

# Trends in presentation of bone and soft tissue sarcomas over 25 years – little evidence of earlier diagnosis

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# Are we getting better?

- Sarcomas are frequently not recognised by:
  - Patients
  - GPs
  - Hospital doctors
- As a result there are often long delays before they are diagnosed

# What do we know already

- Sarcomas are diagnosed late
- Only 16.5% are diagnosed through the 2 week wait clinic
- Of GP referrals only 13% are malignant
- Delays in diagnosis occur at every stage in the patient pathway
- Numerous Cancer Plans and early diagnosis initiatives have been introduced
- Have they worked??

# How can we tell if we are getting better?

- Duration of symptoms
- Size at time of diagnosis
- Appropriate referral

By stopping people presenting like this?  
Had been seeing GP for 1 year with 'ulcer'  
In fact high grade STS



# Method

- Analysis of prospectively kept database
  - Size at presentation
  - Duration of symptoms ('how long have you had any symptoms related to this...?')
  - Proportion of 'whoops' procedures
- Analysed over a 25 year period

# The patients:

- 4934 patients
- 2568 bone sarcomas
  - 1240 osteosarcomas
  - 539 chondrosarcomas
  - 459 Ewing's sarcomas
  - 276 spindle cell sarcomas
  - 54 others
- 2366 STS

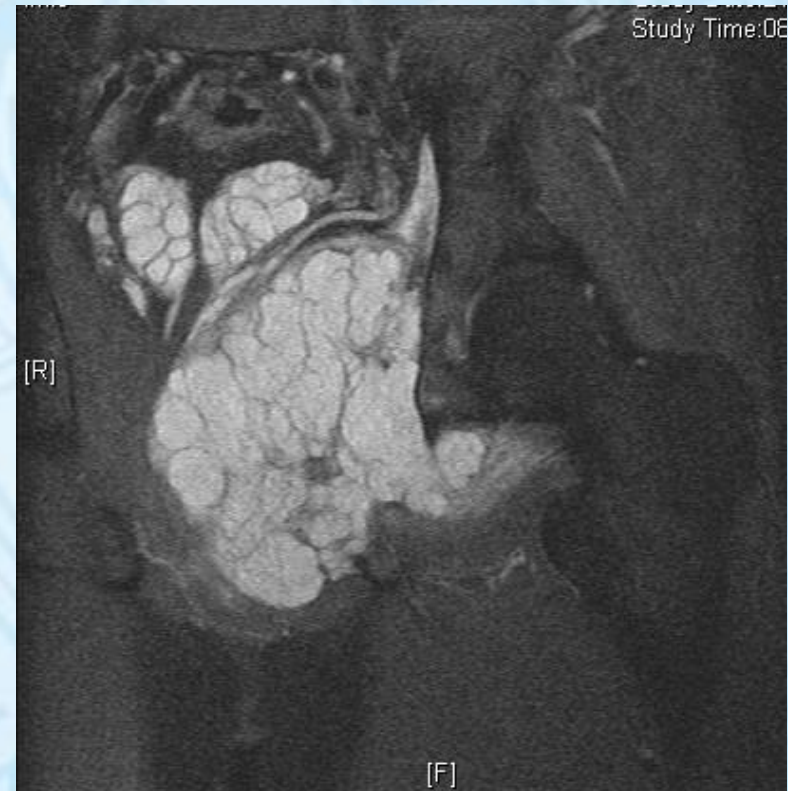


# Bone Sarcomas

- Mean size = 10.7 cm
  - Osteosarcoma 10.7cm
  - Chondrosarcoma 11.3cm
  - Ewing's sarcoma 9.9cm
  - Spindle cell sarcoma 10.4cm



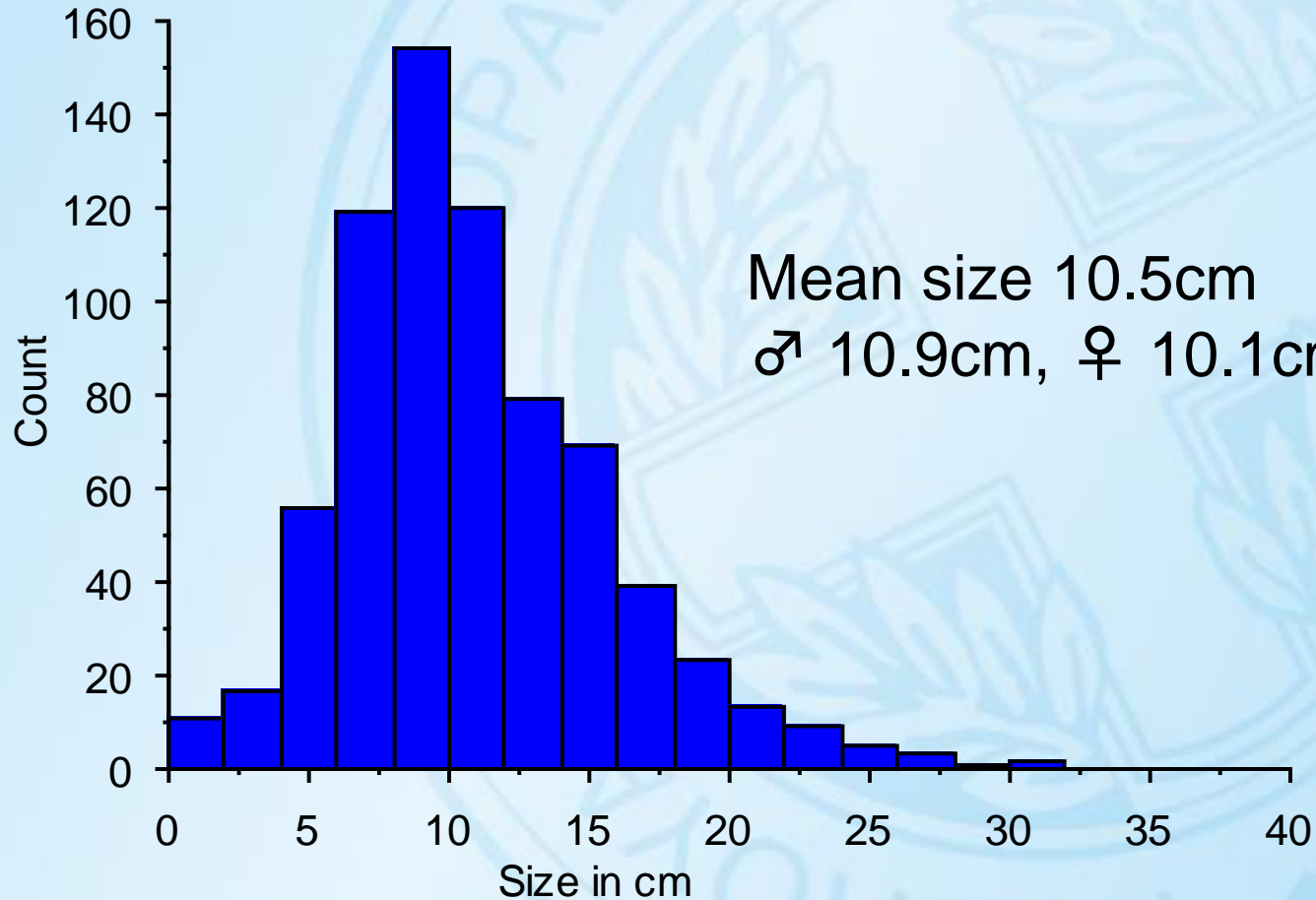
29 yr old felt he was sitting on a knobbly seat while on way on honeymoon to Maldives – worried?



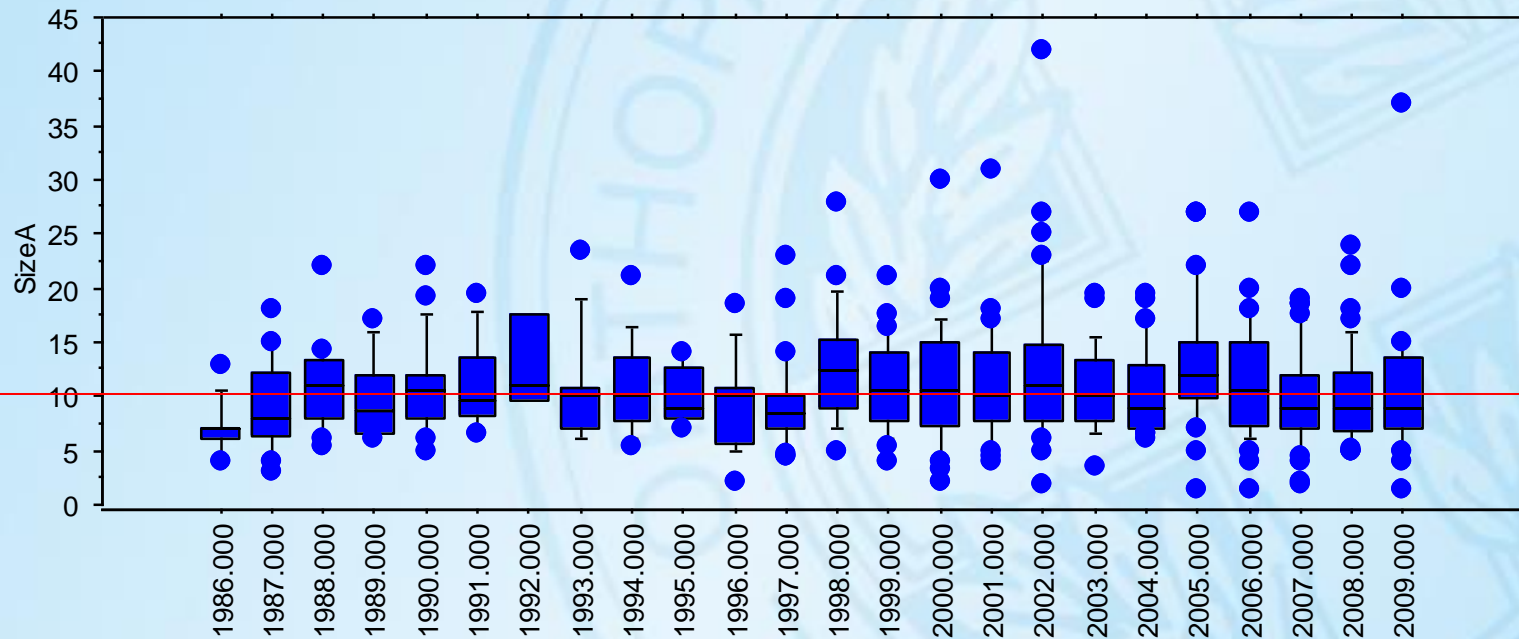
He was sitting on a 15cm chondrosarcoma!



# Size distribution - Osteosarcoma



# Are we getting better – OS size?

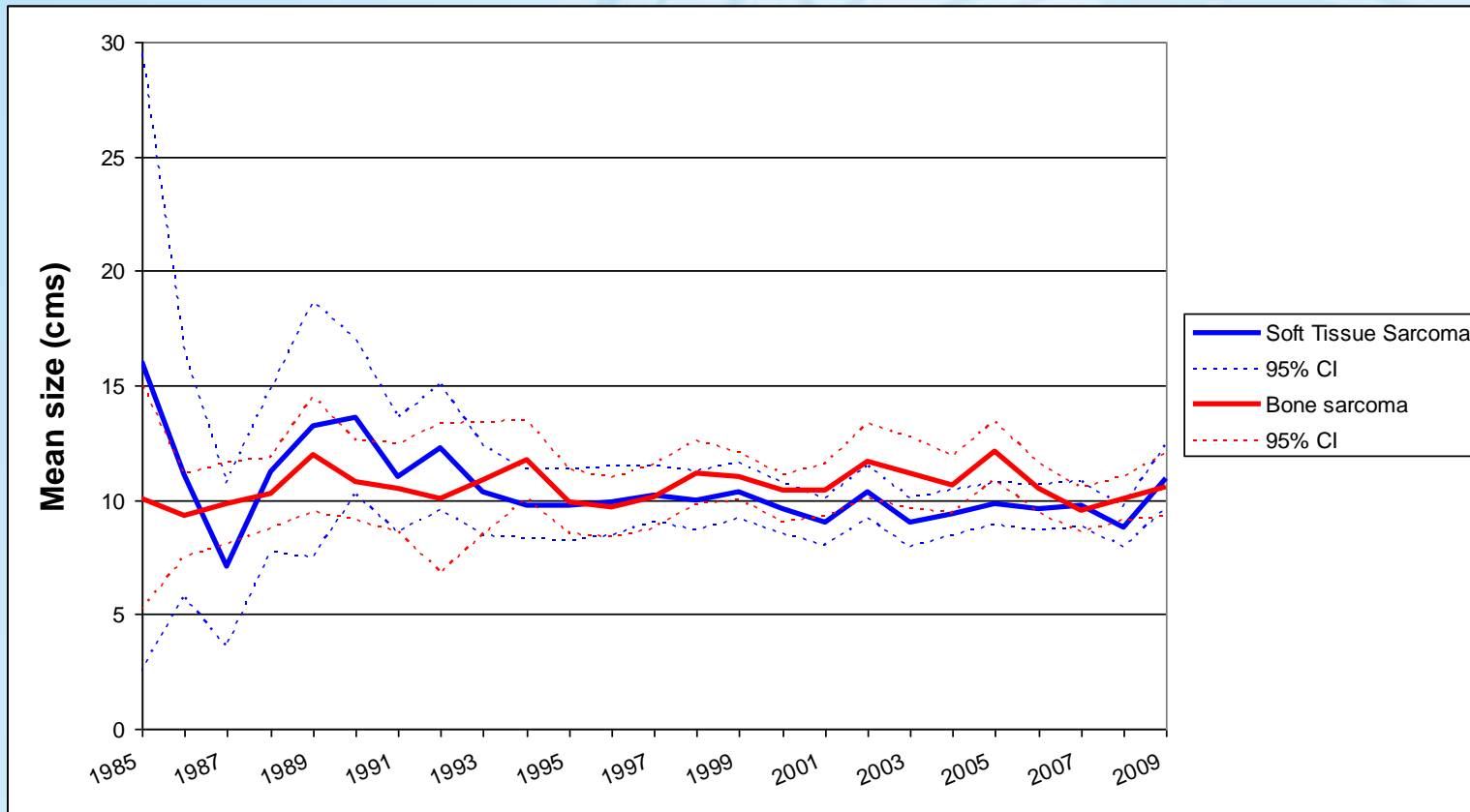


Size at diagnosis - unchanged over 25 years  
10.5cm

# STS

- Mean size = 9.9 cm (range 0.3 to 47cm)
- Liposarcoma 13.3cm
- MPNST 10.5cm
- MFH 10.3cm
- Leiomyosarcoma 7.7cm
- Synovial sarcoma 6.9cm
- Epithelioid sarcoma 3cm

# Mean size of Sarcomas over 25 yrs

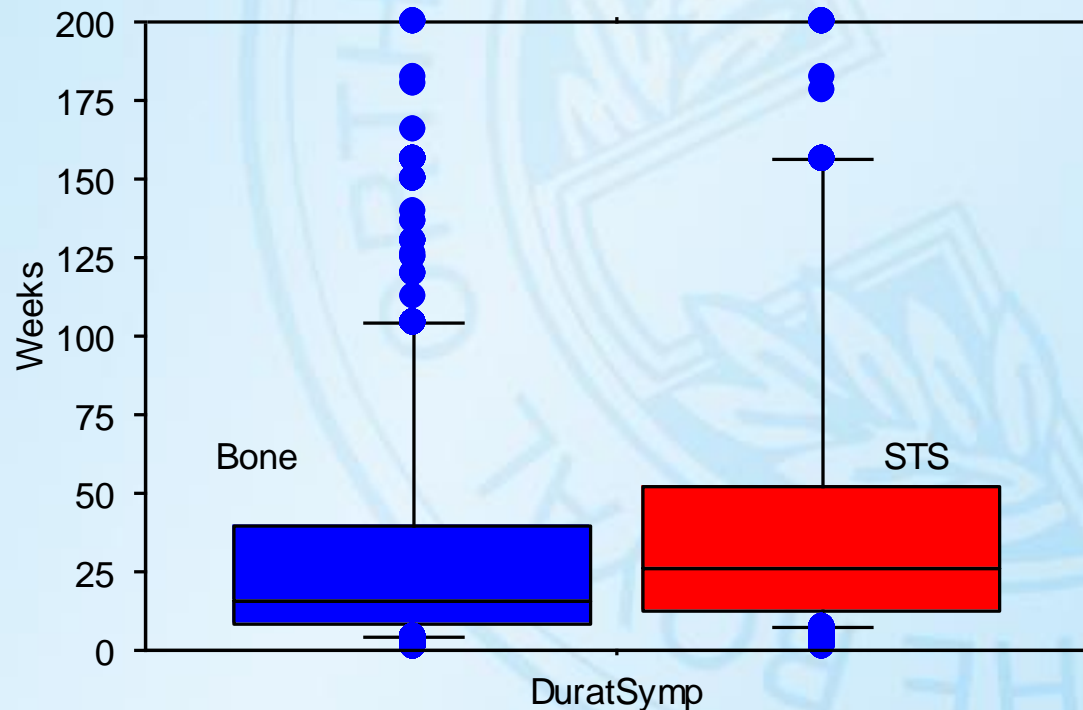


Bone sarcomas - no change, with time

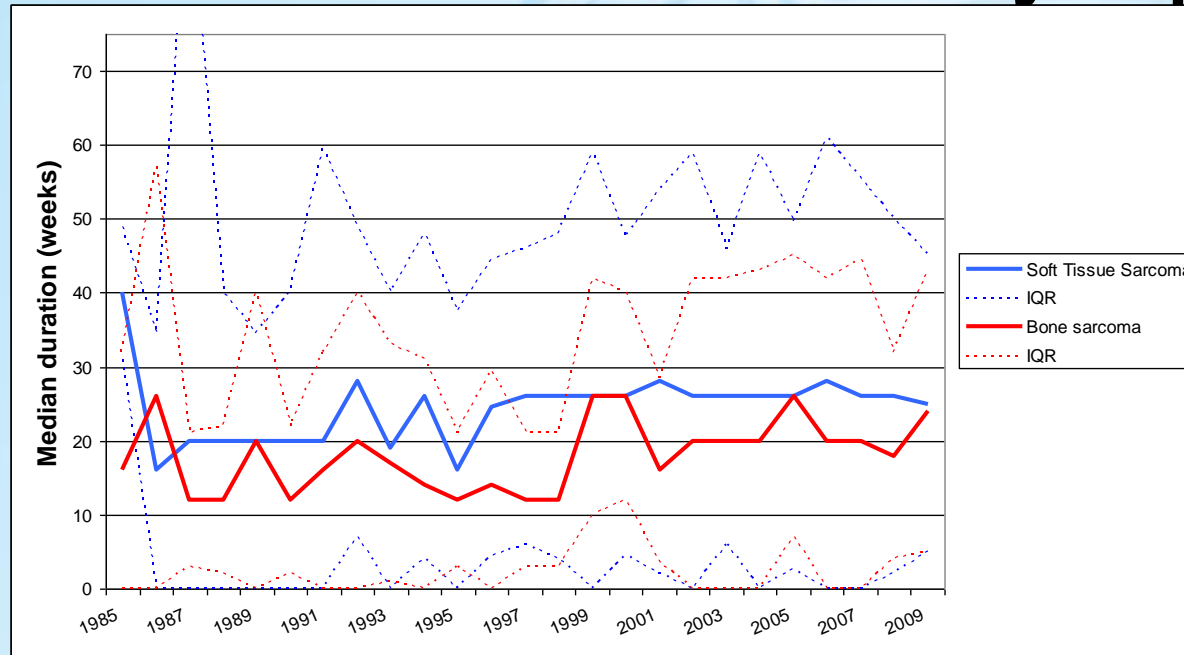
STS – slightly improved – from 10.3cm in 1990s to 9.6cm since 2000

# Duration of symptoms

- Bone sarcomas – median 16 weeks
- STS – median 26 weeks



# Median duration of symptoms



- Claimed duration of symptoms is **INCREASING** for bone sarcomas
- Increased from 16 to 20 weeks since 2000
- STS symptom duration unchanged (26 weeks)

# Duration of symptoms by diagnosis

<b>Bone sarcomas</b>		<b>STS</b>	
Osteosarcoma	12 weeks	Liposarcoma	28 weeks
Chondrosarcoma	52 weeks	Leiomyosarcoma	26 weeks
Ewings	20 weeks	MFH	20 weeks
Spindle cell sarcoma	20 weeks	Synovial sarcoma	52 weeks
Chordoma	104 weeks	MPNST	26 weeks

# Other factors – sex

- Symptom duration
  - no difference between males and females for bone or STS
- Size
  - Women present earlier
  - STS – ♂ 10.1cm vs ♀ 9.5cm (p=0.04)
  - Bone - ♂ 10.5cm vs ♀ 9.8cm (p=0.008)



# Does age affect it?

Age group	< 10	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
<b>Size (cms)</b>									
Soft Tissue Sarcomas	4.2	7.4	8.2	8.9	10.0	10.5	10.3	10.3	11.1
Bone Sarcomas (cms)	9.8	10.5	10.1	10.1	9.6	11.6	10.6	11.9	11.6
<b>Symptom duration (weeks - median)</b>									
Soft Tissue Sarcomas	8	16	26	26	26	26	26	20	26
Bone Sarcomas	7	12	20	26	36	36	32	28	26

Older patients have bigger tumours and somewhat longer duration of Sx

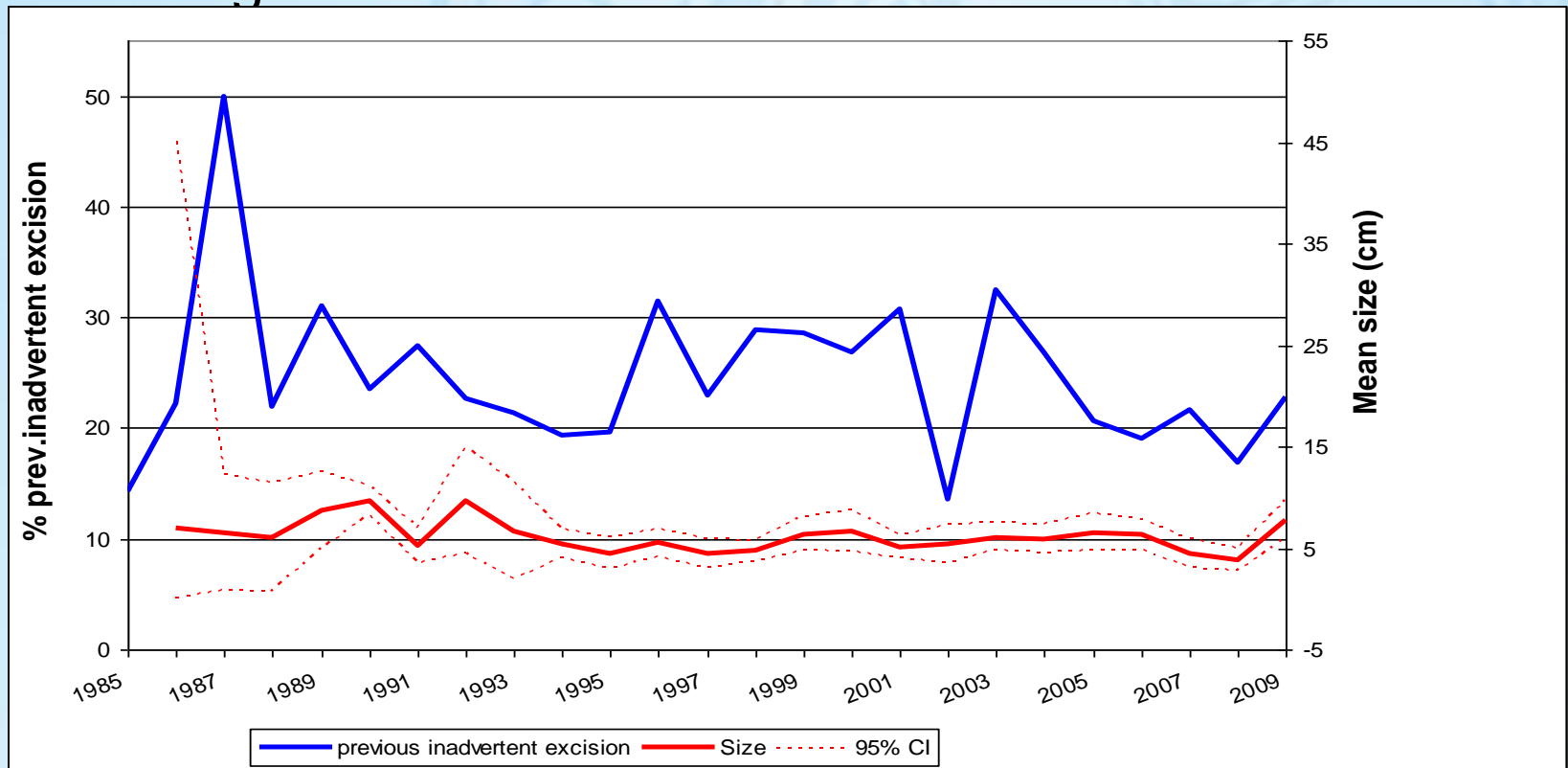
# Does site matter?

- STS
  - Superficial tumours = 6cm
  - Deep tumours = 11.2cm



# Whoops !

- 25% of patients had had a previous inadvertent excision, mean size 5.8cm
- Slight decrease in incidence with time, but size unchanged



# More whoops

- 55% of all **superficial** STS had a previous 'whoops', (338 of 615)
- Mean size was 5cm compared to 7.0cm for those treated primarily
- 15% of all **deep** STS had a previous 'whoops' (262 of 1751)
- Mean size was 7cm compared to 12cm for those treated primarily

# Why are they missed??

Painful shoulder 4 months – 35 yr old



6  
weeks  
later



Low level of awareness ?

# Bigger is NOT better !

## All these countries have better outcomes (STS)

- Scandinavia 7cm
- Italy 6cm
- Australia 7cm
- UK 10cm

**Why?**

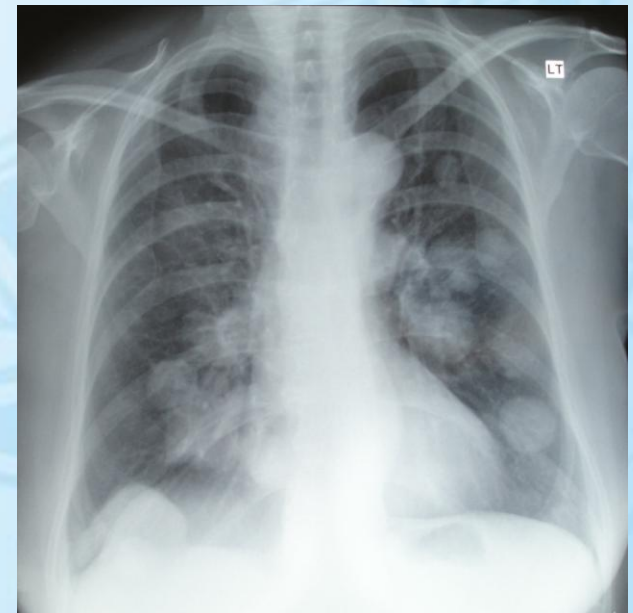
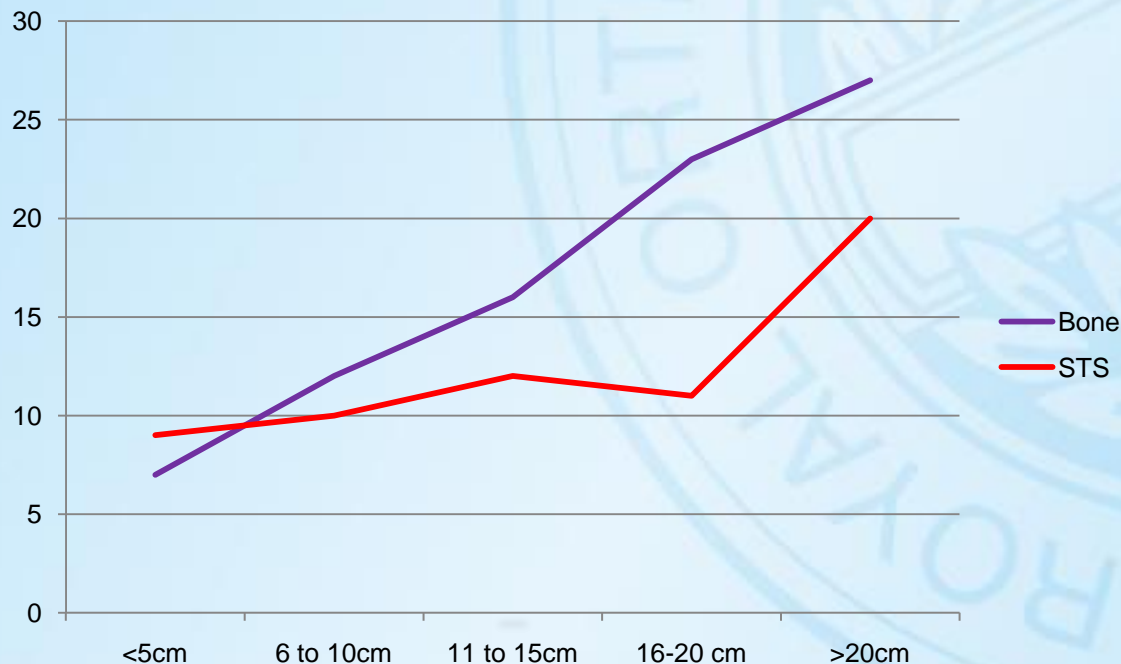
Aren't we aren't bothered about lumps and bumps?

Are our doctors not worried?

We need a new strategy..... (all ideas welcome!)

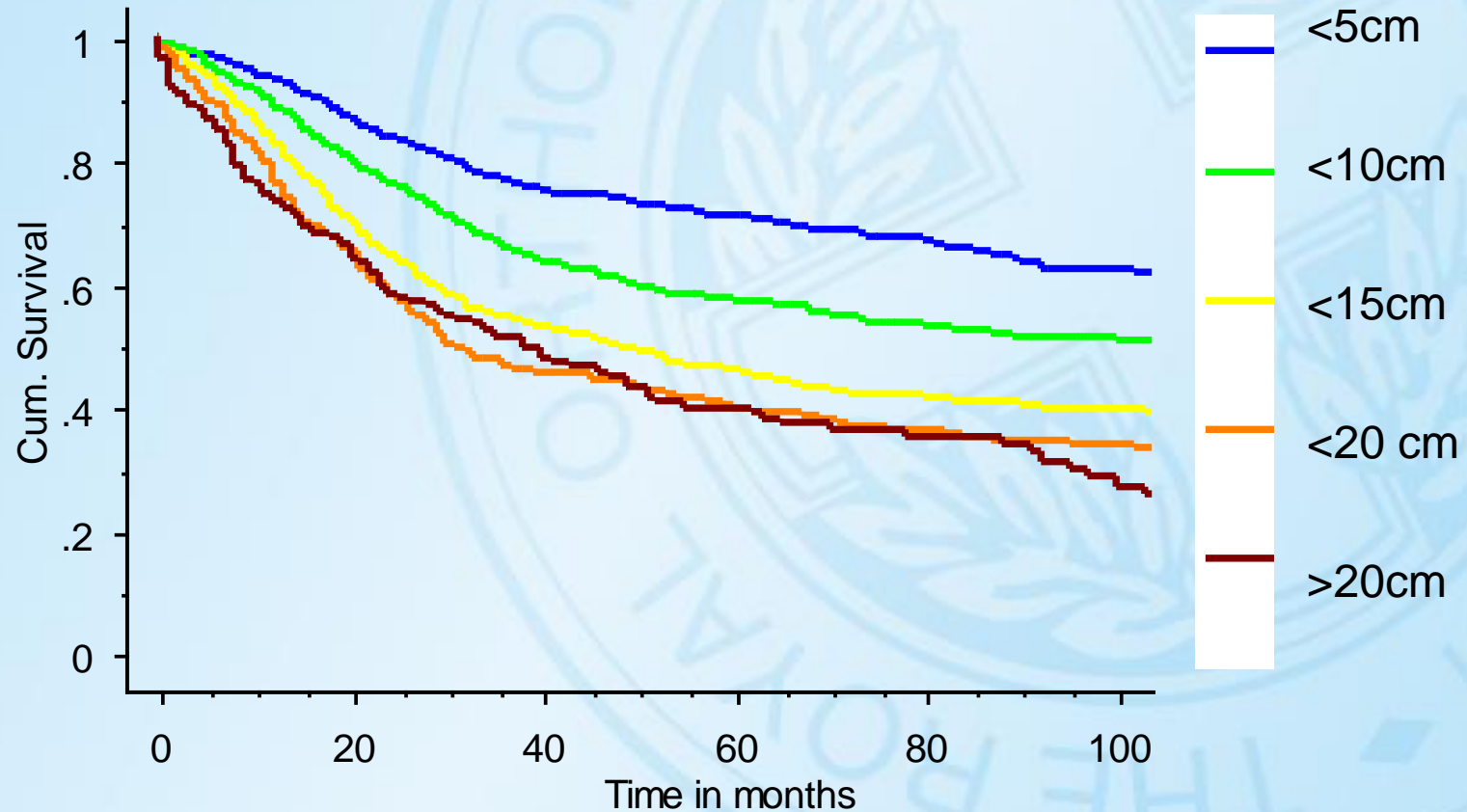
# Does earlier diagnosis = better outcomes?

- Patients are happier with less delay
- Easier to treat
- Less risk of metastases at diagnosis



# and better survival....

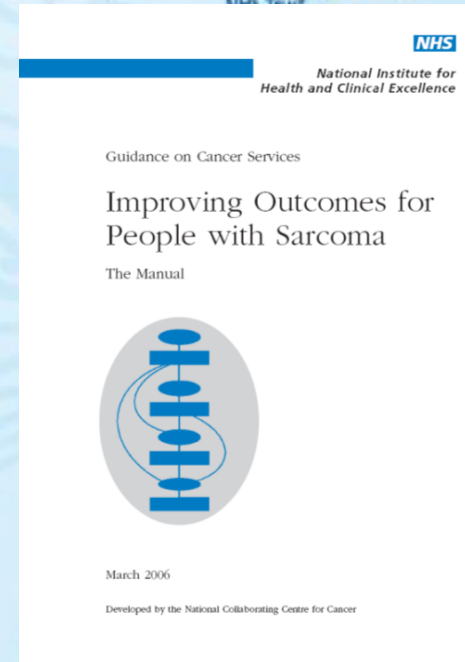
## All sarcomas survival by size





# Conclusion

- Bone and soft tissue sarcomas are diagnosed late
- We're not getting better
- None of the UK guidance (2000 and 2005) on early diagnosis **or** the 2006 Improving Outcomes Guidance **or** the introduction of 2 week waits – has made any obvious difference.



# Prof Sir Mike Richards..

“We know the main reason our survival rates lag behind other countries is because too many people are diagnosed late. This is why our Strategy focuses on earlier diagnosis which we will achieve through raising the public’s awareness of the signs and symptoms of cancer and also providing better access to diagnostic tests.” (Improving outcomes – a strategy for cancer, 2011)

.... but will it happen for sarcomas????