is widely agreed that there is a requirement to enhance Day Ward facilities and increase the resources right across the Saolta Group to meet the current and future demand for treatment.



Summary of NCCP Funding Provided to Saolta University Health Care Group



Saolta Individual Hospital Reports

Letterkenny University Hospital

The Medical Oncology Service in LUH continues to experience ongoing incremental increase in activity along all aspects of the service that patients' access. The Advanced Nurse Practitioner clinical role continues to be mostly focused on follow-up care of the patient following treatment for a solid tumour. ANP review involves a comprehensive patient assessment and examination, radiological prescribing, medicinal prescribing, referrals to other health care professionals, health promotion, education and psychological support.

Two new local initiatives that opened in 2017 are adding significant value to cancer care. The Cancer Care West Psycho-oncology service provides a high quality service for psychological support and patients can now access some site-specific radiotherapy services in Altnagelvin Area Hospital in Derry.

A significant component of the ANP role is teaching/education which is performed in LYIT, local CNME/Medical Academy and this responds to service needs. In 2017 the NCCP 3-day course for hospital nurses was held and the ANP was the clinical facilitator for this. Due to demand and its continued success the plan is to schedule this course annually.

In 2017, LUH Oncology in conjunction with the Psychology Dept in National University of Ireland Galway, was awarded a significant research grant from Relay for Life Donegal/Irish Cancer Society. The ANP Oncology is one of two

Mayo University Hospital

The Oncology/ Haematology service in MUH like all the cancer service departments had another busy year in 2017. The entire service which includes day ward and out- patient attendances as well as inpatient reviews is managed by the oncology nursing team, the two visiting Consultant oncologists Tuesday and Wednesdays, visiting Consultant Haematologist Thursday, the oncology registrar, the department secretary and typist.

principle investigators and this study which is being conducted with the Psychology Department in NUIG with Dr Jane Walsh (Principal Investigator) along with Dr Jenny Groarke (Post Doctorate Research Assistant). Clinical Trials Nurse Mary Grace Kelly is collaborating and leads out on the local organization and support for this trial. The subjects (n=107) were recruited in 2017 and are all local cancer survivors. The research is a pilot trial to investigate the impact of a personalised self-management lifestyle programme using mobile technology on the health and wellbeing of cancer survivors.

The clinical, research and audit role performed by the ANP Oncology provides opportunity for publication. In 2017 The ANP Oncology and Mary Grace Kelly successfully published a case study entitled "The challenges of delivering care to a non-English speaking patient, with a rare sarcomatoid gastric cancer", *Cancer Nursing Practice*, 16(9).



Pic: Janice Richmond

The Saolta Group wide activity reports included in this article reflects the busy year that was experienced by the Medical Oncology Programme at Mayo University Hospital including Outpatient, Inpatient and Day Case activity.

MUH Clinical Nurse Specialist Inpatient Reviews

The Clinical Nurse Specialist completed 909 patient reviews in total which included 34 new patients.

Service and Practice Developments during 2017

The MUH Local Implementation Group started working closely with the NCCP on plans for the implementation of MOCIS (Medical Oncology clinical information system). As part of the phase one hospital group this is to be implemented in MUH in early 2019 post the introduction in Galway in late 2018.

As a nurse led, consultant directed service; practice development is central to continually improving the care provided to the patients and families. Staff motivation and patient/ family satisfaction continues to be a priority. Each year a list of plans are laid out for the following year. Listed below are some of the department achievements for 2017.

- A CNS completed the x ray prescribing course and is now the second nurse in the department requesting x-rays and CT scans.
- The day wards CNMII successfully completed the drug prescribing course therefore we now have 3 nurse medication prescribers among the team. Planning for the CNM II to incorporate haematology drugs into her prescribing remit.
- The Look Good Feel Better programme which was commenced in MUH in 2016 continued to gather momentum and had a very successful 2017. Four sessions were held throughout the year accommodating 48 ladies and the feedback has been fantastic.
- Public awareness stands were organised by the CNS throughout the year in the foyer as part of our ongoing health promotion targets. Topics covered included breast, bowel and lung cancer and received excellent feedback from both staff and the general public.

- Business cases forwarded as planned in 2016 for ward staff nurses and ANP in haematology, outcomes waited.
- The Oncology pharmacist did an outstanding piece of work in producing a policy for the management of Extravasations in MUH which is now available on Q-Pulse.
- An ongoing project over a period of years costing 17,000 euro's came to fruition with the installation of electric velux windows in the department. The project was funded from the oncology patient comfort fund and provides electric remote control windows which the patients can operate from hand held controls. There are seven velux windows in the entire department and this significant upgrade on the old windows has received very good feedback from patients and families and has definitely contributed to patient comfort.
- Negotiations took place between pharmacy and the HMT regarding the need for a new isolator and the funding for this was agreed to go ahead in 2018.

With the services continued growth it is intended that Clinical governance will look at future department planning as the current area is too small for present service need hence there is no scope for expansion

Practice Development/service improvements planned for 2018

- Continued progress and Implementation of projects carried on from 2017 e.g. a new isolator in the pharmacy department, training and planning for MOCIS.
- Appointment of additional staff as per business cases submitted 2017.

Portiuncula University Hospital

Portiuncula University Hospital has a well established nurse - led Oncology Unit. It is a satellite service of Galway University Hospital and is part of the Saolta University Health Care Group. The service has been in existence since 2001. Treatment and assessment in the oncology day ward is provided by a nursing team. Each member of the nursing team is highly educated/trained in the area of oncology, all having a Higher Diploma in Oncology Nursing and exercise expert clinical competence in all areas related to cancer care. Two medical oncologists (Dr Silvie Blazkova and Prof Maccon Keane) and a radiation oncologist liaise closely with the oncology nursing staff. The department is supported by a full time medical secretary.

Medical oncology clinics are held on a weekly basis and a radiation oncology clinic is held bi-annually. The oncology day ward consists of six treatment bays with recliner couches for the patients. Patients attending for chemotherapy receive a comprehensive education programme prior to starting their treatment regimen. This ensures that everyone is fully informed about their disease and their drug treatment schedule prior to starting.

As an exclusively nurse led unit we are highly motivated to remain cognizant of the most up to date research. We undertake monthly journal clubs, attend regular conferences and are

regularly involved in audits and Research. Eilís O Leary has completed a post graduate certificate in nurse prescribing which will greatly enhance our service. We also welcomed a new member to our team in October 2017. Barbara Flynn has joined as an oncology nurse having previously worked in Athlone and Tullamore Hospital.

Caitriona Duggan, Registered Advanced Nurse Practitioner in Oncology returned on a full time basis from Maternity leave late summer. The role of ANP oncology covers both inpatients and outpatient clinics. Since her return to work the waiting lists for oncology outpatient clinics which had developed has now been eradicated.

Caitriona also review patients in the Oncology department with various medical issues secondary to their treatment regime and disease. This enables the treatment to be given on a timely basis and avoids GP and emergency department visits. She is currently engaged in quality improvement initiatives carrying out a needs assessment on establishing various clinical services in order to provide more efficient outpatient care and reduce waiting times and enhance the services provided in the oncology day unit.

We are involved with the Irish Cancer Society in developing a cancer information point in PUH, we are hoping this will be launched in 2018.

Sligo University Hospital

The Oncology/Haematology Service at SUH is led by two Consultant Medical Oncologists, Dr Michael Martin and Dr Ala Yousif and two Consultant Haematologists, Dr Andrew Hodgson and Dr Aine Burke. The team is also supported by two Advanced nurse practitioners, Geraldine Walpole in Haematology and Anne Mullen in Oncology. The addition of two advanced nurse practitioners has led to the development of nurse led clinics and nurse led patient reviews.

The Haematology/Oncology team in Sligo University Hospital is a committed and well established multidisciplinary team including Clinical Nurse Specialists, Clinical Nurse Managers, dedicated day ward and inpatient nurses, and specialist pharmacists. These are also supported by our two research Nurses in the

clinical research trials department. We have 9 nurse prescribers and 1 nurse x-ray prescriber.

The Haematology/Oncology MDM continuous to link in with various multidisciplinary meetings at University Hospital Galway, in particular into the Breast, Respiratory, Gastrointestinal, Genitor/urinary and Haematology cancers. These MDM's continue to grow in number and we are proud to say that we deliver on our KPI's with no waiting lists in Sligo.

We continue to build on our links with the community, through our connection with local volunteer groups.

We have close links with Sligo Cancer Support Group having onsite visits regularly, in particular weekly Bio Energy and Counselling treatments

for our inpatients. In conjunction with the Sligo Support Group, we have set up a support group for Myeloma patients. This was initiated by Geraldine our Advanced Nurse practitioner and two myeloma patients. This group is affiliated nationally to myeloma Ireland. The group meets once a month and patients at all stages of their illness participate.

The Saolta Group wide activity reports included in this article reflects the busy year that was experienced by the Medical Oncology

Programme at Sligo University Hospital including Outpatient, Inpatient and Day Case activity. The Pharmacy Aseptic unit at SUH also had a busy year manufacturing 4128 individual products in 2017.

Our local charity SHOUT continues to grow providing patients and their families support when it is needed. The charity also supports both the inpatient and day services unit and recently assisted the day unit in updating the waiting area providing more comfort for our patients.

Oncology Pharmacy

John Given
Head of Pharmacy



Sean Collins/Pete Kidd, *Clinical Pharmacy Service Managers*
Harold Lewis, *Pharmacy Aseptic Services Manager*
Orla O'Toole & Lilly Broderick, *CRF Trial Pharmacy Team*

The pharmacy supports cancer patients in GUH with five distinct but complimentary services:

A technical compounding (aseptic preparation) service which provides ready to administer injectable patient doses of SACT (Systemic Anti-Cancer Therapy) including cytotoxic anti-neoplastic chemotherapy, monoclonal antibodies and more recently a marked increase in immunotherapies. All medicines are aseptically prepared to a prescriptive order in our Pharmacy Aseptic Services Unit (PASU) assuring the microbiological integrity of the final preparation. The oncology nurse is therefore protected from any unnecessary drug manipulation at ward level and can administer the medicine in the knowledge that it has been aseptically prepared. The technical service currently prepares approximately 1,600 items per month, making it one of the busiest pharmacy aseptic units in the country.

A clinical service, which is managed separately from the pharmacy service, yet has a very close working interface. It is best described as a 'near patient' service and is similar to that provided by clinical pharmacists to other specialities in the hospital. This service is currently involved in improving chemotherapy/SACT protocols to meet the needs of the ambulatory care nurse led service

and also in supporting prescribers in making effective and timely decisions in the prescriptive orders.

A clinical trials service, cancer chemotherapy/SACT being a major component of their work. Their role involves the management of clinical trials medicines, their receipt, safe storage, rigorous legal and investigational documentation and the supply of trial medicines, either to the technical service for preparation or in the case of oral cancer medicines direct dispensing and supply to the patient.

A further dispensing service for oral and compounding service for intravenous medicines that are supplied on a 'compassionate basis' (typically after a phase III trial has finished but before full availability as a licensed medicine has been achieved), or available licensed medicines waiting for HSE funding approval (High Tech scheme) whereby the cost if obtained from a community pharmacy would be prohibitive to the patient (typically €5000 to €7000 per month).

The more **traditional supply** of other medicines, and pharmaceuticals required by the cancer wards and ambulatory day care.





Radiation Oncology Programme

6

Radiation Oncology

Dr Joe Martin

*Consultant Radiation Oncologist
Lead Clinician*



The Radiotherapy Department at University Hospital Galway provides radiotherapy services for patients of the Saolta Group and Breast-Check. It is fully integrated into the Multidisciplinary Group Network, as well as the Cancer Strategy Group and Group Executive. It forms part of the National Plan for Radiation Oncology, and links with the NCCP via monthly KPI reporting, and through the Clinical Lead Dr Joe Martin who currently serves as National Advisor for Radiation Oncology to the NCCP, and Ger O Boyle, ANP, who is the NCCP National Lead for Cancer Nursing.

Activity levels are currently around maximum capacity, and are detailed below. In addition to clinical services, the department is a centre for national training for oncology nursing, radiation therapists, clinical dietetics, speech-language therapy, medical physics and radiation oncology specialist trainees. The department is active in screening and recruitment to national and international clinical trials of radiotherapy.

On 16th November 2018, the first public HDR brachytherapy treatment for prostate cancer was performed in the radiotherapy department of UHG, by a team lead by Dr Cormac Small. This was a joint initiative of SAOLTA and the NCCP, and Galway will now lead the national roll-out for public HDR brachytherapy. Pre-testing has been completed for DIBH, and the first patient will be treated using this technique in the coming months. The Physics team are completing acceptance testing for collapse-cone planning on the unit planning system.

Construction of the Link Corridor commenced in November 2017 - the first steps in construction of the Phase 2 Radiation Oncology build, as part of the Government Priority Projects in the HSE Capital Plan for 2018 - 2021. This will provide fit-for-purpose and state-of-the-art facilities for the patients of the West and North West, and an Therapists also organised a Compassion Fatigue study day here in Galway for HSCP staff.

appropriate environment for staff to deliver optimal care. This is in line, with centres being built in Cork, and already completed in Dublin.

Radiation Therapy Team

2017 saw the progression of new and improved CT scanning techniques to better facilitate planning of patients treatments. This was due to the introduction of a new multi-slice CT Simulator in 2016.

Another major advancement in the scanning and planning process was the introduction of IV contrast into the scanning process. This has assisted enormously in enabling clinical staff to delineate what is tumour and what is normal tissue/blood vessels. The benefits of this are self evident.

The department continued its ongoing programme of processes improvement and reduction of paper usage. In 2017 daily diaries were no longer used on any of the treatment units or on the CT Simulator. This functionality was incorporated into the Oncology Information System (Mosaik). The overall aim of this process is to improve the workflow in the department and also to reduce the risk of tasks being overlooked or forgotten.

Therapists continued to partake in many research and study days. Volunteers from the department in conjunction with Radiography staff helped to coordinate and run an information stall in the foyer for International Radiography Day.

Other staff represented our department at numerous conferences and study days. Therapists from the department presented at international conferences in Istanbul and Casablanca as well as chiring sessions at the Irish Institute of Radiography and Radiation Therapy annual conference.

The first presentation by HSCP's at Grand Rounds in the hospital happened in 2017. This

was a case study of 2 patients. One of these was a patient undergoing radiotherapy. The presentation on this patient was carried out by a radiation therapist, radiographer and a speech and language therapist.

The first posts for Galway from the Workforce Plan for Radiotherapy were released at the end of 2017. These will be progressed in 2018.

Radiotherapy Physics

The Radiotherapy Physics team is part of the multi-disciplinary team working within the Radiotherapy department to enable safe and effective delivery of radiotherapy treatments to all patients attending the service.

The Brachytherapy physics team were involved in the planning and delivery of 50 prostate seed implants during 2017. They also formed part of the project group formed to initiate HDR prostate boost treatments and began the research into the equipment, software and dosimetry required to bring this treatment to UHG. The Treatment Planning physicists and Dosimetrists also experienced a large increase in workload during 2017. The proportion of highly complex IMRT treatments rose to over 30% of all treatments. Following a decision change from manually planned to 3-D computer planning for all breast boost treatments, the number of electron breast boosts treatments rose from 4 in 2016 to 66 in 2017 with photon based breast boosts also rising from 2 in 2016 to 46 in 2017. A review of electron treatment procedures was completed and training given to embed this new technique.

The Physics team was very busy re-commissioning the Superficial-Orthovoltage treatment unit used for skin cancer treatments during May 2017. The control console of this treatment unit required a full hardware and software upgrade as the previous system was deemed obsolete by the vendor. An independent dose audit was carried out by a principal physicist from St Luke's Dublin and the unit was back in clinical operation in June 2017. A full review of dosimetry procedures was undertaken and additional independent calculation checking processes were implemented.

In regard to radiation protection, the national policy for radiation protection of patients who

may be pregnant was launched in 2017. Physicists from UHG contributed to the drafting of this policy through the Irish Association for Physicists in Medicine (IAPM). The EPA made an inspection visit to UHG in November 2017 for a review of the radiation licence for radiotherapy. The inspection findings were positive with some minor recommendations.

The first Joint Appointment for a medical physicist was made in April 2017 with the appointment of Dr Christoph Kleefeld to the Department of Physics in NUIG. Dr Kleefeld works clinically with the radiotherapy physics team as 0.4 WTE while the other 0.6WTE he works at NUIG as Clinical Director of the MSc in Medical Physics programme. This is a significant appointment for a Health and Social Care Professional (HSCP) to hold a joint appointment with a university. It is also an important recognition of the role of the clinical radiotherapy medical physicists' input to the MSc course for Medical Physics at NUIG. It is the only MSc in Medical Physics in Ireland to have international accreditation (CAMPEP accreditation).

The Radiotherapy Physics team continues to support the National Radiation Oncology Physics Residency Scheme to train radiotherapy physicists. In December 2017, one medical physics resident, Mohammad Alaswad successfully graduated from the residency programme pursued for two years at UHG. There were also four MSc research projects under supervision of the radiotherapy physics team in 2017. Three of the projects were submitted to the Annual Scientific meeting of the IAPM and subsequently published in the European Journal of Medical Physics (Vol 52) (see publications below). One of the MSc researchers, Miss Niamh McArdle, won the prize for the best presentation in the Student-Trainee competition at the IAPM ASM. A research project into radiation protection of family members of prostate seed implant patients was submitted to the Annual UHG Research Day in July 2017 by Mr Michael O'Neill and Ms Margaret Moore. This project won the Wil Van Der Putten Medal for best HSCP Research Project.

See Publications (section 12) for Medical Physics Publications

Radiation Oncology Activity 2017

Description	2017	
New referrals to Radiation Oncology	1559	
Review Clinics (GUH, SGH, MGH & Portiuncula)	3860	
Patients treated with EBRT (External Beam Radiation Therapy)	1036	
Patients treated - Orthovoltage	38	
Patients treated - Brachytherapy Prostate Seeds	55	
Patients treated - Brachytherapy Gynae	47	
Total number of patients treated	1176	
Ultrasound Biopsy (Requires Anaesthetics)	74	
Number of Fractions Treated on LINACS - EBRT	21146	
Patients treated - Brachytherapy Gynae	Patients	Activities
HDR Intravaginal (15312-00 No Anaesthetic Requirement)	29	79
HDR Intrauterine (15304-00 Anaesthetic Required)	0	0
HDR Intravag & Auterin (15320-00 Anaesthetic Required)	18	54
Total number of patients	47	133



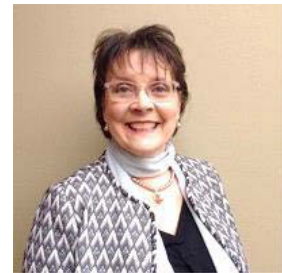
Oncology Nursing

7

Oncology Nursing



Jean Kelly
Chief Director of Nursing & Midwifery



Ellen Wiseman
ADON for Cancer Services

Staffing

It has been a very busy year for Nursing Staff in Cancer Services in Galway University Hospital. Our work continues to be very challenging but also very rewarding.

We have welcomed new nurses to the service and other nurses have left to us to go on Maternity Leave or to pastures new. We wish all of the nurses in Cancer Services- new and old- the very best of luck in their endeavours.

Some Staff Nurses were successful at interview and have taken up positions as Clinical Nurse Specialists. We welcomed Aoife Quinn to the role of Upper Gastrointestinal Clinical Nurse Specialist, Nuala Flaherty to the role of Breast Care CNS and Aoife Bannon to the Oncology CNS role.

Niamh Killilea, who was the CNMII on St. Patrick's Ward, became the first Candidate ANP for Oncology at GUH. Niamh started in the Master's programme at NUIG in September, 2017 and will continue her studies in 2018.

Study with UCD

In June, 2017 GUH Cancer Services took part in a study with UCD: "Prevalence of Pain and Constipation in Patients Attending Cancer Centres in Ireland: A National Survey." Professor Laserina O'Connor and Philip Larkin were the leads on this study. Philip Larkin came to Galway to assist us on the day that we undertook the study. All areas of Cancer Services participated in this project and the Palliative Care CNS's were especially instrumental in the recruitment of patients for the study. Many "Thanks" to all involved.

Relocation and Opening of Wards

St Joseph's and St Patrick's Wards moved across the hospital to Corrib and Claddagh Wards respectively. The specialties of Haematology and Oncology were then divided- with Corrib being the Oncology Ward and Claddagh, the Haematology. The accommodation on the new wards consists of twenty-five (25) single, en-suite rooms. These single rooms are ideal for patients that are immuno- compromised. They also make it easier for family members to stay at the patient's bedside as there is privacy for each patient.

There are communal areas on each of the floors with Family Rooms that are equipped with tea-making facilities, a fridge and comfortable chairs. Cancer Care West sponsored the Family Room on the Claddagh Ward and GUH equipped the Family Room on the Corrib Ward. These spaces are invaluable to patient's families and we are very happy that we now have these facilities available.

On the 11th of December, 2017 St Joseph's Ward was newly designated for Radiotherapy and Endocrinology patients. Mary Joyce, who has an extensive background in Endocrinology nursing, was appointed as the new CNMII. Olivia Langan, with her vast experience of Radiotherapy and Oncology nursing, was appointed as the new CNMI.

Staff Nurses were drawn from many different wards in the hospital and five of the new International Nurses, who only came to Ireland in December, joined us on this new Ward.

Some of the Consultants and CNS' from these specialties provided two days of education for the nurses on the ward. These sessions were well attended and very much appreciated by the staff.

Education

Our Clinical Facilitator, Mary McLoughlin, continues to work closely with the NCCP's Terry Hanan to progress the Online Assessment for Nurses working in Haematology/Oncology.

In 2017, ten Nurses undertook the Postgraduate/Masters Oncology programme at NUIG. These nurses are funded by the CNME and they are all very appreciative of the opportunity to further their studies. This extra qualification also results in better care for our patients.

Unfortunately, this course will not be run again until 2019 but, at that time, it will be a combination Haematology/Oncology Postgraduate/Masters Programme. Many of the Nurses in Cancer Services are very interested in undertaking this further study.

There were also ten participants for the NCCP/CNME-led Oncology programme and eleven participants on the Community Oncology programme.


The 5th International Palliative Medicine Conference- Cuisle Beatha 2017- Living Well Despite Advanced Disease was held in November. Ellen Wiseman, Assistant Director of Nursing for Cancer Services, was honoured to be asked to Co- Chair, along with Professor Donal Reddan, the session on Revisiting Pain Pathways in Cancer Pain versus Chronic Pain: Apples versus Oranges.

Palliative Care Nurses and Staff Nurses from the Oncology and Haematology wards attended.

Kaizen- Continuous Improvement

Kaizen, which translates from Japanese, as "Continuous Improvement," was introduced to the hospital this year. There were many new initiatives introduced to improve the flow of patients through the hospital.

Cancer Services were fortunate to be chosen to take part in Kaizen 3. Corrib Ward and the Haematology/Oncology Day Ward were selected as the areas that would participate in this innovative concept. The outcomes from all of the work that was undertaken will be reported in the 2018 Cancer Services report.



Oncology Health & Social Care

8

Dietetics

Grainne O'Byrne
Dietetics Manager

June Barrett, Senior Dietitian Radiotherapy
Ruth Kilcawley, Senior Dietitian Haematology/Oncology
June Barrett, Dietitian Haematology/Oncology



Oncology Dietetics aims to maintain and improve the nutritional status of patients undergoing anticancer treatment in GUH. In 2017, 930 inpatients were referred through the medical oncology, haematology and radiation oncology teams for nutritional assessment and support.

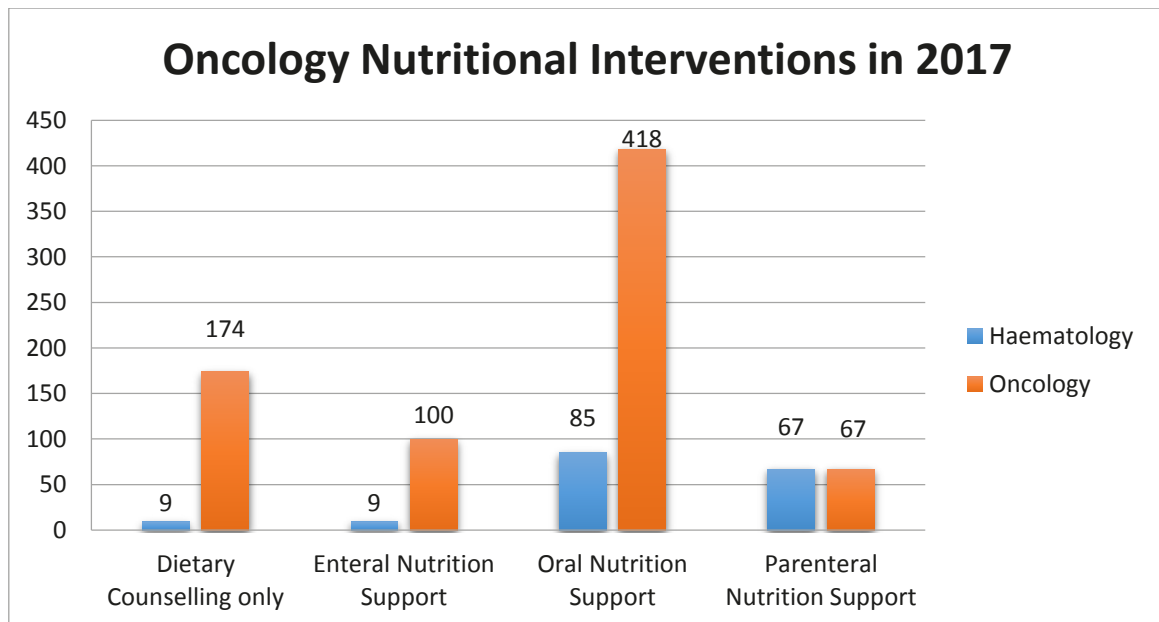
Medical Oncology and Haematology share 1.0WTE Senior Dietitian, providing inpatient support only. Radiation Oncology has a 1.0WTE Senior Dietitian post for inpatient and outpatients.

Oncology Nutrition Interventions include dietary counselling to overcome the nutrition impact symptoms of disease and treatment including

anorexia, mucositis, xerostomia, nausea, vomiting and altered bowel habit. Oral, enteral and parenteral nutrition support are also provided to patients to preserve lean mass and optimize nutritional status during treatment. Three oncology patients were discharged on Home parenteral nutrition in 2017 and provided with ongoing dietetic care.

This year the service led the implementation of malnutrition screening in oncology wards in GUH, identifying those cancer patients at risk of malnutrition and provided nutritional assessments and effective nutrition care plans.

Oncology Nutritional Intervention activity for 2017 is display in the chart below:



Multimodal Approach to Cancer Care in GUH

Multimodal Strategic Group Membership include:

Dr. Gregory Leonard, Consultant Medical Oncologist

Mr. Chris Collins, Consultant Gastrointestinal Surgeon

Dr. Helen Greally, Director of Support Services, Cancer Care West

Dr. Micheal Newell, Discipline of Surgery, Clinical Research Facility, NUIG

Ruth Kilcawley, Senior Oncology Dietitian

Miriam Flatley, Senior Oncology Physiotherapist

Aoife Quinn, Clinical Nurse Specialist, Upper Gastrointestinal Cancer

Niamh Killilea, Candidate Advanced Nurse Practitioner, Medical Oncology

Ms Fionnuala Creighton, Oncology Nurse, Irish Cancer Society

Multimodal support including exercise, nutrition and psychology has been shown to improve outcome across the spectrum of treatment modalities and survivorship in cancer. Aware of the limited access patients have to these services at present and motivated by the expanding body of evidence in this field a strategic group was formed in 2017, to drive multimodal service provision for cancer patients attending Galway University Hospitals.

This group has identified the following areas for improvement in services for patients:

- Dietetic, physiotherapy and psychology access at outpatient and day oncology services to address acute and chronic effects of cancer and its treatment
- Access to prehabilitation nutrition and exercise opportunities to newly diagnosed cancer patients prior to surgery
- Supportive survivorship exercise, psycho-oncology and nutrition services for patients and family/carers
- Translational research opportunities in multimodal approach to gastrointestinal cancer treatment in collaboration with NUIG
- Access to exercise opportunities for radiotherapy patients staying in Ard Aoibhinn
- Development of HSCP led support and survivorship services to work in collaboration with Advanced Nurse Practitioners throughout the beyond anti-cancer treatment

Key outcomes from this Strategic Group to date:

An Onco-Nutrition Group established at GUH, an early intervention group session for all patients diagnosed with cancer and held every Wednesday at noon in the Haematology Oncology Day Ward

The Dietitian led session is open to patients and family members and includes practical tips on dealing with the nutrition impact symptoms of cancer and its treatment and provides advice and reassurance to patients on the role of diet in cancer. It is run in collaboration with the Irish Cancer Society Chemo-education session.

144 patients and their carers attended this session in 2017, with feedback in all cases rated as Very Good or Excellent in information provided and the overall patient experience of the session.

A purpose built gym, specific to the needs of cancer patients, was developed on the Cancer Care West premises in Westside, Galway. This is:

Staffed by a specialist physiotherapist. Patients are encouraged to partake in both resistance and endurance training designed to support them at their individual stage of treatment, free of charge.

Psycho-oncology and practical support services are also available on site to maximize quality of life for patients.

Ethical approval has been granted for research on Diet and Lifestyle Programmes in Colorectal and Upper Gastrointestinal Cancer, based in GUH, utilizing the gym are now underway.

Occupational Therapy



Ciara Breen
Interim Occupational Therapy Manager in charge III

The Occupational Therapy Service in GUH provides Occupational Therapy on a priority basis to patients referred from the Medical Oncology, Radiotherapy, Haematology, Surgical Oncology and Palliative Care teams. A service is also provided on a priority basis to medical and surgical teams whose patients have a primary diagnosis of cancer.

Occupational Therapy interventions focus on maximising the person's independence, maintaining their quality of life and assisting in discharge planning using a person centred approach.

Interventions may include:

- Assessment of activities of daily living, evaluating the impact of cognitive, motor and or sensory limitations experienced by the person with cancer.
- Assessment of seating needs to promote and maintain independence in posture/mobility.
- Assessment of splinting needs to prevent deformity and control pain.
- Assessment of a person's equipment needs to promote independence, maximise quality of life and facilitate home discharge and liaison with community (PCCC) services regarding provision and follow up.



Elaine Feely
Senior Occupational Therapist

- Interventions and rehabilitation to maximise functional performance in everyday activities/occupations.
- Provision of specialist advice in adapting occupations/activities of daily living to assist patients to cope with their illness e.g. relaxation technique, anxiety management, fatigue management, breathlessness management maximising patient and family coping skills to facilitate a home discharge

Service & Professional Development in 2017

- Our Senior Occupational Therapist is an active member of the National Occupational Therapy Advisory group in Oncology and Palliative care and is a regular attendee and participant at their study days
- Links have been further developed with the Occupational Therapy services in Galway Hospice and in Primary, Community and Continuing Care in order to provide a streamlined pathway, and to optimise referral processes among services
- Our Senior OT was involved in the Kaizen 3 project in looking at enhanced multidisciplinary team working.

In 2017, 230 inpatient referrals were received with 789 patient contact sessions provided.

Physiotherapy

Catherine O'Sullivan

Temporary Physiotherapy Manager

Miriam Flatley Senior physiotherapist,

Fionnuala Ginty Physiotherapist



Staffing consists of 2.5 WTE Physiotherapists (2 Senior, 0.5 Staff Grade), providing a service to oncology, radiotherapy and haematology patients. We appointed a new acting Senior Physiotherapist, Fionnuala Ginty to the team in 2017. Fionnuala has completed Casley Smith MLD training for Oncology patients with Lymphoedema and is keen to continue to provide and further develop a comprehensive inpatient and outpatient service to patients referred by GUH Consultants. Physiotherapy plays a key role in the holistic management of patients throughout the cancer journey. The primary goal of rehabilitation is to assist the patient in achieving maximum physical and psychological functioning within the limits imposed by disease or treatment. There is widespread evidence to show the benefits of taking part in moderate levels of exercise through a cancer diagnosis and treatment.

In UHG, we provide a cancer rehabilitation service to patients at both a ward based level and gym rehabilitation as appropriate. Cancer rehabilitation is medical care that should be integrated throughout the oncology care continuum and delivered by trained rehabilitation professionals. Cancer Rehabilitation addresses the musculoskeletal, cardiopulmonary and functional impairments expected with cancer, cancer treatment, survivorship, advanced disease and end of life.

Physiotherapists in UHG attend weekly oncology MDT and ward based meetings in order foster a holistic approach in the management of this patient group. In 2017, a total of 750 patients received physiotherapy during their inpatient stay. 163 patients received outpatient physiotherapy treatment for lymphoedema and other musculoskeletal issues such as shoulder stiffness and pain.

Specific Service Areas

Lung Cancer: Physiotherapy continues to support the rapid access lung clinic by providing exercise tolerance testing of patients diagnosed with lung cancer in Unit 8 Merlin Park University Hospital.

Breast Cancer: service includes patients post breast surgery. As an inpatient, the focus is on post operatively shoulder exercises and lymphoedema risk reduction. Outpatient treatment is directed towards musculoskeletal dysfunction, scar tightness and shoulder rehabilitation.

Lymphoedema: Service to patients (in/outpatients) with oncology background who have secondary lymphoedema. Consists of exercise, skincare advice, complete decongestive therapy and garment prescription

Prostate: Service provided encompassing pre-operative Physiotherapy education on Pelvic floor exercises, post –op physio review and ongoing management of prolonged incontinence.

Continued Professional Development and Education 2017

Senior Physiotherapists engaged in ongoing CPD and provided the following education sessions.

- Delivered a lecture on 'Cancer Rehabilitation in the acute setting' to colleagues in PCCC Physiotherapy Dept, Galway (Oct '17)
- Delivered a lecture on 'Lymphoedema and its management' to 2nd year nursing students in NUIG (Jan '17).
- Provided a training and information session to nursing colleagues on the oncology ward on AIRVO (hi-flow o2) (Oct '17)
- CPD included attendance at courses in Pelvic Oncology, Cancer Rehabilitation, Inaugural All Ireland Lymphoedema conference.

Oncology Social Work

Maire Lardiner

Medical Social Worker, Oncology

Rachel Macken, Medical Social Worker, Radiation & Medical Oncology

Patricia Luby, Medical Social Worker



Social Work at Galway University Hospital has been providing a support service to medical oncology patients since approx. 2000 and to radiation oncology patients since 2005. The cornerstone of our work is client advocacy and a focus on providing a compassionate service placing the person at the centre of all interventions. We work systemically both within the hospital and with services in the community looking at the person's psycho-social and other needs and those of their family/significant others. At a time of societal change and even greater complexity in health care systems, we try to provide a listening ear and a caring response and also to relay the voice of the patient in terms of their perception of service needs at local and national level. The clients we meet face the same stresses as other members of the population (college exams, paying a mortgage, rearing young children, caring for an elderly parent or ill partner, loneliness, mental health issues, housing problems, trying to secure employment etc) but on top of that they have to face the diagnosis of a cancer condition and the implications of this physically, emotionally, psychologically and financially. Social Workers therefore try to extend a helping hand at this traumatic time and advise and support e.g. with worries about social welfare, child care, costs of treatment, coping strategies to deal with treatment plans, frequent hospital appointments and perhaps longer hospital stays .

Theories of grief and loss and crisis intervention inform our work with patients and their families. We recognise and acknowledge the loss of identity that occurs for the patient including his or her family e.g due to loss of work, changes in the roles of persons in a family unit or community. We seek

to support the reorganisation that takes place due to the impact and effects that can take place because of their illness. Our clients are often a long way from home and this brings with it its own set of emotions (isolation, unease, depression etc) and social workers can try to pinpoint available resources to address these needs. This might involve looking at family/friendship systems, liaison with cancer care supports or local community agencies etc. We provide a safe place for patients to discuss their distress and anxiety about their illness and intervene at times of crisis to help negotiate solutions around their concerns. For example we assist patients and their families explore ways to navigate difficult conversations and topics which can emerge due to their illness. At times the patient may request a home care package, convalescence or step-down care and the social worker will facilitate the patient's wishes here if possible, always ensuring that the consent of the person is sought. At times a pre-discharge meeting may be advisable and the patient is a very central part of this meeting in planning for their current and future needs.

In 2017 oncology social work continued to highlight the need for social work posts in palliative care and haematology as per the model of care evident within other centres of excellence in Ireland. We are members of IPSON and attend on-going meetings of the National Oncology and Haematology Social Workers Group. Our senior oncology social worker has also facilitated 2 stress control groups with another colleague in 2017.

"Ni neart go cur le cheile."

Speech and Language Therapy Services

Gerardine Keenan

Speech & Language Therapy Manager

Karen Malherbe, Senior Speech and Language Therapist



Another very busy year with growing primary radiotherapy and post-surgical radiotherapy services being offered by Speech and Language Therapy to the men and women of the West of Ireland. We are proud to be part of this service here, with Galway University Hospital being a National Designated Cancer Centre.

We continue to be involved in the delivery of assessment and management of swallowing, voice and speech difficulties that may occur during or after radiotherapy to the areas of head and neck oncology. Unfortunately, we have had to add our growing cohort of patients receiving chemotherapy through our Medical Oncology Service (not specifically related to head and neck) to the general medical caseload due to pressures and demands on the Head and Neck service. This is necessary as we have seen almost a 50% increase in referrals year-in-year over the last 3 years.

At UHG, the 0.5 WTE SLT dedicated to the Head and Neck Oncology pathway is fortunate to be involved in streamlining their own service to follow the patient from initial diagnosis and surgery through the radiotherapy treatment programme and review and follow-up as necessary afterwards.

We are involved in weekly meetings and ward rounds with Ear, Nose and Throat (Otorhinolaryngology) department and the Oral Maxillo Facial department for a more direct review of patients after operations and consultants' plans and prognoses.

We attend weekly MDT meetings with the treating Radiation Oncology teams, dieticians, nurses and radiation therapists to ensure there is a holistic

treatment picture of the in-patients and out-patients with Head and Neck Cancer.

Speech and Language Therapy is also present at the Head and Neck Oncology MDM where treatment plans for patients from most corners of the west of Ireland are presented and discussed for evidence based treatment decisions, with ENT, OralMaxilloFacial Surgery, Radiation and Medical Oncology as well as Radiology and Pathology consultants.

Approx 300 patients are seen by SLT during the year based in the Radiotherapy department, where staffing allows. 2018 has been a busy year, with new referrals and face to face contacts set to again exceed numbers from previous years.

Within the Radiotherapy department, SLT also holds weekly clinics for specific swallowing assessment, pre-hab exercises and stretching advice, using the latest research evidence base to promote patient quality of life and function for communication, eating, drinking and swallowing, while maintaining patient safety and comfort. Audit standards are available through national clinician meetings and international education sessions.

The national development plans for Galway University Hospital's Radiation Oncology department are an exciting prospect with state of the art machines and upgraded facilities due, with the continued excellent staff work. Increased staffing to provide standard basic care, with increased options for research and teaching also remains a target. Before the year is out, we will also be holding an inaugural patient meet-and-greet as part of a Speech and Language Therapy Department plan to facilitate further patient-centred and patient-directed care and support.



Health Promotion Programme

Health Promotion Services

Laura McHugh

Health Promotions Offices, HSE West

Pamela Normoyle

Health Ireland Lead, Galway & Roscommon University Hospitals

Summary of 2017 Healthy Ireland – Health & Wellbeing Activity

Actions	Outcomes
3.0 Health Literacy	<ul style="list-style-type: none"> • Established Health literacy committee. • Health literacy policy completed. • All written communication leaflets are NALA approved. • Guiding tool established using the European Clear Communication index.
3.2 Implement Self Care Programmes	<ul style="list-style-type: none"> • Type 1 and Type 2 Diabetes Adult Education sessions. • COPD clinics in line with National framework. • Referral to cardiac rehabilitation programmes for all cardiac risk patients. • Prostate cancer information evenings- survivorship programme.
3.3 Patient Advocate Liaison Service	<ul style="list-style-type: none"> • Provision of general information to patients and families. • National Patient Experience Survey • Patient Experience Fair Day- to inform patients, their families and carers that we are acknowledging their feedback and implementing improvements. • Supporting butterfly scheme, with the aim to improve patient experience of clients with dementia in acute hospital settings. • Supporting roll out of #hellomynameis campaign.
4.2 Tobacco	<ul style="list-style-type: none"> • .5 WTE post in place. • 6 smoke free campus committee meetings. • Multiple referrals to smoking cessation service. • Information stand on world no tobacco day
4.3.3 Nutritional Standards	<ul style="list-style-type: none"> • Patient menus reviewed in line with National policy on food and nutritional care in hospitals. • New patient menus established and implemented on both sites. • Free fruit Friday- 6,000 Euro from HI budget to support provision of free fruit on Fridays to staff, patients and visitors to highlight importance of healthy eating.
4.3.4 Calorie Posting	<ul style="list-style-type: none"> • HSE calorie posting policy implemented in GUH • Catering department in GUH awarded Gold Award by the Irish Heart Foundation, in recognition of the adoption of several healthy eating initiatives in staff canteen. • Breakfast and snack items implemented in Merlin Park. Awaiting implementation of lunch items.
4.3.4 Vending	<ul style="list-style-type: none"> • HSE Healthy Vending policy implemented on both sites

4.3.5. Nutrition Assessment	<ul style="list-style-type: none"> • Nutrition Screen tool implemented in GUH. • Expansion of nutritional screening tool in Merlin Park. • Protected mealtimes established • Red Tray initiative continues
4.4 Active travel	<ul style="list-style-type: none"> • Continued promotion of active travel options, including www.hospitalwalks.com website. • 2 bike workshops in hospital main foyer. • Additional bike shelter provided by NTA to accommodate secure and safe bike parking during the working day. • Love life, love walking. 50 staff members participated in physical activity awareness day. • World physiotherapy day- promoting physical activity for life. • 2,000 Euro from HI budget to support signage to promote uptake of physical activity in the hospital setting. • Merlin Park University Hospital awarded Galway City Tidy Towns and Garden award. • Merlin Campus environmental appreciation day.
4.7 Breastfeeding	<ul style="list-style-type: none"> • . 5WTE currently in place. • Annual report for 2017 submitted to national BFHI office. • Awareness day on benefits of breast feeding in world prematurity day. • Parent Education sessions • Antenatal Breastfeeding workshops.
4.9 Positive Mental Health	<ul style="list-style-type: none"> • Promote awareness of supports available & information on positive mental health, stress, addiction and other mental health issues for staff • Promote uptake of Stress Control Programme amongst hospital staff. 2,000 Euro to provide tea/coffee to staff members that attend the programme. • Expand mindfulness & stress management training for staff • Staff health and wellbeing day highlighting existing supports in physical activity, diet and stress management. • Lunchtime mindfulness sessions every Monday, Wednesday and Friday. • Staff Choir in Merlin Park and GUH. 2,000 Euro from HI budget for training by choir master on both hospital sites.
5. Research & Evidence	<ul style="list-style-type: none"> • Healthcare Worker Flu vaccination research and strategy: A summary report. October 2017.



Love Life Love Walking Campaign – Merlin Park Campus



Hospital Walks

*Back Row: Karena Rushe, Ailish Mohan, Services Manager Geoff Ginnetty, Tess Fogarty, Jackie Stanley
Front Row: Bridget Morrissey, Pamela Normoyle and General Manager Chris Kane*



Galway Tidy Towns Winner—Merlin Park 2017.

L:R Sean Fergus, Head Gardener, Roisin Rodgers, MPUH. Margaret O'Toole, Business Manager, MPUH; and Councillor and Deputy Mayor Mike Cubbard.



Clinical Trials & Cancer Research

10

Clinical Trials

Helen O'Reilly

A/Clinical Trials Manager

The Cancer Clinical Trials Unit (CCTU) was founded in 1999 in Galway University Hospital. There are currently 8 members of staff comprising of nurses, data managers, office administration and a manager, who coordinate the participation of patients in clinical trials with 12 local principal investigators covering haematology, oncology and radiotherapy. The unit has over 60 years clinical research experience combined.

Clinical research is one of the most vital services in health care and is widely regarded as the true cornerstone of evidence based medical practice. For the development of new treatments in the area of cancer, the safest and most effective form of delivery is through the clinical trials process. Such new treatments may potentially benefit the individual patient, and advance existing knowledge in treating this disease. The

patient ultimately is the true scientist in terms of advancing medicine through their participation in clinical trials.

The CCTU offers patients in the west of Ireland access to breakthrough drugs and new treatment regimes, including novel therapies. These are funded through the clinical trials mechanism and therefore provide significant cost savings to the HSE through industry drug re-imburement. Such savings in upwards of 3 million as per 2016 pharmacy review report.

The CCTU collaborates with large international research groups such as the National Surgical Adjuvant Breast and Bowel Project (NSABP), Eastern Cooperative Oncology Group (ECOG), European Oncology Research Treatment Group (EORTC), Population Health and Research Institute Canada (PHRI), and Medical Research Council UK (MRC) amongst others.

Cancer Clinical Trial Unit Accrual by Tumour Site: Enrolled 2017

Cancer Site	Patients Enrolled	Follow Up 2017
Breast	6	203
G.I.	4	5
Gynae	3	1
Melanoma	11	9
Haematology	33	19
Genitourinary	5	8
Lung	2	3
Translational	12	121
Total Number	76	369

Blood Cancer Network Ireland (BCNI) is under the directorship of Professor Michael O' Dwyer was established in 2015 and is a national clinical research network that will benefit blood cancer patients in Ireland. BCNI offers early stage clinical trials (both investigator initiated, and industry sponsored) to blood cancer patients providing them with the opportunity to avail of new potentially life-saving treatments. BCNI has also established a biobank and blood cancer registry which will further our knowledge and

expertise in the field of blood cancer research and ultimately improve patients' outcomes. This is a 5-year project funded by Science Foundation Ireland and the Irish Cancer Society with additional support from industry sponsors.

The lead site of the BCNI is located at GUH and during 2017 was involved in the following early phase clinical trials in multiple myeloma and acute myeloid leukemia.

BCNI Accrual 2017

	Actual pts screened in 2017	Total ongoing pts	In FU	Status
CyBorD DARA	9	11	0	Recruitment closed
GMI 1271 230	1	1	1	Actively screening
GMI 1272 201	0	0	0	Preparing for DBL

Gráinne Gannon Ph. D., Clinical Trial Network Manager, Blood Cancer Network Ireland (BCNI)

Cancer Research at the Lambe Institute for Translational Research

Cancer biology and therapeutics is one of the research priorities at NUI Galway and it engages a wide variety of basic, translational and clinical cancer researchers across the campus in partnership with Saolta.

Research affiliated with the Symptomatic Breast Clinic is based at the Lambe Institute for Translational Research at NUI Galway. The lab team are fortunate to work closely with the clinical breast cancer team at University Hospital Galway and academic research colleagues at NUI Galway as well as national and international collaborators.

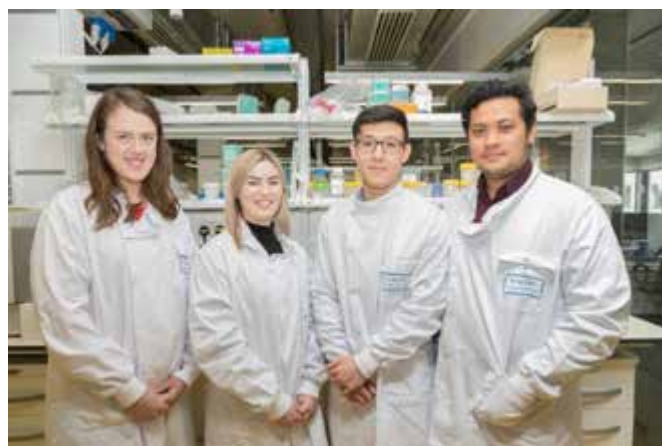
Research groups located in the Lambe Institute have a special interest in the improvement of diagnosis of cancer and the individualisation of therapy for patients. A Cancer Biobank, developed over many years and housed in the research facility, is a vital resource for researchers. Research groups from Surgery, Pathology, Clinical Pharmacology, Medical Engineering are engaged, in collaboration with frontline clinical colleagues, in the following areas of research into **breast, prostate, colorectal, adrenal and endocrine cancer**:

- Personalised Medicine – Cancer Genetics/Risk Assessment
- Biomarker detection and prediction of response to treatments

- Inflammatory Disease and Cancer
- Cellular interaction in the tumour microenvironment and response to stress
- Novel Technologies for Cancer Management – imaging techniques and therapeutic methods Clinical and Translational Trials

Research is crucial to understanding and treating cancer appropriately. The breast cancer research funded by the National Breast Cancer Research Institute focuses on circulating microRNAs, exosomes as therapeutic vehicles in tumour targeting, inheritance of breast cancer risk (genetics) and tissue regeneration for breast reconstruction. In 2017 researchers and projects were funded by the National Breast Cancer Research Institute, the Irish Cancer Society, Breast Cancer Now, Wellcome Trust, the Health Research Board and the Irish Research Council. Translational research trials are supported nationally by Cancer Trials Ireland.

In 2016 six undergraduate undergraduate students took part in the School of Medicine Summer Research Programme with the breast cancer research team. Four students (pictured) were funded by Breast Cancer Research and two by Wellcome Trust.



Breast Cancer Research

Breast Cancer Research Programme at the Lambe Institute had a very productive year, with several students graduating from MD & PhD programmes with prizes and awards and academic outputs across a range of research areas.

These included a paper in Nature identifying 65 new breast cancer risk loci and several other papers categorising individual breast cancer susceptibility genes. The Programme also produced new developments in breast reconstruction using adipose derived stem cells. The circulating MicroRNA biomarker programme also identified new markers of response and outcome. In addition several papers addressed clinical aspects of breast cancer prognosis. (*refer to full list of publications in section 12*)

Breast Cancer Research Developments & Achievements

In September 2017 **Professor Aoife Lowery** was appointed Associate Professor of Translational and Regenerative Surgery. A PhD graduate of NUI Galway, Prof Lowery is a Consultant Breast and Endocrine surgeon with a special research interest in breast and thyroid cancer.



Dr Niamh O'Halloran, who has recently submitted her PhD thesis, was awarded the [*Allergan Award for Innovation 2017*](#) for her work on the use of hydrogels in adipose tissue engineering for breast regeneration.

Three postgraduate students from the breast cancer research lab were conferred with their PhD degrees in 2017



Dr Maire Caitlin Casey and Dr Killian O'Brien were conferred with PhDs in Surgery in November 2017

Dr Doireann Joyce (3rd from left) was conferred with a PhD in Surgery. She is pictured with Ms Carmel Malone, Head of the School of Medicine, and her supervisors, Dr Roisin Dwyer and Prof Michael Kerin





Cancer Charities: Patient & Research Support

Cancer Care West

Inis Aoibhinn Residence
Galway University Hospital

Cancer Care West Support Centre
72 Seamus Quirke Road
www.cancercarewest.ie



Cancer Care West is a registered charity, dedicated to supporting cancer patients and their families in the west and northwest of Ireland. Cancer Care West vision is that no one will go through cancer alone

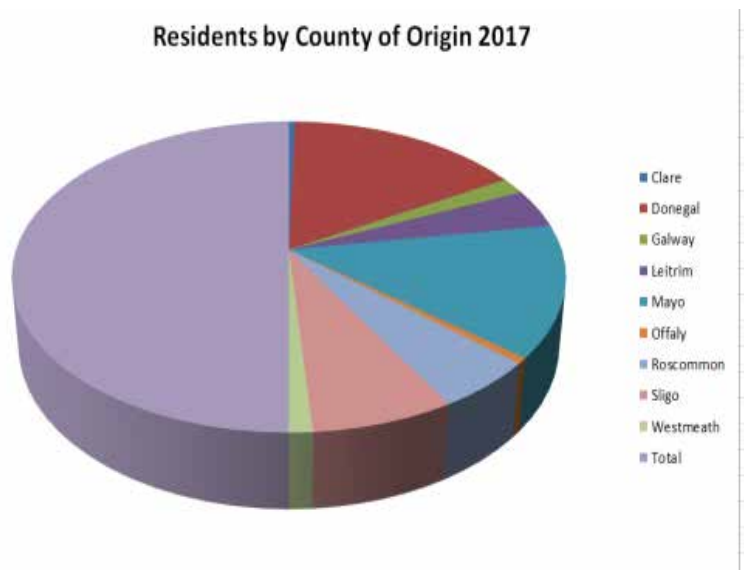
Inis Aoibhinn

In 2007, Cancer Care West opened its residential facility, Inis Aoibhinn to provide accommodation to cancer patients travelling to Galway for Radiotherapy treatment at UHG. Inis Aoibhinn has 33 twin bedded rooms where each patient can stay with a family member or friend, for the duration of their Radiotherapy treatment, usually 5-7 weeks. Radiotherapy treatment is given each day from Monday to Friday, and patients stay at Inis Aoibhinn during the week and return home each weekend. Patients come predominantly from counties Donegal, Sligo,

Leitrim, Roscommon, Mayo, Galway and Clare, and sometimes from counties further afield.

Since Inis Aoibhinn opened its doors in 2007, it has accommodated over 4,500 patients and family members who would otherwise have had to travel long distances every day to their treatment. In 2017, Inis Aoibhinn accommodated 344 cancer patients and provided over 9,500 bed nights to patients and family members.

Residents by County of Origin		
	2017	%
Clare	3	1
Donegal	111	32
Galway	12	3
Leitrim	28	8
Mayo	94	27
Offaly	4	1
Roscommon	35	10
Sligo	49	14
Westmeath	8	2
Total	344	100



Cancer Care West Support Centres Galway

The Cancer Care West support centre is based in the community, close to UHG, where there are a wide range of services available at no cost to the patient or their family.

During 2017, the Cancer Care West Cancer Support Centre has continued to provide a unique community based model of psychological and oncology support for cancer patients and their families.

As cancer affects more people, it is imperative that the model of community Psycho-Oncology support offered by Cancer Care West is available to anyone who needs it. During the year, the centre have taken several important steps to fulfil this goal, including the development of a new Cancer Support Centre in Donegal to serve the northwest of Ireland, as well as the appointment of a senior psychologist to deliver a psychological support service to inpatients at Letterkenny General Hospital.

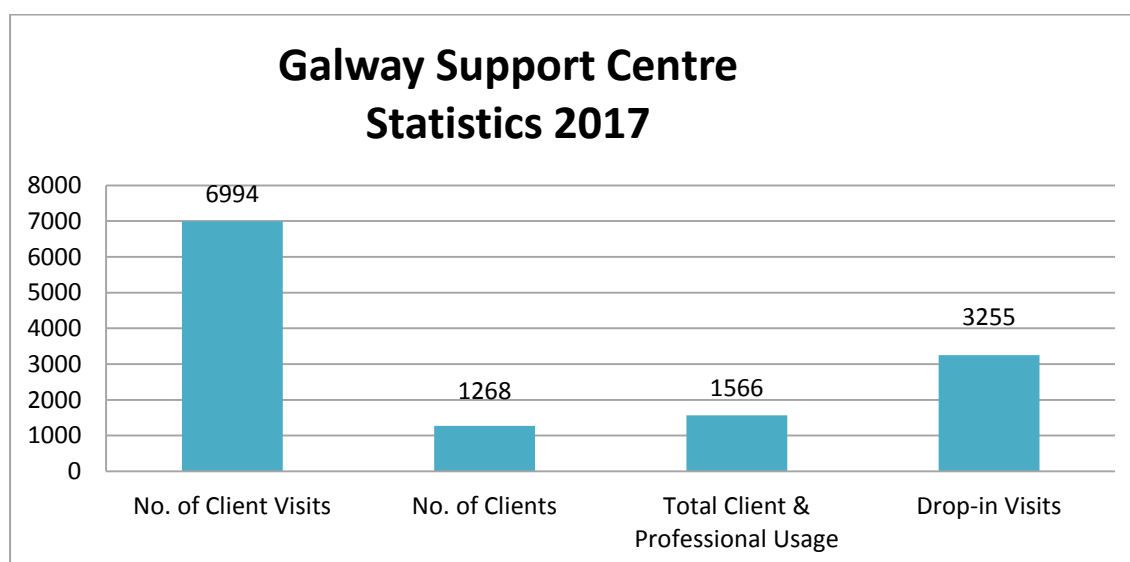
The centre has also developed a dedicated Psycho-Oncology service for University Hospital Galway. This means that cancer patients and the staff working at the hospital have access to a clinical psychologist experienced in supporting people with cancer on a daily basis. During 2017, Cancer Care West provided counselling to over 364 individuals and families in UHG. In addition, counselling was provided to over 162 individuals

and families in the Galway Clinic and 11 in the Galway Hospice.

Our other big development this year has been the expansion of the children's service with children aged 3 to 18 years being seen for individual therapy. An additional aspect of this service is psycho-education for parents who sometimes struggle to either tell their children what is happening in the family or know how to manage issues around the terminal phase of their illness.

During 2017, the centre was visited 7,000 times by over 1,268 people affected by cancer. Most of the people who used the centre availed of individual services, including psychology, oncology information, benefits advice and complementary therapy.

Galway Support Centre Statistics 2017	
No. of Client Visits	6994
No. of Clients	1268
Total Client & Professional Usage	1566
Drop-in Visits	3255



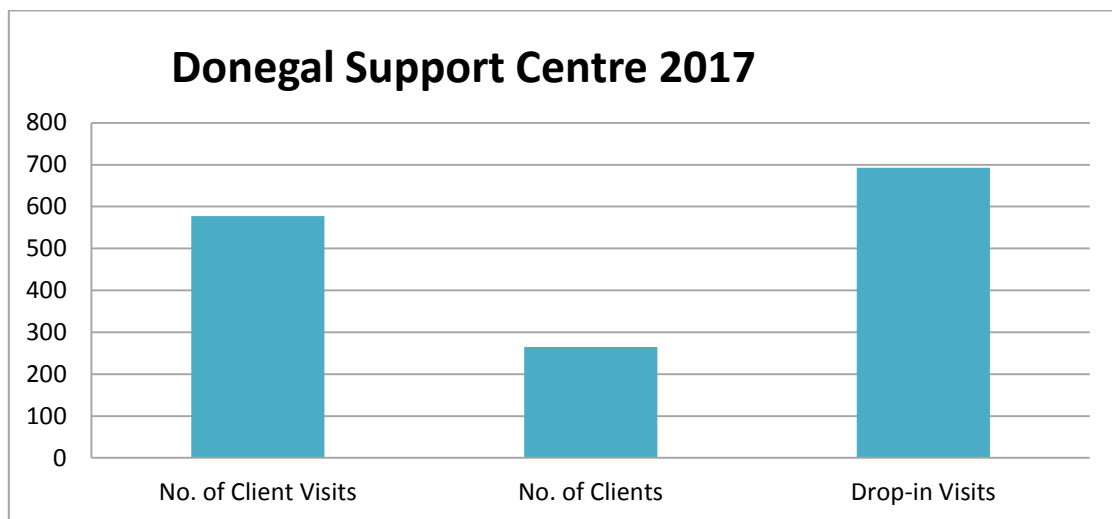
Donegal

Donegal Cancer Support Centre opened in Letterkenny in March 2017. Recognising a gap in support services for clients in the northwest, Cancer Care West provides a community and hospital Psycho-Oncology service based in the centre of Letterkenny town.

Cancer Care West in Donegal is staffed by a Senior Psychologist and an Oncology Nurse, operating on a five day week basis. As well as the community Psycho-Oncology service, Cancer Care West provides psychological support to inpatients in Letterkenny University Hospital through the services of the Senior Psychologist in liaison with hospital staff.

Since its opening in March 2017, Cancer Care West Donegal has provided counselling to over 34 individuals and families in Letterkenny University Hospital that year. The Letterkenny centre was visited 577 times by over 265 people affected by cancer. Most of the people who used the centre availed of individual services, including psychology, oncology information and complementary therapy.

Donegal Support Centre Statistics 2017	
No. of Client Visits	577
No. of Clients	265
Drop-in Visits	693



Patient and Family Support Programme

We also provide practical support for families who are undergoing long term cancer treatment through our Patient and Family Support Programme. Families can apply to avail of long term accommodation close to University Hospital Galway when a family member is receiving cancer treatment in hospital. Eligible families who don't live in Galway but want to stay close to their loved one will be found local accommodation at no cost to them. In 2017, fifty seven families were supported with a total of 337 nights' accommodation in apartment or bed & breakfast accommodation.

Family Room for Cancer Patients in New Cladagh Ward GUH

During 2017 Cancer Care West helped fund the establishment of a much needed and highly acclaimed cancer patient "Family Room" at University Hospital Galway located in the new haematology wing where long stay cancer patients receive treatment

The "Family Room", the first of its kind in the hospital, provides a "haven of comfort and privacy" for the families of cancer patients where they will be able to rest, relax, meet friends and medical staff, and if appropriate stay overnight.

National Breast Cancer Research Institute

Based in the Symptomatic Breast Clinic at UHG, Breast Cancer Research is a national charity that helps to fund the breast cancer research programme at the Lambe Institute NUI Galway. This programme focuses on several aspects of breast cancer including genetics, molecular profiling, tissue regeneration techniques for breast reconstruction and the development of microwave imaging for breast cancer treatment. Many of the research outputs feature in the Cancer Research section of this report. The charity's mission is to raise funds in support of world-class breast cancer research at the National University of Ireland, Galway.

2017 was another busy year for the charity following the appointment of its new Chairperson, Patricia McLoughlin. Funds are raised from general activities throughout the year including; 'Play in Pink' golf days hosted by golf clubs all around Ireland which culminates in a national final, Cycles, International Walks, and other events such as lunches are often volunteers or third party led. The charity also receives great support from the 'Mayo Pink Ribbon' group and other volunteer led local groups and individuals nationally.

Breast Cancer Research has many partnerships in place including, Aer Lingus, Irish Ladies, Golf Union (ILGU), The Association of Fine Jewellers, Zurich and Cisco.



Aer Lingus staff present a cheque to Breast Cancer Research Director, Miriam Hand for €41,400 raised through their many fundraising activities for the charity 2017.



Breast Cancer Research appoints new Chairperson, Patricia McLoughlin



Cyclist Sean Kelly and Mayo Pink Ribbon patron former Taoiseach Enda Kenny taking part in the Mayo Pink Ribbon Cycle for Breast Cancer Research.



*Play in Pink
For Breast Cancer Research
'Play in Pink' National Golf Days for Breast Cancer Research*

Irish Cancer Society

*Galway University Hospital
Letterkenny University Hospital*



Daffodil Centres for Saolta University Health Care Group: GUH and LUH

The Daffodil Centres, staffed by Irish Cancer Society Cancer Nurses and specially trained volunteers, are information services on-site in hospitals. They provide face-to-face information and support to anyone affected by cancer. The availability of a cancer nurse affords people the opportunity to talk through their concerns in a private and confidential manner, in their own time and at their own pace. The Daffodil Centre is a place where patients and their families can visit repeatedly throughout their cancer treatment and beyond.

There are 13 Daffodil Centres in Ireland and in 2017 over 44,000 people had contact with the various centres around the country. The Daffodil Centres in University Hospital Galway (UHG) and Letterkenny University Hospital (LUH) are as a result of a successful partnership between the Irish Cancer Society and the Saolta Group.

Daffodil Centres Activity 2017

Total number of contacts to the Daffodil Centres UHG and LUH during 2017 was 4482.

The total number of contacts included:

- Enquirers: **1854**
- Browsers to the Daffodil Centres: **1079**
- People who attended Cancer Awareness/Early detection stands: **1549**

Enquirers are those who visit the centre and spend 5 minutes or more with the nurse or volunteers having their cancer related questions or concerns addressed.

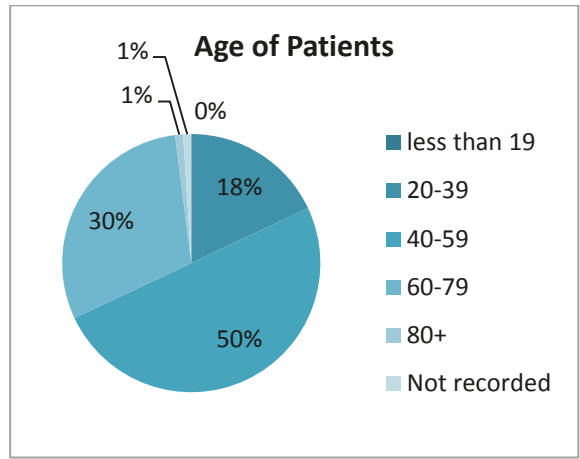
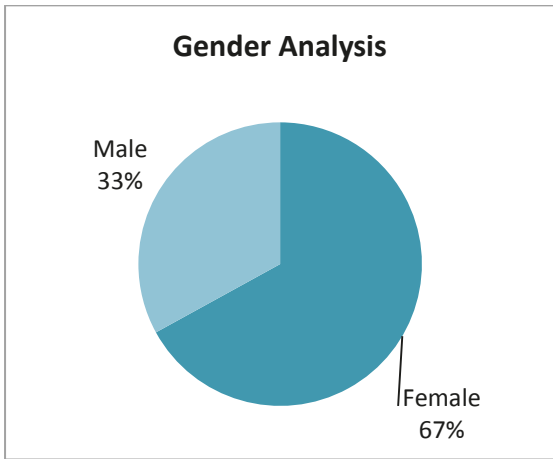
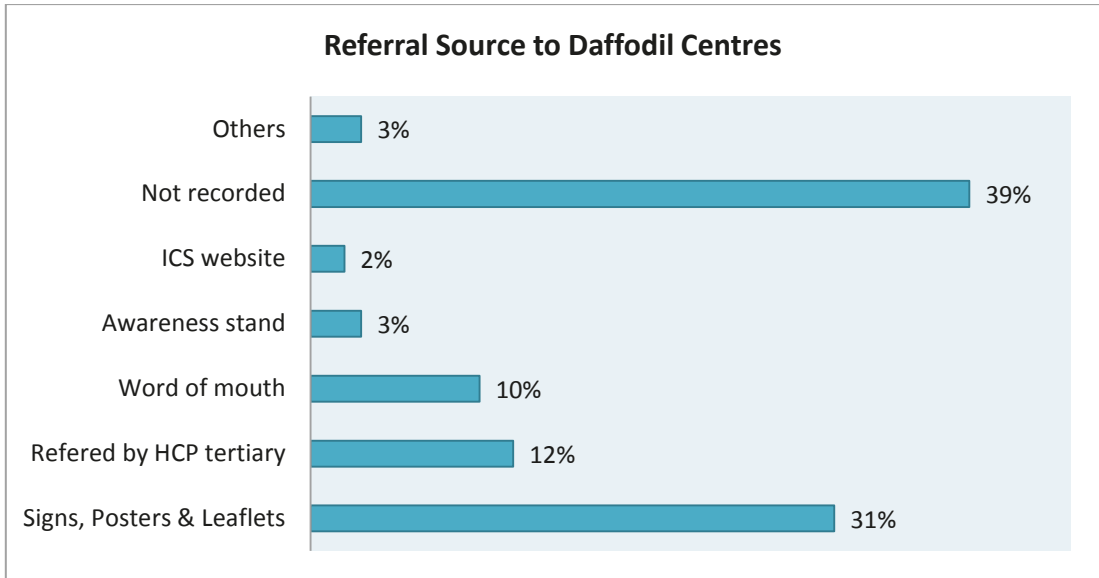
- 54% were first time enquirers to the Daffodil Centres
- 34% had visited before
- 12% worked within the hospital

Chemotherapy Education Sessions

Chemotherapy education sessions are facilitated weekly by the Daffodil Centre Cancer Nurse for patients and their relative. These sessions cover the most common side effects of treatment, management of these side effect as well as the emotional aspects of cancer and its treatment. A senior dietician attends the session to educate patients on dietary issues which can occur during treatment as well as eating a healthy balanced diet and how to maintain weight throughout cancer treatment. Each attendee fills in an evaluation form after the session. These evaluations are used to ensure the information that the patients are receiving is useful and given in a user friendly manner.

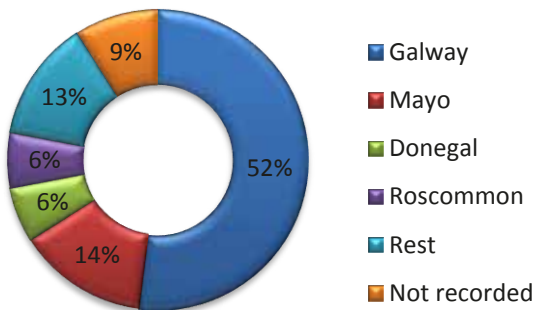
In 2017, 39 group education sessions were held in UHG with 149 patients and their relatives/significant others attending. Talks are ongoing with management to bring this initiative to LUH.

Profiles of referrals to the Daffodil Centres are illustrated by referral source, gender, age, and county. We have also categorised the type of enquiry by cancer diagnosis and how the Daffodil Centre deals with enquireies.

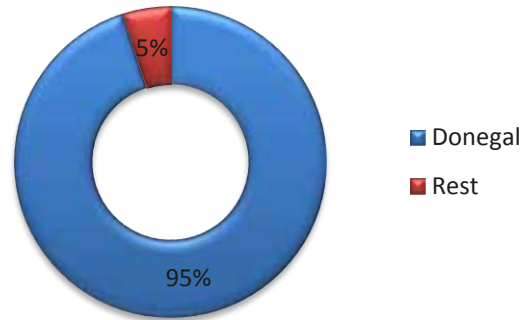


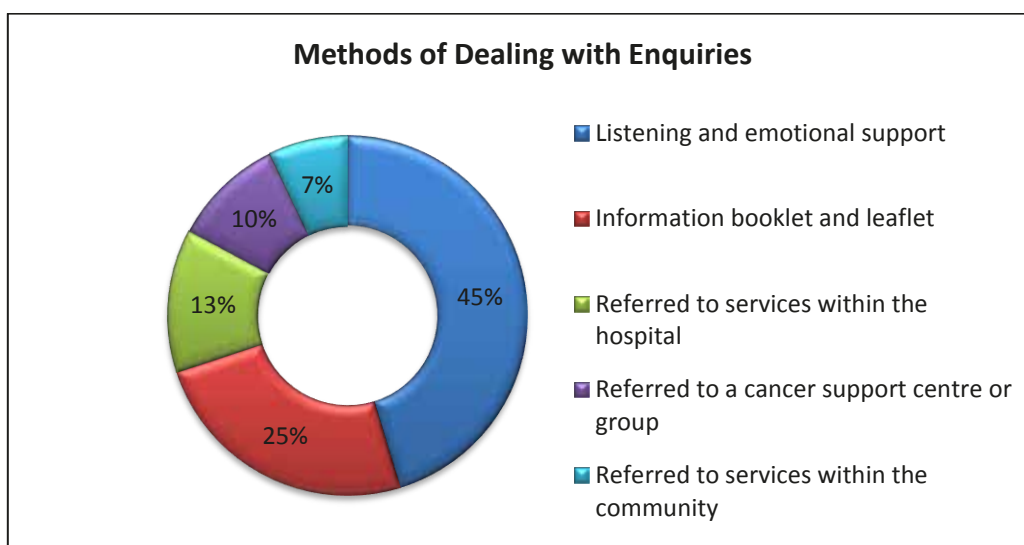
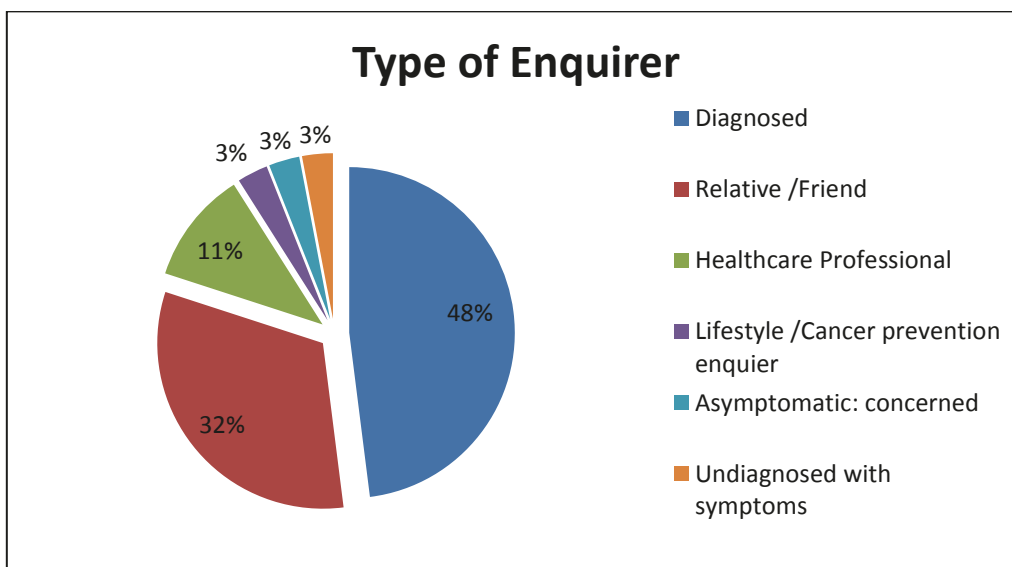
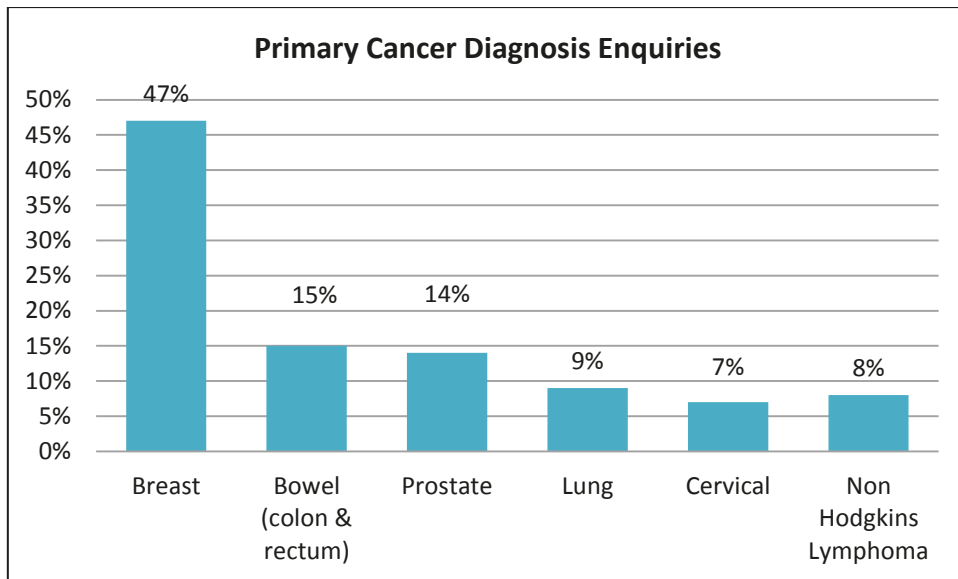
Counties – geographical location of enquirer

GUH Daffodil Centre



LUH Daffodil Centre







Publications

12

Cancer Research Publications

Kuijvenhoven JC, Crombag L, Breen DP, van den Berk I, Versteegh MIM, Braun J, Winkelman TA, van Boven W, Bonta PI, Rabe KF, Annema JT. Esophageal ultrasound (EUS) assessment of T4 status in NSCLC patients. **Lung Cancer**. 2017 Dec;114:50-55. PMID: 29173765.

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