Supporting Material 3

BEATSON WEST OF SCOTLAND CANCER CENTRE

AUDIT OF PATIENTS ATTENDING THE ACUTE ONCOLOGY ASSESSMENT UNIT (AOAU) DURING THE FIRST 3 MONTHS OF OPENING

29.1.14

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EXECUTIVE SUMMARY

Data was collected on the number of patients with a cancer diagnosis who presented to the Acute Oncology Assessment Unit at the Beatson West of Scotland Cancer Centre (BWoSCC). Data was collected over a three month period (7 October 2013 to 3 January 2014) for each patient who attended the AOAU. The aim of the review was to quantify this group of patients, determine demographics, presenting problems and to collate information on the treatment and interventions delivered in the AOAU. The total sample was 159 patients.

Key findings include:

- 62 patients (39.0%) were referred to AOAU from the outpatient department, 39 patients (24.5%) were referred from the Radiotherapy department, 29 (18.2%) patients were referred from home via the Beatson Bed Manager, 19 patients (11.9%) were referred from the Macmillan Day Case Unit and 6 patients (3.8%) were referred from CRU. 1 patient (0.6%) was also referred to AOAU from each of the following: home via SpR OOH, Haem-onc, B3 and RAH.
- 52.2% of patients were seen between 1pm-5pm, 38.4% 9am-1pm and 9.4% 5pm-8pm.
- Primary cancer sites – 17.0% Gynae-oncology, 15.7% Breast, 15.7% Urology, 13.8% Lung, 11.3% Upper GI, 10.7% Head & Neck and 8.8% Colorectal.
- Most recent treatment – 52.2% had Chemotherapy, 35.2% Radiotherapy, 1.9% Monoclonal antibody, 1.3% Hormone therapy, 1.3% Tyrosine Kinase Inhibitor, 1.3% Trial drug, 1.3% Surgery and 0.6% Bone Marrow Transplant..
- Reason for attendance varied – highest number was for nausea and vomiting (17.6%), pain (13.8%), suspected Malignant Spinal Cord Compression (MSCC) (10.0%), shortness of breath (9.4%), suspected sepsis/neutropenic sepsis (7.5%).
- Common blood sampling carried out in AOAU – 82.4% of patients had FBC, 81.1% LFTs, 80.5% U+Es, 76.7% Bone and 61.6% Magnesium.
- Imaging carried out – 25.8% Chest x-ray, 11.9% CT scan, 6.9% MRI scan, 5.7% Ultrasound, 3.8% abdominal x-rays and 3.8% 'other' plain films. 52.8% had no imaging carried out in AOAU.
- 93.7% (149 patients) who presented at the AOAU were discussed with a doctor. 6.3% (10 patients) were not discussed with a doctor. Of those discussed with a doctor, 74.2% (118) were seen by a doctor in AOAU.
- For 56.4% patients the first doctor contacted was a specialty doctor, with the on-call registrar being contacted first for 18.8% of patients who were discussed with a doctor.
- Admission – 146 (91.8%) out of 159 were admitted, 13 (8.2%) were not.
- Reason for admission – 56.2% cancer-related effect, 38.3% treatment-related toxicities, and 5.5% symptoms/problems unrelated to cancer/ treatment.
- Outcome of acute admission – 84.2% got better and were discharged home, 11.0% transferred to other specialist care, 1.4% were still an inpatient at time of audit and 2.7% died during the acute admission period (1 patient in AOAU). 1 patient was transferred to the High Dependency Unit.
- Length of stay – 28.1% of patients were in hospital for 1-3 days, 28.1% stayed 8-14 days, 24.6% stayed 4-7 days, 14.4% stayed >14 days and 4.8% stayed ≤24 hours.
- Of those discharged following acute admission (95.5%) – 87.9% went home, 5.7% were transferred to another hospital and 6.4% to a hospice.

There were 16 patients who attended AOAU with suspected Malignant Spinal Cord Compression during the time of audit. All patients received an MRI scan within 24 hours of their attendance at the AOAU.

There were 12 patients who attended AOAU with suspected neutropenic sepsis. However, 18 patients met the criteria for suspected sepsis according to the Sepsis 6 screening assessment. 18 patients therefore received the Sepsis 6 care bundle. This included patients with infections including line infection, respiratory tract infection and urinary tract infection. Sepsis 6 data and compliance with national targets will be presented in a separate report.

BACKGROUND

As part of regional and national work to progress 'Acute Oncology' within NHS care an audit was undertaken in March 2013 to obtain baseline information, prior to establishing an Acute Oncology Assessment Unit at the Beatson West of Scotland Cancer Centre. This data was used to give an estimate of potential numbers for the AOAU and to allow comparison of data from repeat audit once the AOAU was fully operational.

The AOAU has now been operational for three months and this audit has been conducted to provide data that will further inform its development.

AIMS AND OBJECTIVES

The aim was to measure specific outcomes in relation to patients attending the newly established Acute Oncology Assessment Unit as follows:

(1) Overview of patient type (e.g. gender, age)

(2) Identification of cancer diagnosis and current treatment

(3) Patient referral route to AOAU (e.g. outpatient clinic/ radiotherapy treatment area/day case/home via bed manager)

(4) In-depth analysis of attendance at AOAU:

a) Time patient arrived in AOAU/time seen in AOAU

b) Reason for attendance

c) Blood sampling done in AOAU

d) Imaging performed in AOAU

e) Treatment given in AOAU

f) Compliance with National Targets (time to MRI for MSCC, time to IV for Sepsis etc)

(5) How many patients admitted and reason(s) why.

(6) Doctors +/- CNS involvement in care.

(7) In-depth analysis of post-admission activities.

a) How many follow up appointments arranged

b) Blood sampling done post admission

c) Investigations carried out post admission

d) Imaging performed post admission

e) Treatment/supportive care given post admission

f) Duration of stay/discharge destination

By reviewing this data, it was hoped to provide evidence that the new nurse led clinic was providing a safe, effective care system for patients, complying with national targets and give detailed information on activity within the unit which would assist with future development of the Acute Oncology Service.

METHODOLOGY

Data was collected for each patient by AOAU nursing staff through the completion of a proforma, usually on the day the patient attended AOAU, but also involved review of casenotes and IT systems for post admission data. The proforma included a number of fields such as: referral method, investigations, length of stay, compliance with national targets such as door to needle time for neutropenic sepsis, time to MRI for patients with suspected malignant spinal cord compression. Each proforma was then entered by the AOAU Audit Facilitator into a Microsoft Access database. Analysis was then performed by the Clinical Effectiveness Facilitator.

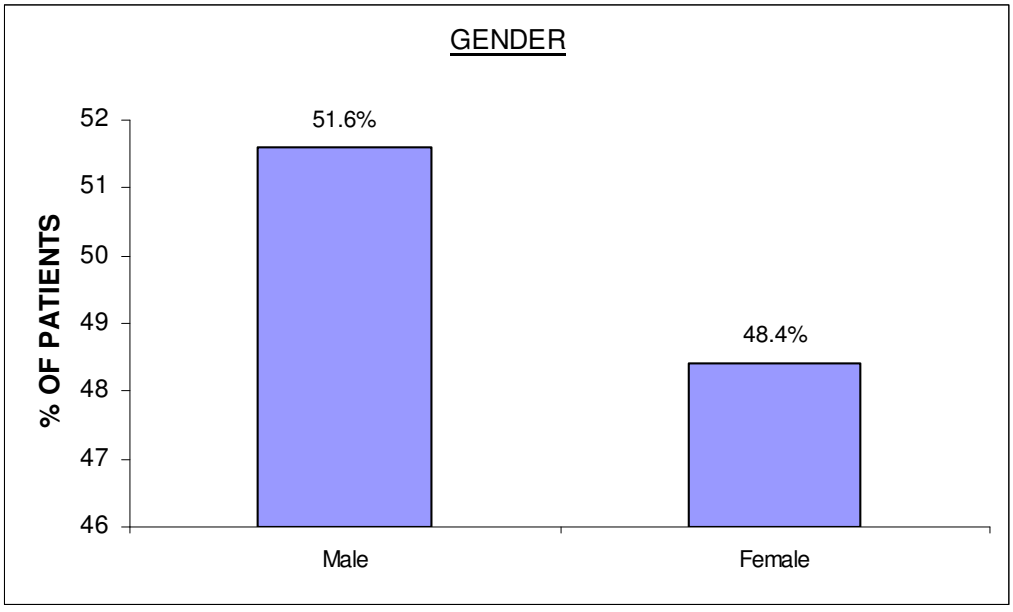
RESULTS

Outcome 1: Overview of patient type

159 patients presented to the Acute Oncology Assessment Unit. Of these, 82 (51.6%) were male and 77 (48.4%) were female (Graph 1a)

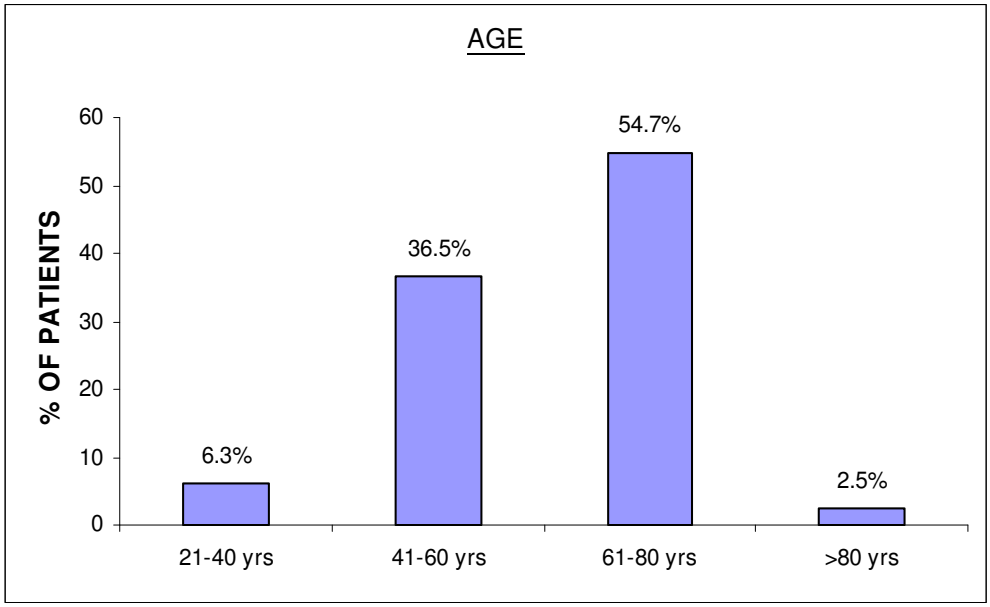
10 (6.3%) patients were 21-40 years of age, 58 (36.5%) patients were 41-60 years old, 87 (54.7%) patients were aged 61-80 and 4 (2.5%) were aged over 80 years old (Graph 1b).

Graph 1a: n=159



The majority of patients were diagnosed with cancer within the last 12 months (63.6%) with only 10.6% diagnosed 5 or more years previously (Graph 2a and Table 2a)

Graph 1b: n=159



Outcome 2: Analysis of cancer diagnosis and treatment.

Graph 2a: n=159

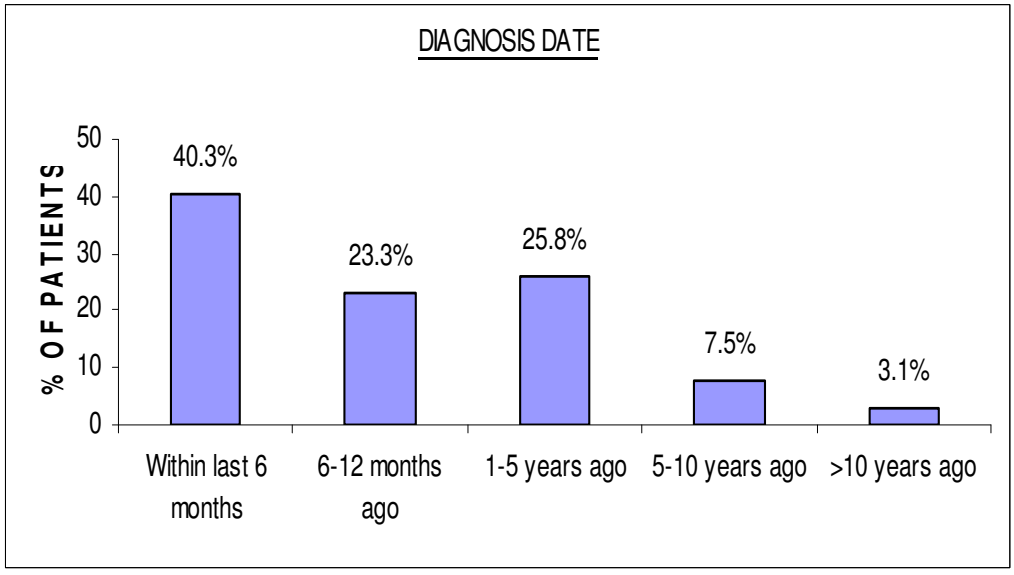


Table 2a: Cancer Diagnosis Date

DATE CANCER DIAGNOSIS		
	Count (n)	**% of patients**
Within last 6 months	64	40.3%
1-5 years ago	41	25.8%
6-12 months ago	37	23.3%
5-10 years ago	12	7.5%
>10 years ago	5	3.1%
Total	**159**	**100%**

The most common diagnosis for patients attending the AOAU was a gynaecological malignancy (17%) which was closely followed by breast and urology (both at 15.7%) (Graph 2b & Table 2b).

Graph 2b: n=159

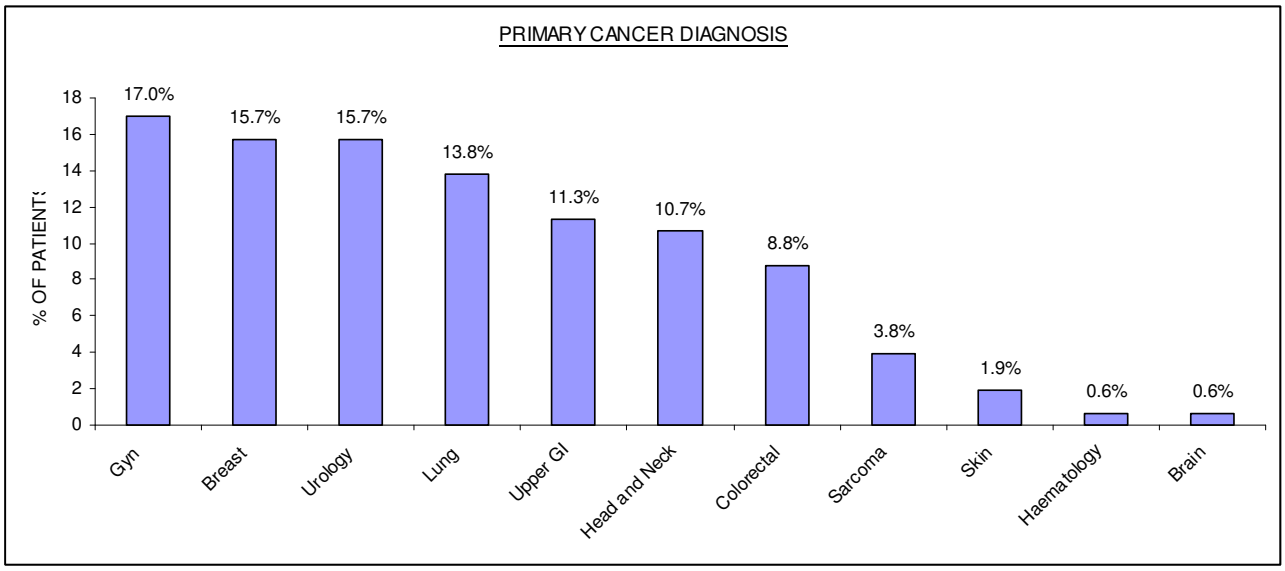


Table 2b: Primary Cancer Site(s)

PRIMARY CANCER DIAGNOSIS		
	Count (n)	**%**
Gyn	27	17.0%
Breast	25	15.7%
Urology	25	15.7%
Lung	22	13.8%
Upper GI	18	11.3%
Head and Neck	17	10.7%
Colorectal	14	8.8%
Sarcoma	6	3.8%
Skin	3	1.9%
Haematology	1	0.6%
Brain	1	0.6%
Total	**159**	**100%**

The majority of patients had received chemotherapy as their most recent treatment (52.2%) with 35.2% having had radiotherapy as their most recent treatment and 5% not receiving any treatment in the last year. This included 3 patients who were waiting to start treatment (Graph 2c & Table 2c).

For 86.2% of patients this treatment was given within the previous 6 weeks (Graph 2d & Table 2d).

Graph 2c: n=159

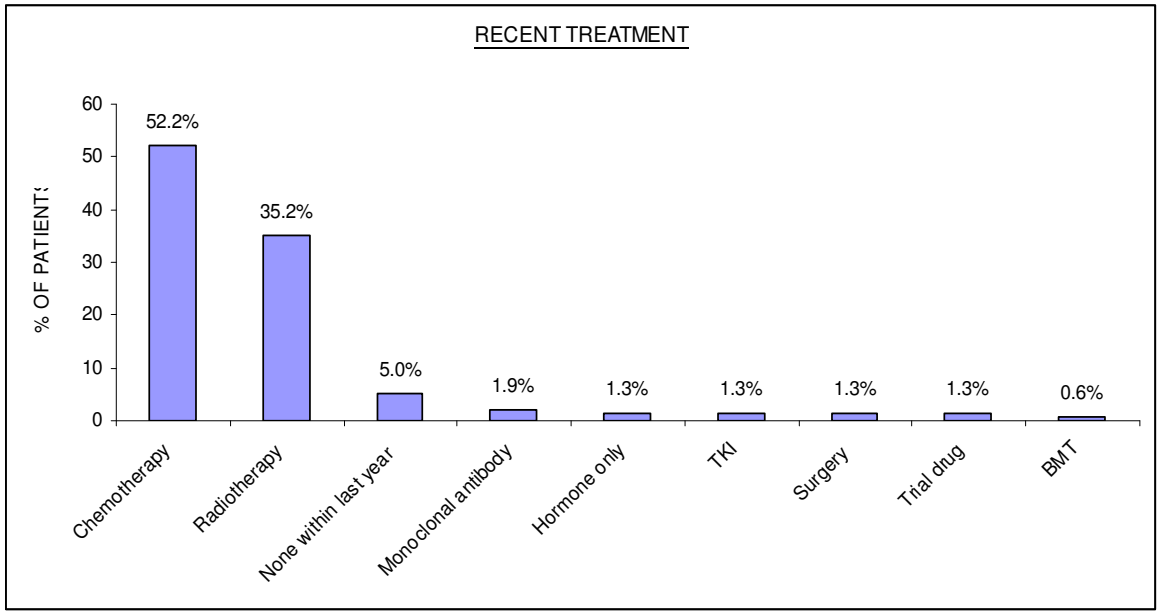


Table 2c: Type Recent Treatments

MOST RECENT TXT		
	Count (n)	**%**
Chemotherapy	83	52.2%
Radiotherapy	56	35.2%
None within last year	8*	5.0%
Monoclonal antibody	3	1.9%
Hormone only	2	1.3%
TKI	2	1.3%
Surgery	2	1.3%
Trial drug	2	1.3%
BMT	1	0.6%
Total	**159**	**100%**

* Includes 3 patients who were waiting to start treatment

Graph 2d: n=159

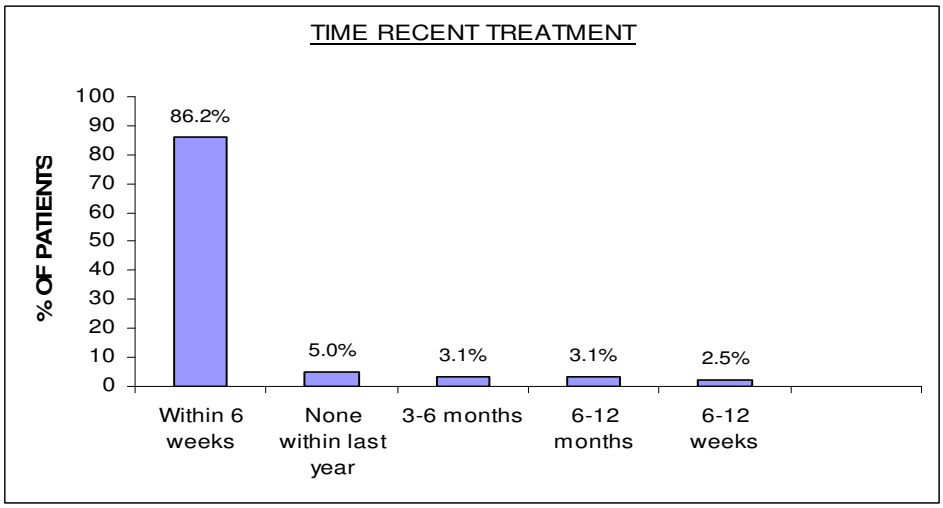


Table 2d: Date recent treatments

TIME MOST RECENT TXT		
	Count (n)	**%**
Within 6 weeks	137	86.2%
None within last year	8	5.0%
3-6 months	5	3.1%
6-12 months	5	3.1%
6-12 weeks	4	2.5%
Total	**159**	**100%**

17.6% of patients had some sort of central venous catheter in place, whereas 82.4% did not. The most common central venous catheter used was the PICC (Peripherally Inserted Central Catheter, which is inserted for some chemotherapy regimes via an established PiCC line service at the BWoSCC. Only 1 patient had a Port (Graph 2e & Table 2e).

Graph 2e: n=159

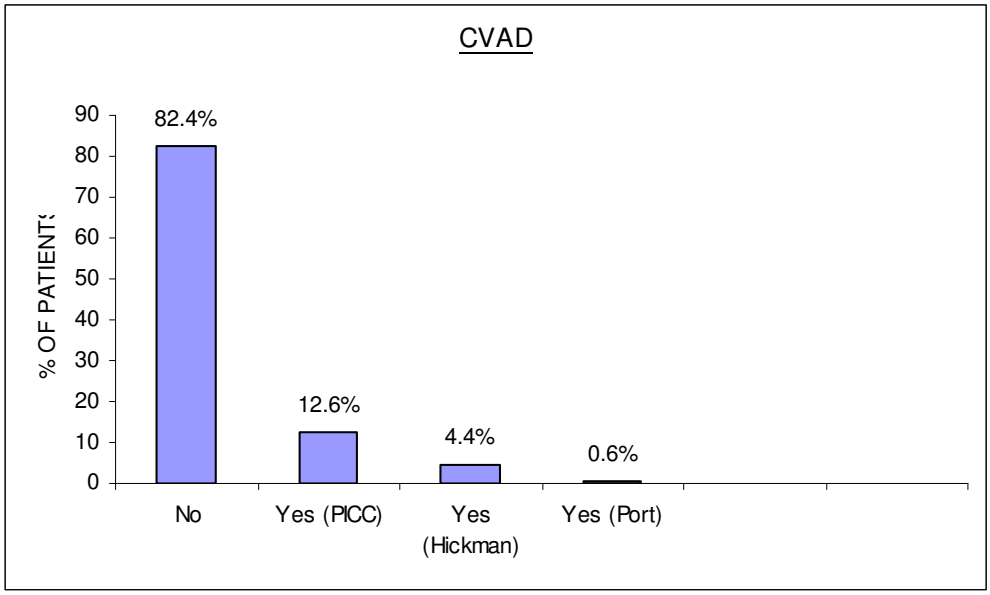


Table 2f: Device used

CVAD?		
	Count (n)	**%**
No	131	82.4%
Yes (PICC)	20	12.6%
Yes (Hickman)	7	4.4%
Yes (Port)	1	0.6%
Total	**159**	**100%**

Outcome 3: Patient referral route to AOAU

Patients came via a number of different routes to the AOAU with the most common being from the out-patient clinic (39%) and the radiotherapy treatment areas (24.5%). 18.2% were emergency admissions coming into the cancer centre via the bed manager (Graph 3 & Table 3e).

Graph 3: n=159

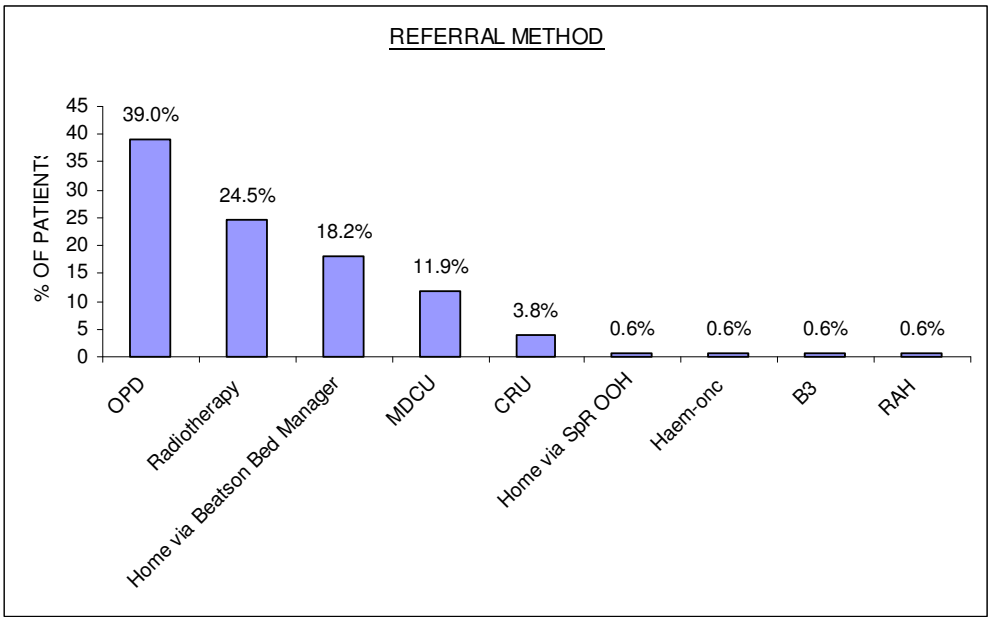


Table 3a: Referral Method

REFERRAL		
	Count (n)	**% of patients**
OPD	62	39.0%
Radiotherapy	39	24.5%
Home via Beatson Bed Manager	29	18.2%
MDCU	19	11.9%
CRU	6	3.8%
Home via SpR OOH	1	0.6%
Haem-onc	1	0.6%
B3	1	0.6%
RAH	1	0.6%
Total	**159**	**100%**

Outcome 4: In-depth analysis of attendance at AOAU

Just over half of all patients were seen between the hours of 1pm and 5pm (Graph 4a & Table 4a). Data was collected on both the primary reason for attendance and also additional reasons for attendance. The most common primary reasons were: 1. nausea and vomiting, 2. pain, and 3. suspected MSCC (Tables 4b & 4c). The most common additional reasons were: 1. fatigue/malaise/weight loss, 2. pain, and 3. oral problems/swallowing/mucositis (Tables 4d & 4e).

Graph 4a: n=159

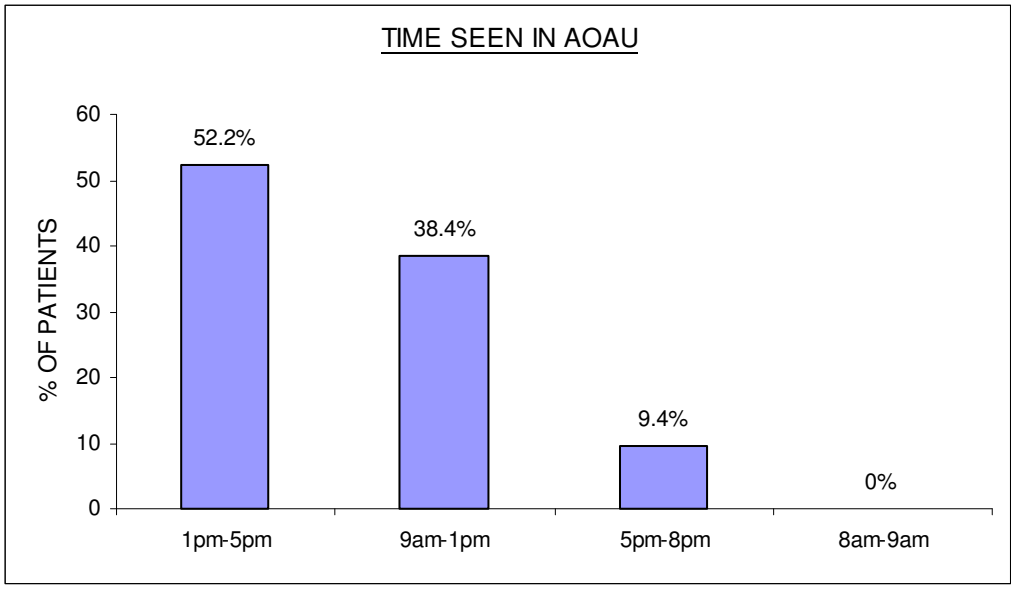


Table 4a: % Time seen in AOAU

TIME SEEN IN AOAU		
	Count (n)	**%**
1pm-5pm	83	52.2%
9am-1pm	61	38.4%
5pm-8pm	15	9.4%
8am-9am	0	0.0%
Total	**159**	**100%**

Table 4b: Primary reason for attendance at AOAU

PRIMARY REASON FOR ATTENDANCE		
	Count (n)	**%**
Nausea/vomiting	28	17.6%
Pain (other than chest)	22	13.8%
Suspected MSCC	16	10.0%
Shortness of breath	15	9.4%
Suspected sepsis/ neutropenic sepsis	12	7.5%
Abnormal blood results*	9	5.7%
Bowel Problems	7	4.4%
Oral problems/problems swallowing/oesophagitis/oesophageal obstruction/not tolerating fluids/ mucositis	7	4.4%
Symptoms of DVT/PE	7	4.4%
Fatigue / General malaise/ weight loss	6	3.8%
Chest pain/ cardiac	5	3.1%
Infection (e.g. cellultis, pyrexia)	4	2.5%
Confusion/disorientation/dizziness	3	1.9%
Urinary problems	3	1.9%
Respiratory symptoms (including low saturations) e.g. cough	3	1.9%
Ascites	2	1.3%

SVCO	2	1.3%
Neuro symptoms (e.g. ? brain mets)	2	1.3%
Problems with central line	1	0.6%
Fall/traumatic injury	0	0.0%
Wound problems	0	0.0%
Bleeding/bruising	0	0.0%
Other	5	3.1%
Total	**159**	**100%**

*Haematology (eg low Hb, wcc or platelets) +/or biochemistry (eg hypercalcaemia, low potassium, low magnesium)

Table 4c: 'Other' Primary reason for attendance at AOAU n=5

OTHER PRIMARY REASON FOR ATTENDANCE		
	Count (n)	**% of patients**
Drug reaction	1	0.6%
Fentanyl Toxicity	1	0.6%
Not coping with radiotherapy	1	0.6%
Urgent radiotherapy tomorrow	1	0.6%
Blocked nephrostomy	1	0.6%

Table 4d: Additional reasons for attendance at AOAU

ADDITONAL REASONS FOR ATTENDANCE		
	Count (n)	**% of patients**
Fatigue/ general malaise/ weight loss	30	18.9%
Pain (other than chest)	30	18.9%
Oral problems/ problems swallowing/ oesophagitis/ oesophageal obstruction/not tolerating fluids/ mucositis	22	13.8%
Nausea/Vomiting	19	11.9%
Bowel problems	15	9.4%
Shortness of breath	13	8.2%
Symptoms of DVT/PE	12	7.5%
Abnormal blood results	11	6.9%
Infection (e.g cellultis, pyrexia)	11	6.9%
Chest pain /cardiac	11	6.9%
Respiratory symptoms (including low saturations, cough)	10	6.3%
Suspected sepsis/ neutropenic sepsis	8	5.0%
Urinary problems	6	3.8%
Neuro (e.g ? brain mets, bells palsy)	6	3.8%
Suspected MSCC	5	3.1%
Confusion/disorientation/ dizziness	5	3.1%
Fall/traumatic injury	5	3.1%
Ascites	2	1.3%
Bleeding/bruising	2	1.3%
Problems with central line	2	1.3%
SVCO	2	1.3%
Wound problems	1	0.6%
Other	4	2.5%

Table 4e: 'Other' Additional reasons for attendance at AOAU n=4

OTHER ADDITIONAL REASONS FOR ATTENDANCE		
	Count (n)	**% of patients**
Symptom control	2	1.3%
Blocked nephrostomy	1	0.6%
Rash	1	0.6%

Graph 4b: Total number of samples = 837

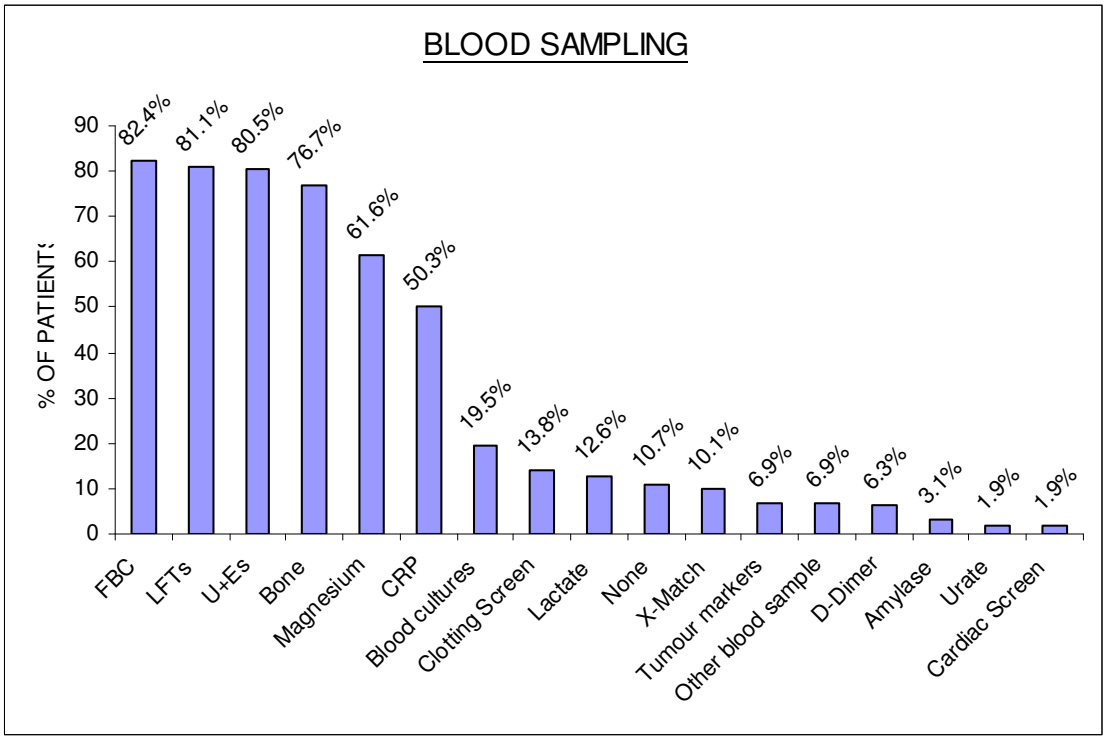


Table 4f: Blood sampling in AOAU n=837

BLOOD SAMPLING		
	Count (n)	**% of patients**
FBC	131	82.4%
LFTs	129	81.1%
U+Es	128	80.5%
Bone	122	76.7%
Magnesium	98	61.6%
CRP	80	50.3%
Blood cultures	31	19.5%
Clotting Screen	22	13.8%
Lactate	20	12.6%
None	17	10.7%
X-Match	16	10.1%
Tumour markers	11	6.9%
D-Dimer	10	6.3%
Amylase	5	3.1%
Urate	3	1.9%
Cardiac Screen	3	1.9%
Other blood sample	11	6.9%

Table 4g: "Other" blood sampling in AOAU n=11

BLOOD SAMPLING		
	Count (n)	**% of patients**
ABG (Level 5)	1	0.6%
Glucose	5	3.1%
HB1AC	1	0.6%
INR	1	0.6%
LDH	1	0.6%
Serum paracetamol,serum salicylate	1	0.6%
TFT'S added in AOAU	1	0.6%

15.7% patients had blood sampling done in clinic/treatment area prior to transfer to AOAU.

Graph 4c: Total number of imaging performed = 176

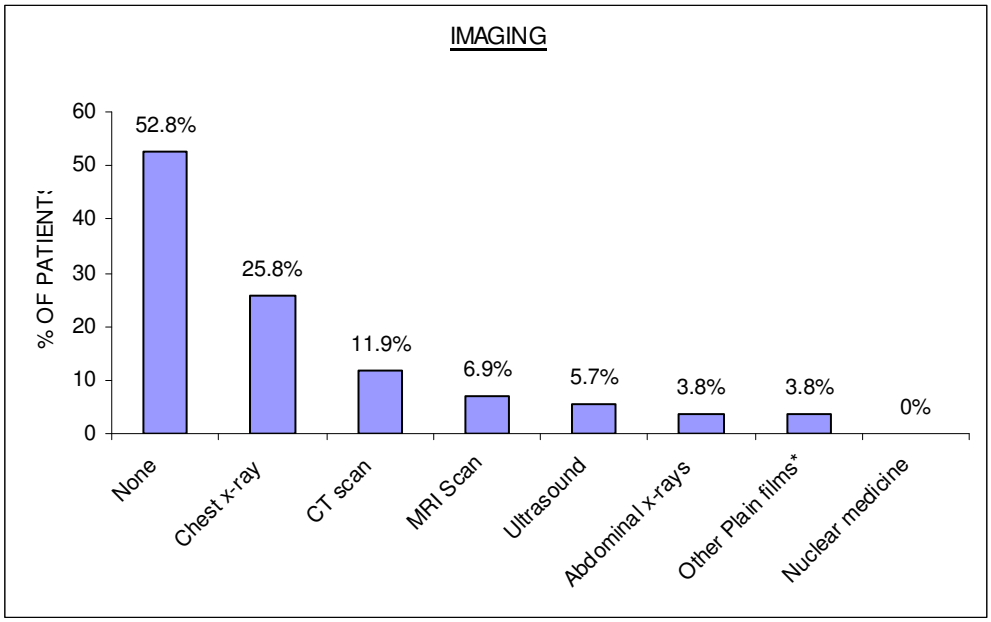


Table 4h: Imaging done in AOAU n=176

IMAGING		
	Count (n)	**% of patients**
None	84	52.8%
Chest x-ray	41	25.8%
CT scan	19	11.9%
MRI Scan	11	6.9%
Ultrasound	9	5.7%
Abdominal x-rays	6	3.8%
Other plain films*	6	3.8%
Nuclear medicine	0	0.0%

* Other plain films include X-Ray of ankle, right shoulder, hip and pelvis.

Table 4i: Other Investigations done in AOAU

IMAGING		
	Count (n)	**% of patients**
No other investigations	108	67.9%
ECG	50	31.4%
Other – Bladder scan	1	0.6%
ECHO	0	0.0%
Total	**159**	**100%**

Graph 4d: Total number = 258

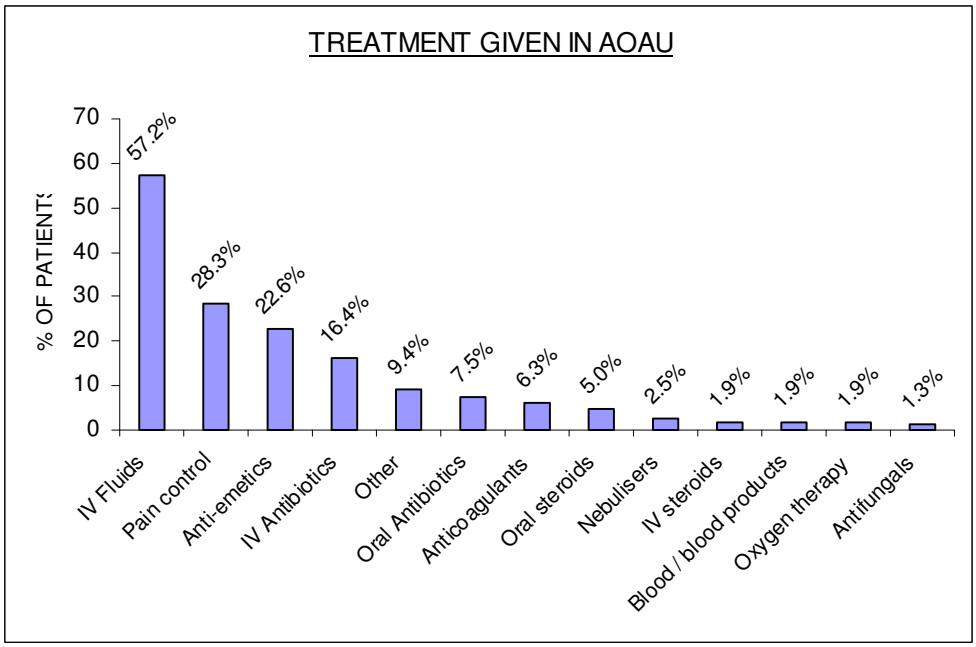


Table 4j: Treatment given in AOAU n=258

TXT GIVEN IN AOAU		
	Count (n)	**% of patients**
IV Fluids	91	57.2%
Pain control	45	28.3%
Anti-emetics	36	22.6%
IV Antibiotics	26	16.4%
Oral Antibiotics	12	7.5%
Anticoagulants	10	6.3%
Oral steroids	8	5.0%
Nebulisers	4	2.5%
IV steroids	3	1.9%
Blood / blood products	3	1.9%
Oxygen therapy	3	1.9%
Antifungals	2	1.3%
Other	15	9.4%

Table 4k: "Other" Treatment Given in AOAU (n=15)

TXT GIVEN IN AOAU		
	Count (n)	**% of patients**
Catheterisation & attempted catheterisation	2	1.2%
Aspiration and flush of nephrostomy	1	0.6%
IV Access	1	0.6%
IV Pamidronate	1	0.6%
IV sliding scale insulin	1	0.6%
Mouth care	1	0.6%
MUST/Dietetics referral	1	0.6%
NG tube care	1	0.6%
Observation	1	0.6%
Oral Care	1	0.6%
Paracetamol	1	0.6%
Potassium supplements	1	0.6%
PPI	1	0.6%
Ticagrelor, Aspirin	1	0.6%

There were 16 patients who attended AOAU with suspected Malignant Spinal Cord Compression during the time of audit. All patients received an MRI scan within 24 hours of their attendance at the AOAU.

There were 12 patients who attended AOAU with suspected neutropenic sepsis. However, 18 patients met the criteria for suspected sepsis according to the Sepsis 6 screening assessment. 18 patients therefore received the Sepsis 6 care bundle. This included patients with infections including line infection, respiratory tract infection and urinary tract infection. Sepsis 6 data and compliance with national targets will be presented in a separate report.

Outcome 5: Patient admission and cause(s)

The majority of patients (91.8%) who attended the AOAU were admitted (Graph 5a & Table 5a). This reflects the complexity and severity of patients, as a result of the current eligibility criteria for AOAU (all patients already in the cancer centre who become unwell at clinic or in treatment areas, as well as emergency admissions as per current bed management policy).

Graph 5a: n= 159

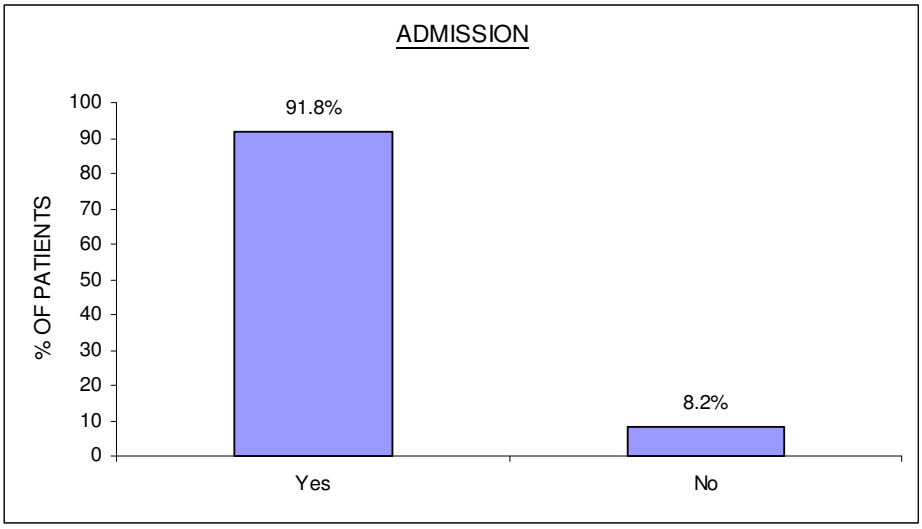


Table 5a: Patient admission

PATIENT ADMISSION		
	Count (n)	**%**
Yes	146	91.8%
No	13	8.2%
Total	**159**	**100%**

The majority of admissions were for cancer related effects but a large proportion were for treatment toxicities. In some cases it was difficult to separate the patient's presenting problems into either cancer related or treatment related which is not reflected in these numbers (Table 5b). The primary cause of admission was the same as the primary reasons for attendance (Table 5c).

Table 5b: Reason patient admitted n=146

REASON FOR ADMISSION		
	Count (n)	**% of patients**
Cancer related effects	82	56.2%
Treatment related toxicities	56	38.3%
Symptom/problem unrelated to cancer or treatment	8	5.5%
Total	**146**	**100%**

Table 5c: Primary Cause of Admission n=146

PRIMARY CAUSE OF ADMISSION		
	Count (n)	**% of patients**
Nausea/vomiting	28	19.2%
Pain (other than chest)	21	14.4%
MSCC	16	11.0%
Other respiratory symptoms	9	6.2%
Oral problems/dysphagia/oesophagitis/ not tolerating fluids	9	6.2%
Electrolyte disturbance	8	5.5%
Infection	7	4.8%
Sepsis (other than neutropenic)	5	3.4%
Neutropenic sepsis	4	2.7%
Pleural effusion	4	2.7%
Anaemia	4	2.7%
Renal failure, urinary retention	3	2.1%
Progression of cancer	3	2.1%
Ascites	3	2.1%
DVT/PE	3	2.1%
Chest pain/cardiac	3	2.1%
SVC obstruction	3	2.1%
Bowel obstruction	2	1.4%
Confusion/disorientation	2	1.4%
Post surgical complications	0	0.0%
Wound problems	0	0.0%
Bleeding/bruising	0	0.0%
Other	9	6.2%
Total	**146**	**100%**

Table 5d: Cause of Admission – "Other"

CAUSE OF ADMISSION		
	Count (n)	**% of patients**
Treatment toxicity	2	1.4%
Collapse/dizziness	2	1.4%
Biliary obstruction	1	0.7%
For radiotherapy planning	1	0.7%
Drug reaction	1	0.7%
Opiate toxicity	1	0.7%
Nephrostomy problem	1	0.7%
Total	**9**	

Outcome 6: Doctor and/or CNS involvement in care

149 patients (93.7%) who presented at the AOAU were discussed with a doctor. 10 patients (6.3%) were not discussed with a doctor. Of those discussed with a doctor, 118 (74.2%) were seen by a doctor in AOAU.

23 patients (14.5%) who presented at AOAU were discussed with or reviewed by a CNS. Of these, 9 (39.1%) were reviewed prior to attending AOAU. 12 patients were reviewed by a CNS in AOAU. Of these 12 patients, 4 reviews were to provide clinical advice.

Graph 6a: Doctor/CNS involvement in *Patient Attendance at AOAU*

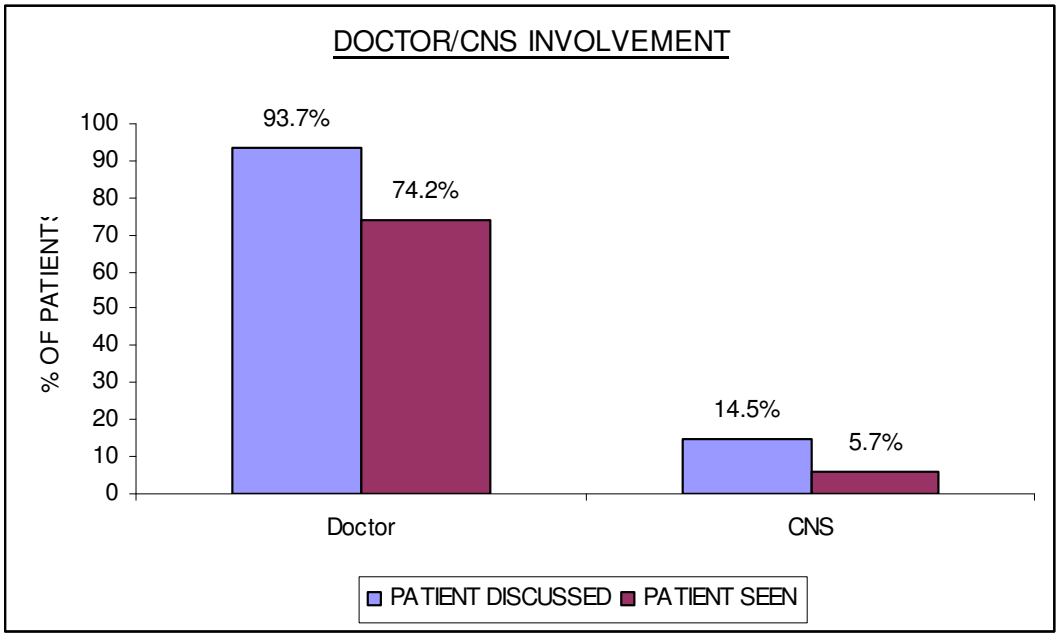


Table 6a First doctor contacted n=149

FIRST DOCTOR CONTACTED		
	Count (n)	**% of patients**
Specialty doctor	84	56.4%
On-call registrar	28	18.8%
Team registrar	16	10.7%
On-call consultant	7	4.7%
Patient's Own Consultant	6	4.0%
Team consultant	4	2.7%
SHO	2	1.3%
Palliative care	2	1.3%

Table 6b: Other doctors involved n=56

OTHER DOCTORS INVOLVED		
	Count (n)	**% of patients**
On-call SpR	11	7.4%
Patient's own consultant	10	6.7%
On-call consultant	9	6.0%
Team SpR	9	6.0%
Specialty doctor	6	4.0%
Team consultant	4	2.7%
SHO	3	2.0%
Palliative care	2	1.3%
Microbiologist	1	0.7%
Cardiac arrest team	1	0.7%

Medical staff were contacted by AOAU staff for a number of reasons as shown in Table 6c. Some doctors also attended AOAU to see their patients without this being requested.

Table 6c: Reason for contact n=149

REASON FOR CONTACTING MEDICAL STAFF		
	Count (n)	**% of patients**
Clinical examination only	22	14.8%
Review/ supervise NP	20	13.4%
Sign radiology card only	19	12.8%
NP concerned about patient	18	12.1%
Discuss treatment	16	10.7%
Symptom management	14	9.4%
Review not requested	14	9.4%
Prescribe	6	4.0%
Pre-admission review	6	4.0%
Review radiology	5	3.4%
Other	4	2.7%
Senior Review	3	2.0%
Not recorded	2	1.3%

Table 6d: CNS Specialty

CNS SPECIALTY		
	Count (n)	**% of patients**
Oncology	20	87.0%
Palliative care	3	13.0%
Surgical CNS	0	0.0%
Respiratory CNS	0	0.0%
Haematology	0	0.0%
Total	**23**	**100%**

Table 6e: Reason for contacting CNS n=23

REASON FOR CONTACTING CNS		
	Count (n)	**%**
CNS referrals to AOAU*	9	39.1%
Courtesy visit from CNS with discussion	5	21.8%
Symptom management	3	13.0%
Non clinical issue	3	13.0%
Treatment advice	1	4.3%
AOAU contacted CNS by email to inform	1	4.3%
CNS called AOAU for an update	1	4.3%

* These patients were not seen by CNS in AOAU: CNSs had made the referral to AOAU from clinic or treatment areas

Outcome 7: In-depth analysis of post-admission activities

For 6 out of 146 admissions (4.1%) follow-up appointments were made for Oncology.
9 (6.2%) follow-up appointments were made with Other Specialties as detailed in Table 7(a).

Table 7a: Follow up appointments with other specialties

SPECIALTY		
	Count (n)	**% of patients who had follow up appointments made**
Dental	2	22.2%
CT	1	11.1%
ENT @ SGH	1	11.1%
General surgery	1	11.1%
Orthopaedic cardiology endocrinology	1	11.1%
Palliative	1	11.1%
Referred to community palliative care team	1	11.1%
Urology	1	11.1%
Total	**9**	**100%**

Graph 7a: Other Specialties

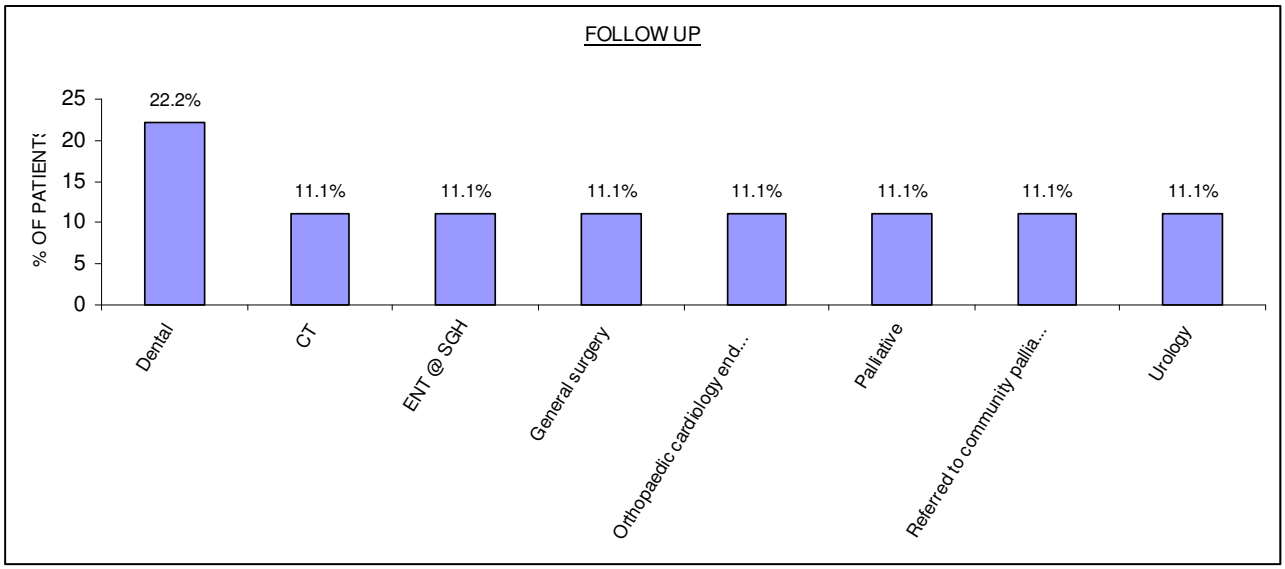


Table 7b: Blood sampling post admission (n=775)

POST ADMISSION BLOOD SAMPLING (n= 146 patients)		
	Count (n)	**% of patients**
U+Es	121	82.9%
LFTs (Includes G-gt, bilirubin)	121	82.9%
FBC	112	76.7%
Bone	109	74.7%
CRP	105	71.9%
Magnesium	104	71.2%
None	22	15.1%
Clotting Screen	17	11.6%
Tumour markers	13	8.9%
Drug levels (e.g. Gentamycin, Vancomycin, Tacrolimus)	10	6.8%
Glucose	8	5.5%
Endocrine (TFTs, cortisol)	7	4.8%
ESR	5	3.4%
Amylase	4	2.7%
Auto-immune	4	2.7%
Bicarbonate	3	2.1%
Troponin	3	2.1%
Total protein	3	2.1%
Blood cultures	2	1.4%
Blood film	2	1.4%

Graph 7b: Total imaging performed post admission = 146

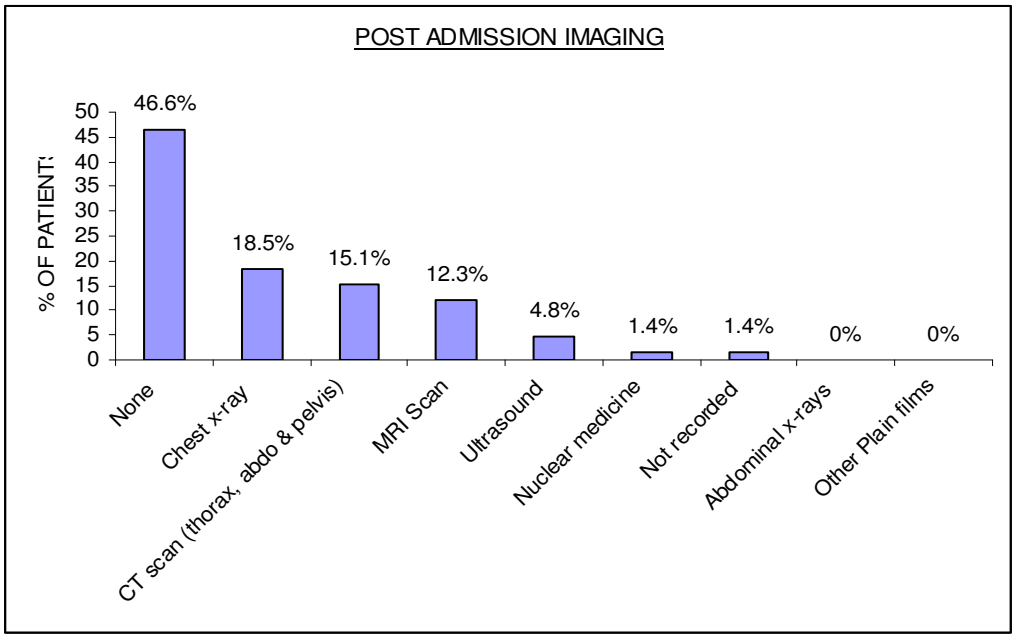


Table 7c: % Imaging performed post admission n=146

POST ADMISSION IMAGING		
	Count (n)	**% patients**
None	68	46.6%
Chest x-ray	27	18.5%
CT scan (thorax, abdo & pelvis)	22	15.1%
MRI Scan	18	12.3%
Ultrasound	7	4.8%
Nuclear medicine	2	1.4%
Not recorded	2	1.4%
Abdominal x-rays	0	0.0%
Other Plain films	0	0.0%

Graph 7c: Length of stay n=146

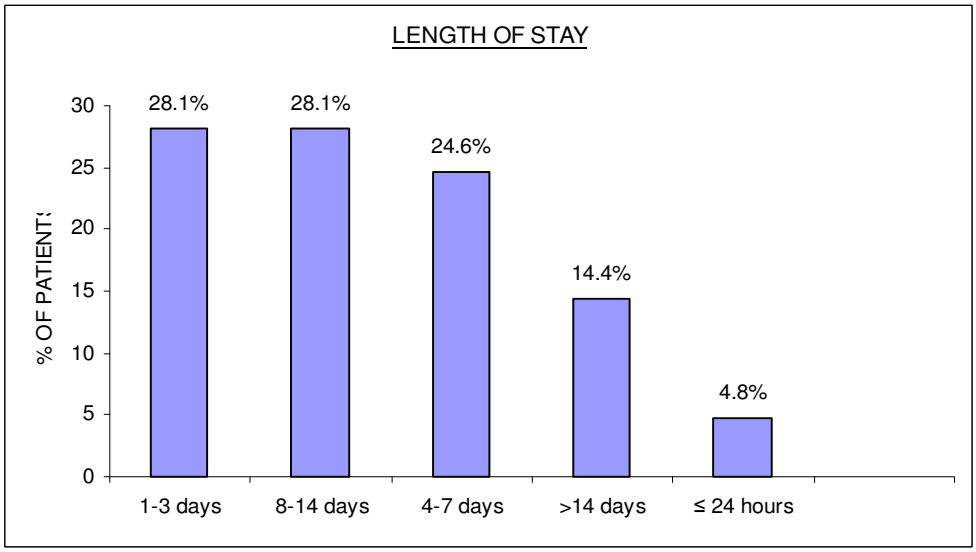


Table 7d: Length of Stay for this Acute Admission n=146

LENGTH OF STAY		
	Count (n)	**%**
1-3 days	41	28.1%
8-14 days	41	28.1%
4-7 days	36	24.6%
>14 days	21	14.4%
≤ 24 hours	7	4.8%
Total	**146**	**100%**

Graph 7d: Outcome of Acute Admission n = 146

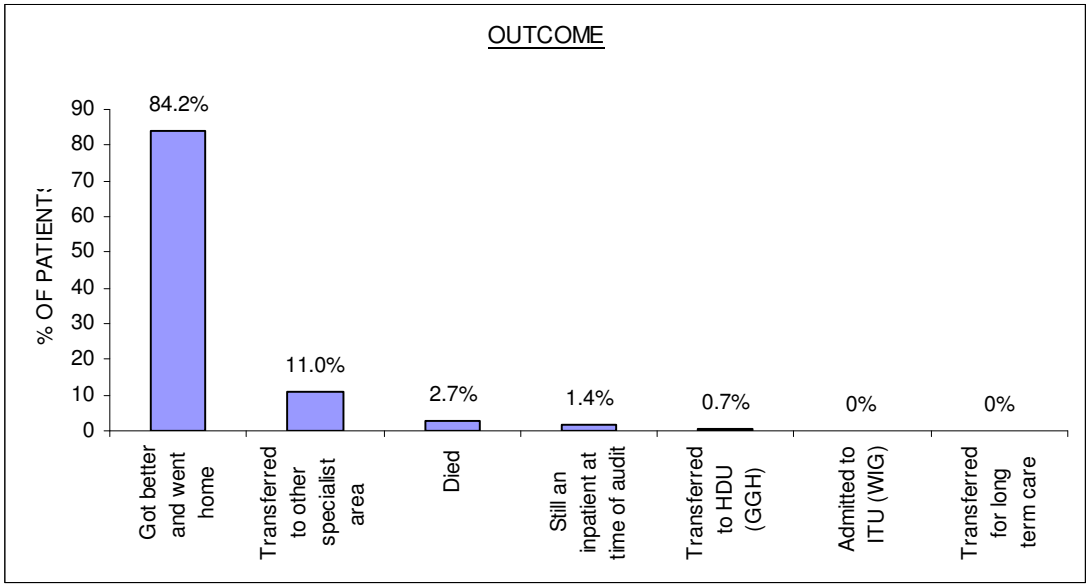


Table 7e: Outcome of Acute Admission n=146

OUTCOME OF ACUTE ADMISSION		
	Count (n)	**% of patients**
Got better and went home	123	84.2%
Transferred to other specialist area	16	11.0%
Died	4	2.7%
Still an inpatient at time of audit	2	1.4%
Transferred to HDU (GGH)	1	0.7%
Admitted to ITU (WIG)	0	0.0%
Transferred for long term care	0	0.0%
Total	**146**	**100%**

Table 7f: Other Specialist Area n=16

OTHER SPECIALIST AREA		
	Count (n)	**% of patients**
Hospice	9	6.2%
Monklands Hospital	1	0.7%
Gartnavel Hospital	1	0.7%
Drumchapel Hospital	1	0.7%
Ayr Hosp	1	0.7%
Brownlee	1	0.7%
FVRH	1	0.7%
Glasgow Royal Infirmary	1	0.7%
Total	**16**	

The majority of patients were discharged home at the end of their acute admission period (87.9%) (Graph 7e & Table 7g). 2 (1.4%) were still in patients at the time of audit and 4 patients (3.4%) died during this acute admission period. 1 of those died in AOAU. This case was reviewed, was not considered an unexpected death, and was well managed within the AOAU.

Graph 7e: Discharge Destination n=140

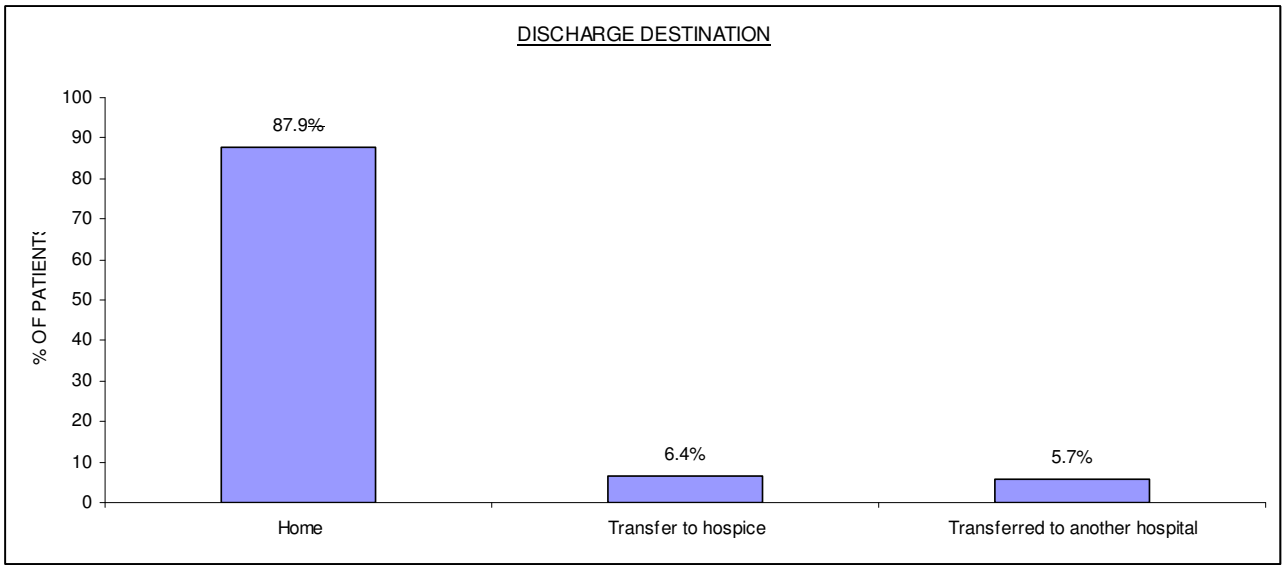


Table 7g: Discharge Destination n=140

DISCHARGE DESTINATION		
	Count (n)	**%**
Home	123	87.9%
Transfer to hospice	9	6.4%
Transferred to another hospital	8	5.7%
Total	**140**	**100%**

RECOMMENDATIONS

1. Continue access to AOAU via the bed manager for patients outwith the phone line (unwell patients in clinic and treatment areas). This has provided a useful gate-keeping function to the AOAU and facilitated good communication between AOAU and bed management.

2. Initiation of the Beatson 24 hour Cancer Treatment Helpline. Contact number to be given to all patients on active treatment at the BWoSCC, for use up to 6 weeks post treatment.

3. Access to AOAU will also be via the Beatson phone line (patients that following telephone triage require to be seen), but will be limited to North Glasgow patients initially.

4. Determine oncological support for South Glasgow & Clyde following review of phone line and North Glasgow data (at 3-6months).

5. Further develop data collection questionnaire in line with data analysis categories refined during this evaluation, and continue to audit all patients coming through the AOAU.

6. Continue to collect Sepsis 6 evaluation data.

SUMMARY

The Acute Oncology Assessment Unit has been successfully established within the Beatson West of Scotland Cancer Centre. During the initial 3 months of opening AOAU staff have efficiently and effectively managed 159 patients with cancer experiencing treatment toxicity, oncological emergencies or effects of disease. Implementation of the Beatson Cancer Treatment Helpline from within the AOAU will enhance the AOAU service by facilitating access to specialist oncology advice, and pathways for patients on active treatment to be triaged appropriately to receive advice +/- local review and intervention.