



Why do patients with Soft Tissue Sarcoma present so late?

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Introduction

- **Current Guidelines state that any lump:**

- **>5cm in Size**
- **Increasing in Size**
- **Deep to the Deep Fascia**
- **Painful**

**should be referred to a Specialist Centre (SC)
for Investigation and Management.**

Introduction

BUT!

The average size
of tumour seen
at the Royal
Orthopaedic
Hospital is 10cm





Introduction

Why then are lumps presenting to a SC on average twice the size they should be?

- It is difficult to know how large they are when patients first present to a GP.
- Therefore, is the problem that they are not presenting until they are large or is there some service delay?



Aims

1. This study aimed to quantify this delay and at what stage of the treatment pathway it occurred.
2. We also examined patient BMI, literacy levels and Social Deprivation score in order to try and identify a link with delay.



Method

- Patients recruited from Outpatient Clinic and the Ward
- Structured questionnaire
- All relevant dates e.g. date first noticed, date went to 1st MP
- Sizes/Symptoms
- Medical Professionals seen
- BMI, age left FTE, postcode



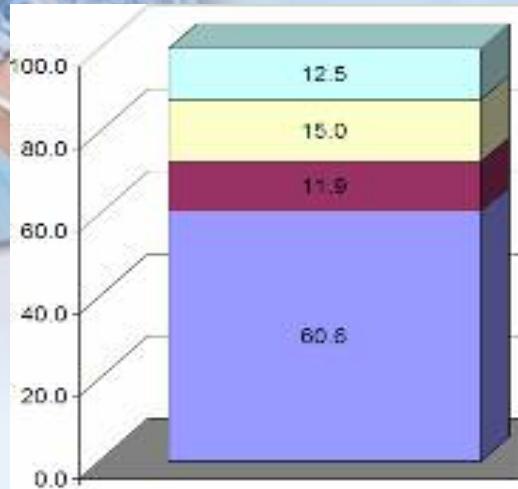
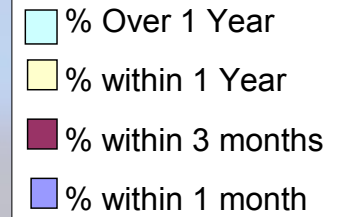
Results

162 patients
50:50 sex distribution
Average age 53
Average size = 9cm

Diagnosis	Frequency	Percentage
Liposarcoma	39	24.1
Myxofibrosarcoma	21	13.0
Leiomyosarcoma	12	7.4
Spindle Cell Sarcoma	11	6.8
Synovial Sarcoma	11	6.8
Pleomorphic Sarcoma	7	4.3
MFH	6	3.7
MPNST	5	3.1
Other	50	30.9
Total	162	100.0

Grade	Frequency	Percentage
High	54	43.2
Intermediate	49	39.2
Low	22	17.6
Deep	61	55.5
Subcutaneous	49	44.5

Results



Onset of Symptoms

Weeks

Mean: **28.6**
 Median: **1.3**
 Min: **0.0**
 Max: **674.0**

Stage 1

Presentation to First Medical Professional (GP/A&E)

Weeks

Mean: **35.8**
 Median: **2.4**
 Min: **0.0**
 Max: **552.4**

Stage 2

Referral to DGH

Weeks

Mean: **5.6**
 Median: **2.2**
 Min: **0.0**
 Max: **39.3**

Stage 3

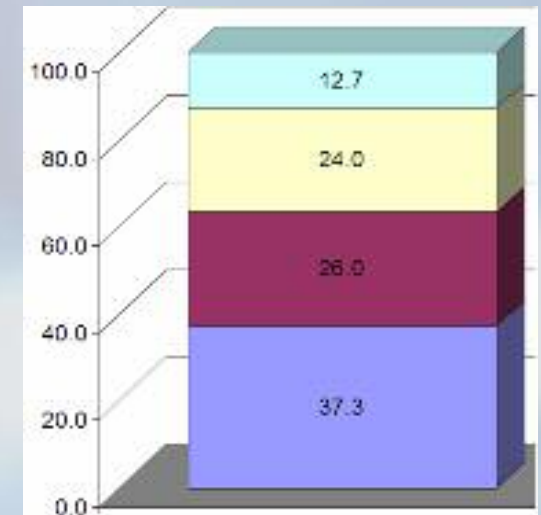
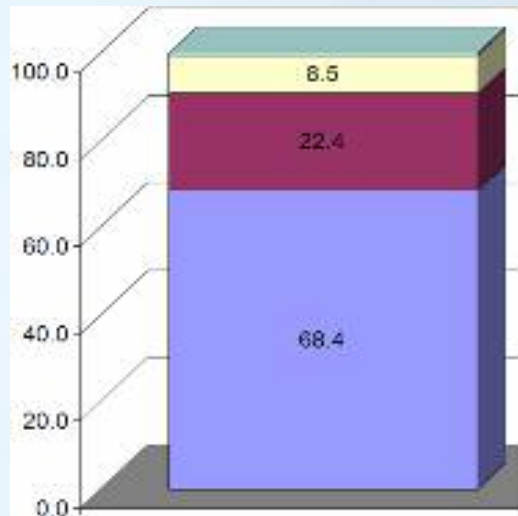
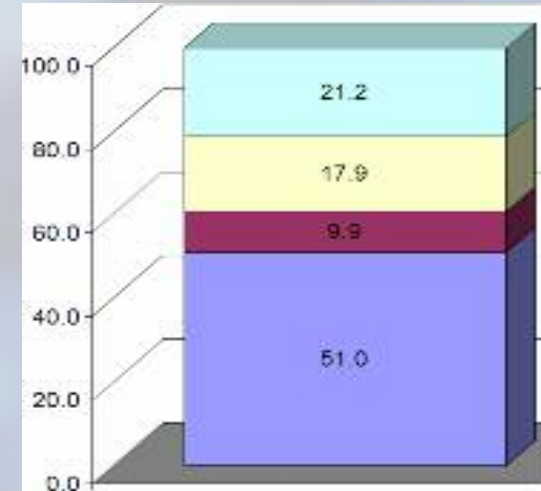
First Appointment with Consultant

Weeks

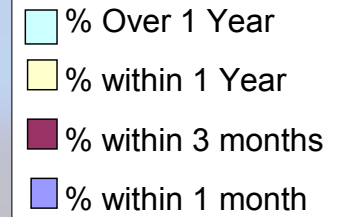
Mean: **44.9**
 Median: **6.9**
 Min: **0.0**
 Max: **1065.3**

Stage 4

Referral to ROH



Results



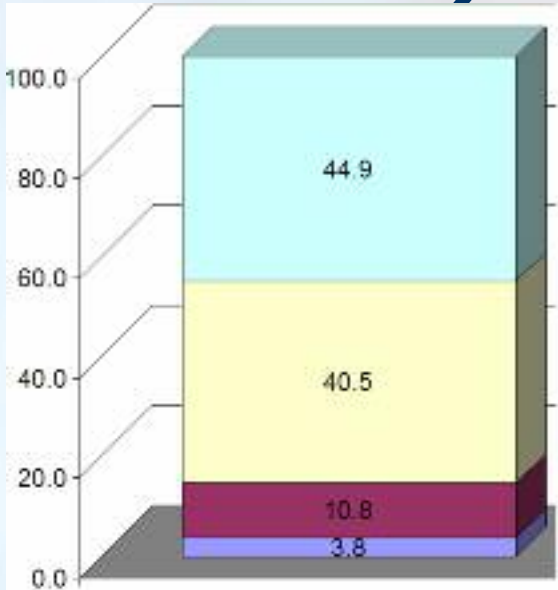
Weeks

Mean: 112.3

Median: 40.4

Min: 0.4

Max: 1089.3



Onset of Symptoms

Stage 1

Presentation to First Medical Professional (GP/A&E)

Stage 2

Referral to DGH

Stage 3

First Appointment with Consultant

Stage 4

Referral to ROH

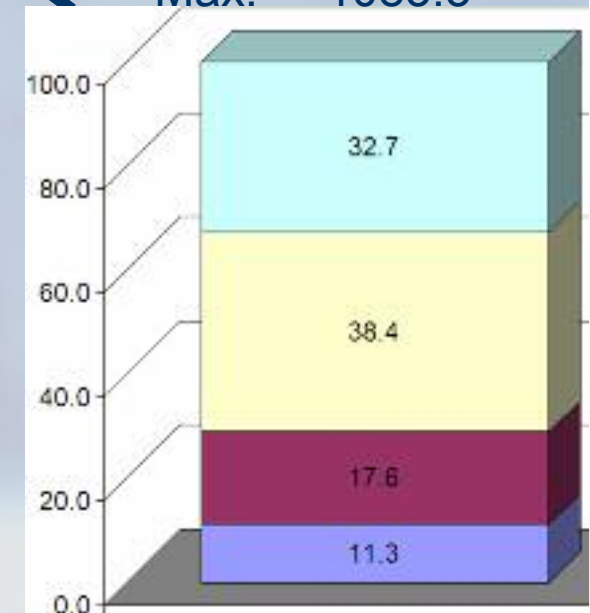
Weeks

Mean: 83.1

Median: 25.0

Min: 0.0

Max: 1083.3





Results

- If a GP reassured the patient, these patients incurred a **16** fold increase in delay to a median 38.3 weeks (mean 70.4).
- Whoops procedure associated with 3 fold increased delay ($p < 0.001$)
- Performing an MRI was found to slightly decrease delay ($p < 0.001$)
- Other interventions had too few patients to show significant results.

Results

The Median Patient

Stage	Description	Duration	Month 1					Month 2				Month 3			
			1	2	3	4	5	6	7	8	9	10	11	12	13
1	Onset of Symptoms to Presentation	1.3w	█												
2	Presentation to 1st Referral	2.4w	█												
3	1s Referral to 1st Consultant Appointment	2.2w	█												
4	1st Consultant Appointment to Referral to ROH	6.9w	█												

Results



No association with BMI, literacy or social deprivation score was found



Discussion

- Patients on the whole are quick at presenting to their GP
- GPs are reasonably quick at referring (albeit to an incorrect centre)
 - Although a high proportion took longer than 1 year to be referred.
- DGH consultants (General and Orthopaedic Surgeons) are the greatest source of delay (median 3 fold greater).



Discussion

- “Whoops” procedures were associated with a significant increase in delay.
- Not only are they receiving inappropriate and ineffective management
- It takes them longer to receive the correct treatment



Recommendations

EDUCATION

EDUCATION

EDUCATION

- Awareness of DOH Guidelines must be increased in GPs and DGH Consultants

In order to minimise delay there is a need for regional diagnostic centres, where ALL suspicious lumps are referred.