Saolta University Health Care Group Cancer Centre Annual Report 2015



University Hospital Galway



Roscommon University Hospital



Letterkenny University Hospital



Mayo University Hospital



Merlin Park University Hospital



Portiuncula University Hospital



Sligo University Hospital





Grúpa Ollscoile Cúram Sláinte University Health Care Group

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Foreword

Professor Michael Kerin Chair, Cancer Strategy Group Saolta University Health Care Group



It is a great pleasure to present the Annual Cancer Centre Report for 2015. The production of this report catalogues the activities within Ireland's largest Cancer Centre and is testimony to the hard work of multiple teams coordinating Cancer Care across our region.

Since the launch of the National Cancer Control Programme (NCCP) in 2006 the development of appropriate cancer facilities and outcomes for the population has become a national issue. We are well aware that best outcomes are achieved with high volume programmes and this can only be achieved by teamwork involving team members from many disciplines (medicine, surgery, nursing, palliation etc) and in our case across multiple hospital sites.

At the core of the national cancer strategy is the patient's individualised treatment plan which must be designed and delivered by the multidisciplinary team. In our programme the multidisciplinary team lies at the core of the Cancer Centre activities. I would like to acknowledge the efforts of so many people in so many departments across the Saolta University Health Care Group in facilitating these meetings: radiology and pathology teams, outpatient coordinators, secretarial staff as well as the medical and nursing core groups.

This report catalogues the very large programme of Cancer Care taking place within the Cancer Centre. This involves the delivery of cancer surgery (mainly in UHG) and the radiation oncology programme at UHG. The Medical oncology programme takes place in a more disseminated model across multiple outpatient/day case facilities in Letterkenny University Hospital, Sligo University Hospital, Mayo University Hospital and Portiuncula University Hospital as well as University Hospital Galway.

Delivery of this care in a timely manner remains a real concern in view of the fact that Cancer Care is often delivered in a non dedicated general hospital environment from beds that are potentially available to every patient whose short term needs may be seen to be more pressing. We need to develop a proper structured, dedicated Cancer Centre and this should be a priority for health care within the Saolta Group for the next decade. There is a real need for the infrastructure to catch up with the demand.

Best outcomes for cancer patients are achieved in an environment that is clinically driven and research led. The last year has been enhanced by the launch of the Lambe Institute and the Medical Academies across all hospitals in the Saolta University Health Care Group.

Finally, I would like to express my sincere thanks to all those who contributed to this report especially Geraldine Cooley, our Cancer Services Manager, the Cancer Information Team, the clinical leadership across multiple cancer sites and all the staff work so hard to deliver care.

We look forward to the further development of the programme in the year ahead.

Professor Michael J. Kerin

My Mein

Mr Maurice Power Chief Executive Officer Saolta University Health Care Group



As Saolta Group CEO, I am proud to present the 2015 Cancer Centre Annual Report, which sets out the extensive integrated cancer programme provided to our patients across the Hospital Group, involving diagnosis, treatment, supportive and palliative care across all cancer specialties.

I would like to highlight some of our Cancer Service achievements from 2015:

- The third Western Cancer Centre Symposium took place in collaboration with our academic partner NUIG, with an inspirational guest speaker Dr David Wink from the US National Cancer Institute, who gave a comprehensive presentation on clinical and translational research as it has evolved in the United States.
- The opening of the Irish Cancer Society Daffodil Centre in the main foyer of University Hospital Galway. The Daffodil Centre, which is run by an Irish Cancer Society Cancer Nurse and 18 trained volunteers, is an information service on-site in the hospital, where people affected by or concerned about cancer can receive information and support.
- Construction continued on the Cross Border Radiotherapy Project in conjunction with our partners in Western Health and Social Care Trust. This vital new radiotherapy service, located in Altnagelvin Area Hospital Derry, will provide treatment for Donegal patients who currently have to travel to either Galway or Dublin to access radiotherapy. The service is scheduled to open in the autumn of 2016.
- Significant progress has been made with funding in place and full planning permission approved in 2015 for the new state of the art Radiation Oncology Facility in Galway as part of the National Programme for Radiation Oncology. Enabling works have continued and we look forward to the opening of the facility in 2020.
- The new electronic patient record system Mosaiq for radiation oncology patients was successfully
 implemented at University Hospital Galway and made available to all the sites across the Saolta
 University Health Care Group.
- The Lambe Institute for Translational Research and HRB Clinical Research Facility at University
 Hospital Galway opened in September 2015. This is another example of the ongoing development of
 the strategic partnership between the Saolta Group and NUIG.

I wish to thank An Taoiseach, Mr Enda Kenny for taking the time out of his busy schedule to launch the 2014 Cancer Services Annual Report during his visit to Mayo University Hospital to open the Mayo Medical Academy

I also look forward to the publication of the new National Cancer Strategy in 2016, which will provide national direction to our cancer programme for the next decade.

I would like to conclude by acknowledging the hard work and dedication of our staff for their continued professionalism in providing care to our patients accessing cancer services across the Saolta Group and I personally wish to thank all our staff for their ongoing commitment to the delivery of quality healthcare to all our patients.

Maurice Power CEO

Saolta University Health Care Group: Cancer Centre Annual Report 2015

Dr John Killeen

Chair Saolta University Health Care Group



On behalf of the Board of the Saolta University Health Care Group, I welcome the publication of this report for 2015. This is the fourth such report, setting out Group Cancer Care activity, progress and key achievements in 2015 across the Group's Hospitals. This report highlights the enormous work that takes place in providing Cancer Care to our patients as we continue to strive towards the provision of a world class service. The Board wish to acknowledge the enormous ongoing contribution of our staff across Group hospitals and look forward to the further development of cancer services in the coming years.

Dr. James J. BrownePresident

National University of Ireland, Galway



As President of National University of Ireland, Galway and a member of the Board of Saolta University Health Care Group, I'm very pleased to welcome the publication of this report.

Over the past year NUI Galway has deepened its already close relationship with Saolta. Our partnership on a range of initiatives and new facilities ensures that academic medicine works hand in hand with the delivery of improved clinical services.

The recently opened NUI Galway Medical Academies in Sligo and Mayo highlight the university's commitment to integrating medical education with clinical delivery and to develop a research ecosystem that positions the region as a progressive entity on the back of excellent medical training and research. Last September, An Taoiseach opened officially the Lambe Institute for Translational Research and the HRB Clinical Research Facility on the grounds of Galway University Hospital. These world class facilities will enable the latest scientific research to inform clinical practice and will ultimately ensure better outcomes for patients.

The next few years offer further exciting opportunities for the University and the region. I believe that the opening of CURAM - the SFI funded Centre for Research in Medical Devices, and the emergence of expertise and knowledge from the Lambe Institute and the HRB Clinical Research Facility will have an enormously positive impact in terms of new approaches to cancer treatment.

I look forward to our continuing collaboration with Saolta University Health Care Group to harness the talent and skills which exist in both the University and the Saolta Group.

Dr. Mary HynesDeputy Director
National Cancer Control Programme



I am pleased to welcome the Annual Report of the Saolta University Health Care Group which provides an update on cancer services in the Group. Cancer patients are best served when care is provided and coordinated in a multidisciplinary environment. This report highlights the range of specialists and disciplines, collaborating closely and working in teams, who contribute to cancer diagnosis and management in the Group. While receiving a diagnosis of cancer is a challenge for patients, the multiple options for and advances in treatment, as outlined in this report, give much cause for optimism. The focus on recruitment to clinical trials and on research is to be commended. My thanks to all those who contribute to the care of cancer patients and to this report; their expertise and commitment help reduce the impact of cancer in the community they serve.

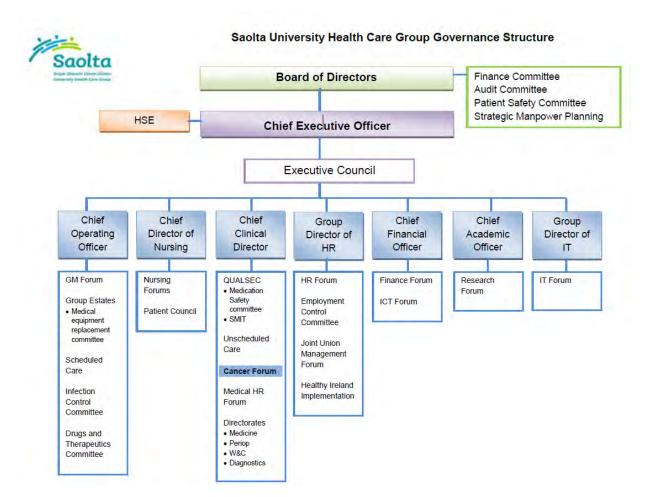
Dr. Pat NashChief Clinical Director Saolta University Health Care Group



The Saolta University Health Care Group continued to develop its Clinical Directorate Structure apace in 2015 through the 4 Clinical Directorates:

- 1. Medical Directorate
- 2. Perioperative Directorate
- 3. Womens & Children's Directorate
- 4. Diagnostics Directorate

A working group and two project leads were established to progress the Saolta Group Directorate Structure implementation project in 2015 and a Steering Group was convened to lead the project through 2016 implementing a governance model and recommending a clinical strategy for the Group. This organogram depicts the new streamlined governance model agreed and implemented for the Saolta University Health Care Group in the last year.



It is envisaged that Cancer Services will be a critical part of the Saolta Group Clinical Strategy. The implementation process points to a model of Cancer Care that might well position Cancer Services within a dedicated Cancer Services Business Unit in the immediate future. This is an ongoing conversation that will become more defined as we progress through 2016.

The Clinical Directors in conjunction with the Associate Clinical Director at each site continue to address challenges and progress agreed priorities in line with the Saolta Group Service plans and the Clinical Care Programmes.

In 2015 we appointed two new Clinical Directors. Dr. Ethel Ryan was appointed Clinical Director to the Women's and Children Directorate and Dr. Kevin Clarkson was appointed to the Perioperative Directorate. Associate Clinical Directors and Specialty Leads were also appointed during the year.

Cancer continues to be a major research interest with our academic partner, National University Hospital Galway (NUIG). The opening of the Lambe Institute for Translational Research at UHG in 2015 and the Medical Academies at other hospitals across the Saolta Group creates the environment to deliver a world class research agenda within the cancer control programme.

Strategically, we look forward to the publication of the new National Cancer Strategy due for publication in 2016. Over the 7 years of *The National Cancer Strategy 2006: a Strategy for Cancer Control in Ireland,* we saw excellent progress in the delivery of cancer services across the Saolta University Health Care Group with the following significant changes:

- The centralisation of cancer services
- The establishment of Rapid Access Clinics for Breast, Prostate and Lung
- Advances in our diagnostic services
- Saolta Group representation on National Tumour Groups for various cancer sites
- The establishment of Multidisciplinary Meetings across the Saolta Group for many cancer sites
- Extensive involvement in research and clinical trials including the All-Ireland Cooperative Oncology Research Group (ICORG)
- Continuous improvement against National Key Performance Indicators despite ongoing challenges

Over the next decade the projections point to a major growth in the incidence of cancer (27% projected increase in incidence from 2015 – 2025) and in the demand for cancer services. How we respond to this and continue to re organise cancer services within the context of the Group Clinical Governance Structure will be a major challenge. We need to strategically plan and reorganise appropriately the delivery of cancer services that will enable us to offer a comprehensive and responsive programme of Cancer Care across the

Saolta University Health Care Group for future generations.

Strategic priorities for Cancer Services

- 1. The implementation of The National Cancer Strategy 2016 2025.
- The publication of a Cancer Strategy for the Saolta Health Care Group in line with the National Strategy.
- Sustaining and improving access to Rapid Access Clinics and configuring services appropriately across the Saolta Group to meet the expected growth in demand.
- 4. Developing a robust Cancer Services Governance Model across the Saolta Group.
- Active engagement with patients to achieve continuous improvement in the cancer patient experience as they journey through their treatment and beyond.
- Improving and developing an IT
 infrastructure across the Group that will
 strengthen the data collection processes for
 cancer services thus enabling effective and
 informed decisions.
- Building capacity and resilience around our Radiation and Systemic Therapy services across the Group.
- 8. Enhancing our infrastructure to support a comprehensive research programme.
- Advancement towards and investment in a dedicated new state of the art Cancer Centre Building for all cancer patients.
- Delivering resilience around staff recruitment and staff retention across the Saolta Group.
- 11. Strengthening our cross border relationships with the Radiotherapy Unit at Altnagelvin Hospital in Derry. This new service is due to open in 2016 and will mean that patients in Donegal will no longer have to travel to Galway for radiation oncology treatment but can attend the Radiotherapy Unit at Altnagelvin.

1.0 Overview Cancer Services

Ms. Geraldine Cooley

A/Group Cancer Services Manager Saolta University Health Care Group



The Saolta University Health Care Group provides an integrated cancer programme that involves diagnosis, treatment, supportive and palliative care across all cancer specialties. Improving patient access to rapid access clinics is a key priority for the Saolta Group on an ongoing basis. However, due to the high volume of referrals to these clinics the challenge is to consistently deliver to national

targets. Our performance against the National Cancer Control Programme (NCCP) key performance indicators (KPIs) continues to drive quality and service improvements across the Saolta University Health Care Group.

The table below highlights our performance against the national reported actual performance for the country in 2015

Rapid Access Cancer Services 2015

Key Performance Indicators	GUH	LUH	National Target	National Reported Actual
Symptomatic Breast Service				
% of urgent breast referrals within KPI	99.9%	90%	95%	96.9%
Rapid Access Lung Service				
% of lung referrals within KPI	81.3%	n/a	95%	85.5%
Rapid Access Prostate Service				
% of prostate referrals within KPI	73.9%	n/a	90%	58.7%

Key developments in Cancer Services

The new radiation oncology system Mosaiq was successfully implemented at University Hospital Galway and made available to all the other hospital sites across the Saolta University Health Care Group replacing the Lantis system. Mosaiq is an electronic patient record and all patient information is collected and accessible, from diagnosis through treatment and follow-up, so that our clinicians can deliver the best possible care for every patient.

- The announcement by the NCCP that they
 have secured funding for and are progressing
 with the purchase and procurement of a
 medical oncology clinical information system
 (MOCIS) is welcome news. UHG and MUH
 are selected to be part of the first phase of
 implementation due to take place in 2017.
- The pending publication of the new National Cancer Strategy 2016 - 2025 is considered a

- major milestone which will establish the road map for cancer services for the next ten years. The Saolta University Health Care Group looks forward to the publication and will be developing its own Cancer Services Strategy as part of the Group Clinical Strategy.
- 3. The Cancer Information Team continues to develop, strengthen and improve the quality of data reported on an ongoing basis. The HIPE and PAS data are key component in all hospitals data collection process, without which we could not produce the extensive level of activity documented in this report. Our thanks is expressed to all those who capture data including clinicians, CNSs, CNMs, RANP's, clerical staff, data managers, HIPE coders and HIPE managers across the Saolta Group

- 4. The Taoiseach, Mr Enda Kenny officially launched the 2014 Cancer Centre Annual Report on the 14th December 2015 in Mayo University Hospital. Mr Kenny acknowledged the comprehensive cancer programme being delivered across the Saolta University Health Care Group and complemented staff for their dedication and commitment to putting patients at the centred of their daily work.
- 5. The increased use of Healthlink by General Practitioners is also welcomed and we would encourage more GP's, our Primary Care partners to engage with the electronic referral system. We will continue to work with the NCCP and our General Practitioners to promote its use through our GP Forum Group.
- Congratulations is extended to Dr Janice
 Richmond and Clinical Research Nurse, Mary
 Grace Kelly, both from the Oncology
 Department of Letterkenny University

Hospital who helped to develop and pioneer a new web based application that offers the latest research free to the public on cancer prevention. The app features six areas including topics such as: Diet, Smoking, Alcohol, Weight, Exercise, Sun/Sunbeds, Food for Thought quiz and the Myths. The site is full of up-to-date information on how to reduce your risk of cancer by making appropriate lifestyle changes. To access this site, go to http://stopcancer.support

I wish to sincerely thank my esteemed predecessor and colleague, Ms Marie Cox for her contribution to the development of cancer services across the Saolta University Health Care Group and to wish her every success in her new post at the National Cancer Control Programme.

Finally, I wish to acknowledge the contribution and hard work of Ciara Howley and Christine Prendergast for their assistance in putting this report together.



Attending the launch of the 2014 Cancer Centre Report, left to right: Mr. Charlie Meehan, Mr. John Killeen, Mr. Maurice Power, An Taoiseach Enda Kenny, Dr. Jim Browne

Local launch of the Saolta Group 2014 Cancer Centre Annual Report



Christine Prendergast & Ciara Howley Cancer Services



Norah Kyne, Physiotherapy & Tina Howard, MDM



Dr David Winks, Manvydas Vargallis, Emer Hennessey, NUI Dr Niamh Foley, NUI & Prof Michael Kerin



Guest speaker Dr David Winks, USA, Professor Michael Kerin, Chair, Cancer Strategy Professor Maccon Keane, Medical Oncology GUH, Dr John Killeen, Chairman, Saolta Board



Sharon Glynn, NUI Geraldine Cooley, Cancer Services, & Hilary Kelly National Cancer Registry



Brid Gavin-O'Connell, Cancer Services



Sheila McCrorie, Cancer Nursing, Jerry Nally, ADON & Sue Hennessy, Outpatients

1.1 Multidisciplinary Team Meeting

Ms. Tina Howard MDM Co-ordinator



Optimum cancer management requires input from the complete diagnostic/multidisciplinary team consisting of radiologists, pathologists, physicians and surgeons and a therapeutic team of medical, radiation and surgical oncologists. Allied to this the facility of a well structure and managed MDM process significantly adds to the quality of care and outcomes for patient undergoing cancer treatment.

Support is provided to a number of MDM teams by the MDM co-ordinator with the addition of a second co-ordinator coming on stream in 2016. Teams are also supported by registered advanced nurse practitioners, clinical nurse managers, clinical nurse specialist, radiographers, technicians and other clinicians such as plastic surgeons and palliative care specialists.

The Multidisciplinary function within the Saolta Group has grown significantly over the past 4 year from first inception. There are 12 well defined teams presently operating within Galway site with links to their respective hospitals within the Saolta Group.

The process is supported by a very active multidisciplinary programme which meets in a dedicated teleconferencing facility with input from team member on a weekly /fortnightly/ monthly basis. Key to the MDM performance is the logging of the action/ treatment plans, numbers of patients discussed and outcomes. Some teams have well established link ups with the other hospitals in the Saolta Group, other are in the process of doing so.

An In-house data base has supported the function within Galway University Hospitals and the plan is to further develop this to allow for greater analytical functionality. The hope would be to extend this system to the other sites within the Saolta Group. One of the major challenges to this is the lack of a shared unique identifier (i.e. a common board number).

We are constantly improving and streamlining our processes in order to enhance and strengthen the multidisciplinary function across the Saolta Group. This process is driven by the desire to improve conditions for the patients we serve as per NCCP guidelines.

Hospital/ Group activity at MDM full year 2014/2015 (Data Source: MDM Co-ordinator)

No	Cancer site MDM team	Time of meetings	Frequency of meetings	Outside link ups at MDM	2014 Activity	2015 Activity
1	Breast	Thurs 8am	Weekly	LUH, SUH, MUH	1851 GUH 357 LUH 2208 Total	2044 GUH 516 LUH 2560 Total
2	Combined Oncology	Tues 8am	3 per month	No link up	288	288
3	Head and Neck	Fri 12pm	Weekly	No link up	420	454
4	Urology	Wed 8am	Fortnightly	No link up	650	700
5	Skin	Mon 1pm	-	No Link up	650	650
6	Endocrine	Mon 8am	Fortnightly	No Link up	450	283
7	Lymphoma	Fri 8am	Fortnightly	SUH	159	227
8	Gastroenterology	Fri 9am	Weekly	LUH,SUH,MUH PUH,RUH	1458	2150
9	Gynae/Oncology	Fri 9am	-	No Link up	153	247
10	Haematology	Mon 12pm	3 per month	-	-	-
11	Colorectal Screening (Polyp)	Thurs 12.45am	Weekly	SUH, RUH	269 GUH 172 RUH <i>441 Total</i>	259 GUH 170 RUH 429 Total
12	Lung	Mon 4.30pm	Weekly	SUH, MUH, RUH	772	933

1.2 Hospital Inpatient Enquiry System (HIPE)

Mr. Seamus Leonard HIPE Project Manager



The HIPE data has been collected (in broad terms) over the past 25 years. Although not all hospitals have recorded data for this length of time, there is certainly a decade of data in all hospitals. This data is a rich source of information on the clinical activity in each hospital such that, for example we can say that where a patient is admitted to hospital because of their cancer, the total number of beds taken up by such patients each year is 15 beds in Sligo, 3 beds in Portiuncula, 12 beds in Mayo, 15 beds in Letterkenny and 100 beds in Galway. This gives a total of 143 beds across the Saolta Group (when rounding is taken into consideration).

A considerable amount of work is done by Clinical Coders in each hospital to ensure that the clinical data for each episode of care are collected with the greatest possible degree of accuracy. The sources for this data comes primarily from the patients' paper medical record though other systems such as Radiology, Laboratory and specialist systems such as Renal, Endoscopy and MOSAIQ etc. are used to either enhance or complete the HIPE record.

The data provided for the Saolta Group charts is done in conjunction with my peer managers in each hospital. These are:

- Letterkenny Sinéad McLoughlin
- Mayo Bernadette Garvey
- Portiuncula Fiona Malone
- Sligo Marguerite Mullen

I'm indebted to them for their help. I would also encourage Clinicians and Managers in each of the hospitals to support and facilitate both the data capture for HIPE and the auditing and reporting on this data in their hospitals and indeed across the Saolta Group.

Given the wealth of data available from HIPE and the quantitative reports which are being produced there from, there is sufficient progress to ask whether qualitative reports could support outcomes and metrics of care.

2.0 Cancer Specialities

2.1 Symptomatic Breast Cancer

Mr. Ray McLaughlin Consultant Breast Surgeon Lead Clinician, Symptomatic Breast Unit



I am delighted to report that 2015, was another successful year for the Symptomatic Breast Service across the Saolta University Health Care Group with 13,936 outpatient attendances, 422 new breast care diagnoses and a cancer detection rate of 6.1 per 100 new patients seen across the Group. The Symptomatic Breast Service continues to be a high volume multidisciplinary cancer service with the number of GP referrals remaining consistently high with little change in referrals patterns.

The continued success of the breast service across the Saolta Group has been achieved due to the consistent contribution and commitment of the multidisciplinary teams. I wish to extend my sincere thanks to all those who work very hard to ensure that the breast programme continues as a world class service for patients and service users across the group. The involvement of disciplines including Radiology, Pathology, Surgery, Medical and Radiation Oncology facilitates a cohesive multidisciplinary approach which works very effectively. This approach ensures that patients who are diagnosed, staged and treated in a timely manner, have a better experience and improved outcomes overall.

Triple assessment clinics are held at GUH each morning from Monday to Friday; clinics at LUH are held all day every Monday and Thursday. I would

like to acknowledge the continued hard work and dedication of the excellent staff in the breast service and theatre including mammography, nursing and clerical support staff; their dedication and commitment is integral to the service.

The Breast Service performance against the NCCP KPIs remains at a high level as patients with urgent symptoms are seen within 10 working days; these patients also have their radiology examinations and biopsies carried out on the same day. We continue to proactively manage our routine referrals and our success in this regard is reflected in our performance against KPI for this cohort of patients. We continue to be challenged with regard to the number of patients returning for review appointments; however we are confident that this will improve as patients continue to be discharged to the 5 year post treatment surveillance mammography programme.

We are very proud of our links with the Breast Cancer Research Facility which is a world class research programme based in a state of the art facility in the Lambe Institute for Translational Research and led by Professor Michael Kerin. My consultant colleagues and I are actively involved in research contributing to and leading out on major publications on an ongoing basis.

The following tables depict breast activity across the Saolta University Health Care Group for 2015:

Symptomatic Breast Outpatient Clinic Attendance data 2015 (Data Source: SBU)

Outpatient Clinic Statistics	GUH	LUH	Total
No. of OPD Clinics per week	11	6	17
Designated Cancer OPD Clinics	5	3	8
New patients	5200	1633	6853
Review patients	5905	1198	6023
Total No. of patients seen	11,105	2831	13936

Symptomatic Breast Service Cancer diagnoses 2015 (Data Source: SBU)

Performance Parameter	GUH	LUH	Total
No. of new patients diagnosed with cancer	326	96	422

Symptomatic Breast Cancer Surgical Interventions 2015 (Data Source: SBU)

Surgical Intervention	GUH	LUH
Wide Local Excision	168	69
Excision of Margins	19	5
Mastectomy	77	24
Sentinel Node Biopsy	160	60
Axillary Clearance	67	18
Breast Reconstruction (excluding implants & prophylactic procedures)	39	8

Outpatient activity relating to new Breast Cancer Patient Attendances in 2015 (Data Source: PAS)

	New	Review	Unscheduled	Grand Total
Breast Cancer	1614	5819	355	7788

Breast Cancer Procedures 2015 (Data Source: HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Excision procedures on lymph node of axilla	223	252	475	988
Excision of lesion of breast	141	344	485	389
Biopsy of breast	6	496	502	162
Examination procedures on breast	54	136	190	149
Simple mastectomy	109	2	111	694
Reconstruction procedures on breast	39	1	40	276
Biopsy of lymphatic structure	5	20	25	13
Proc R/O adjust brst prosth / tis expand	8	5	13	29
Augmentation mammoplasty	16	3	19	89
Other repair procedures on breast	5	3	8	11

Breast Episodes 2015 (Data Source: HIPE)

Diagnosis	Number of Episodes
Carcinoma in situ of breast	88
Malignant neoplasm of breast	1246
Neoplasm of uncertain or unknown behaviour of other and unspecified sites	3
Grand Total	1307

2.2 BreastCheck

Dr. Aideen LarkeClinical Director & Lead Consultant Radiologist BreastCheck West

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.

ice international

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.



The BreastCheck West Team		
Clinical Director	Dr. Aideen Larke	
Unit Manager	Ms. Jennifer Kelly	
RSM	Ms. Joan Raftery	
Radiologists	Dr. Aideen Larke (Lead)	
	Dr. Anna Marie O'Connell	
	Dr. Catherine Glynn	
Lead Pathologist	Dr. Margaret Sheehan	
Lead Surgeon	Mr. Karl Sweeney	



Unit Management Team: Joan Raftery, RSM, Karl Sweeney, Lead Consultant Surgeon, Jennifer Kelly, Unit Manager & Dr Aideen Larke, Clinical Director

Missing from Photo: Dr Margaret Sheehan, Consultant Pathologist

Performance Parameters for West and North-West Region

Performance Parameter	Western 2015
Number of women screened	30137
Number of women re-called for assessment	1367
Re-call rate	4.53%
Number of woman diagnosed with cancer	217

In 2015, 48,836 women were invited for a screening mammogram and 30,137 attended, representing an uptake rate of 69% which compares favourably with other screening services.

1,367 (4.53%) women had an abnormal mammogram and were recalled to triple assessment clinic.

In 2015, the BreastCheck Western Unit diagnosed a total of 217 women with breast cancer. This cancer detection rate (7.2 per 1000) 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 2015, the age now includes women aged 65.

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.



2.3 Urological Cancer

Mr Garrett Durkan

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

Muriel Moloney, CNMII



Rapid Access Prostate Clinic (RAPC)

Prostate cancer is the second leading cause of cancer death in men, exceeded only by lung cancer. It accounts for 33% of all male cancers and 10% of male cancer-related deaths. The disease is histologically evident in as many as 34% of men during their fifth decade of life and in up to 70% of men aged 80 years old and older.

The Rapid Access Prostate Clinic located at Galway University Hospital continues to be the busiest in Ireland reflecting the extremely high incidence of prostate cancer in the West. We welcome the appointment of two new consultant urologists to Galway in 2015. Ms Catherine Dowling has returned from a Society of Urologic Oncology Fellowship at Memorial Sloan Kettering Cancer Centre, New York, USA and Mr Frank Darcy has completed a Fellowship in Advanced Endourology and Laparoscopic Surgery in Melbourne, Australia. Their skill sets will complement those already in the Department and allow us to see and treat even the most challenging urological cancer cases.

There are two 'one-stop' prostate assessment clinics each run in RAPC each week by Mr Garrett Durkan and Mr Paddy O'Malley. A further two biopsy clinics are provided with the support of Professor Peter McCarthy and Dr Claire Roche in Radiology. Review clinics occur to inform patients of biopsy results and to arrange investigation and treatment. Patients from Limerick, who require radical prostatectomy travel to GUH for their surgery having attended Mr Durkan's Rapid Access Prostate Clinic at University Hospital Limerick. Referrals with suspected prostate cancer falling outside NCCP guidelines are seen in general Urology clinics by all urologists in the Department.

The very successful robotic assisted radical prostatectomy programme for public patients attending RAPC continues in partnership with the Galway Clinic with 45 patients undergoing robotic prostatectomy in 2015 delivered jointly by Mr Durkan, Mr O'Malley and Mr Bouchier-Hayes. Following surgery, patients return to the RAPC for ongoing follow-up.

I am delighted to welcome Rachel Dalton, Clinical Nurse Specialist to the urology team in 2015 with

the establishment of the Cancer Survivorship programme for patients treated for urological cancer.

Funding for this programme is provided by the Irish Cancer Society following a successful application by the urology department at UHG under the Movember initiative. I also wish to acknowledge the immeasurable contribution of our esteemed nursing colleague Ms Moya Power, ANP in Urology, who retired in 2015 after many years of leading and supporting our subspecialty programmes.

Multidisciplinary Team Meetings

The MDT programme remains extremely busy with over 700 patient discussions in 2015. The Uro-Oncology MDM meets fortnightly with excellent support from colleagues in Radiology and Pathology. Our colleagues from SUH and LUH participate by videoconferencing so that urological cancer cases from across the Saolta University Health Care Group are discussed at one forum. Our Radiation and Medical Oncology teams also attend the Uro-Oncology multidisciplinary team meetings which enable close collaboration, and allows for inclusion in clinical trials and facilitates rapid treatment for patients.

Alliance with Radiation Oncology

The Urology and Radiation Oncology services work closely together with regular cross referral of patients for surgery, radiotherapy and brachytherapy. A new advanced diagnostic technique for patients with suspected prostate cancer known as transperineal template biopsies of the prostate is delivered in the brachytherapy theatre, kindly facilitated by the Radiation Oncology team. Cases are also performed in the main urology theatre. The transperineal template prostate approach, under general anaesthetic, is considered the gold standard diagnostic procedure to detect prostate cancer in high-risk men with previous negative prostate biopsies, and men who developed uro-sepsis after a prior transrectal prostate biopsy. On average, 50 transperineal biopsies are performed at UHG each year but the demand is rising. A working group will be constituted in 2016 to put a business plan together to support the expansion of the transperineal biopsy service.

Following a programme of supervised training Ger O'Boyle, ANP in Radiation Oncology now provides a specialised erectile dysfunction clinic for men suffering this complaint following radiotherapy and radical prostatectomy treatment for prostate cancer.

Future Plans

As our population grows and ages the incidence of cancer is expected to double in the next 20 years. Strategically, we need to position cancer services so that we can meet the future needs of the large population we serve. At a minimum, we need an enhanced in-patient bed allocation, dedicated access to the Surgical Day Ward, an additional full

time main operating theatre to compliment Theatre 5 and regular emergency theatre access to run a safe and timely urological cancer surgery programme to deliver a service in line with the requirements of the NCCP

An analysis of the NCCP Rapid Access data below shows a 15% increase in total attendances from 2014 to 2015 with a 3.5% increase in new patient attendances year on year.

The tables below provided by HIPE is a snapshot of activity in urological cancer services and the most common procedures performed at UHG in 2015:

Urological Cancer Episodes 2015 (Data Source: HIPE)

Diagnosis	Number of Episodes
Primary	1484
Benign	1186
In-Situ	61
Secondary	33
Unknown	4
Grand Total	2768

Rapid Access Prostate Clinic (RAPC) Attendance 2015 (Data Source: KPI Returns 2015)

	Number of Attendance
New Patient Attendance	712
Review Patient Attendance	2092
Grand Total	2804
Total number of new primary diagnoses	295



RAPC Nursing Staff: Muriel Walsh, Muriel Moloney, Rachel Dalton, Deirdre Horan & Rachel Shevlin



RAPC Administration Staff: Sinead Carr , Jean Boyle, Emma O'Toole & Catherine Bailey

Urological Cancer Procedures 2015 (Data Source: HIPE)

Description	Inpatient	Day case	Total	Inpatient Bed Days
Closed Bx prostate or seminal vesicle	20	569	589	190
Examination procedures on bladder	50	64	114	322
Endoscopic resec bladder lesion/tissue	99	-	99	1161
Cystometrography	23	46	69	194
Transurethral prostatectomy	67	-	67	402
Administration of blood & blood products	51	7	58	1073
Endoscopic ureteric catheterisation	54	-	54	526
Radical nephrectomy	36	-	36	499
Endosc ins; replace; R/O ureteric stent	27	1	28	264
Orchidectomy	26	-	26	104
Other closed prostatectomy	24	-	24	264
Open prostatectomy	23	-	23	208
Laparoscopic prostatectomy	4	-	4	36
Biopsy of bladder	19	4	23	122
Partial nephrectomy	15	-	15	181
Nephrostomy or pyelostomy	14	-	14	203
Nephroureterectomy	13	-	13	133
Destruction procedures on bladder	7	6	13	42
Postprocedural analgesia	13	-	13	173
Fibreoptic colonoscopy with excision	5	2	7	77
Excision proc on lymph node; other sites	6	-	6	44
Other incision procedures on kidney	5	-	5	47
Complete nephrectomy	5	-	5	174
Abdominal hysterectomy	5	-	5	71
Open Bx of prostate or seminal vesicle	3	2	5	6
Excision of lesion(s) of SSCT	2	3	5	24
Radiation dosimetry	4	<u>-</u>	4	114
Colectomy	4	-	4	123
Cystectomy	4	-	4	86
Panendoscopy with excision	3	-	3	23
Fibreoptic colonoscopy	3	<u>-</u>	3	50

2.4 Upper Gastrointestinal Cancer

Mr. Chris Collins Consultant Surgeon Lead Clinician

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



According to the projections by the National Cancer Registry, cancer numbers are expected to increase significantly for all cancer types in the coming years. Malignancies of the upper gastrointestinal tract are expected to increase by over one hundred percent by 2040.

As one of the four designated upper GI cancer centres in the country Galway University Hospital continues to provide a client centred high quality holistic service for patients. In total there were one hundred and fifteen newly diagnosed upper GI malignancies in 2015. This included sixty-three oesophageal cancers and fifty-two gastric. Almost eighty-five percent of the oesophageal cancers were adenocarcinomas with the remaining being squamous cell type. The incidence rates for adenocarcinomas are increasing annually in developed countries and research is attributing this to western lifestyles. Sixteen percent of the oesophageal cancers diagnosed were of the mid oesophagus, twenty-two percent of the OGJ and the remaining sixty-two percent of the distal oesophagus.

Surgical resection offers the chance of long-term survival for selected patients with early stage cancer. The majority of patients with tumours suitable for resection require multi-modality treatments including radiation, chemotherapy then resection. In 2015 fifteen patients underwent surgical resection. Of these two patients had a three stage oesophagectomy and the remaining twelve had transhiatal/transthoracic surgery. Eighteen patients underwent definitive treatment of long course radiation with chemotherapy. These included patients diagnosed with squamous cell carcinoma and those with core morbidities not medically fit for surgery.

Unfortunately, oesophageal cancers are rarely diagnosed early as symptoms of early tumours are vague and non-specific. In 2015 only four patients had a T2 tumour on diagnosis and went direct access to surgery. In total four patients presented with high grade dysplasia or in-situ adenocarcinoma. These were diagnosed with surveillance endoscopy.

Fifty-two patients were diagnosed with gastric cancer in 2015. Of these fifteen patients underwent surgical resection. Six patients went forward for neo-adjuvant chemotherapy prior to surgery. A total gastrectomy was performed on six patients with the remaining nine undergoing subtotal/distal surgery. Unfortunately like oesophageal cancer early symptoms are very vague and many patients presented with unresectable disease.

Over fifty-percent of the patients diagnosed in the Upper GI Cancer service presented with inoperable non curative disease requiring palliative and non-surgical treatments such as radiotherapy, palliative chemotherapy, stenting or supportive care. These treatments are all determined by our specialist multidisciplinary team with many being provided in the tertiary referring hospital according to best clinical guidelines.

Our aim is for all individuals to work together with the same aims and understanding of the conditions and the management to create a multidisciplinary team approach. All our patients are discussed at the weekly multidisciplinary team meeting with all surgery performed here in GUH. Our goal remains to provide a quality based service to improve survival for those with disease suitable for curative intent and improve quality of life for those with locally advanced and metastatic disease.

Outpatient activity relating to new Upper Gastrointestinal Cancer Patient Attendances in 2015 (Data Source: PAS)

	New	Review	Unscheduled	Total
Attendance in Outpatients	241	1251	71	1563

Upper GI Cancer Procedures 2015 (Data Source: HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Panendoscopy with excision	40	19	59	792
Oth applicn/ins/removal proc; oesophagus	31	3	34	453
Other gastrectomy	15	-	15	284
Applicn/ins/removal proc on small intest	14	-	14	322
Oesophagectomy by abd & cerv mobilisn	11	-	11	174
Division of abdominal adhesions	7	-	7	175
Resection of small intestine	6	-	6	67
Gstrmy gastro-enterostomy gastro-gstrmy	6	-	6	97
Panendoscopy	6	-	6	100
Dilation of oesophagus	4	2	6	13
Vascular access device	6	-	6	205
Other proc related to pharmacotherapy	1	5	6	34

Upper GI Cancer Episodes 2015 (Data Source: HIPE)

Diagnosis	Number of Episodes
Primary	336
Secondary	53
Benign	6
Unknown	4
In-Situ	3
Grand Total	402

2.5 Colorectal Cancer

Mr Mark Regan Consultant Surgeon Lead Clinician

Professor Oliver McAnena, Consultant Surgeon Mr Myles Joyce, Consultant Surgeon Mr Eddie Myers, Consultant Surgeon Olivia Dunleavy, CNS

Large bowel cancer or colorectal cancer, can occur in both men and women. Almost 2,500 people are diagnosed with bowel cancer in Ireland every year. It is also the second most common cause of cancer death in Ireland. In colorectal cancer, 70% of malignancies occur in the colon (the large intestine) and 30% appear in the rectum.

The colorectal unit at University Hospital Galway operates under the National Cancer Control Programme and is required to deliver care in line with a national suite of Key Performance Indicators (KPI's). These KPI have to be returned biannually and measure performance in diagnostics, staging and treatment of the disease. Referrals are received from several different routes including Outpatients, ED, other hospitals within the Saolta University Health Care Group and diagnoses through the Colorectal Screening Programme. Our objective is to provide care in line with the NCCP guidelines and international best practice.



In line with NCCP guidelines all cases are discussed at a multidisciplinary meeting (MDM) and in 2015 there were 2150 case discussions at the Gastroenterology (upper and lower) multidisciplinary meeting.

Patients with a diagnoses of colorectal cancer can undergo open colorectal surgery; laparoscopic colorectal surgery, advanced endoscopy for benign polyps, transanal surgery for a subgroup of patients with rectal pathology. The service is supported by a Clinical Nurse Specialist (CNS) who assists and supports patients through the many stages of their care plan. Stoma therapy is a vital component of the colorectal programme at Galway University Hospital providing guidance and support as part of an excellent patient centred service.

The tables below give a snapshot of colorectal and stoma care activity for 2015:

Outpatient activity relating to new Colorectal Cancer Patient attendances in 2015 (Data Source: PAS)

	New	Review	Unscheduled	Total
Attendance in Outpatients	913	4026	379	5318

Colorectal Cancer Episodes 2015 (Data Source: HIPE)

Diagnosis	Number of Episodes
Pre-Cancerous	935
Primary	566
Secondary	183
Benign	154
Unknown	3
In-Situ	2
Grand Total	1843

Stoma Care Activity 2015 (Data Source: Mary Quigley, Stoma Care CNM)

Pre-assessment clinic activity	41
Pre-op siting/counselling (no stoma created)	28
New Stoma created (66% oncology related)	177
Reversal of Stoma	26
Inpatient review (established stoma patients with problems e.g. chemo/radiotherapy related)	169
Outpatient clinic appointments	1143
PEG consultations	9
Entercutaneous Fistula	12
Telephone triage/support	2487

Most frequent Colorectal Cancer Procedures 2015 (Data Source: HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Fibreoptic colonoscopy with excision	64	508	572	634
Colectomy	86	-	86	1250
Panendoscopy with excision	21	39	60	276
Anterior resection of rectum	42	-	42	567
Fibreoptic colonoscopy	17	18	35	344
Division of abdominal adhesions	19	-	19	432
Rectosigmoidectomy or proctectomy	14	-	14	342
Endosc ins; replace; R/O ureteric stent	14	-	14	400
Bx of abdomen; peritoneum or omentum	7	3	10	73
Other debridement of SSCT	10	-	10	272

2.6 Bowel Screen Programme

Dr. Ramona McLoughlin

Consultant Gastroenterologist Lead Clinician

Elaine Prendergast, General Manager Roscommon University Hospital

Brid NiFhionnagain, BowelScreen CNS GUH Deirdre Diver, BowelScreen CNS LUH Aine Kennedy, BowelScreen CNS PUH Olive Cummins, BowelScreen CNS RUH Mary Cassidy, BowelScreen CNS SUH



Galway University Hospital Bowel Screen

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 900 patients had a screening colonoscopy in GUH subsequent to a positive FIT, or Faecal Immunochemical Test.

GUH Pathology Department reports on all the pathology detected in BowelScreen colonoscopies carried out in Saolta University Health Care Group. In 2015, 532 patients had polyps removed and 34 patients had cancers detected in GUH. These were all reported on by our dedicated GI Pathologists involved in BowelScreen and reviewed at our weekly Polyp MDM.

Similarly all surgeries on cancers detected as part of BowelScreen in the Saolta Group are treated in GUH, after discussion and planning at the GI Cancer MDM.

A multi-disciplinary approach and commitment from all involved has continued to maintain the standards of this programme.

Letterkenny University Hospital Bowel Screen

Letterkenny University Hospital commenced the Bowel Screening programme in November 2014 and to date we have screened 329 clients. 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 candidate Advanced Nurse Practitioner (cANP) facilitates the bowel screen service in LUH. The endoscopy unit was accredited by the Nursing and Midwifery Board of Ireland for an Advanced Nurse Practitioner in Gastroenterology in March 2016. The Candidate is currently waiting for registration as an Advanced Nurse Practitioner in Gastroenterology.

All patients are pre-assessed by the cANP; suitable clients attend for colonoscopy to LUH. To date we have detected 19 colorectal cancers. The continuing care pathway for these clients includes referral to the surgical and or wider MDT at GUH.

The success of bowel screening at LUH is attributed to the huge dedication & commitment of the endoscopy & wider MDT team. The Endoscopy Unit at LUH achieved full JAG accreditation earlier this year demonstrating its commitment to maintain & develop a quality endoscopy service.



Endoscopy Team in Letterkenny University Hospital Front Row

Dr Chris Steele, Consultant Gastroenterology, Clinical Lead; Mr Tim Ryan, Consultant Surgeon; Margaret Cassidy, CNM3; Eileen Hewett, RGN; Anne Mc Caughan CNM2; Maire Ferry, RGN; Deirdre Diver, cANP Gastroenterology

Second Row

Anne Marie Mc Intyre, RGN; Pauline Callan, admin; Catherine O' Flynn, Endoscopy CNM2; Marie Morris, RGN

Back row

David Toye RGN (hidden), Rosaleen Mc Daid, admin, Sarah Sweeney, RGN and Mr Neville Couse Consultant colorectal Surgeon

Roscommon University Hospital, Bowel Screen

In 2015, Roscommon University Hospital entered its second year as a screening site with the National Bowel Screen programme. The screening patients are supported and guided through their experience within Roscommon University Hospital, and possible referral onwards, not just by the Bowel Screen 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 2015, the colorectal CNS, pre-operative CNS and bowel screen CNS were honoured to be nominated for a CEO award in the 'Exceptional Patient Experience Category', which reflects the dedication of the whole team who work together to enhance patient experiences.

Sligo University Hospital, Bowel Screen

Following JAG accreditation in 2012, Sligo University Hospital commenced screening in May 2013, to date over 600 patients have been screened in the endoscopy unit, across a wide geographical area. With the first round of screening completed, currently the unit is screening from the second round of positive FIT (Faecal Immunochemical Result) results. Clinical lead for the programme in Sligo is Dr Kevin Walsh, Consultant Gastroenterologist. Since commencement, 39 patients have been referred to GUH for surgical follow up, including 26 who had a detected malignancy.

In May 2016, Mary Cassidy was accredited by the Nursing and Midwifery Board of Ireland (NMBI) as a registered Advanced Nurse Practitioner (RANP) in Gastroenterology. This role was initially commissioned by Bowel Screen as a CNS with a view do attaining registration as an RANP.

Throughout the year the endoscopy unit in SUH, continues to lead out on quality initiatives and meet the KPIs as set by the National Screening Service, thus having a positive impact directly on patient care and outcomes.



Presentation to Olive Cummins RUH Colorectal/Stoma CNS, Jackie O'Brien Pre-Operative assessment CNS, Amy Carroll RUH BowelScreen CNS and Saolta CEO Mr Maurice Power for a finalist nomination for the category of "Exceptional patient experience" at the 2015 Staff Recognition Awards

Bowel Screen Programme Activity 2015 for Saolta Group (Data Source: Elaine Prendergast, RUH)

	GUH	SUH	RUH	LUH	Saolta Group Total	%
Screening Colonoscopies performed	299	134 (incl 4 repeats)	176 (incl 16 repeats)	173	782	100%
DNA's	8	-	3	4	15	2%
Ptns with Polyps	207	90	117 polyps 103 adeno	118	532	68%
Cancers detected	14*	3 (1 had OT in MUH)	8	9	34	4%
Surgical Referrals	17**	6	13***	11	47	6%
CTC Referrals	2	5	5	9	21	3%
Pre Assessed who declined colonoscopy	48	8	18	6	80	10%

Bowel Screen Cases by Hospital Site

	0-3 months	3-6 months	6-8 months	8-12 months	12-15 months	15-18 months	18-24 months	Grand Total
Active Cases	2202	778	256	271	112	41	2	3662
GUH	736	448	223	244	112	41	2	1806
LUH	381	20	-	-	-	-	-	401
MUH	156	139	31	20	-	-	-	346
PUH	30	8	-	-	-	-	-	38
RUH	458	133	2	7	-	-	-	600
SUH	441	30	-	-	-	-	-	471
Pre-admitted Cases	946	171	8	4	7	1	-	1137
GUH	207	35	4	3	7	1	-	257
LUH	224	57	1	1	-	-	-	283
MUH	92	13	1	-	-	-	-	106
PUH	158	12	-	-	-	-	-	170
RUH	60	28	-	-	-	-	-	88
SUH	205	26	2	-	-	-	-	233
Suspension Cases	105	16	3	3	1	-	-	128
GUH	66	2	3	3	1	-	-	75
LUH	29	14	-	-	-	-	-	43
MUH	2	-	-	-	-	-	-	2
RUH	7	-	-	-	-	-	-	7
SUH	1	-	-	-	-	-	-	1
Grand Total	3253	965	267	278	120	42	2	4927

2.7 Skin Cancer

Ms. Deirdre Jones Consultant Plastic Surgeon Lead Clinician



The incidence of skin cancer is particularly high in the West of Ireland, and cancers like melanoma are increasing every year with skin cancer now the most common form of cancer in Ireland. The Saolta University Health Care Group has a very vibrant skin cancer programme providing care across the Saolta Group with Skin Triage Clinics and outpatient clinics in Galway University Hospital, Mayo University Hospital, Portiuncula University Hospital and Roscommon University Hospital within the Saolta Group and Ennis Regional Hospital in the University of Limerick Hospitals Group. For every skin cancer detected it is estimated that 16 – 20 lesions are seen in the outpatient setting.

There is a well established multidisciplinary team relying on the expertise of dedicated histopathologists and radiologists, and preparation for the meeting represents a very significant investment in time for these stretched services. The meeting is also attended by consultants and NCHD's from Dermatology, Plastic Surgery, General Surgery, Oncology and Radiotherapy and no patient is discussed in the absence of their lead consultant. This year we have benefited from the assistance of an MDT coordinator which is helping to streamline the meeting.

All melanomas and challenging lesions are discussed at our multidisciplinary meeting which meets three weeks out of every four. Up to 30 patients can be discussed at each meeting. In 2015, 650 patient discussions took place at the Skin Cancer MDT Multidisciplinary meeting. The MDM is the cornerstone of our service and provides an invaluable forum for optimising patient care. Skin cancer patients are also discussed at the dermatology/Pathology MDT and the Head and Neck MDM on a regular basis as required.

The treatment of skin cancer in the Saolta University Health Care Group is primarily surgical, and we continue to provide new facilities to perform these procedures in efficient, patient-friendly ways. In addition to the day ward facilities available in GUH, Ennis and RUH we have access to the Plastic Surgery Procedures Unit (PSP). The Dermatology Service also provides topical therapies (Efudix, Aldara, and Picato), cryotherapy and photodynamic therapy for suitable patients.

We are seeing increased patient numbers year on year for skin cancer screening. Patients of all ages, gender, degrees of risk present and must be seen. Aside from outpatient diagnosis and treatment of skin cancers, there is also a requirement to follow-up patients who have undergone treatment for certain types of skin cancer - most notably squamous cell carcinoma and melanoma. While a system of shared care with GPs might be a desirable option for the future, from a patient's and services provider's point of view, it is not yet widespread. Transplant patients, and other patients on immunosuppressant medication are particularly in need of careful and continuous surveillance.

In the future we hope to introduce skin cancer advanced nurse practitioners and clinical nurse specialist to add further structure to the service and continuity of care to the patients as well an invaluable point of clinical contact for patients, GP's and public health nurses who wish to liaise with the team.

In 2015, seventy four patients with a diagnosis of skin cancer had radiotherapy treatment at GUH. The principle diagnosis related to skin cancer of the face followed by the scalp and neck.

The tables below highlight the enormous level of activity in 2015 which went through the Skin Programme:

Outpatient activity relating to new Skin Cancer Patient Attendances in 2015 (UHG Data Source: PAS)

	New	Review	Unscheduled	Grand Total
Skin Cancer	1887	5913	346	8146

Galway University Hospital Plastics Cases 2015

GUH Plastics OPD Clinic	New	Review	Total
Total attendance in outpatients	2987	6091	9078
Attendance at skin cancer clinics	213	44	257
Attendance at general clinics	2737	6091	8828
Grand Total	5937	12226	18163

Roscommon University Hospital Plastics Cases 2015

RUH Plastics OPD Clinic	New	Return	Total
Surgical Procedures	207	85	292
Plastics Review (UCC)	77	1650	1727
Plastic Surveillance	9	657	666
Grand Total	293	2392	2685

Skin Cancer Data 2015 (Data Source: Pathology)

Skin Cancer	UHG	RUH	Total
Basil Cell Carcinoma	1191	210	1401
Squamous cell carcinoma	753	145	898
Squamous cell in situ: pre malignant	220	37	257
Melanoma	152	22	174
Melanoma in situ: pre malignant	167	36	203
Rare skin cancer	22	5	27
Grand Total	2505	455	2960

2.8 Lung Cancer

Dr David Breen

Consultant Respiratory Physician Lead Clinician Interventional Pulmonologist

Imelda Fleming, CNMII Clare Davy, CNS Jacinta Murphy, SN

The Lung cancer services are truly multidisciplinary with services provided by multiple directorates and specialists within the hospital group.

The majority of patients commence their journey after referral to the Rapid access Lung clinic by their general practitioner. This clinic is led by respiratory physicians, who undertake an initial assessment followed by diagnostic and staging investigations. Once this has been completed, patients are then triaged for further investigations – most of these investigations are coordinated/performed through unit 8 in Merlin Park – this includes staging cross sectional imaging, endoscopy, ultrasound and lung function testing.

Once these results are available all cases are discussed through the multidisciplinary meeting held weekly on a Monday evening. If any further investigations are required they are arranged through this forum. Once the work up is completed and an accurate diagnosis and stage is obtained patients return to the Joint Thoracic Clinic for discussion of diagnosis and review by other specialists including thoracic surgery, Medical and Radiation Oncology. This clinic has been running over the last year and has allowed significant streamlining of the thoracic oncology service.

Finally the thoracic oncology group has developed new therapeutic services over the last 5 years



which have greatly assisted in the care of patients with advanced lung cancer. Most of these services are unique to Galway University Hospitals and not provided through other cancer centres in Ireland. These include advanced management of pleural disease with diagnostic and therapeutic pleural procedures including aspiration, chest drain insertion, pleural ultrasound, Thoracoscopy, Talc instillation and Indwelling pleural catheter insertion. In addition advanced airway management includes rigid bronchoscopy, argon plasma coagulation, metallic and silicone stent insertion.

This service would not function without the ongoing work and support of all members of the team – including teams from respiratory medicine, lung cancer nurses, endoscopy nurses, respiratory scientists, the radiology department for diagnostic radiology and interventional radiology. In addition treatment is provided by a dedicated thoracic surgery department, medical and radiation oncology and palliative care.

Further advances are planned over the coming years included a dedicated location for thoracic oncology, enhanced facilities and further investment of clinics including a nodule clinic and smoking cessation clinic. In addition the team are exploring the development of cardiopulmonary testing for better patient selection and new clinics such as survivorship clinics and pre treatment rehabilitation services.

Rapid Access Lung Clinic (RALC) Attendance 2015 (Data Source: KPI Returns 2015)

	Number of Attendance
Total of new patients	546
Total of review patients	1271
Grand Total	1827

Thoracic Surgery at GUH

Ms Marie Cloonan, CMNIII

Thoracic surgery at GUH is performed by Mr Mark DaCosta and Mr Dave Veerasingam and more recently by Mr Alan Soo who was appointed in May 2016.

Patients are referred in the main from the Joint Thoracic Clinic but also a small number through respiratory physicians both within GUH and from outside referring hospitals. The Cardiothoracic unit also accommodates traumatic chest injuries via the Emergency Department.

All referred patients will have a Pre assessment which is carried out on the cardiothoracic ward by the ward staff. Here the medical history, medication review, a thorough physical examination as well as Bloods, CXR MRSA screening is carried out. Patients get an opportunity to discuss their surgery with the surgeon and discharge planning is reviewed.

Patients are admitted the evening prior to or the morning of surgery 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.

Physiotherapy and mobilisation play a big part in patient recovery and patients are encouraged to mobilise on day one. Most patients will have an epidural analgesia and as soon as chest drains are removed this will be discontinued. Pain control is paramount and an analgesia regime is commenced prior to surgery. The pain team work closely with the Medical and nursing team to ensure that pain is not an issue for our patients.

Thoracic Surgery Activity 2015 (Data Source: Thoracic Surgery, GUH)

Patients pre-assessed from RALC	88
Surgical procedure carried out	108
• Lobectomy	55
Bi-Lobectomy	6
Wedge Resection	12
Pnuemonectomy	1
VATS Biopsy	13
Pleurodesis/decortications/blebectomy	13
Thymecyomy	1
Mediasinoscopy	1
Thoracotomy (other)	6

2.9 Head and Neck Cancer

Ms. Orla Young
Consultant Otolaryngologist, Head & Neck Surgeon
Lead Clinician

Carol Brennan, CNS ENT



The Head and Neck cancer programme at GUH is the referral centre for the West of Ireland, extending from Donegal to Clare. Patient referrals come directly from GPs and other regional hospitals in the Saolta University Health Care Group. The Head and Neck cancer programme 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, SHO (GP trainee) and interns. Outpatient clinics are held on a daily basis at GUH, 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.

Carol Brennan is the fulltime Clinical Nurse Specialist for the Head and Neck Cancer Unit. Carol provides a crucial link between Surgical Oncology Services in ENT and Maxillofacial Departments and the Radiation and Medical Oncology Services. She provides support; information and advice to the HANO patients from investigation stages to diagnosis, through treatment and for long term follow up.

A Senior Speech & Language Therapist, Karen Malherbe is also attached to the unit and provides support for patients with swallowing and speech issues. She attends to inpatients and outpatients with the Head and Neck Oncology Service.

Head and Neck oncology had 37 MDM meetings in 2015 at which a total of 454 patients were discussed by the Multidisplinary Team which

consists of Consultant Surgeons, Medical Oncologists, Radiation Oncologists, Radiologists, Pathologists, Clinical Nurse Specialists, Speech and Language Therapist and MDM Co-ordinator.

Last year there were 131 new cancer patients diagnosed and treated within this centre.

There have now been 43 consecutive cases of early glottic carcinoma treated using Trans-oral CO2 laser resection since its introduction in 2014. This means patients have avoided a lengthy seven week course of radiotherapy treatment, freeing up invaluable radiotherapy slots for other oncology patients within GUH.

We successfully launched our first inaugural International Head and Neck Cancer day on the 27th July in conjunction with the other 8 centres in Ireland by the International Federation of Head and Neck Oncologic Societies (IFHNOS). The aim was to raise awareness of head and neck cancers both within the medical and public domain and to provide information on the causes, signs and symptoms of head and neck cancer. Carol Brennan and her colleagues ran an information stand in the foyer of the hospital on this day providing information on Head and Neck cancer to both the public and staff. A drop in service was provided on this day in ENT outpatients between 1-2pm and an oral cavity examination was performed by the team. There was a good response from the public with a number of clients recalled for further investigations. We hope to run a further day in conjunction with the guidelines from the IFHNOS in 2016 and we are hoping that with the help of some former HANO patients we hope to increase the local media involvement in raising the profile of Head and Neck Cancer on this day again in 2016.

Head & Neck Episodes 2015 (Data Source: HIPE)

Diagnosis	Number of Episodes
Primary	371
Benign	101
In-Situ	5
Unknown	3
Grand Total	480

Outpatient activity relating to new Head & Neck Cancer Patient Attendances in 2015 (Data Source: PAS)

	New	Review	Unscheduled	Grand Total
Head & Neck Cancer	290	2466	132	2888

Head & Neck Procedures 2015 (Data Source: HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Excision procedures on tongue	20	23	43	144
Excision proc on salivary gland or duct	29	2	31	69
Biopsy of oral cavity or soft palate	3	28	31	40
Examination procedures on larynx	4	27	31	99
Excision of lesion(s) of SSCT	5	10	15	17
Excision proc on lymph node of neck	15	-	15	213
Examination procedures on pharynx	2	9	11	3
Tonsillectomy or adenoidectomy	8	1	9	22
Excision of lesion of mouth or palate	9	-	9	64
Laryngoscopy with excision	2	7	9	5
Tracheostomy	7	-	7	166
Panendoscopy with excision	5	2	7	57
Biopsy of tonsils or adenoids	1	5	6	1
Biopsy of nasal cavity	3	3	6	13

2.10 Endocrine/Endocrinological Cancer

Dr Marcia BellConsultant Endocrinologist
Lead Clinician



The Endocrine multidisciplinary Cancer Programme based at GUH provides integrated care to patients with thyroid and endocrinal cancer as well as contributing to the National Cancer Control Neuroendocrine tumour Programme. The team consists of 6 endocrinologists led by Dr Marcia Bell, 3 endocrine surgeons with support from radiology, chemical pathology, medical and radiation oncology. The multidisciplinary team meets twice monthly to consider each case individually and decide on the best approach and

treatment plan for each patient. The MDM links with Dr Osama Salib at St Luke's Hospital.

The Centre of Excellence for Neuroendocrine Tumours (NETs) operates on a multi-centre platform between St Vincent's University Hospital in Dublin, Mercy University Hospital Cork in the south and Galway University Hospital in the West. This enhances the services for Saolta Health Care Group patients with increased exposure to new treatments and approaches, inclusion in drug and other trials, as well as other benefits.

The following tables highlight the level of activity related to the Endocrine Programme in 2015:

Outpatient activity relating to new Endocrine cancer patient attendances in 2015 (Data Source: PAS)

	New	Review	Unscheduled	Grand Total
Endocrine Cancer	222	1047	87	1356

Most Frequent Endocrine Procedures 2015 (Data Source: HIPE)

Description	Inpatient	Day Case	Total	Inpatient Bed Days
Thyroidectomy	41	-	41	125
Parathyroidectomy	24	2	26	57
Excision proc on lymph node of neck	13	-	13	69
Adrenalectomy	12	-	12	66
Biopsy of parathyroid or thyroid gland	4	2	6	12

Endocrine Episodes 2015 (Data Source: HIPE)

Diagnosis	Number of Episodes
Primary	126
Benign	108
Secondary	65
Unknown	15
In-Situ	1
Grand Total	315

2.11 Radiology



Dr John BruzziConsultant Radiologist
Lead Clinician



Dr Colm O Donnell
Diagnostics Group
Clinical Director

The Radiology Departments across the Group provided a range of diagnostic, staging and surveillance imaging studies for oncology patients

in 2015, including Computed Tomography, Ultrasound, Nuclear Medicine and Magnetic Resonance Imaging.

Total overall Activity for Radiology for 2015 (Data Source: Radiology, Saolta Group)

Imaging modality	GUH	MPUH	LUH	SUH	MUH	PUH	RUH	Total patient numbers
Breast	9541	-	3958	-	808	-	-	14307
СТ	14907	-	9099	13334	10377	8463	3081	59261
General	64872	31311	54392	64591	63560	24836	11088	314650
GI	976	-	-	-	205	-	45	1598
Interventional	2618	975	241	-	215	469	44	4562
MRI	4583	-	2726	8695	4089	4740	-	24833
Nuclear Medicine	1831	376	-	435	-	-	-	2642
Theatre	2488	947	660	1568	659	-	-	6322
Ultrasound	9225	2562	9385	8887	8454	6815	2238	47566

^{*}SUH operate their MRI scanner from 8:00-22:00 Mon-Fri and 8:00-17:00, scanning private patients after 17:00 weekdays and all day on Saturday. All MRI's conducted at site are included in these figures

PET-CT scans for oncology patients are performed at the Galway Clinic and reported by radiologists in GUH. In 2015, there were 702 PET-CT scans performed (compared to 661 in 2014).

Service expansion in 2015 included the introduction of MRI on-call, the introduction of 8-8 imaging in CT (staffing permitted), and the appointment of a new consultant radiologist with a special interest in Interventional Radiology

(thereby supporting the expansion of IR services in Merlin Park Hospital). Approval was also given for replacement of the old 2-slice CT scanner with a new 128-slice CT (still awaiting installation in 2016), and one of the old ultrasound scanners was replaced with a new machine. Planning for the provision of new interventional/screening units in Sligo, Portiuncula and Letterkenny progressed. Plans for reconfiguration of the Radiology Department in MUH also progressed.

Current challenges

Staffing shortages in radiographic staff have lead to restrictions in full operation of all services and hampered the ability to expand imaging services to support clinical need. Over the past 15 years, GUH has greatly expanded all services but this has not been accompanied by an equivalent level of expansion in the radiographic services needed to support these new initiatives. Rather, the overall number of radiographic WTEs has progressively declined from its approved ceiling, mirroring a trend seen in other hospitals nationally. In addition, the moratorium on new appointments that was introduced during the economic crisis of 2007-2014 resulted in severe strictures on filling essential training posts, leading to a depletion of appropriately trained staff. As of April 2015, there were 52.72 radiographer WTEs in post (75% of approved WTEs - 25% shortfall).

Equipment shortages relative to clinical need in CT, MRI, Ultrasound, mobile x-ray units and C-arms for theatre fluoroscopic imaging.

Long out-patient waiting lists in CT, MRI and Ultrasound due to a shortage of equipment and staff: in CT, as of December 2015, there were 778 out-patients waiting for CT imaging, with waiting times of just less than a year for non-critical CT. Waiting times for high-priority out-patient oncology patients were up to 63 days, as of January 2016. A new 128-slice CT scanner is due to replace the older 2-slice CT scanner late in 2016, which will help reduce waiting times.

In MRI, as of December 2015, there were 3,556 out-patients waiting for scans, with non-critical patients facing waiting times of approx. 2.5 years. Waiting times for high-priority out-patient oncology patients were up to 84 days, as of January 2016. This is despite the introduction of 8-8 scanning by the radiographers. Currently GUH has only one MRI scanner which is 15 years old; St James's Hospital (of comparable size but with a smaller catchment area) has four MRI scanners. In 2016, funding was provided to support weekend MRI scanning on a temporary basis, but a more viable long-term solution requires the installation and staffing of at least one more MRI scanner. A business plan for a new MRI scanner has been submitted by radiology several times over the past 3 years and this has been forwarded to HSE Estates, but radiology is still not aware of any immediate plan to proceed with this.

In Ultrasound, as of December 2015, there were 2,277 patients waiting for out-patient ultrasound scans, with waiting times of approximately a year for non-critical requests. Waiting times for high-priority out-patient oncology patients were up to 60 days, as of January 2016. The decision by the hospital in 2015 to expand Ultrasound services to include referrals by GPs without an appropriate accompanying expansion of resources has lead to even longer waiting times for non-urgent referrals. Further expansion of Ultrasound services to facilitate other initiatives such as ovarian cancer screening will not be possible without additional equipment and suitably trained staff.

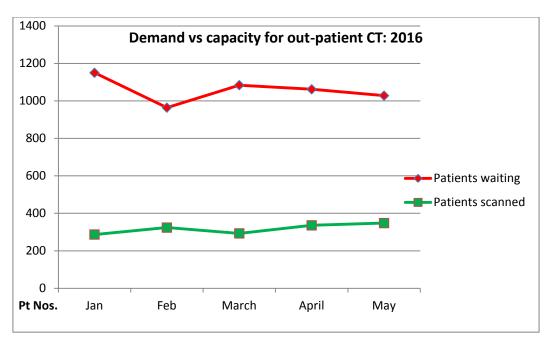
PACS integration across the Saolta network is needed to facilitate image transfer and interpretation and streamline imaging for patients and clinicians, but requires integration between AGFA PACS and the NIMIS platform. Requests to NIMIS to arrange workshops to advance this have not been successful to date.

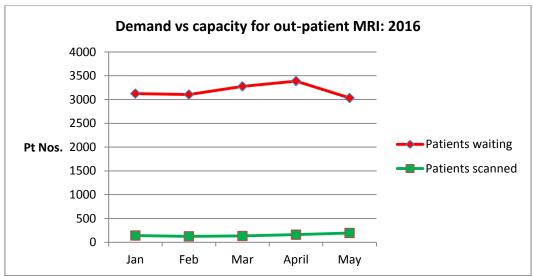
The absence of a hospital protocol for out-of-hours Interventional Radiology procedures is a risk to patients requiring emergency intervention. The resources necessary for an on-call IR service at GUH are still not in place. Patients who may need this service include patients with sepsis. Post flooding of Letterkenny Hospital the Radiology Department rebuild is ongoing. A date for completion of the rebuild is uncertain.

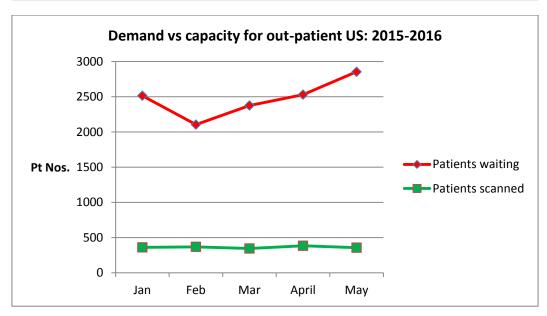
In the absence of this service, it has been highlighted to hospital management that a formal clinical pathway is needed to guide clinicians, e.g. for patients with sepsis needing intervention.

In summary

Radiology in the Saolta University Health Care Group provides a huge number of investigations and interventions for the benefit of our patients. The ability to continue to deliver timely imaging remains constrained by shortages in trained staff and equipment. Waiting times for out-patient MRI, CT and Ultrasound scans remain unacceptably high. Provision of a second MRI scanner in Galway, the rebuild of the Radiology Department in Letterkenny, replacement of an old CT scanner in Galway, provision of GP access Ultrasound and modernisation of interventional/screening units across the Group are key priorities for Radiology. Increased investment in staff, buildings and equipment is required to meet present demand and to cater for ongoing increases in need.







Oncology Multidisciplinary Meetings at GUH

Cancer Site MDM team	Time of meetings	Frequency of meetings	Outside link ups at MDM	
Breast (excl BreastCheck activity)	Thurs 8am	Weekly	LUH, SUH, MUH	
Colorectal Screening (Polyp)	Thurs 12.45am	Weekly	SUH, RUH	
Combined Oncology	Tues 8am	3 per month	No link up	
Endocrine	Mon 8am	Fortnightly	No Link up	
Gastroenterology	Fri 9am	Weekly	LUH,SUH,MUH PUH,RUH	
Gynae/Oncology	Fri 9am	-	No Link up	
Haematology	Mon 12pm	3 per month	<u>-</u>	
Lung	Mon 4.30pm	Weekly	SUH, MUH, RUH	
Lymphoma	Fri 8am	Fortnightly	SUH	
Skin	Mon 1pm	-	No Link up	
Urology	Wed 8am	Fortnightly	No link up	

2.12 Pathology

Dr Teresa McHaleConsultant 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. The departments provide a high quality diagnostic service to meet the National and European objectives of reducing the morbidity and mortality caused by cancer through early detection and appropriate service delivery and provides a high quality non cancer related diagnostic 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 Multi Disciplinary Meetings, as well as by direct referral.

Since 2009 the Division of Anatomic Pathology at GUH has actively participated in the ongoing development of the Faculty of Pathology's National Quality Indicator programme.

Pathology departments are also active in LUH, SUH, PUH, and MUH. The following data relates to pathology activity at GUH.

Key procedural codes associated with workload detail:

<u>P01</u>	Core, needle, punch, shave, and curetting
	biopsies including liver, bronchial, lung
	core, endometrial pipelle, skin punch,
	prostate core, renal core, lymph node
	core, and targeted bone core for tumour.
<u>P02</u>	Endoscopic Gastrointestinal biopsies
P03	Cancer Resections
<u>P04</u>	Non cancer resections
<u>P06</u>	Non Gynae cytology FNA
<u>P07</u>	Non Gynae cytology, Exfoliative
<u>P10</u>	Autopsy (Non State)

Histopathology Workload at GUH 2015 (Data source: Pathology GUH)

		Cases	Specimens	Blocks
Procedure Code	Total all Procedure types	37458	62118	120617
P01	Small biopsy	6306	12828	14385
P02	GI biopsy	9377	18202	19241
P03	Non biopsy Cancer Resection	3723	7580	46618
P04	Non biopsy Non Cancer Resection	14717	19356	36701
P06	Non Gynae cytology FNA	571	821	3
P07	Non Gynae cytology Exfoliative	2393	2954	324
P10	Autopsy	347	347	3226
Uncoded		24	30	119

Division of Anatomic Pathology Support at MDM 2015

Symptomatic breast	Endocrine
Cardiothoracic	Gl Medical
Lung	GI Surgical
Derm path	Head/Neck
Oncology/Gynae	Urology
Lymphoma	Cervi-check
Haematology/Morphology	Colorectal

Malignancy case breakdown pathological site (Data Source: Pathology GUH)

Total Malignant cases	6260
Surgical cases	6030
Cytology cases	230

Site	Number
Dermpath	2650
Breast	1005
Total Core Biopsy Cases Received	1339
Malignant Biopsy Cases	470
Resection	535
Bone Marrow/Haematology	242
Lymph node	257
Head/Neck	195
Cardiothoracic/Lung	212
Gastrointestinal	507
Biopsy	236
Resection	271
Liver/Pancreas/Spleen	76
Kidney	75
Genitourinary/Prostate	717
Total Core Biopsy Cases Received	1045
Malignant Biopsy Cases	458
Resection	259
Gynae	182
Other	142

Case Breakdown x Subsection 2015 (Data Source: Pathology GUH)

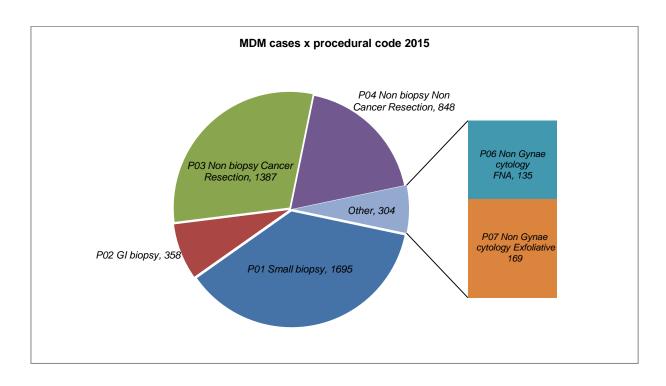
Non Gynae Cytology	304
Referred Cases	303
Surgical Cases	3987
Total Cases	4594

Cases referred to the Division of Anatomic Pathology for review/opinion/discussion at MDM

Туре	Number
Cases received for review/opinion/MDM	778

Case Breakdown x Procedural Case Type 2015 (Data Source: Pathology GUH)

Procedure Code	Total all Procedures Types	Cases
P01	Small Biopsy	1695
P02	GI Biopsy	358
P03	Non Biopsy Cancer Resection	1387
P04	Non Biopsy Non Cancer Resection	848
P06	Non Gynae Cytology FNA	135
P07	Non Gynae Cytology Exfoliative	169



2.13 Medical Oncology

Dr Paul DonnellanConsultant Medical Oncologist Lead Clinician



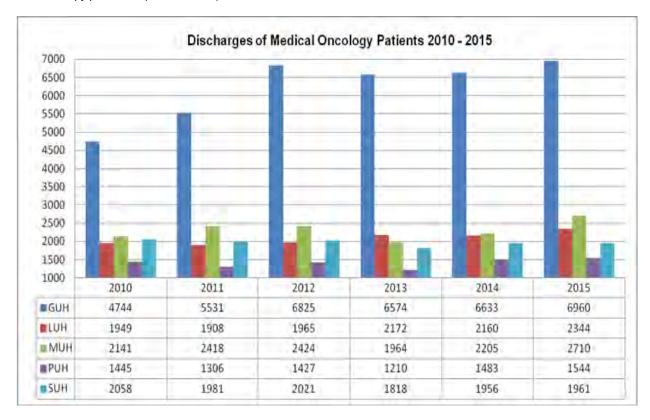
Medical oncology specialises in the drug-treatment of cancer. Originally the drugs available were almost exclusively cytotoxic chemotherapy agents but modern medical oncology increasingly utilizes rationally-designed biological therapies; oral targeted agents; and, more recently, immunotherapy. While relatively less toxic, and clearly effective, the increased use of these agents will place major demands on the Healthcare System and medical oncology units across the Saolta region.

Saolta Medical oncology services are provided in: GUH (with satellite day-wards at Portiuncula University Hospital and Mayo University Hospital); Sligo University Hospital; and Letterkenny University Hospital. We are currently compiling a comparative table of resources and activity for units across the Saolta Region which will be ready for the 2016 report. The current report looks only at activity as reflected in HIPE data, NCCP funding, and KPIs. Reports of activity directly from individual units are also included.

Four consultants (Silvia Blazkova, Paul Donnellan, Maccon Keane, and Gregory Leonard) reviewed a total of 754 new patients and 4645 return patients at Outpatient clinics at GUH in 2015. (Refer to Saolta individual hospital reports for data for other hospitals).

Saolta Group Hospitals: Medical Oncology Discharge Activity 2015

Discharges for patients coded under the specialty of medical oncology with a diagnosis of cancer and who received a chemotherapy procedure (Source: HIPE)

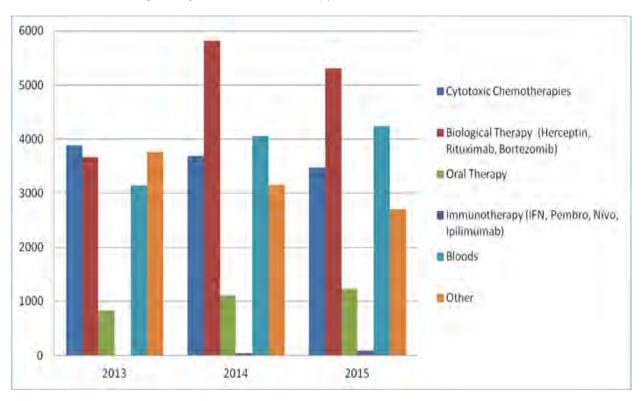


Saolta Group Hospitals Medical Oncology 2015 Activity (Data Source: HIPE)

	UHG	MUH	LUH	SUH	Total
Oncology Inpatients (primary diagnosis cancer)	366	1	55	62	484
Oncology Inpatient episodes of care (primary diagnosis cancer)	669	5	224	110	1008
Oncology Inpatients episodes of care (any diagnosis cancer)	946	8	473	490	1917
Oncology Inpatients (any diagnosis of cancer)	425	2	111	163	701
Day Cases (Oncology)	188	294	225	180	887
episodes of care (daycase)	411	786	1156	530	2883
Daycase pts with any dx of cancer	184	242	173	122	721
Daycase epsiodes with any dx of cancer	472	796	1206	628	3102
Chemotherapy Patients (oncology)	995	357	257	317	1926
Chemotherapy Patients (Haem)	280	25	100	91	496
Chemotherapy Episodes (oncology)	6596	2726	2284	1915	13521
Chemotherapy Episodes (Heam)	2623	186	974	629	4412
Chemotherapy Episodes (RT)	266	-	-	-	266
Inpatient Bed-Days Used by Oncology (primary dx cancer)	7119	12	1502	1683	10316
Inpatient Bed-Days Used by Oncology (any dx cancer)	9893	15	3392	4889	18189
(Total Beds used by all pts with primary dx of cancer)	100	12	15	15	142

GUH Haematology/Oncology Day Ward activity 2013-2015 (Data Source: MOSAIQ database)

There were 17,048 patient visits to the day ward at GUH in 2015 which was slightly less than in 2014 (17,887) but considerably more than 2014 (15,288). In 2015 we see a slight reduction in chemotherapy usage and increased use of oral targeted agents and immunotherapy.



High Cost Drugs Funding provided by NCCP

In 2015, a total of €3.77m was provided by NCCP to hospitals in the Saolta Hospitals Group for drugs on the Oncology Drugs Management System (ODMS) and contributions towards growth in existing high-cost cancer drugs. The table below sets out the funding provided by NCCP to the hospitals in the Saolta Group in 2012-2015:

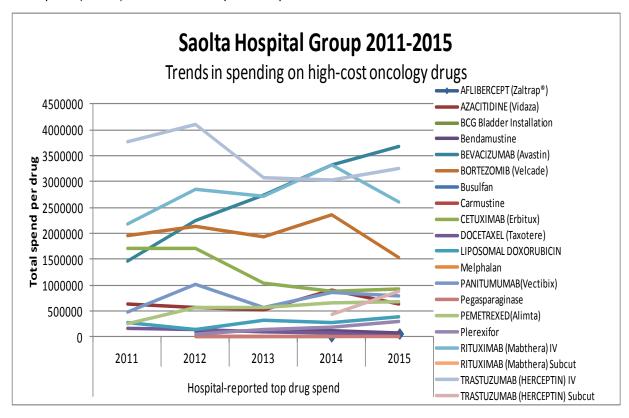
Summary of funding provided by NCCP to Saolta Hospitals Group in support of oncology drugs 2012-2015

Hospital Group	2012	2013	2014	2015
Galway University Hospital	1,181,415	1,036,691	1,924,984	2,226,573
Letterkenny University Hospital	52,275	317,737	236,604	432,384
Mayo University Hospital	-	156,486	212,154	444,298
Portiuncula University Hospital	-	137,918	19,497	488,421
Sligo University Hospital	-	195,423	206,494	179,874
Saolta Group Total	1,233,690	1,844,255	2,599,733	3,771,549

Saolta Group Hospitals spending on high-cost cancer drugs 2011-2015

The introduction of sub-cutaneous administrations of some drugs (Rituximab and Trastuzumab) have affected the spending on IV administrations of these drugs but each type is shown separately here (e.g. see decrease in IV Trastuzumab and increase in sub-cut Trastuzumab when the latter was introduced in 2014).

The illustration below shows the trend in spending on the specified list of drugs in the period 2011-2015 across all hospitals (in total) in the Saolta Hospital Group in total.



Funding for newly-approved cancer drugs (Oncology Drugs Management System; "ODMS")

	20	12	2	2013 2014		2015		
Hospital	Number of patients*	Funding allocated	Number of patients	Funding allocated	Number of patients	Funding allocated	Number of patients	Funding allocated
GUH	-	1,181,415	5	386,835	27	1,109,842	41	1,220,914
LUH	-	52,275	1	94,095	-	-	1	104,550
MUH	-	-	-	-	5	115,782	10	323,779
SUH	-	-	-	-	1	78,413	1	26,138
		1,233,690	6	480,930	33	1,304,037	53	1,675,380

^{*}Patient numbers not available for 2012

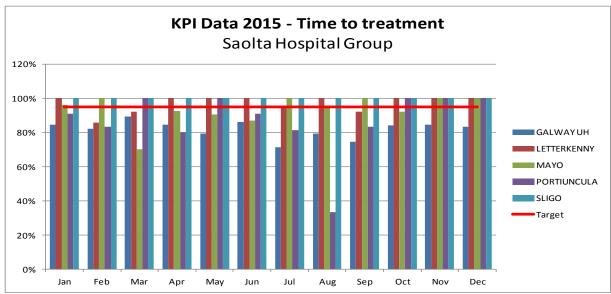
National Cancer Control Programme KPIs for Medical Oncology

One KPI for systemic therapy is in place, relating to 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 table below sets out

the KPI returns for the Saolta hospitals for the period January-December 2015. University Hospital Galway and other sites highlight problems with capacity in the day ward, among other reasons which led to delays in patients receiving the first round of their chemotherapy above the targeted 15 days after agreement of the treatment plan.

Saolta Group Hospitals KPI Data 2015: Percentage patients within 15 day target

Hospital 2015	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Galway University Hospital	85%	83%	89%	85%	79%	86%	71%	79%	74%	84%	85%	83%
Letterkenny University Hospital	100%	86%	92%	100%	100%	100%	95%	100%	92%	100%	100%	100%
Mayo University Hospital	96%	100%	70%	93%	90%	87%	100%	96%	100%	92%	100%	100%
Portiuncula University Hospital	91%	83%	100%	80%	100%	91%	81%	33%	83%	100%	100%	100%
Sligo University Hospital	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%



KPI Data – Saolta Hospitals Group – Percentage of patients receiving first cycle of treatment on a new chemotherapy regimen within the target of 15 days – trend Jan-Dec 2015. (note: Portiuncula August – total of three patients – 1 received treatment within 15 days, 2 did not)

Saolta Individual Hospital Reports

Portiuncula University Hospital

Portiuncula University Hospital has a well established nurse - led Oncology Unit. It is a satellite service of University Hospital Galway 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 Silvia 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 and sometimes bi weekly basis and a radiation oncology clinic is held each month. 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.

The total number of patients treated in 2015 in the Oncology day unit was 2,294 patients. The approx number of patients who attended medical oncology clinics here over a 9 month period in 2015/2016 – 621 patients.

Caitriona Duggan has completed her Post graduate Diploma in Advanced practice from NUIG and is now a Registered Advanced Nurse Practitioner as per NMBI. Caitriona currently is employed as an Advanced Nurse Practitioner Candidate in Oncology 19.5 hrs/PW. In this capacity under the supervision of Dr Silvie Blazkova Consultant Medical Oncologist she reviews patients in the weekly Oncology clinics in Portiuncula. This has resulted in the previous waiting list for standard review appointments of 3 months to be now eliminated.

She is currently awaiting the post to be sanctioned in Portiuncula Hospital. Once in her new role she will be commencing weekly Oral Chemotherapy and targeted therapy clinics and Survivorship clinics. This will greatly enhance the service for this particular patient cohort and allow for extra capacity in the acute oncology day unit.



from left to right: Anne Madden Finnegan, Sally O'Connor, Vicky Costello, Deirdre Hanley, Eilis O'Leary and Caitriona Duggan

Mayo University Hospital

Two consultants (Dr Donnellan, Dr Leonard) reviewed 264 new patients and 1481 return pts at OPD clinics at Mayo University Hospital.

Total patient attendances to the haematology/ oncology day ward 4403 with Oncology treatments totalling 3950. The following are significant highlights for 2015:

 Nurse Mary Hannigan qualified as Advanced Nurse Practitioner and has since completed the Nurse X-ray prescribing course. CNS registered as drug prescriber

- 4th year of Westport family fun day successful with very positive feedback from patients and families
- Day ward successfully enrolled in the "care to drive scheme"
- Mayo football team manager and players call in to support the Mayo Oncology Unit (Christmas 2015) and hope to come back with the Sam Maguire Cup



Back Row: Bernie Kelly, Mary Hannigan, (Mayo Football Manager and Players: Stephen Rochford, Donald Vaughan, Andy Moran, Lee Keegan), Ann Hussey. Front Row. Mags Nimmo, Jacinta Kennedy, Madeline Gallagher, Breege O'Donnell, Paula Conway. Christmas

Sligo University Hospital

The Sligo University Hospital Medical Oncology Service had another busy year in 2015 with almost 2000 inpatient discharges from our dedicated 15 bed Haematology/Oncology inpatient ward. The Haematology/Oncology Day Unit had 3489 day ward attendances and 164 ward attendees. There were 2700 IV chemotherapy deliveries and 505 PO chemotherapy deliveries. There were 501 Oncology inpatient admissions with an average length of stay of 5.25 days.

The Haematology/Oncology Programme at SUH is led by two consultant medical oncologists, Dr M Martin and Dr R Sheikh and one consultant haematologist, Dr Hodgson. The Oncology Programme at SUH is supported by a well

established multidisciplinary team including Clinical Nurse Specialists, dedicated pharmacists, nursing team, and a social worker. The clinical research trials department with another CNS and a staff nurse also supports this service.

The Haematology/Oncology MDM links in with various multidisciplinary meetings at University Hospital Galway, in particular into the breast, respiratory, gastrointestinal, genitor urinary and haematology cancers. In 2015, our esteemed CNS colleague, Jean Gallagher retired and we wish to acknowledge her work and excellent service to the department over the years and wish Jean well in her retirement.

Letterkenny University Hospital

The Letterkenny University Hospital Medical Oncology Service had another vibrant year in 2015 with almost 2400 inpatient discharges from the Haematology/Oncology inpatient ward. The 11 chair Haematology/Oncology Day Unit was also very busy delivering 4570 IV treatments. There were 486 hospital admissions in 2015 with an average length of stay 7.25 days for this cohort of patients. The Haematology/Oncology Day Unit had 3527 day cases with 4570 IV chemotherapy treatments.

The Haematology/Oncology Services are led by two consultant medical oncologists, Dr K Duffy and locum consultant Dr M. Dabrowska and one consultant haematologist, Dr R Morell and locum consultant Dr. M. Papanikolaou. The Oncology Programme at LUH is supported by a well established multidisciplinary team including an RANP in oncology and a Clinical Nurse Specialist in haematology.

The CNMII in research provides support to the medical teams, patients and their families attending oncology services at LUH. There are ongoing challenges with infrastructure at the Day Ward facilities where patients have minimal space for treatments and the location of the inpatient facility affects our ability to expand services and facilitate patients with intensive therapies.

Nursing Activity

For all patients, both Oncology and Haematology, we have a monthly attendance of approx. 30 patients on oral chemotherapies. If we then factor in both, blood monitoring and triage activity, this would amount to at least 40-50 attendances per month, which amounts to approximately 900 attendances per annum.

Conclusions

In this report I have tried to collate all the activity across the region in a standardised format using data from HIPE and NCCP. Reports of activity from individual units appear considerably higher than HIPE data. It is important that all hospital activity is captured by HIPE so that resources can be allocated appropriately.

The KPI data at first glance seem reassuring, at least for patients treated outside GUH. The GUH performance in this regard is unacceptable. Furthermore, a single KPI to assess the quality of a medical oncology service is wholly inadequate. All Saolta medical oncologists agree that there are many aspects of the oncology service which are below an acceptable standard of care and in Galway, it is accepted that a new Oncology Day Centre is urgently required.

2.14 Radiation Oncology

Dr Joe MartinConsultant 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.

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.

In 2016, funding was approved for the Phase 2 build, as part of the National Programme for Radiation Oncology. Enabling works are approaching completion, after which construction will commence on the new centre. This will provide fit-for-purpose and state-of-the-art facilities for the patients of the West and North West, and an appropriate environment for staff to deliver optimal care. This is in line, with centres being built in Cork, and already completed in Dublin.

Description	2015
New referrals to Radiation Oncology	1680
Patients seen at Review Clinics (GUH, SUH, MUH & PUH)	5133 *
Patients treated with External Beam Radiation Therapy (EBRT)	1113 **
Number of Fractions Treated on LINACS - EBRT	24844
Patients treated - Orthovoltage	57
Patients treated - Brachytherapy Prostate Seeds	72
Ultrasound Guided Prostate Biopsies	64
Patients treated - Brachytherapy Gynae	24
Total number of patients treated	1266

^{*} RANP phone follow up clinics not counted in Review Clinics

^{**2015} Patients treated with EBRT – patients commencing treatment on multiple areas on the same date are counted as one patient start as per NCCP guidance.

Radiation Therapists

The Annual All Ireland Radiation Therapy Study Day was organised by GUH Radiation Therapists Edel O'Toole and Laura Kennedy. It took place on Saturday 15th March in the Meyrick Hotel, Galway. It included national and international speakers and covered a range of relevant topics with regard to radiation therapy and patient care. Joe McManus, a Radiation Therapist at UHG spoke of his involvement in the running of the Hyperbaric Chamber at the hospital. The talk also focused on the role of the Hyperbaric Chamber in treating some of the side effects of radiation therapy.

The Tuam Cancer Support group invited staff to speak at their Cancer Support Centre on the topic of prostate cancer. The talk was presented by Joe McManus and was followed by an informal discussion on cancer and the role of radiotherapy in its treatment.

Nursing

- Appointment of RANP Ms. Ger O'Boyle
- Nurse led oral chemotherapy management for patients undergoing combined modality radiotherapy and chemotherapy
- All nursing staff in Radiotherapy department are active members of IANO and 2 nurse members to attended International EONS 10 conference in Dublin in 2016
- Attended IANO annual meeting and Radiation Oncology Nursing study day Dublin
- Three Service Quality Improvements by nursing staff have been completed (1 as a multidisciplinary project), these included manual handing, skin care on RT and oral chemotherapy on RT
- Management of patients receiving Radium 223 which commenced in July 2015

Physics

The Radiotherapy Physics team was heavily involved in the replacement of the Lantis Record and Verify (R&V) Electronic Patient Record (EPR) by the Elekta Mosaig system during 2015. As well as being an EPR, Lantis was also the software that enabled patients' radiotherapy treatment at the linear accelerators. The Physics team played an important role in pre-testing the interface between the linacs and the new Mosaiq system in conjunction with Siemens and Elekta to ensure all functionalities would be available when the system went clinical. The Mosaig system went live over the last weekend in November 2015 replacing Lantis in the entire Saolta region. This quick transition was made possible by a dedicated and hard-working multi-disciplinary team effort with Radiation Therapists, IT project manager, database manager, administration staff at all oncology clinics, medical oncology nurses and clinicians.

Radiotherapy Physics also enabled the replacement and upgrade of all the prostate seed brachytherapy equipment in July 2015 some of which was at end of life. A five year contract was signed which includes the provision of equipment on a lease basis paid for by radioactive seed purchases which will be maintained and refreshed as required over that period.

Clinical Trials require a large input from physics during the accreditation phase of a new clinical trial and the department received accreditation in 2015 to take part on the NSABP-B51 breast trial. The EORTC sponsored PEACE-1 trail for prostate cancer was also initiated in 2015.

The MSc in Medical physics course at NUIG includes a Radiotherapy Physics module taught by the radiotherapy physicists at UHG. Prof Wil Van Der Putten was successful in achieving accreditation by the North American accreditation body CAMPEP for this MSc course in August 2015. This is a very valuable international recognition of the quality of this course which has been the starting point for many of the medical physicists working in Ireland today.

The Radiotherapy Physics team continued to support the two NCCP medical physics residents who began their second and final year of their training scheme in 2015.

2.15 Palliative Medicine

Dr Dympna WaldronConsultant Palliative Medicine
Lead Clinician

Dr Dympna Waldron; Dr Eileen Mannion; Dr Camilla Murtagh; Dr Sharon Beatty



Clinical Update

2015 saw another busy year for the Palliative Care Services within the Saolta Hospitals Group. In GUH Dr Sharon Beatty's Consultant post has been expanded to 5 days per week to meet the growing service demands. We also welcomed back our CNS Niamh Gantley from a period of leave.

Galway Hospice Foundation expanded their In Patient Unit from 12 to 18 beds in the latter half of 2015 and this expansion has facilitated flow of patients from GUH to Galway Hospice.

Referrals to GUH Palliative Care Service 2015

No. Malignant referrals	761
No. Non-malignant referrals	347
Grand Total	1108

Education & Research

Our Palliative Medicine Department supervised one PhD and one MD Thesis. Veronica Mc Inerney was conferred with a PhD at NUIG in June 2015 for her thesis on 'Quality of Life Measurement as a Clinical Tool'. Dr Miriam Colleran was conferred with an MD at NUIG in June 2015 for her thesis on 'Effect of Advanced Cancer on Sexuality'. There is ongoing research with the Haematology Service assessing Quality of Life in Patients with Myeloma receiving Chemotherapy. We have also extended our Quality of Life Research to patients with non malignant diagnoses. Patricia O' Brien, CNS in Palliative Care and Hannah Kent, Nursing and Midwifery Development Unit has led the delivery of the National Clinical Programme in Palliative Care (NCPPC) Palliative Care Needs Assessment module

to GUH staff. There is ongoing Palliative Care CNS education to nurses doing the Higher Diploma in Palliative Care at NUIG. Planning is currently underway for Our 5th Cuisle Beatha International Palliative Medicine Conference in 2017.

Quality Improvement Initiatives

The planned appointment of End of Life
Coordinator for the Saolta Hospitals Group is
progressing following a facilitated day in Sligo
attended by representatives from all hospitals
within the Saolta Group. An Irish Hospice
Foundation Design & Dignity Grant was awarded
for the refurbishment of a family room in St
Monica's Ward. Refurbishment of family rooms in
St Josephs and St Patricks Wards was undertaken
to improve facilities for patients and their families.

Portiuncula University Hospital

PUH Palliative Medicine Consultants
Dr Camilla Murtagh and Dr. Sharon Beatty

Helen Ely was appointed as a full time Palliative Care CNS in May 2015. There were three Palliative Care Study Days in 2015 to deliver education to all staff and students in the organisation in the specialty of palliative care. An End of Life Care Committee was established to oversee the

implementation of the Hospice Friendly Hospitals Quality Standards. An Irish Hospice Foundation Design & Dignity Grant was awarded for the refurbishment of a family room which has now been completed.

Referrals to PUH Palliative Care Service 2015

No. Malignant referrals	127
No. Non-malignant referrals	103
Grand Total	230

Roscommon University Hospital

RUH Palliative Medicine Consultants
Dr Dympna Waldron and Dr Eileen Mannion

We were delighted to welcome Aileen Mulvihill, Palliative Care Social Worker in September. Aileen is based in the Palliative Care Community Team but also provides psychosocial support to Palliative Care patients and families in RUH. RUH continued to embrace the Hospice Friendly Hospital Programme. All resources are now in use e.g. handover bags, altar signage. Applications for the Irish Hospice Foundation Design & Dignity Grants for the mortuary and a family room were successful. The mortuary and family room renovations are now complete.

Referrals to RUH Palliative Care Service 2015

No. Malignant referrals	80
No. Non-malignant referrals	42
Grand Total	122

Sligo University Hospital

SUH Palliative Medicine Consultants Dr Cathryn Bogan and Dr Anna Cleminson

In July 2015 we were delighted to welcome Dr Anna Cleminson as a 2nd locum Consultant in Palliative Medicine to meet the growing service needs. An additional new development in 2015 was the progress of plans for a new build of the North West Hospice. This is vital as presently the hospice has eight beds including a mixed bedded ward.

Referrals to SUH Palliative Care Service 2015

No. Malignant referrals	312
No. Non-malignant referrals	216
Grand Total	528

2.16 Cancer Nursing



Jean Kelly
Chief Director of Nursing & Midwifery
Julie Nohilly
A/Director of Nursing

I am very pleased once again to contribute to what is now the 4th Cancer Centre Annual Report. I would like to take this opportunity to acknowledge the huge contribution that Nurses in all our cancer services make to the cancer patients journey and the role they play in the multidisciplinary team.

The patient journey is a term often used to describe the sequence of care events which a patient follows from the point of entry into the health system triggered by illness until the patient is discharged from hospital. The patient will encounter many members of the wider multidisciplinary team on their journey through the health system. I would like to highlight the valuable contribution of the wider hospital team that work closely with oncology to support and assist the patient on their cancer journey.

One of the services available to all patients is the Patient Advice & Liaison Service (PALS). The PALS officers work proactively and reactively to improve the patient experience. In August 2015, in collaboration with the Clinical Nurse Specialists in cancer, they examined how the PALS service could support oncology patients and the staff caring for them. One significant project undertaken by PALS was a patient satisfaction survey. The survey was carried out in the haematology day ward, the rapid access prostate service and gynaecology oncology service. The main function of the survey was to measure the service provided and to identify areas for improvement. The feedback was overall very positive however one of the areas highlighted for improvement was the importance of engaging with patients and listening to their concerns and ideas to improve the care provided.



Rosemary Walsh Assistant Director of Nursing for Medicine & Cancer

The PALS officers are also involved in the European Health Literacy Study (IROHLA) 2015. This work is carried out in conjunction with the National University of Ireland Galway (NUIG). One of the aims is to ensure that all patient literature and information is easy to read and understand. This work is vital to all patients but especially oncology patients. There is now a health literacy committee in Galway University Hospital (GUH) and education is available to staff undertaking the task of writing patient literature.

Summer 2015 also saw the introduction of a nurse managed service in the haematology/oncology day ward in GUH. The nursing staff in the unit was aware that in order to improve delivery of care for patients nursing would need to expand their role and review work shifts. The roll out of this initiative also involved close collaboration and engagement between nursing medicine and pharmacy to agree treatment protocols.

The patients are now clinically assessed and their pre prescribed chemotherapy is signed "off hold" and commenced by the nursing staff. This eliminates the need for patients to be reviewed by medical staff thus improving the flow through the department and eliminating delays for patients. Medical staff are also freed up to review the unwell patients that are awaiting treatment. This added responsibility and autonomy has improved the nurse's working knowledge of protocols and consolidated the nurse patient relationship. The multidisciplinary team work approach was instrumental to the success of this expanded service. Well done to all everyone who participated in this quality initiative.

I was very pleased last September when the postgraduate diploma in nursing Oncology recommenced at NUI Galway, following a lapse of 3 years. This programme is comprised of six theory/practice modules and incorporates the core concepts of caring for a patient with cancer. It is a part time programme and is offered over one calendar year in the College of Nursing at NUIG. Oncology nurses from across all sites in Saolta were provided with financial support from the Centre of Nurse Education and study leave from their respective managers to undertake these studies.

This programme has since advanced to a Masters postgraduate diploma programme in health science for oncology nursing. Educational opportunities play an important role in recruitment and retention of staff and this education programme has attracted nursing staff to cancer services in Saolta and assists in the retention of staff. Students on this course are recognised as practicing professional nurses with substantial clinical experience. Having this course available locally enables staff to have placements in GUH and other local hospitals.

Finally I am delighted to announce that we will be advertising for an Advanced Nurse Practitioner in Oncology in GUH and Letterkenny University Hospital (LUH). These appointments are sponsored by the National Cancer Control Programme and we are very grateful to them. Having ANPs in cancer care will further enhance the patients' journey and improve their experience.



Carmelita Gibbons Haematology CNS, Anna O'Mara Upper G.I., Bríd NíFhionnagáin Colorectal Screening CNS, Olivia Dunleavy Colorectal CNS

Letterkenny University Hospital

Cancer Nursing ANP Oncology

The role of the Advanced Nurse Practitioner in Oncology in LUH continues to evolve depending on clinical and service needs. The four core concepts of the ANP permeate the professional role and the job continues to be predominantly clinically focused. This clinical role is mainly performed within four afternoon clinics per week and involves reviewing patients following treatment for a solid tumour. The review encompasses a comprehensive patient assessment and examination, radiological prescribing, medicinal prescribing, referrals to other health care professionals, health promotion, education and psychological support. This clinical load also extends to telephone follow-up clinics. Patients also have the option to attend the ANP in a less clinical capacity (pre-arranged) for further psychological support where required.

There are other aspects to the ANP role such as education, research and leadership which are a continuous part of the non-clinical work. In 2014/2015 the ANP Oncology along with the Clinical Research Nurse received a HRB grant to perform research examining the knowledge and perception of the lifestyle risk factors for cancer development among cancer survivors in Ireland. This research has been presented as a paper at national and international conferences and has been submitted for academic publication. Further research is planned for the immediate future.

One aspect of the ANP Oncology care is audited annually by the ANP and the results are collated and presented to Nursing Management and to the Oncologist in LUH. The ANP Oncology is involved in local/regional and national committees and in particular within the NCCP work. Education of staff is also of paramount importance, the demands of which constantly evolve due to changes in care practices. This education is ongoing with educational initiatives facilitated by the Centre of Education for Nursing and Midwifery and the Medical Academy to community and hospital nursing staff and undergraduate and junior medical staff. Development of the overall service is a role the ANP is actively involved in and is continuous and evolving in line with current practice and service needs.

2.17 Oncology Pharmacy

John Given
Head of Pharmacy



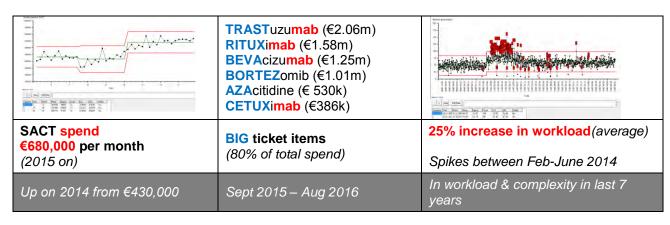
Achievements

2014	2015	2016
Re-established clinical service to inpatients	Protocolisation & ePrescribing pharmacist (12 months)	Protocols portal established and up to date (Sept)
Saved ~ €200,000 p.a. on rasburicase use (policy change)	Nursing/pharmacy collaborative publishes long-awaited policies	Business case made to save money and improve flow (pending)
> 80% reduction in monthly wastage from €20,000 (May 2014) (policy change)	MOCIS national project participants	
	Outpatient flow study completed	

Future plans

- Establish eprescribing in breast and lymphoma (Q4 2016)
- 2. Help to lead service redesign based on 2015 flow study (requires HR issues to be sorted)
- Ensure PASU leadership team issues resolved so as to update quality management system within PASU
- 4. Continue to train strong core team of clinical pharmacists and expand clinical service into day ward (HR constraint) with Oral Chemo remit
- 5. Identify further cost-saving opportunities as part of cancer care directorate team
- Improve capacity through identification of productivity constraints within and outside pharmacies circle of influence

Challenges



3.0 Health and Social Care Professionals (HSCP)

3.1 Physiotherapy

The Physiotherapy service continues to provide a service to patients through their cancer care pathway.

- A total of 583 patients received physiotherapy during their inpatient stay. 153 patients received outpatient physiotherapy treatment for lymphoedema and other musculoskeletal issues such as shoulder stiffness
- The demand for physiotherapy input to prostatectomy patients continues to grow as evidenced by a doubling of the numbers seen in 2015. There is a significant need for a dedicated specialist Physiotherapist to further develop this area
- 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. The plan for 2016 is to pilot a lung survivorship programme in Merlin Park for this patient group

Developments and achievements for Physiotherapy Cancer services for 2015:

- Senior Physiotherapist participated in Lymphoedema awareness day UHG March 2015 to raise awareness of primary and secondary lymphoedema
- Development of written guidelines and patient information leaflet for the physiotherapy management of adult patients post neck dissection surgery
- Pilot fatigue management class completed February 2015 for inpatients. Service users reported overall high levels of satisfaction. Unable to continue the service due to resource issues
- A pilot study was conducted to investigate the benefit of a surveillance programme for women post surgery for breast cancer with the aim of improving overall patient care by preventing long term complications of breast cancer treatment by facilitating timely access to physiotherapy assessment and treatment

Our current physiotherapy service aims to review all women day 1 post breast surgery for face to face advice. Women are provided with a home exercise programme to encourage early shoulder range of movement. Information on Lymphoedema, its prevention and early detection, is also provided if required. However as we do not have a dedicated breast cancer service there are a number of limitations to the service provided. Unless referred, women are not reviewed at different stages of their breast cancer journey.

Physical side effects of breast cancer treatment such as reduced shoulder range of motion, pain and fatigue are well documented. However, breast cancer survivors often have unmet information and psychological needs after cancer treatment.

In order to address the unmet needs of women post breast surgery a **3 month pilot study** was implemented between June and August 2015. In addition to the current service provided women were reviewed on a minimum of 2 occasions post-operatively with a follow up telephone call at 6 weeks. Women were also referred onwards for out-patient physiotherapy if deemed necessary.

A total of 58 women were reviewed over the 3 month period with 84% receiving a telephone call at 6 weeks post-operatively. When asked if they found the telephone call useful, their comments reflected 4 common themes –

- 1. Taking in information
- 2. Reassurance and support
- 3. Access to services
- 4. Access to information

When asked "Would you recommend this physiotherapy telephone services to others should they require similar treatment to you?" the net promoter score was 98%.

Further study is recommended however there is a need to redesign our current approach in order to meet the physical and emotional needs of women with breast cancer.

The pilot study supports the need for a specialist physiotherapy service in order to support women at all stages of their breast cancer journey.

3.2 Oncology Social Work

Maire Lardiner

Medical Social Worker, Oncology

Rachel Macken, Medical Social Worker for Radiation & Medical Oncology Patricia Luby, Medical Social Worker



Role of the Social Work Department in the Cancer Centre

The role of the social worker in the care of oncology patients is to represent and advocate for the persons wishes while collaborating with other stakeholders and establishing the supports required (including psychosocial assessment/counselling and assistance around emotional distress). Social Work has a key role to play at the interface between the patient/client, their families, hospital staff and community services. As such, social workers are well placed to provide insights into the experiences of clients accessing or needing health or social care services.

Areas of specialty with social work include:

- Child care and protection
- Domestic violence
- Elder abuse
- Vulnerable adults
- Homelessness

Our duty social work service also provides support to Accident and Emergency and surgical patients (where clients with head injury, amputation and stoma care are prioritised).

Social workers intervene using a systemic framework seeing clients as part of their own social/community systems and maximising coping abilities/resources within this context. We believe in the ethos of multidisciplinary teamwork thus promoting patient-safety and holistic care.

Professional Developments and Achievements for social work in cancer in 2015 include:

The Social Work Department and Galway University Hospital Arts Trust are exploring the possibility of establishing an arts activities programme in St Joseph's and St Patrick's wards. If there is patient interest, it is hoped to offer art workshops on a weekly basis. The artist will tailor each session to meet the patient's needs and interests. They will be supported to work at their

own pace in the hope that they might find positive, productive experiences during their time in hospital. Unlike art therapy, the focus will be on the creative, not the clinical so neither the process nor artwork will be used to explore issues. We have worked successfully with one oncology patient to date who was happy with the experience.

Social Workers attended courses in the following areas:

- SAOR Motivational Interviewing re addiction (May 2015)
- Brief Interventions for Alcohol Use
- Q-Pulse Training
- ICS presentation at Oncology Day Ward (April 2015)
- Social Work presentation to Daffodil Centre volunteers (May 2015)
- Performance Management Development Systems (Journal Club)
- Promoting Effective Communication through Team Meetings (Oct 2015)
- Excel Computer Training (Nov 2015)

Oncology social workers continued to provide two placements for the Masters in Social Work course, NUIG and attended practice teacher training at Galway MA Social Work Programme. Social Work has also participated in research carried out by the National Cancer Registry via NUIG.

Oncology social work have also advocated for and advised relevant stakeholders (hospital and voluntary) with regard to the need for a ward based "Family Room" similar to the model used in Mayo University Hospital.

Challenges remain in the provision of an optimal social work service and there is a critical need for social work posts in palliative care and haematology. Social work continues to inform HSE management of the necessity of these posts.

During 2015 approx. 1,030 new patients were referred to and assessed by the oncology social team (Medical Oncology: 610 and Radiation Oncology: 420).

No. of new patients presented to the Oncology Social Work Department 2015 (Data Source: Social Work Dept)

	Medical Oncology	Radiation Oncology	Total
2015	610	420	1030
2014	614	576	1190

3.3 Dietetics

Grainne O'Byrne *Dietetics Manager*

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

Cancer patients have the highest incidence of malnutrition of all hospitalised patients. Undernutrition and cachexia occur frequently in cancer patients and are indicators of poor prognosis. Cancer-induced weight loss is associated with reduced functional status, reduced response to therapy, greater hospital length of stay, increased risk of complications / infections and decreased quality of life.

Our aim as dietitians is to optimise the nutritional status and quality of life of oncology and haematology patients throughout their illness and treatment, and provide follow-up as required once treatment is completed.

A dedicated Senior Radiotherapy Dietitian continues to focuses predominantly on head and neck cancer patients. Nutritional assessment and prevention of weight loss is of paramount importance in patients selected for Head & Neck IMRT, given the effect of weight loss on a patient's immobilisation for treatment and the consequent impact of having to re plan treatment on both resources within the department and also the impact of treatment breaks on patient outcome.

Post-operative dietetic care is part of the core service available to patients following any major surgical intervention for cancer, from potential stay



in the critical care unit through to the wards and discharge.

66 patients with a cancer diagnosis were discharged on home enteral feeding in 2015. This is an increase on 52 discharges in 2014 and 35 in 2013. The process of home enteral feeding requires intensive co ordination from dietetics in order to ensure a safe and satisfactory discharge for our patients.

In 2015, a dedicated dietetic post for GUH Haematology Oncology was created as a result of restructuring of existing dietetic resources. This nutrition service was commenced in August 2015 with responsibility for the nutritional support of medical oncology and haematology inpatients on St Josephs and St Patricks Wards.

The service aims to influence the nutritional status of all patients through catering improvements, patient education, nutritional screening, and provision of nutrition support and will include an outreach nutrition support service to the Haematology Oncology Day ward..

Dietetic input to Cancer Patients 2015 Figures (Data Source: Dietetics GUH)

	Individual Patients	New Patients	Return Visits
Total for Haematology	212	117	655
Total for Oncology	272	192	660
Total for Rad.	483	203	1109
Total Ca Surgery	53	34	225
Total	1020	546	2649

^{*66} patients with a cancer diagnosis discharged on Enteral Feeding 2015

3.4 Occupational Therapy

Pauline Burke

Occupational Therapy Manager

Elaine Feely, Senior Occupational Therapist

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.
- 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

	New patients referred	Total patients seen	Contacts	Total treatment units	WTE providing service
2015	252	277	625	2235	0.75

^{*}The above figures refer to patients referred to the Occupational Therapy service from Oncology, Haematology and Radiotherapy inpatient service only. Each treatment unit accounts for 15 minutes of patient contact time. Service was based on a priority basis secondary to staffing levels within the Occupational Therapy department.

3.5 Speech and Language Therapy Services

Gerardine Keenan,

Speech & Language Therapy Manager

Karen Malherbe, Senior Speech and Language Therapist



At GUH, Speech and Language Therapy has involvement in delivery of assessment and treatment and management of swallowing and voice and speech difficulties that may occur before, during or after cancer-related head and neck surgeries, and radiotherapy.

At GUH, the SLT department is fortunate to be involved in streamlining its 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 consultants, dieticians, nurses and radiation therapists to ensure there is a holistic picture of the patient with Head and Neck Cancer being taken care of from all aspects of radiotherapy.

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 and decided, again with representatives from ENT, Oral Maxillo Facial Surgery, Radiation and Medical Oncology as well as Radiology. The SLT in GUH also provides a service to General Oncology needs to the in-patients admitted to the wards on both Medical and Radiation (non head-and-neck) services.

Approx 300 patients are seen by SLT during the year based in the Radiotherapy department, where staffing allows. We also hold weekly clinics for specific swallowing assessment, pre-hab exercises and stretching advice, using the research evidence base to promote patient quality of life and function try to maintain 'normal' oral intake of fluids and foods, while maintaining patient safety and comfort. These clinics provide an ongoing picture of the patients' eating, drinking, swallowing and voice levels. Speech and Language are using templates for notes and outcomes from the Clinical Specialist SLT in St James' providing more comprehensive therapy records, and quality audit option.

4.0 Health Promotion Services

Laura McHugh

Health Promotions Offices, HSE West

Pamela Normoyle

Health Ireland Lead, Galway & Roscommon University Hospitals

GUH Healthy Ireland committee objectives

It is the aim of the GUH Healthy Ireland implementation group to coordinate and oversee the implementation of the group healthy Ireland plan in GUH by;

 Agreeing priority actions and work streams to support the delivery of the Saolta healthy Ireland plan in UHG and MPUH

- To identify and support health and wellbeing leads champions across both sites to support implementation
- To share models of good practice and ways of working to maximise efficiency of working and to foster greater communication between staff in GUH and within the group
- Promote staff training in order to deliver identified actions

Summary of 2015 activity & outcomes

Theme	Work achieved in 2015
Tobacco	0.5 WTE temporary post commenced in Dec 2015
Calorie Posting	UHG and Merlin park commence calorie posting, positive staff feedback received, improvements in menu choice and healthier cooking methods
Vending	Negotiations with HSE national expert advisory group & contractor re: national HSE policy, terms of implementation agreed.
Breastfeeding	0.5 WTE permanent post reinstated, BFHI Steps 6 & 9 audited
Health Protection	The Saolta Group developed a sub-committee to prioritise the promotion of the flu vaccine amongst HSE staff during this year's flu season. Lessons learned from a successful flu vaccine campaign in North West were translated to the whole group. The promotion of the flu vaccine remains a priority.
Active Travel	GUH names winner of National Transport Authority Smarter Travel workplace of the year. 8 week operation transformation staff workplace programme completed in GUH. Bike users group established with 60+ members in UHG. 146 staff availed of bike to work and 9 staff availed of tax saver schemes 409 Staff completed employee travel survey in Nov/Dec 2015
Health Literacy	Environmental health literacy assessment research project completed with Dept of Health Promotion, NUIG. Health literacy committee established, action plan for 2015-2016 commenced, prioritising written communication improvements.
Positive Mental Health	11 training courses in Coping Skills for Stress delivered Worked with 24 groups of staff at ward/dept level One training course delivered for line managers on the Prevention and Management of Stress in the Workplace Policy Innovative art project for mental health week Installed on the theme of "TIME" in the main foyer

Highlights

- GUH win National Transport Authority's Smarter Travel Workplace of the Year
- Operation transformation success at GUH 2015, which incorporated a 6 week health and wellbeing plan for hospital staff. Over 300 employees participated in a variety of physical activity, diet and stress management initiatives
- UHG and Merlin Park staff restaurants commenced calorie posting on staff and visitor menus
- Installation of long term positive mental health art exhibition in main foyer in GUH

Challenges

Coordination of Healthy Ireland activities challenging, variety of staff engaged in activities, there were two committee meetings held in 2015.











From Top Left to right

- Health and wellbeing division, GUH arts trust and local artist attending the launch of "TIME" exhibition in GUH foyer, October 2015
- Catering, management and healthy Ireland leads attending the launch of calorie posting in Merlin Park staff and visitor restaurant, Dec 2015
- 3. Healthy Ireland staff from Saolta and health promotion and improvement endorsing "healthy swaps" at the launch of calorie posting in UHG staff and visitor restaurant, April 2015.
- 4. GUH staff attending an event for Operation transformation in January 2015
- 5. GUH win National Transport Authority's Smarter Travel Workplace of the Year, March 2015

5.0 Clinical Trials

Ms Veronica Mc Inerney

Clinical Trials

Research activity has grown over the past decade at Galway University Hospital and in particular has expanded in the last 2 years with ongoing research being conducted in conjunction 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. This growth has been facilitated by the new HRB-CRFG facility. This facility is a HRB funded joint collaboration between the Galway University Hospital, the National University of Ireland, Galway. The HRB-CRFG officially opened in September 2015. The purpose of this facility is to (1) harmonise research practice and standards across the institution and (2) bring together research groups under one umbrella to share resources and standardise practice. Along with the HRB-CRFG the Lambe institute officially opened in September 2015 and this houses significant research programmes in cancer and medical devices.

Early phase clinical trials continue to remain an important part of our cancer research portfolio. The Blood Cancer Network Ireland (BCNI), under the directorship of Professor Michael O 'Dwyer, was officially launched in November 2015. This national Irish network is a five year project jointly funded by the Science Foundation Ireland (SFI) and the Irish Cancer Society (ICS), along with

support from industry sponsors. One of the aims of the network is to provide Irish blood cancer patients with access to novel and innovative cancer treatments through a combination of investigator initiated trials and industry sponsored trials. Other targeted objectives include the establishment of a haematology biobank as well as supporting the collection of haematology specific data within the National Cancer Registry Ireland.

As the national and international clinical research enterprise expands, the clinical research nurse plays an increasingly important role in assuring participant safety, integrity of protocol data and ongoing maintenance of informed consent, all within the context of effective and appropriate clinical care. In 2015, there were eight research nurses dedicated specifically to the management of cancer clinical trials and research along with three data managers and two research pharmacists.

In total there were 16 therapeutic cancer trials initiated in 2015 in addition to the exiting studies previously opened amounting to a total of 28 clinical trials for the treatment of cancer open by year end 2015. The total number of patients actively participating in cancer clinical trials at GUH in 2015 was 998 Clinical trials were available to patients with cancers in the following disease areas Gastrointestinal, Breast, Lung, Prostate, Renal Cancer, Melanoma, Gynaecological, as well as Haematological malignancies of Multiple Myeloma, DLBCL, CLL, MDS and NHL.

New patients accrued to studies in 2015:147 (228 patients referred for trials)

Indication	Number of patients accrued in 2015
Breast	114
G.I.	10
Haematology	17
Melanoma	6
Prostate	1
Total	147

Total no. of patients on clinical trials (as of end of Dec 2015)

	Number of patients
On treatment	240
In Follow Up	502
Translational	256
Total	998

6.0 Cancer Research

NUI Galway is the academic partner of the Saolta University Health Care Group. With over 17,000 students and more than 2,400 staff, research is a key element in the University. Cancer biology and therapeutics is one of the research priorities at NUI Galway and over the last number of years the partner institutions have built a strong team of internationally recognised basic and translational cancer researchers and clinicians.

The Lambe Institute for Translational Research is the culmination of a decade of infrastructural projects at NUI Galway. With support from the patrons, Dr Ronan and Ann Lambe, Galway University Foundation and Breast Cancer Research the Lambe Institute was developed to cater for the near-patient translational research that has been growing in the School of Medicine in recent years. It was officially opened by An Taoiseach, Enda Kenny TD, in September 2015 and is home to multiple cancer research and medical technology groups. Sited on the campus of University Hospital Galway and co-located with the HRB-Clinical Research Facility, the Lambe Institute is the ideal location to develop cancer research programme.



Left to right: John Mc Namara, Galway University Foundation, Prof Tim O Brien, Dean, College of Medicine, Nursing and Health Science, NUI Galway, Prof Michael Kerin, Interim Director, Lambe Institute, Dr Jim Browne, President, NUI Galway, An Taoiseach Enda Kenny, Mayor of Galway, Cllr Frank Fahey, Dr Ronan Lambe, Mrs Ann Lambe, Tom Joyce, Galway University Foundation

6.1 Breast Cancer Research

The breast cancer research group, led by Professor Michael Kerin, is primarily funded by Breast Cancer Research (BCR) and researchers 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, in the USA, UK and Ireland. Locally, at NUI Galway, a strong partnership exists with CÚRAM, REMEDI and various other academic research units, including Psychology, Physics, Pathology, Biostatistics and Health Economics. The clinicians in the Symptomatic Breast Unit are all research active. They contribute to and lead some of the major research outputs.



The research focuses on circulating biomarkers, the role played by mesenchymal stem cells in tumour targeting, the inheritance of breast cancer risk and breast tissue regeneration. The research is underpinned by a large Cancer Biobank. The Lambe Institute group are one of 6 academic centres in the *Irish Cancer Society's* first Collaborative Cancer Research Centre, BREAST-PREDICT and run a translational research trial in conjunction with ICORG. The laboratory research team consists of senior scientists and postgraduates, completing either Masters or PhD degrees. Many of these graduates are developing a special interest in cancer research and clinical cancer management.

In February 2015 several research students and academic staff took part in the **NUI Galway Cancer Awareness Event**. This was a collaborative initiative to showcase cancer research throughout the NUI Galway and was organized by the NUI Galway Cancer Society.

Pictured: Breast Cancer Research Team at the Lambe Institute for Translational Research in 2015.

6.2 Research Developments and Achievements

Dr Terri McVeigh (PhD student and SpR in Clinical Genetics) won the Short Paper Prize at the 2015 Sylvester O'Halloran Surgical Meeting in March 2015 and won the William Stokes Poster Award at the St Luke's Symposium and Collegiate Members Research Meeting in October 2015.

Dr James Brown (Senior Postdoctoral Researcher) was awarded a bursary prize to attend the 2015 European Association for Cancer Research Meeting for his research, presented at the Irish Association for Cancer Research (IACR) annual conference in Limerick, in February 2015. The paper was entitled: "Rational design and validation of a TIP60 histone acetyltransferase inhibitor for the treatment of breast cancer subtypes.

Dr Doireann Joyce and Dr Maire Caitlin Casey, (PhD students), were awarded scholarships to attend the "Molecular Prevention Course" at the National Cancer Institute, Washington DC, in August 2015.



6.3 Undergraduate Research

There is an active Summer Student Research Programme in the School of Medicine. Fourteen undergraduate medical students undertook research in the breast cancer lab during the summer of 2015. John Bourke, a 4th year student, worked with Dr Doireann Joyce and Dr Roisin

Dwyer and went on to win the poster prize at the 2nd Annual Atlantic Corridor Research Conference at the University of Limerick in October 2015. This conference brings together undergraduate research students from UL, UCC and NUI Galway.



Photo: John Bourke is pictured 3rd from right with Dr Roisin Dwyer, 2nd from right at the UL Medical School

6.4 Research Publications

Radiotherapy Publications

A new Image Quality Protocol for Ultrasound Image-Guided Radiotherapy at University Hospital *Galway. Ian Owens, Christoph Kleefeld, Aoife O'Brien*

European Journal of Medical Physics- February 2016 Volume 32, Issue 2, Page 420

The Trials and Tribulations of Clinical Trials; a Physics Perspective.

Sinead Cleary, Margaret Moore

European Journal of Medical Physics- February 2016 Volume 32, Issue 2, Page 420

The Utilisation of Probabilistic Risk Assessment in Radiation Oncology

Gordon Sands, Enda Fallon, Wil van der Putten

Cardiac Devices in Radiotherapy: What's the problem? How do we deal with it?

Caroline Lannon, Gordon Sands, Margaret Moore, Triona Brosnahan, Louise Fahy European Journal of Medical Physics- February 2016 Volume 32, Issue 2, Page 424

Commissioning of an Ultrasound based HDR Brachytherapy Treatment Planning System Caroline Lannon, Margaret Moore, Anysja Zuchora

European Journal of Medical Physics- February 2016 Volume 32, Issue 2, Page 427

Haematology Cancer Research Publications

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Burger, JA, Tedeschi, A, Barr, PM, Robak, T, Owen, C, Ghia, P, Bairey, O, Hillmen, P, Bartlett, NL, Li, J, Simpson, D, Grosicki, S, Devereux, S, McCarthy, H, Coutre, S, Quach, H, Gaidano, G, Maslyak, Z, Stevens, DA, Janssens, A, Offner, F, Mayer, J, O'Dwyer, M, Hellmann, A, Schuh, A, Siddiqi, T, Polliack, A, Tam, CS, Suri, D, Cheng, M, Clow, F, Styles, L, James, DF, Kipps, TJ, RESONATE-2 Investigators Ibrutinib as Initial Therapy for Patients with Chronic Lymphocytic Leukemia (2015)

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Glycosylation-Based Serum Biomarkers for Cancer Diagnostics and Prognostics.

Biomed Res Int. 2015;2015:490531.

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Breast Cancer Research Publications

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7.0 Cancer Charities: Patient and Research Support

7.1 Cancer Care West

Cancer Care West
The West of lettand Cancer Charity

Inis Aoibhinn Residence Galway University Hospital

Cancer Care West Support Centre

72 Seamus Quirke Road www.cancercarewest.ie

The Support centre has just completed its sixth full year of operation. Over that time, it has gone from strength to strength, filling a gap in support services for cancer patients and their families in Galway city and the whole western region. The support centre complements our residential service at Inis Aoibhinn with many people availing of emotional, psychological and practical support during their radiotherapy treatment.

During 2015, the centre was visited over 7,100 times by over 1,400 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.

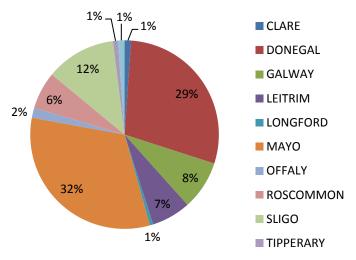
In 2015, 727 people visited the centre for the first

time. This reflects a growing awareness of the range of services available and is probably also a reflection of the increasing use of social media.

The need for a Psycho-Oncology service at Galway University Hospital has become even more obvious during 2015. During the year, 196 patients were seen in the hospital, representing a commitment of 391 hours of patient input at the hospital. This was a smaller number of patients but a greater individual commitment in terms of number of times seen. In addition, support was offered to staff working in the oncology day ward, physiotherapy and ward staff in terms of debriefing following stressful events. This was in addition to the Psycho-Oncology three day courses offered to all grades of staff across the hospitals in Mayo and Galway.

RESIDENTS BYCOUNTY OF ORIGIN				
	2015	TOTAL	%	
Clare	4	4	1	
Donegal	103	103	29	
Galway	30	30	8	
Leitrim	24	24	7	
Longford	2	2	1	
Mayo	115	115	32	
Offaly	6	6	2	
Roscommon	23	23	6	
Sligo	43	43	12	
Tipperary	3	3	1	
Westmeath	4	4	1	
Total	358	360	100	

Residents By County of Origin



7.2 Irish Cancer Society

Irish Cancer Society Daffodil Centres

Daffodil Centres are cancer information and support centres based in 13 hospitals nationwide. A visit to a Daffodil Centre provides people affected by cancer a chance to ask questions and talk through their questions and concerns with specialist cancer nurses and trained volunteers. In additional to specialist staff the centres stock all of the Irish Cancer Society patient booklets and leaflets about cancer as well as having an info



point where one can browse through the Society's website as well as other reliable cancer related information online.

There are two Daffodil Centres in the Saolta Group in University Hospital Galway and Letterkenny General Hospital. Both centres have seen increasing number of enquiries and activity in 2015.

Daffodil Centre Activity 2015

Daffodil Centre	Number of enquirers and browsers to Centre	Cancer prevention/early detection stands
Galway University Hospital	1186	638
Letterkenny University Hospital	995	852
Total	2181	1490

Both centres held numerous cancer prevention/early detection stands in line with HSE and Irish Cancer Society health promotion activity. These stands are in high footfall areas to highlight the importance of screening, early detection and cancer prevention. Stands are often held in conjunction with Health Care Professionals from the hospital. For example Bowel cancer awareness stands were held with Colorectal Nurse Specialists from the surgical service as well as the National Screening Service.

Relocation of the Daffodil Centre UHG

After having provided a service in GUH since 2009, a new purpose built Daffodil Centre was open in the main foyer of the hospital with the official opening in December 2015 by Kevin Walsh, Galway Football Manager. The new centre incorporates features such as information screens, a cancer info point, a patient information and browsing/seating area where people can access cancer information when needed as well as a quiet

area where an enquirer can talk in confidence with a nurse or specially trained volunteer.

Chemotherapy Group Education Sessions

The Daffodil Centre Chemotherapy Group Education initiative commenced in University Hospital Galway in June 2015. The sessions are held weekly for patients commencing chemotherapy. The aim of these group sessions is to provide high quality, evidence based information on chemotherapy treatment in a format that is clear and easy for patients to understand. Tools that are used to support education include: audiovisual support (DVD), oral presentations and practical demonstrations such as how to use a thermometer, mouth care. By using multiple methods to relay information supports differing learning styles and encourages discussion between the patients and the Daffodil Centre Cancer Nurse who facilitates the sessions. Patients have the opportunity to meet their Clinical Nurse Specialists after the session if they have any further questions.



Left to right: Anne Flanagan, Galway Committee Chairperson, John McCormack, CEO, ICS, Liam Sammon (Galway Committee Member) Rosaleen Sammon

Volunteer Driver Service

The Irish Cancer Society's Volunteer Driver Service is a free transport service available to referred patients from our partner hospitals undergoing chemotherapy treatments. The service has been running since 2008 and is currently available in the 18 hospitals nationwide including:

- Letterkenny University Hospital
- University Hospital Galway
- Mayo University Hospital
- Sligo University Hospital
- Portiuncula University Hospital

In 2015, 1040 patients nationwide availed of the service with 1,157 drivers facilitating 10,322 appointments travelling 1,086,624km. The service is an expanding one with patient bookings growing by 31% a year.

The Volunteer Driver Service is operated by Irish Cancer Society and available to patients travelling for chemotherapy to University Hospital Galway, Mayo University Hospital, Sligo General Hospital and Letterkenny Hospital.

In 2015 the service accommodated the following:

	Clients	Bookings	Drivers	Kilometres
Donegal	51	703	55	104,506
Galway	57	463	54	59,435
Mayo	12	51	23	8,491
Sligo	16	131	21	16,142



Featured from left to right: Dolores Walsh, Daffodil Centre Volunteer, Joan Kelly, ICS, Donal Buggy, ICS, Aileen Mc Hale Daffodil Centre Manager, ICS, Kevin Walsh, Galway Football Manager, John Mc Cormack, CEO, ICS, Ann Flanagan, Galway Committee Chairperson, Fionnuala Creighton, Cancer Nurse, Daffodil Centre, Ann Cosgrove, Interim COO, Saolta Group, Marie Cox, NCCP, Michael Hughes, Daffodil Centre Volunteer

Survivorship care: Developing a survivorship programme for prostate cancer patients in the West of Ireland

Rachel Dalton, CNS, Rapid Access Prostate Clinic

Survivorship is certainly not a new concept. Since its infancy in the 1980s, advocates of cancer survivorship have been striving to increase awareness of cancer survivorship through policy development and research. The overarching aim of this was to put survivorship planning on the cancer care continuum. Approximately 3,400 men are diagnosed with prostate cancer in Ireland each year (NCRI, 2016). Prostate cancer is the second most common cancer in men in Ireland. Statistics inform us that prostate cancer has a 90.6% fiveyear survival rate. Taking this into consideration it is imperative that programmes are developed which aim to support men on their prostate cancer journey. With this in mind, the Irish Cancer Society developed the CASE nurse programme for prostate cancer patients.

The care, advise, support and education (CASE) initiative aims to provide specialist nursing care for men who have had a diagnosis of prostate cancer who are undergoing or have completed treatment for prostate cancer. The CASE programme began in March 2015 with the appointment of a Clinical Nurse Specialist and is funded by the Irish Cancer Society and the Movember Foundation. Following consultation from the relevant stakeholders within

urology and radiation oncology, objectives for the direction of the CASE project were established. The objectives are to:

- Create an awareness of the survivorship programme amongst healthcare professionals and men
- Provide men with education at diagnosis and at specified intervals throughout their treatment journey
- Signpost men to appropriate hospital and community services
- Liaise with community and independent centres to develop programmes to support men in their cancer journey
- Bring prostate cancer information sessions to the community holding information evenings across the Saolta Group
- Collect data on all activities and determine patient satisfaction with services provided.
- Liaise and support IPCOR with health outcome data collection
- Establish nurse led clinics to holistically assess men and their health outcomes prior to, during and following treatment for prostate cancer

7.3 Breast Cancer Research



Breast Cancer Research (BCR) funds the Breast Cancer Research Programme at the Lambe Institute. This programme focuses on several aspects of breast cancer including genetics, molecular profiling and novel breast regeneration/reconstruction. Many of the research

Clinical nurse specialist in breast care, Mary Grealish, teamed up with Breast Cancer Research (formerly NBCRI) to promote breast awareness and raise funds for breast cancer research during 2015.

Mary volunteered to provide breast education to support Breast Cancer Research's partnership with Aer Lingus during October, Breast Cancer Awareness Month. The charity provided breast awareness days for flight and ground crews at the Dublin, Shannon, and Cork airports. Mary described, "I was overwhelmed by the crews' interest and how they took time out of their busy schedules to really listen and learn more about becoming breast aware." Aer Lingus demonstrated a real commitment to their employees' health and wellbeing through the initiative, and the team

outputs are listed in the Cancer Research section of this report. This charity raises funds from general activities including "Play in Pink" golf outings and receives wonderful support from the Mayo Pink Ribbon group and several other local groups around the county.

leaders were very welcoming to Mary and Christine Costelloe, Development Director of Breast Cancer Research. "I was delighted we had the opportunity to connect with so many Aer Lingus team members, especially the men who enthusiastically took our breast health tips cards back home to the women in their lives," said Christine.

Aer Lingus flight crews conducted on-board collections for the charity on intra-European flights from the three airports over a one-week period. Aer Lingus staff also formed a team for the Dublin Marathon and raised funds for the charity. The partnership raised over €50,000 for Breast Cancer Research, a charity that raises funds in support of world-class breast cancer research at NUI Galway.





Mary Grealish (CNS, Galway Breast Unit) pictured With Aer Lingus staff

8.0 Appendices

8.1 Saolta University Health Care Group Cancer Teams

Galway University Hospitals

Surgical Oncology

Breast

Mr Kevin Barry (MUH) Professor Michael Kerin Ms Carmel Malone Mr Ray McLaughlin Mr Michael Sugrue (LUH) Mr Karl Sweeney

Urology

Mr Frank D'Arcy Ms Catherine Dowling Mr Garrett Durkan Mr Syed Jaffry Mr Paddy O'Malley Mr Eamon Rogers Mr Killian Walsh

Upper GI

Mr Chris Collins Professor Oliver McAnena

Colorectal

Mr Myles Joyce Professor Oliver McAnena Mr Eddie Myers Mr Mark Regan

Plastic and Reconstructive Surgeons

Mr Alan Hussey Ms Deirdre Jones Mr Jack Kelly Mr Padraic Regan

Lung and Cardiothoracic

Mr Mark DaCosta Mr Dave Veerasingam

Gynaecology

Ms Katherine Astbury Mr Michael O'Leary

Head and Neck

Mr Peter Gormley Professor Ivan Keogh Mr John Lang Mr Patrick McCann Ms Mona Thornton Ms Orla Young

Endocrine

Professor Michael Kerin Mr Denis Quill Ms Orla Young

Medicine

Dermatology

Dr Mary Laing Dr Trevor Markham Dr Pauline Marren Dr Annette Murphy

Gastroenterology

Dr Valerie Byrnes
Professor Larry Egan
Dr John Lee
Dr Ramona McLoughlin

Endocrinology

Dr Marcia Bell Dr Liz Brosnan (MUH) Dr Sean Dineen Professor Fidelma Dunne Dr Francis Finucane Professor Timothy O'Brien

Haematology

Dr Ruth Gilmore Dr Amjad Hayat Dr Janusz Krawczyk Dr Margaret Murray Professor Michael O'Dwyer

Palliative Care

Dr. Sharon Beatty Dr Eileen Mannion Dr Camilla Murtagh Dr Dympna Waldron

Respiratory

Dr David Breen Professor JJ Gilmartin Dr Michael O'Mahony Dr Anthony O'Regan Dr Bob Rutherford

Radiology

Dr Diane Bergin Dr John Bruzzi Dr Ian Davidson Dr Rachel Ennis Dr Catherine Glynn Dr John Hanaghan Dr Aideen Larke Professor Peter McCarthy Dr Ray McLoughlin Dr Joseph Murphy Dr Ann-Marie O'Connell Dr David O'Keeffe Dr Gerry O'Sullivan Dr Claire Roche Dr Declan Sheppard Dr Sinead Walsh

Pathology

Dr Caroline Brodie
Professor Grace Callagy
Dr Mary Casey
Dr Frans Colesky
Dr Stephanie Curran
Dr Teresa McHale
Dr Zsolt Orosz
Dr Sine Phelan

Dr Margaret Sheehan Dr Michael Tan Dr Brigit Tietz

Medical Oncology

Dr Silvie Blazkova Dr Paul Donnellan Dr Maccon Keane Dr Greg Leonard

Radiation Oncology

Dr Joseph Martin Dr Jamsari Khalid Dr Cormac Small Professor Frank Sullivan

Clinical Research Facility

Professor Frank Giles Veronica McInerney CNMIII Professor Martin O'Donnell Professor Frank Sullivan

Cancer Nursing

Breast Symptomatic
Bernie Broder CNMII
Mary Dowd CNS
Mary Grealish CNS
Helena Kett CNS
Paula Leonard CNS
Catherine Masterson CNS
Pauline McGough CNMII
St Michael's Ward

Upper GI/Colorectal

Cathy Butler, CNS
Olivia Dunleavy CNS
Patricia O'Brien CNMII
Anna O'Mara CNS
Mary Quigley Stoma Care CNS
St Gerard's Ward

Urology

Rachael Dalton, CNS
James Geoghegan, CNMII
Rose McGuinness CNMII
Muriel Moloney CNMII RAPC
Moya Power RANP
Ann Ryan CNMI
Deirdre Horan
Muriel Walsh
St Pius' Ward

Lung/Cardiothoracic

Fiona Burke, CNMIII
Marie Cloonan CNMIII
Clare Davey, CNS
Patricia McConnell CNMII CT ICU
Imelda Fleming CNMII RALC
Michelle Wren CNMII CT Unit
Jacinta Murphy SN

Gynaeoncology

Ann Marie Burke CNMII St Monica's Ward Colposcopy

Rachael Comer CNMII Maura Molloy RAMP Patricia Rogers RAMP

Head and Neck

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Endocrine

Helen Burke RANP Aideen Gleeson CNMII St Teresa's Ward

Dedicated Cancer Inpatient Wards

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Palliative Care

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Clinical Trials Unit

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GUH Aseptic services

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8.2 Abbreviations

ABF Activity Based Funding

ACAD Ambulatory Care and Diagnostic Centre

AHP Allied Health Professional
BCNI Blood Cancer Network Ireland

BSCCP British Society for Colposcopy and Cervical Pathology

cANP Candidate Advanced Nurse Practitioner

CAU Cancer Assessment Unit
CCW Cancer Care West
CEO Chief Executive Officer
CEU Cancer Elective Unit
CNM Clinical Nurse Manager
CNS Clinical Nurse Specialist
COO Chief Operations Officer

CPD Continuous Professional Development
CÚRAM Centre for Research in Medical Devices

DNA Did Not Attend

DOHC Department of Health and Children

DPER Department of Public Expenditure and Reform

EBRT External Beam Radiotherapy

ECOG Eastern Cooperative Oncology Group

ENT Ears Nose Throat

EORTC European Oncology Research Treatment Group

ESWL Extracorporeal Shock Wave Lithotripsy

FIT Faecal Immunochemical Result

GI Gastro Intestine

GIST Gastro Intestinal Stromal Tumours

GP General Practitioner
GUH Galway University Hospital
HANO Head and Neck Oncology
HDW Haematology Day Ward
HEN Home Enteral Nutrition
HIPE Hospital Inpatient Enquiry

HPRA Health Products Regulatory Authority

HPV Human Papillomavirus HRB Health Research Board

HRB-CRFG Health Research Board, Clinical Research Facility Galway

HSCP Health and Social Care Professionals

ICORG Ireland Cooperative Oncology Research Group

ICS Irish Cancer Society

IFHNOS International Federation of Head and Neck Oncologic Societies

IR Interventional Radiology
JAG Joint Advisory Group
JTC Joint Thoracic Clinic
KPIs Key Performance Indicators

LLETZ Large Loop Excision of the Transformation Zone

LUH Letterkenny University Hospital
MDM Multidisciplinary Meetings
MDT Multi Disciplinary Team
MFTP Money Follows The Patient

MOCIS Medical Oncology Clinical Information System

MPUH Merlin Park University Hospital
MRC Medical Research Council
MUCH Management of Uncertainty
MUH Mayo University Hospital

NCCP National Cancer Control Programme NCHD Non-consultant Hospital Doctor

NCPPC National Clinical Programme in Palliative Care

NCRI National Cancer Registry of Ireland NETs Neuroendocrine Tumors' (NETs)

NIMIS National Integrated Medical Imaging System

NMBI Nursing and Midwifery Board of Ireland
NPRO National Programme for Radiation Oncology

NSABP National Surgical Adjuvant Breast and Bowel Project
NSABP National Surgical Adjuvant Breast and Bowel Project

NUI National University of Ireland OCF Oesophageal Cancer Fund

ODMS Oncology Drugs Management System (ODMS)

OIS Oncology Information System
OPD Outpatient Department

PACs Picture Archiving & Communication System

PACU Post Anaesthesia Care Unit
PALS Patient Advice & Liaison Service
PAS Patient Administration System
PCRS Primary Care Reimbursement Service
PHRI Population Health and Research Institute

PSP Plastic Surgery Procedures Unit
PUH Portiuncula University Hospital
RALC Rapid Access Lung Clinic

RAMP Registered Advanced Midwifery Practitioner
RANP Registered Advanced Nurse Practitioner

RAPC Rapid Access Prostate Clinic
RSM Radiography Services Management
RUH Roscommon University Hospital
SFI Science Foundation Ireland

SFI Science Foundation Ireland (SFI) and the Irish Cancer Society (ICS)

SHO Senior House Officer

SN Staff Nurse

SpR Specialist Registrar
SUH Sligo University Hospital
UCC University College Cork
UCD University College Dublin
UHG University Hospital Galway
UL University of Limerick