Manchester Cancer

Sarcoma Cancer Pathway Board

Annual Report 2014/15

Pathway Clinical Director: James Wylie
Pathway Manager: Hodan Noor

Executive summary

The Greater Manchester and Oswestry Sarcoma Service (GMOSS) is based primarily around three Hospitals, namely Manchester Royal Infirmary (MRI) which is part of Central Manchester University Hospitals Foundation Trust (CMFT), Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust (RJAH), and The Christie NHS Foundation Trust.

The vision of the pathway board is to provide a seamless service with improved outcome for patients. In order to do so the members agreed the following will be undertaken during 2014/15 to have a more informed understanding of patient outcomes;

- Measure clinically meaningful outcomes and compare to international centres of excellence going above and beyond national standards.
- Audit existing primary care knowledge of sarcoma pathways and provide education and awareness programme to improve early diagnoses and outcome for patients.
- Engage with Living With and beyond and palliative care board work programmes to support patient journey

Key achievements

A dashboard in line with the National and NICE quality standards has been developed. A set of data field to be completed for each new GMOSS patient has also been agreed as a multi-disciplinary team (MDT) priority to ensure accurate data collection during the MDT meeting.

A patient survey was undertaken to explore areas for improvement and further survey is scheduled within the plans for the coming year.

To promote earlier diagnosis the board has engaged with Sarcoma UK to explore the opportunity to roll out the so-called “golf ball campaign.

Exploratory discussions with Sarcoma UK indicated a general level of support from Sarcoma UK but this would require investment from Manchester Cancer to cover 50% of the costs per pack which equates to £1.50 each for the opportunity to co-brand the campaign information.

Sarcoma guidelines detailing the diagnosis and treatment for bone and soft tissue sarcoma have been agreed and are due to be uploading on to the Manchester Cancer website.

Objectives for the coming year

The focus of the board for the coming year is to explore gaps in the care of patients post anti-cancer therapies and support given to patients living with cancer or at the last 12 months of life.

The focus primary will include exploration on the quality of end of treatment summaries and opportunities to improve this for better GP and patient engagement.

Share palliative care referral guidance, protocols and raise awareness of pain and system control guidelines to encourage clinical teams improved awareness of palliative care.
Engagement from the Manchester Cancer user involvement team will facilitate the review of patient information given on treatment, side effects and late effects.

We are committed to also work with the living with and beyond board on the post treatment audit including the sharing of late effects of sarcoma treatments to identify patient need post treatment.

1. Introduction – the Pathway Board and its vision

This is the annual report of the Manchester Cancer Sarcoma Pathway Board for 2014/15. This annual report is designed to:

- Provide a summary of the work programme, outcomes and progress of the Board – alongside the minutes of its meetings, its action plan and it scorecard it is the key document for the Board.
- Provide an overview to the hospital trust CEOs and other interested parties about the current situation across Manchester Cancer in this particular cancer area
- Meet the requirements of the National Cancer Peer Review Programme
- Be openly published on the external facing website.

This annual report outlines how the Pathway Board has contributed in 2014/15 to the achievement of Manchester Cancer's four overarching objectives:

- Improving outcomes, with a focus on survival
- Improving patient experience
- Increasing research and clinical innovation
- Delivering and high quality, compliant, coordinated and equitable services

1.1. Vision

According to Cancer Research UK, bone sarcoma accounts for 0.2% of all deaths from cancer, in 2011, there were 263 deaths from bone sarcoma in the UK. The crude mortality rate shows that there are 5 bone sarcoma deaths for every million males in the UK, and 3 for every million females.

Around 3,300 people were diagnosed with soft tissue sarcoma in 2010 in the UK, that's around 9 people every day. In the UK in 2010, around 1,700 males and around 1,600 females were diagnosed with soft tissue sarcoma.

The five year survival rate stands at 56%.For children, survival rates for soft tissue sarcoma have doubled since the late 1960s.

Almost 7 in 10 children now survive their disease for at least five years. Today more than 5 in 10 teenagers and young adults survive their soft tissue sarcoma for at least five years. Survival is higher in young women (68%) than young men (55%).

The Greater Manchester and Oswestry Sarcoma Service (GMOSS) is based primarily around three Hospitals, namely Manchester Royal Infirmary (MRI) which is part of Central Manchester University Hospitals Foundation Trust (CMFT), Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust (RJAH), and The Christie NHS Foundation Trust.

The vision of the pathway board is to provide a seamless service with improved outcome for patients. In order to do so the members agreed the following will be undertaken during 2014/15 to have a more informed understanding of patient outcomes;

- Measure clinically meaningful outcomes and compare to international centres of excellence going above and beyond national standards.
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- Engage with Living With and beyond and palliative care board work programmes to support patient journey

1.2. Membership

Name	Title and Organisation	Capacity on Group	Deputy
Dr James Wylie	Consultant Clinical Oncologist, The Christie	Chairman. Data lead. Lead Clinical Oncologist	Mr Jonathan Gregory
Mr Jonathan Gregory	Consultant Orthopaedic Oncological Surgeon , CMFT	Chairman GMOSS MDT. Surgery and data lead	Mr Ashok Paul
Mr Paul Cool	Consultant Orthopaedic Oncological Surgeon , RJAH	RJAH sarcoma and diagnostic lead. Early diagnosis lead	Miss G Cribb
Dr Mike Leahy	Consultant Medical Oncologist, The Christie	Lead Medical Oncologist. Research lead	Dr Laura Horsley
Mr Ashok Paul	Consultant Orthopaedic Oncological Surgeon , CMFT	CMFT sarcoma and diagnostic lead	Mr J Gregory
Mr David Mowatt	Consultant Plastic and Reconstructive Surgeon, Christie	Onco-plastic lead. Living with and beyond cancer lead	
*Dr Anand Kirwadi	Consultant Musculo-skeletal Radiologist, CMFT	Lead Radiologist	Dr R Lalam
Sister Caroline Pemberton	Sarcoma CNS, RJAH	Lead CNS	Jane Evans
Dr Patrick Shenjere	Consultant Histopathologist, Christie	Lead Histopathologist	Prof A Freemont
Miss Maxine Cumbo	Physiotherapist, CMFT	Lead Physiotherapist Responsible for user issues and information for patients and carers	Ann Buchan/Helen Murray/Caroline Pemberton
**Miss Rebecca Price	Manchester cancer	Sarcoma Pathway Manager	
Mr Damian Heron	Director North Wales Cancer Network		
Ann Buchan	Sarcoma CNS	Patient Experience	Helen Murray

*New member formally agreed to attend in January 2015

** New member started June 2015

At the present time it has been agreed not to have GP representation on the Board. Sarcomas are extremely rare in primary care and most GPs have very limited exposure. It was felt by the group that a GP representative would be difficult to attract, although this view may change with time.

Two patient representatives have been approached and we are now seeking advice from the newly appointed Macmillan User Involvement team. In this way it is hoped that any future patient representatives will feel better supported in their roles.

1.3. Meetings

Five meetings have taken place during June 2014 to June 2015, below are meeting dates and links to the minutes of meetings.

25th June 2014
http://manchestercancer.org/wp-content/uploads/2014/09/Sarcoma-Pathway-Board-Minutes.pdf
8th October 2014
http://manchestercancer.org/wp-content/uploads/2014/09/Sarcoma-Pathway-Board-Meeting-Minutes.pdf

28th January 2015
http://manchestercancer.org/wp-content/uploads/2014/09/Sarcoma-Pathway-Board-Meeting-Minutes1.pdf

11th March 2015 Cancelled

Please refer to appendix 1 for attendance register for all the meetings above.

Following the creation of the Sarcoma Board there was wide interest for membership within the core GMOSS group. However, several members have failed to attend any of the meetings and have not expressed any particular explanation for this to the Chair.

These individuals do not hold designated roles on the Board and if attendance remains poor it may be necessary to write to these individuals to ask if they wish to continue to remain a member and emphasise the requirement for regular attendance as detailed in the ToR.

2. Summary of delivery against 2014/15 plan

No	Objective	Alignment with Provider Board objectives	Tasks	By	Status Green = achieved Amber = partially achieved Red = not achieved
1	Measure clinically meaningful outcomes and compare to international centres of excellence going above and beyond national standards.	Improving outcomes with a focus on survival	Review Somerset Cancer Registry (SCR) and re-assess whether it fulfils needs at the 3 centres	March 2015	
			Identify measures outside of the national requirements to compare to international centres of excellence.	March 2015	
			Adopt the Royal College of Pathologist (RCPath) minimal data set	March 2015	
2	Audit existing primary care knowledge of sarcoma pathways and provide education and awareness programme to improve early diagnoses and outcome for patients.	Delivering high quality, compliant, coordinated and equitable services	Liaising with the prevention, early detection and screening Pathway Board	March 2015	
			Providing primary care education on key tips for early detection yearly.	March 2015	
			Ensure referral guidelines and proformas are up to date, accessible and easy to use.	March 2015	
3	Ensure patients are able to fully access all aspects of care pre, during and post treatment of Sarcoma.	Improving patient experience	To fully engage with the Living with and Beyond and Palliative Care service mapping to ensure full assessment of Sarcoma service delivery	March 2015	

3. Improving outcomes, with a focus on survival

3.1. Information

To measure the quality of a service requires the definition of clinically meaningful outcomes that can then be easily collected and compared across different parts of the service and also compared with similar measures from internationally respected centres of excellence.

Initially it was felt that the Board would define their own clinical measures and in addition adopt the Royal College of Pathologist (RCPath) recommendations with regard to sarcoma pathology reporting.

However, it is now apparent that the Sarcoma CSG is developing their own quality, measures which are due to be published shortly (initially planned April 2015 but delayed). It has therefore been agreed that these measures will be adopted as the sole benchmarking standard, which the Board will compare itself against. This approach may be reviewed again once the measures are published.

At present data is collected by the host Trust of GMOSS via the Somerset Cancer Register (SCR) but it is unclear how well this is collected and how relevant this would be for future data needs.

It is therefore intended to regularly review SCR and re-assess whether it is fit for purpose across the 3 centres. It is acknowledged that SCR functionality does have some limitations in relation to collecting outcome data as the main focus is performance.

3.2. Progress

It has been agreed by all GMOSS pathologists to adopt the RCPath recommendations in respect to soft tissue and bone sarcoma reports. The suggested report template will not be adopted due to software difficulties in adopting a different pathology reporting form across all GMOSS centres.

Table 1: SCR snap shot data May 2014

GMOSS Indicator	Total
No of Patients Discussed at GMOSS MDT	482
Tumour Statuses	
- Primary	178
- Recurrence	35
- Metastatic	21
- Benign	25
- Other Tumour Site	3
- Unknown	207
- Non Cancer	7
- Missing	6
Types of Tumour	230
- Sarcoma	76
- Chondrosarcoma	18
- Leiomyosarcoma	16
- Liposarcoma	16
- Gastrointestinal stromal tumour, NOS	11
- Ewings sarcoma	10
- Myxoid liposarcoma	10
- Spindle cell sarcoma	10
- Synovial sarcoma	9
- Osteosarcoma	8
- Others	46
Total Operations (Diagnosed during 2013/14)	61
Christies	1
Robert Jones and Agnes Hunt	21
University Hospital of South Manchester	2
Salford Royal	1
Royal Orthopaedic Hospital	1
Central Manchester University hospitals	33

As described in table 1, a snap shot data report from the host organisation SCR was presented to the Board in early 2014 and identified major concerns in terms of both missing and inaccurate data collection.

It was agreed that improving data collection must be a top priority for the Board.

It was agreed that a dashboard of important data entries would be created and reported to each Board meeting in order to map progress. Data leads for the board spent time reviewing and understanding the data collection on SCR.

Table 2: SCR snap shot data May 2015

Item	Indicator	Quarter 1
MDT Workload	Total discussions at GMOSS MDT	174
	Total patients discussed at GMOSS MDT	141
	Total patients who have had their care plan confirmed at MDT	99
Diagnosis	Total patients diagnosed with a malignant neoplasm via the GMOSS MDT	73
	Total Number of Sarcomas	67
	Total Number of New Sarcomas	59
	Total Number of Bone Sarcomas	13
	Total Number of Soft Tissue Sarcomas	54
	Total patients diagnosed with Ewings Sarcoma (M92603)	3
Staging	Total Number of Non Sarcomas (including non malignant)	8
	TNM Staging Completeness (All Patients)	83.6%
	TNM Staging Completeness (New Patients)	91.9%
	Total Number of Patients Presenting With Metastatic Disease	9
	Performance Status Completeness	80.8%
CNS	% of diagnosed patients with CNS present at diagnosis	20.8%
Operative	Total Number of M0 patients undergoing an operation	37
	Total Number of Amputations (X07-X11)	4
Outcomes	Number of patient deaths	3
	Mortality rate (within 30 days of surgery)	0%
	Total recurrences within 2 years of initial surgery	**NOT AVAILABLE**

A set of data field to be completed for each new GMOSS patient was identified and it has become an MDT priority to ensure accurate data collection during the MDT meeting.

Table 2 describes the new dashboard reports which have shown significant improvements but it is still felt that the data collected will fall short of that required by future commissioning bodies. Please refer to appendix 4 for 2014/2015 GMOSS dashboard.

In January 2015 the Outcomes Group at Christie presented the CWP solution to data collection, which is presently being operated via the Gynaecology MDT.

The group were enthusiastic that this may provide a viable future data collection model and at present there are on-going discussions with Christie Trust to see if CWP could be employed as the principle database.

3.3. Challenges

Going forward SCR is unlikely to meet the needs of the group.

Although CWP may offer a viable alternative there is considerable pressure on the CWP working group to roll this out to multiple disease sites and it may be some time before this can be adopted by the Sarcoma Board.

One solution being considered is a temporary alternative database that could be used across GMOSS and discussions are presently on-going with the North Wales Cancer Network to explore the temporary adoption of their Excel based database.

4. Improving patient experience

4.1. Information

During September a group of stakeholders involved in the delivery and usage of cancer services attended a meeting, to discuss the core priority questions in the NCPES which can be used as indicator of success in the overall delivery of cancer improvements.

Core questions identified were presented at the provider board meeting in October. These questions will be used as indicators to focus improvement efforts in the future for all pathway boards.

At total of 35 sarcoma patients have engaged in the National Cancer Patient Experience survey (NCPES) of which 23 results have been reported. Table 3 below describes the sarcoma findings against Manchester Cancer average.

Table 3: Manchester Cancer core questions against sarcoma NCPES results 2014

National Cancer Patient Survey 8 Key		Manchester Cancer	Christie
Q12	Patient felt they were told sensitively that they had cancer	**84.5%**	77%
Q20	Patient definitely involved in decisions about care and treatment	**73.6%**	59.1
Q22	Patient finds it easy to contact their CNS	**74.4%**	
Q25	Hospital staff gave information about support groups	**83.4%**	72.2%
Q65	Hospital and community staff always worked well together	**64.0%**	42.9%
Q67	Given the right amount of information about condition and treatment	**89.2%**	77.3%
Q69	Patient did not feel that they were treated as a `set of cancer symptoms`	**82.4%**	63.6%
Q70	Patient`s rating of care `excellent`/ `very good`	**90.0%**	85.7%

4.2. Progress

Table 4: Manchester Cancer core questions NCPES results 2014 against GMOSS local survey April 2015

National Cancer Patient Survey 8 Key		MC	GMOSS
Q12	Patient felt they were told sensitively that they had cancer	**84.5%**	92%
Q20	Patient definitely involved in decisions about care and treatment	**73.6%**	95%
Q22	Patient finds it easy to contact their CNS	**74.4%**	61.9%
Q25	Hospital staff gave information about support groups	**83.4%**	59.5%
Q65	Hospital and community staff always worked well together	**64.0%**	76.3%

Due to the low survey returns members felt it was important to run a patient survey across all three sites providing care and treatment for sarcoma patients (CMFT, Christie and RJAH).

During March the survey was given out to patients by the CNS staff and the results show a total of 42 responders.

Please refer to appendix 3 for the full report.

Comparing some of the core questions asked in the survey results show a significant difference to the national survey and better reflect the local services.

The findings from the survey will support the opportunity to support the increased engagement of the recovery package and palliative care agenda in the coming year.

Manchester Cancer has been working with Macmillan Cancer Support to develop its approach to the involvement of people affected by cancer in its work and have funded four user involvement manager (Band 6) post and a user involvement lead at 8a. The team are due to start during May and June of this year.

They will make sure that all pathway boards and groups have at least two people affected by cancer among their membership and that all people affected by cancer have the appropriate induction, support and training to play a full part.

The managers will also support their boards to undertake important work to improve patient experience, such as developing regional patient experience surveys, developing the use of patient-reported outcome measures and standardising patient information across the region.

4.3. Challenges

The challenge is to run the survey on an annual basis and try and get equal representation from all 3 hospitals across GMOSS. In this was we hope to get a better understanding of the patient experience across GMOSS. Future user engagement in the development of this questionnaire is expected.

Increasing research and innovative practice

Table 5: National (England) Analysis by NCRN's May 2015 Clinical Research Network Greater Manchester

Design Type	Acronym	East Midlands	Greater Manchester	Kent, Surrey & Sussex	Mersey & N Cheshire	North Thames	North West Coast	North West London	South London	Trent	Wessex	West Midlands	West of England	Yorkshire & Humber	Grand Total
	CRN Population source ONS (millions)	4.4	2.9	4.5	3.3	5.4	3.7	2	3.1	2.7	2.7	5.6	2.4	5.3	
Interventional	A study of selumetinib in patients with Kaposi's sarcoma (SCART)			1				4							5
Interventional	Axi-STS		4			5	1		9				1	1	21
Interventional	CASPS	1	1		1	1			2						6
Interventional	EORTC-1202-STBSG								1						1
Interventional	Euro Ewing 2012	2	10		3	6	2			2	1		1	1	28
Interventional	LINES: Eurosarc Trial of Linsitinib in advanced Ewing Sarcoma									7					7
Interventional	rEECur		1				1								2
Interventional	STRASS (EORTC 62092-22092)								7			1	1		9
Interventional	STS 2006 03 (NRSTS)		3		1	4	2		2	1		1	5	2	21
Interventional Total		3	19	1	5	16	6	4	21	10	1	2	8	4	100
Observational	Feasibility study of new technologies in bone and soft tissue tumours				30										30
Observational	ISKS study								101						101
Observational	PIRS								13						13
Observational	Profiling and culturing of neuroblastoma and soft tissue sarcoma cells								1						1
Observational Total					30				115						145
Grand Total		3	19	1	35	16	6	4	136	10	1	2	8	4	245

Table 6: Local Recruitment by Trusts May 2015 Clinical Research Network Greater Manchester

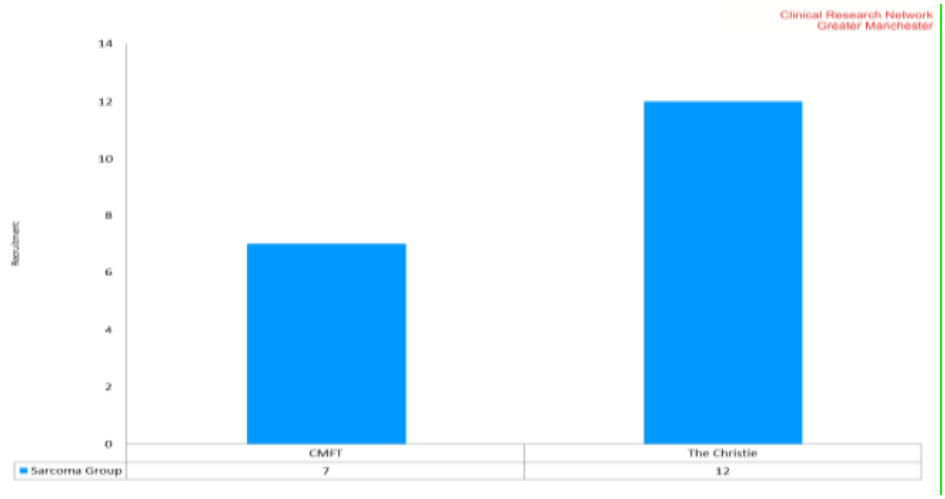

Table 7: Local GM Analysis by Trusts May 2015 Clinical Research Network Greater Manchester

Study Design	Acronym	CMFT	The Christie	Grand Total
Interventional	Axi-STS		4	4
Interventional	CASPS		1	1
Interventional	Euro Ewing 2012	4	6	10
Interventional	rEECur		1	1
Interventional	STS 2006 03 (NRSTS)	3		3
Interventional Total		7	12	19
Grand Total		7	12	19

5. Delivering high quality, compliant, coordinated and equitable services

5.1. Information

It is generally acknowledged that late diagnosis of sarcoma remains a major problem and that the outcomes for sarcoma would be improved through earlier diagnosis.

The current average size of a soft tissue sarcoma at diagnosis in the UK is 10cm. In countries with more established referral guidelines and triage mechanisms the average size is considerably smaller. If soft tissue sarcomas can be diagnosed when <50mm, cure rates would improve by at least 20%.

Sarcoma UK developed a diagnostic tool in June 2014 which will be used as part of the education series and uploaded on line to encourage confidence in referring patients with suspected sarcoma.

The rarity of sarcomas means that diagnostic pathways are often convoluted and slow leading to late diagnosis. We therefore wanted to audit primary and secondary care knowledge of current sarcoma diagnostic pathways to better understand any deficiencies and allow development of focused educational programmes.

5.2. Progress

To try and promote earlier diagnosis the board has engaged with Sarcoma UK to explore the opportunity to roll out the so-called “golf ball campaign”.

This initiative has been run for a number of years and piloted by The Royal Orthopaedic Hospital, Birmingham.

The campaign involves sending information packs to local GPs explaining the diagnostic alerts for sarcoma and including a golf ball as a reminder of the size of soft tissue lump beyond which sarcoma should be considered in the differential.

Exploratory discussions with Sarcoma UK indicated a general level of support from Sarcoma UK but this would require investment from Manchester Cancer to cover part of the costs of the packs which equate to £1.50 per pack.

5.3. Challenges

The GP education and audit element of this objective has been a challenge due to the delay in Manchester Cancer developing standard GP education series. An opportunity to overcome this, is to record sessions virtually and upload onto the Manchester Cancer website. This will be discussed further in future Board meetings.

A different approach discussed at the last Board meeting was to identify all Trust leads for sarcoma and then write to these individuals inviting them to a Sarcoma Board meeting. This would allow the Board to better understand local diagnostic pathways, offer education to these key individuals and promote the agreed referral pathways.

The “Golf Ball Campaign” has been discussed at several Board meetings. The campaign has run for many years at Birmingham and to-date there is no evidence that it has in fact led to earlier diagnosis.

Major obstacles appear to be getting the packs to GPs who are inundated with promotional literature which is often opened by their secretaries and not given to the GP. At the present time the Board is reluctant to fund a repeat Campaign in Manchester unless a more effective strategy to directly engage GPs can be found.

Site specific guidelines are presently being updated and will be completed in 2015 for upload onto the Manchester Cancer website.

6. Objectives for 2015/16

The board have discussed below items as priorities for the coming year;

Explore End of treatment summaries for Sarcoma patients at the end of anti-cancer therapies.

Explore the opportunity to host Health and wellbeing clinics

Awareness of the pain and symptom control guidelines

Awareness of the specialist palliative care role and referral

Explore the support of Manchester User Involvement team to review of patient information given on treatment, side effects and late effects

Engage in the living with and beyond post treatment audit and share a list of late effects of treatment.

Explore the temporary adoption of the North Wales Cancer Network Excel based database to collate patient outcome data.

Rerun patient experience survey to identify areas for improvement.

7. Appendix 1 – Pathway Board meeting attendance

Name	Role & Trust	25/06/2014	08/10/2014	28/01/2015
Dr JP Wylie	Chairman. Clinical oncologist representative, **Christie FT**	✓	✓	✓
Mr D Mowatt	Reconstructive surgical representation **Christie FT**	✓	✓	✓
Dr P Shenjere	Soft tissue Pathology representation **Christie FT**	✓	✓	X
Dr M Leahy	Medical oncologist/research and TYA representative **Christie FT**	✓	x	x
Mr P Cool	RJAH surgical representation and MDT Chairman, **RJAH FT**	✓	✓	✓
Miss G Cribb	Surgical representation, **RJAH FT**	x	x	x
Dr C Mangham	Bone pathology Representation **RJAH FT**	X	x	x
Dr R Lalam	Bone radiologist representation **RJAH FT**	X	x	x
Mr A Paul	surgical representation , **CMFT**	X	x	x
Mr J Gregory	surgical representation , **CMFT**	✓	x	✓
Dr N Winn	Soft tissue Radiology rep, **CMFT**	✓	x	Replaced by Adnan
Miss Maxine Cumbo	Physiotherapy, **CMFT**	✓	✓	✓
Proff A.Freemont	**Soft Tissue pathology CMFT**	X	x	x
Mr Damian Heron	Director of North Wales Cancer Network	X	✓	x
Caroline Pemberton	Sarcoma CNS **RJAH FT**	✓	✓	✓
Jane Evans	Sarcoma CNS **RJAH FT**	✓	x	x
Ann Buchan	Sarcoma CNS Christie		✓	✓
Helen Murray	Sarcoma CNS **MRI**	x	x	x

Appendix 2 – Pathway Board Annual Plan 2015/16

Appendix 3- GMOSS local patient survey

Copy of Quarterly Dashboard of Indicato

Appendix 4- GMOSS dashboard 2014/15

Section	Indicator	Quarter 1	Quarter 2	Quarter 3	Quarter 4
MDT Workload	Total discussions at GMOSS MDT	174	208	204	164
	Total patients discussed at GMOSS MDT	141	156	149	128
	Total patients who have had their care plan confirmed at MDT	99	109	131	108
Diagnosis	Total patients diagnosed with a malignant neoplasm via the GMOSS MDT	73	110	93	96
	Total Number of Sarcomas	67	108	89	92
	Total Number of New Sarcomas	59	90	81	87
	Total Number of Bone Sarcomas	13	21	20	15
	Total Number of Soft Tissue Sarcomas	54	86	69	77
	Total patients diagnosed with Ewings Sarcoma (M92603)	3	4	4	2
Staging	Total Number of Non Sarcomas (including non malignant)	8	6	10	7
	TNM Staging Completeness (All Patients)	83.6%	81.8%	83.9%	69.8%
	TNM Staging Completeness (New Patients)	91.9%	90.1%	84.0%	69.0%
	Total Number of Patients Presenting With Metastatic Disease	9	17	13	0
	Performance Status Completeness	80.8%	65.5%	74.2%	76.0%
CNS	% of diagnosed patients with CNS present at diagnosis	20.8%	4.5%	5.4%	29.2%
Operative	Total Number of M0 patients undergoing an operation	37	34	31	22
	Total Number of Amputations (X07-X11)	4	2	2	2
Outcomes	Number of patient deaths	3	7	1	2
	Mortality rate (within 30 days of surgery)	0%	0%	0%	0
	Total recurrences within 2 years of initial surgery	**NOT AVAILABLE**			