

Figure 1: Posts appointed to as part of the Acute Oncology Business Case

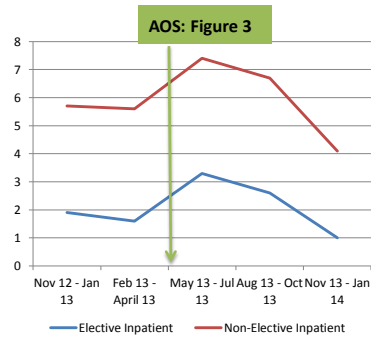
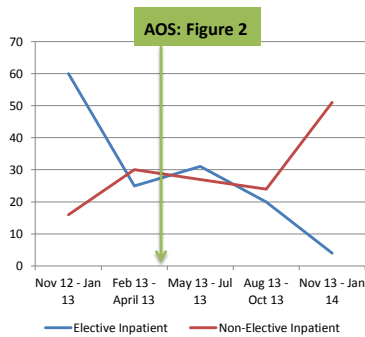


Figure 2 and 3: Number of Admissions to Oncology Ward (A) and Length of Stay (B) pre and post AOS

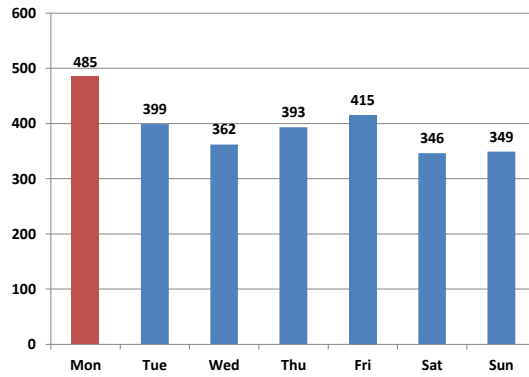


Figure 4: Number of Cancer Patients Attending ED per Day of Week

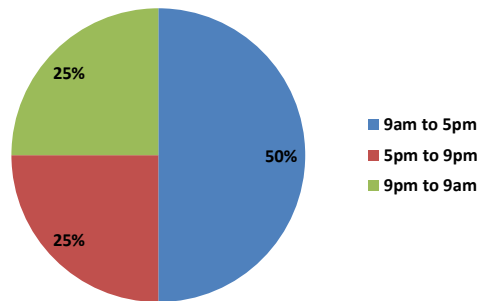


Figure 5: Percentage of Known Cancer Patients Attending ED by Time of Day

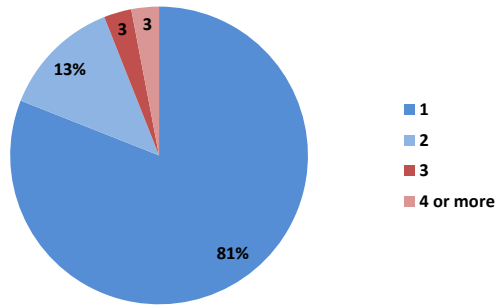


Figure 6: Percentage of Known Cancer Patients Attending ED on One or more Occasions

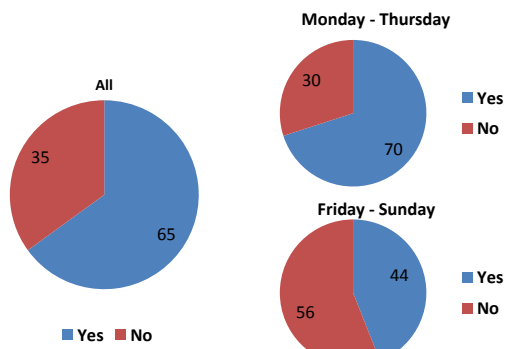


Figure 7: Percentage of Known Cancer Patients Seen By AOS Within 24 Hours of Admission

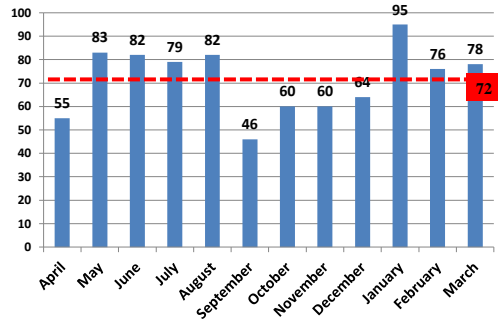


Figure 8: Number of Cancer Patients Seen In Fast Track Oncology Clinic

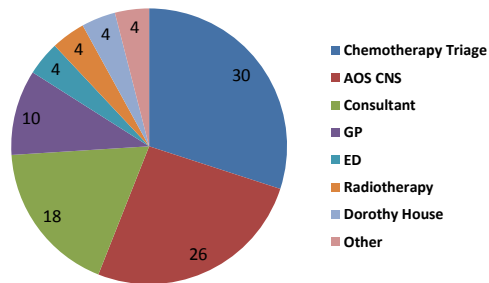


Figure 9: Source of Referrals (%) to the Fast Track Oncology Clinic (example)

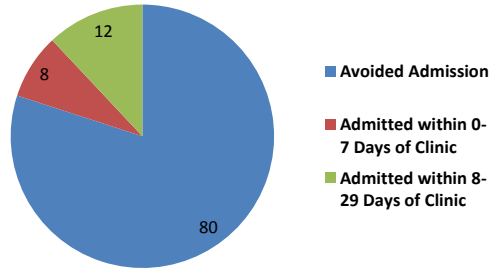


Figure 10: Outcome of Patients Seen Within the Fast Track Oncology Clinic (%)

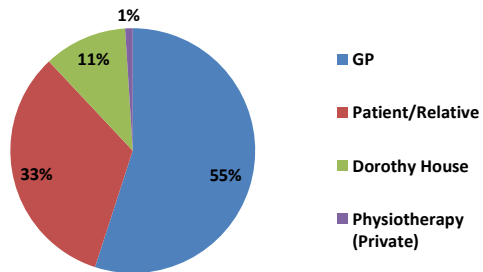


Figure 11: Source of External Referrals to the Acute Oncology CNS

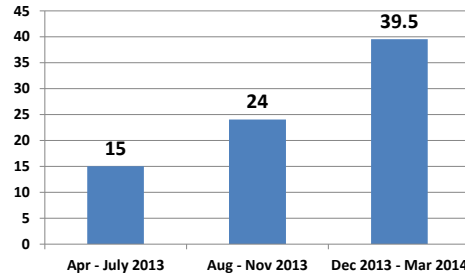


Figure 12: Percentage of Patients with Suspected Neutropenic Sepsis Receiving Antibiotics Within 1 Hour of Arrival

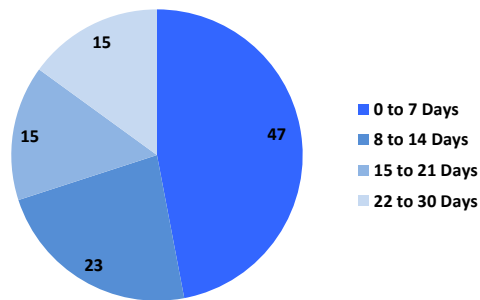


Figure 13: Percentage of Known Cancer Patients Dying within 30 Days of ED Attendance

The Acute Oncology Service @ the Royal United Hospital Bath

Team-working success one year on

Louise Medley^[1*], Aless Greco^[2], Bernadette Panes^[3]

*On Behalf of the Acute Oncology Team and Urgent Care Working Group

Introduction

The Royal United Hospital, Bath (RUH) is a 565 bedded hospital that provides care for a population of 500,000 people in Bath, North East Somerset and Western Wiltshire. The oncology department consists of 7.4 consultants (5 WTE Clinical Oncologists and 2.4 WTE Medical Oncologists), 0.8WTE Associate Specialist and 0.4 WTE Speciality Doctor in Clinical Oncology.

The Acute Oncology Service (AOS) at the RUH was established in April 2013. The £500,000 business case for this service was approved by the RUH Trust Board in July 2012 and 12 permanent posts were recruited to (see Figure 1).

Methods

1: Change in Cancer Patient Flow Across the RUH

Early specialist review is the key to a successful AOS. By tackling and improving the flow of patients through the specialist oncology ward at the RUH prior to introduction of the AOS, beds were released to provide early specialist management of acute oncology problems (Figure 2). As a result non-elective cancer patient length of stay was reduced within the trust (Figure 3).

2: Finding Cancer Patients Early

A list of all cancer patients attending the emergency department (ED) within the previous 36 hours is sent to the Acute Oncology Team at 07.15 every morning. The list, generated by the RUH Business Intelligence Unit (BIU), flags patients whom are registered on the cancer spine and/or the oncology e-prescribing programme with any episodes in the front door database (Patient First). This has not only provided an acute list for the AOS but also for the clinical trials team who can now pick up and rapidly report serious adverse events (SAEs).

Results

1: Number of Patients Managed by the AOS

There have been 2749 known cancer patients attending ED over the last year (Figure 4):

- Average of 6-9 cancer patients per day attending ED.
- 75% patients are admitted during the working week with Monday being the busiest day, Wednesday and the weekends being quieter.
- 50% patients are admitted during normal working hours (Figure 5)
- The average number of attendances per patient is 1.3.
- Six percent of patients (n=209) had 3 or more attendances*(Figure 6).

*Understanding more about these patients, or ensuring good community support, may help us to intervene earlier to prevent attendance.

2: Review within 24 Hours by AOS

In the first 3 months data:

- 65% of patients admitted were reviewed by the AOS within 24 hours of admission (Figure 7).
- 70% were reviewed within 24 hours of admission when admitted Monday-Thursday.
- Despite not having full 7-day working, 44% of patients were seen within 24hours Friday – Sunday demonstrating how AOS has improved flow of cancer patients through the oncology specialist ward.

- National winter pressure funding (Oct 2013 – March 2014) supported a junior grade on the oncology ward over the weekend and an AOS CNS 9am-2pm Saturday and Sunday. 100% of cancer patients admitted during this time were seen within 24 hours of admission.

3: Fast Track Oncology Clinics

- 860 patients have been seen within these clinics over the last 12 months, as a viable alternative to front door admission (Figure 8)
- The majority of patients were referred to the clinic from the chemotherapy helpline, via the Acute Oncology CNS or directly from other oncology consultants (Figure 9).
- 80% patients avoided hospital admission through the provision of this clinic (Figure 10). It is expected that the 20% admitted following a clinic attendance would have had a shorter length of stay compared to pre-AOS.

4: Acute Oncology CNS Clinics

One full time AOS CNS supports the AOS service during the working week.

- Over a 3-month period 619 patient encounters were documented, this included 179 calls back to patients who had accessed the 24hour chemotherapy triage line.
- 75% of referrals to the AOS CNS were from within the trust, of the 25% of external referrals; 50% were from Primary Care, the other 50% from patients/carers (Figure 11).

5: Patients with Carcinoma Unknown Primary Origin (CUPO)

Over the first 9 months of the AOS 41 new patients were seen with CUPO (average of 5/month):

- Median age at diagnosis = 69 years (range 41-91).
- 55% of patients were over 70 years of age.
- 50% were referred directly from Primary Care (increased from only 20% in 2012).
- 35% were diagnosed following an acute admission.
- Two thirds of CUPO patients were well enough for active cancer treatment, 40% had primary chemotherapy.

6: Management of Neutropenic Sepsis

All patients with suspected neutropenic sepsis should receive antibiotics within 1 hour of arrival.

- Local audits from 2010/11 demonstrated levels of compliance of only around 3%.
- Prospective audit was introduced at the time of Launch of AOS
- On average 10-12 patients/month present to the RUH with suspected neutropenic sepsis.
- The anticipated initial improvement in the treatment of neutropenic sepsis was disappointing (only 15%).
- A trust wide sepsis group was established in Aug 2013 allowing the management of neutropenic sepsis to be fully integrated into the trusts general sepsis guidelines. A sepsis proforma was developed and introduced within the trust in Dec 2013 and subsequently the management of actual and potential neutropenic septic patients has significantly improved (Figure 12).

7: Deaths within 30 Days of ED Attendance

- 500 patients die within 30 days of ED attendance, 50% of these within a week and 10% of these within 24 hours (Figure 13).
- 20% patients who died within 24hours of ED attendance were known to the local hospice, of these only 20% were on the end of life register*.

*Understanding more about these patients, or ensuring good community support, may help us to intervene earlier to prevent attendance.

Conclusions

For cancer patients at the RUH the introduction of the Acute Oncology Service has successfully:

- Reduced the number of acute admissions, related to their cancer.
- Reduced the length of stay for cancer patients admitted acutely.
- Improved Flow through the cancer specialist ward, allowing more patients to be managed by their own specialist team.
- Improved the management of neutropenic sepsis.
- Brought the discussion about cancer patient management forward in a patients pathway

Next Steps

Neutropenic Sepsis	Sepsis 6 Training across the trust started April 2014 with the appointment of 2 Sepsis CNS posts. We are anticipating a further improvement in neutropenic sepsis management at for the next audit.
Acute Oncology CNS Post	Business case in development to appoint to a second dedicated post with vision to develop more community based acute service.
7 day working	As part of the urgent care workstream a business case to provide a robust 7 day service is in discussion
Service User Feedback	Questionnaires in development for both patients/carers and professionals who have used the service.
New Build 2017	Consider how an AOS will fit in the new Cancer Centre

The oncology department's commitment to improving care for our cancer patients has been exceptional. All staff involved with the running of the Acute Oncology Service have seen first-hand evidence of how this rapid assessment and review significantly improves patient safety and experience. The success of this service should be attributed to great team working across the whole Trust.