

Assessing outcomes for patients with sarcomas

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What is the best outcome?

- Cure
- No functional loss
- No risk of recurrence
- No side effects of treatment

i.e. NORMAL

What is the worst outcome?

- Recurrence of tumour
- Major morbidity
- Huge anxiety
- Failed further treatment
- Major complications
- Loss of confidence in treating team
- Death

What is most important to achieve?

- Cure at any cost
- Preservation of function even if ‘risky’
- Avoid risky treatments
- Psychological support ++
- Intensive follow up to detect recurrence
- No follow up as doesn’t make any difference

WHAT IS RIGHT FOR EACH PATIENT?

What other end points are there:

- Hip replacement – NJR
- Cardiac surgery – 30 day mortality
- Pathologists – NEQAS standard
- Various – readmission / complication rates

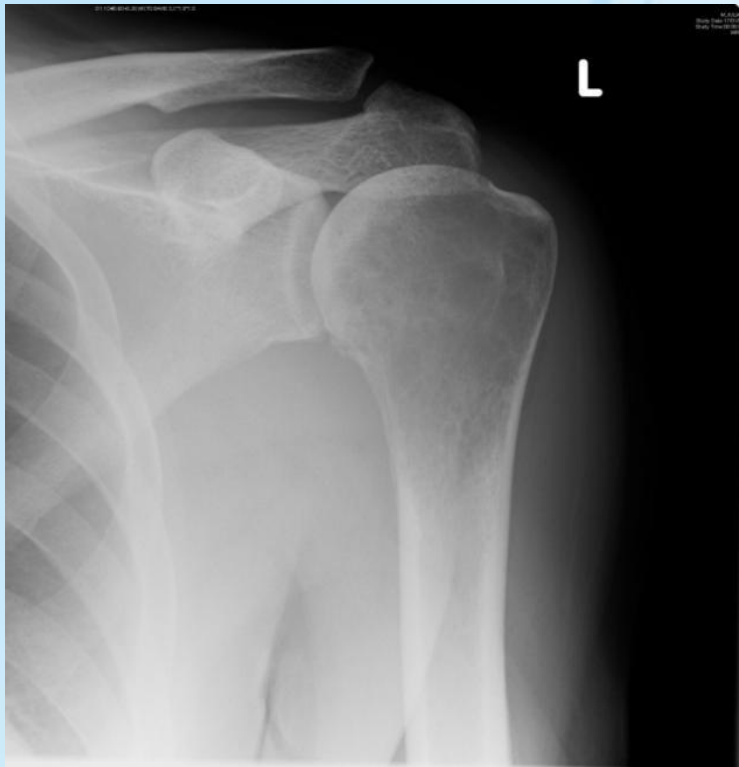
What may be suitable for Sarcomas?

- One year mortality
- Five year mortality
- Amputation rate
- Local recurrence rates
- Margins achieved
- TESS or MSTs scores
- SF 36 or EQD 5 scores

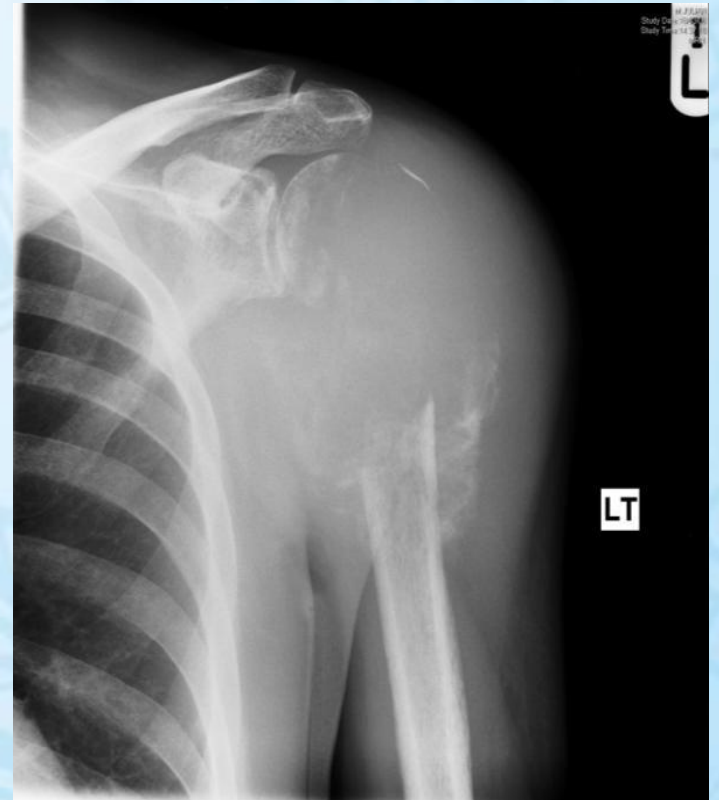
Other options

- % of sarcomas discussed at MDT
- % offered entry into a trial
- % offered (received) psychological support
- % offered written information
- % able to identify keyworker
- PROMS

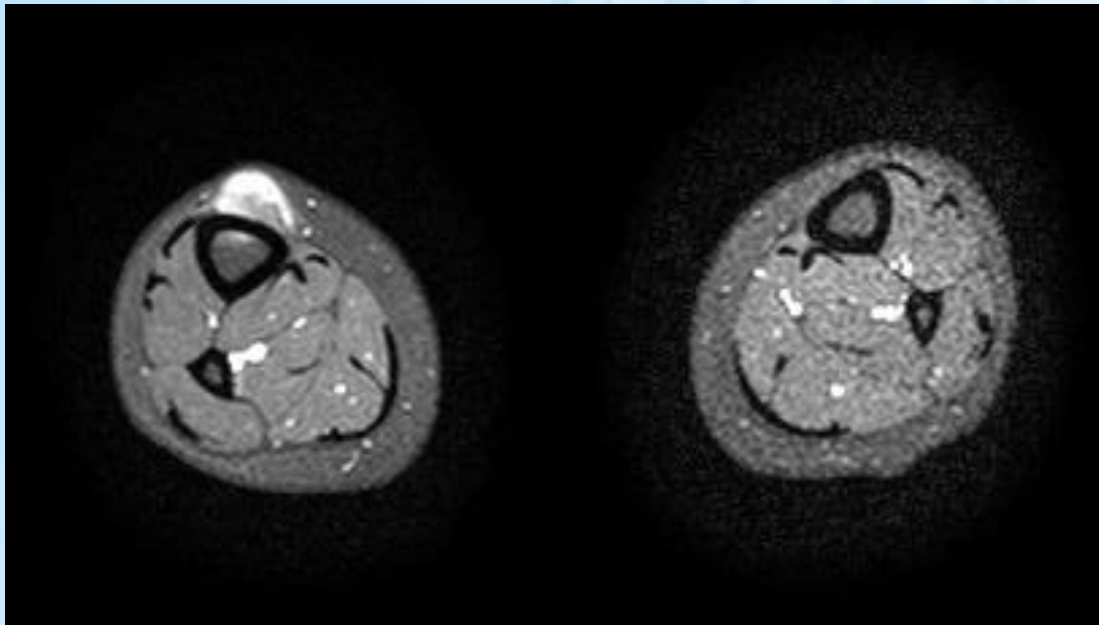
Painful shoulder 4 months



6
weeks
later



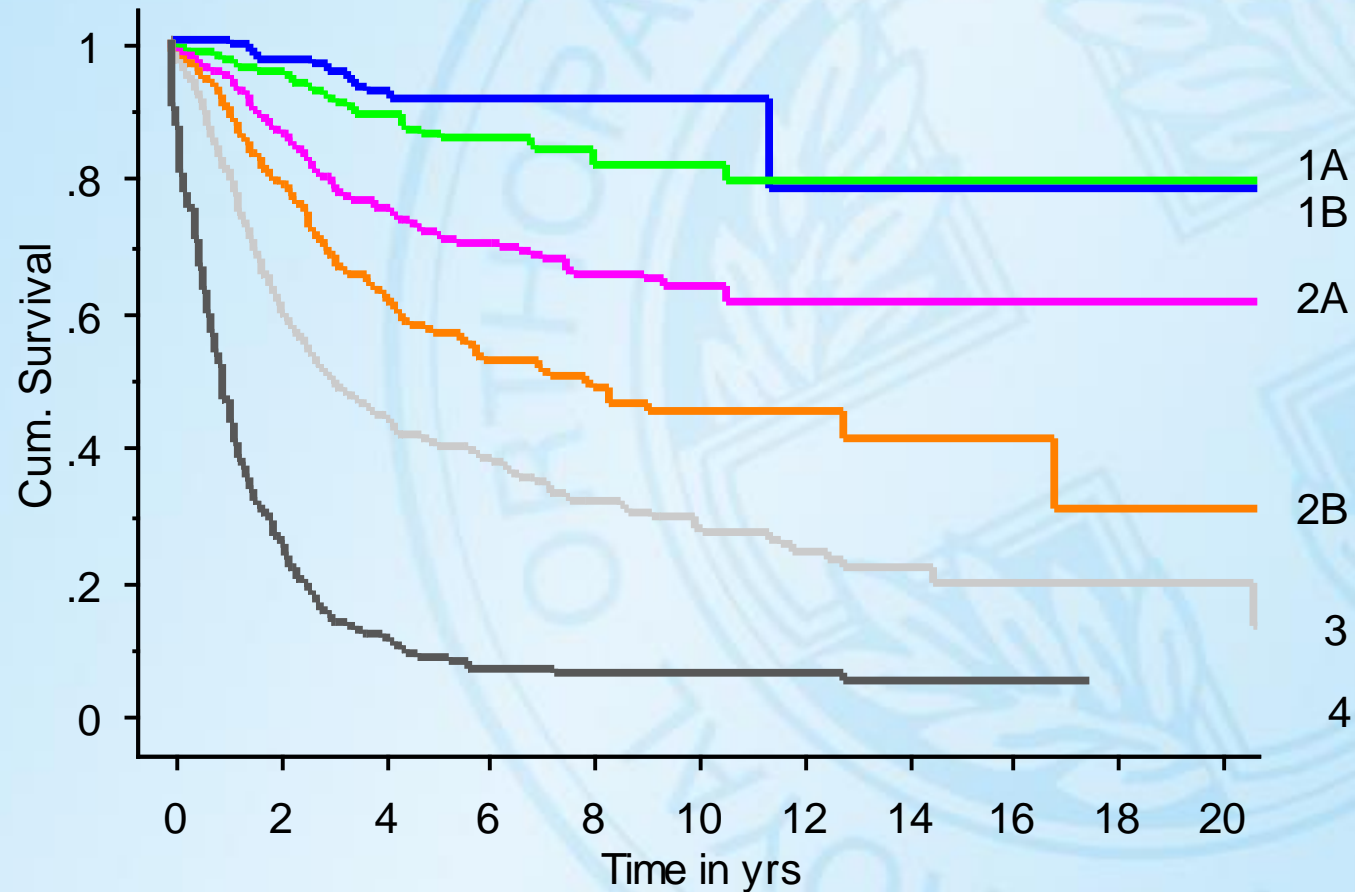
IF A SMALL LUMP DOESN'T LOOK RIGHT - BE SUSPICIOUS



**20 yr old with painless lump on shin –
no trauma = Clear cell sarcoma -
spreads along fascial planes**



STS – outcome by TNM stage



IS DEATH WITHIN ONE YEAR OF DIAGNOSIS AN INDICATOR OF DELAY IN PRESENTATION FOR PATIENTS WITH SARCOMAS? (ROH data)

% death one year

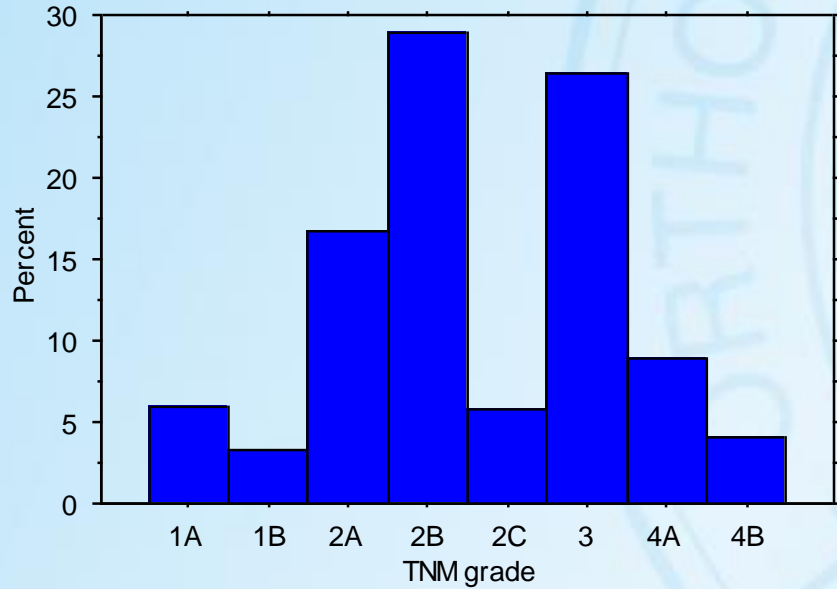


BONE and STS

- Patients who die within one year tend to:
 - Be older
 - Have greater risk of mets at diagnosis
 - Have bigger tumours
 - Have a shorter duration of symptoms
- All of which are known to be poor prognostic factors

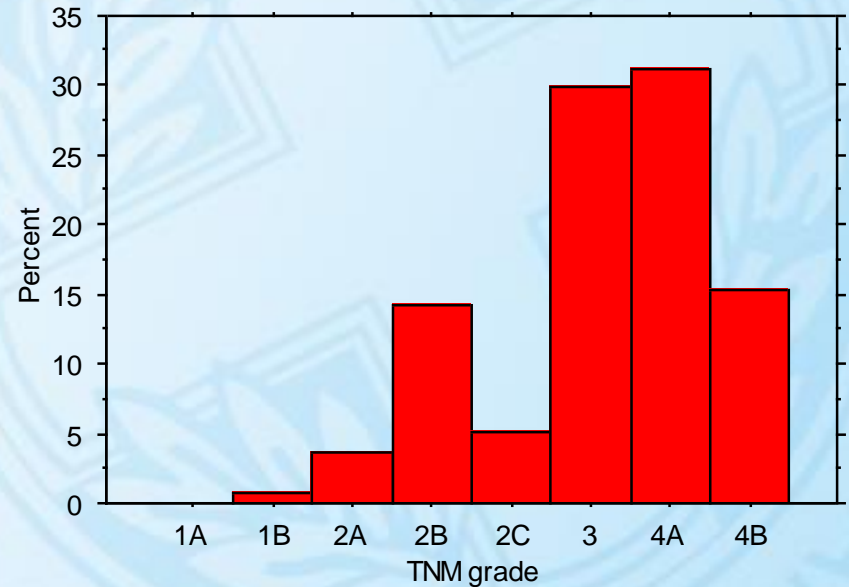
TNM stage

Alive



39% \geq Stage 3

Dead one year

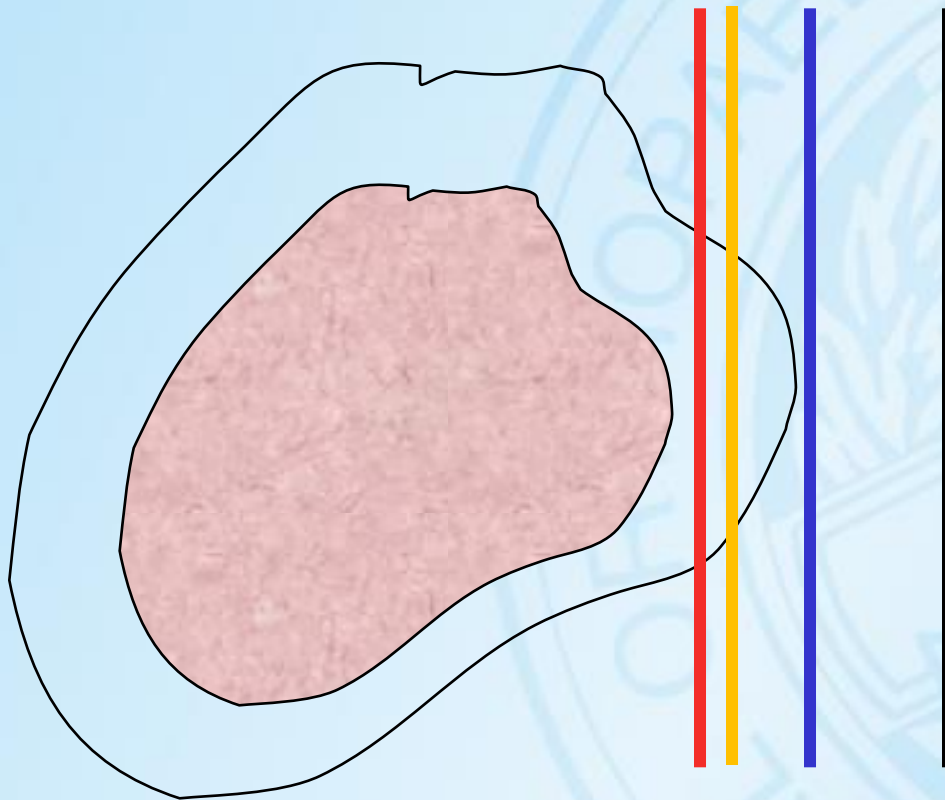


76% \geq Stage 3

What did they die of?

• Mets	251	(42%)
• Local progression	10	(2%)
• Rx related	29	(5%)
• Unrelated conditions	20	(3%)
• Unknown	285	(48%)

What is an adequate margin?



MSKCC

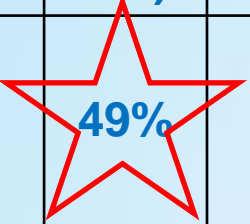
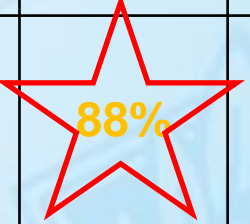
ROH JAPAN

> 2cm

MILAN

MSKCC = R0 + R1
Milan = >1mm
ROH = Wide + Radical
JAPAN = > 2 cm

Where should you have your surgery???

	ROH (wide OK)	LR rate	Japan (2cm OK)	LR rate	MSKCC (R0 & R1 OK)	LR rate	Milan (R0 & R1 OK)	LR rate
Adequate	 49%	10%	60%	9%	78%	15%	 88%	14%
Inadequate	51%	23%	40%	37%	22%	28%	12%	38%

Who has the best outcomes?

	ROH (wide OK)	LR rate	Japan (2cm OK)	LR rate	MSKCC (R0 & R1 OK)	LR rate	Milan (R0 & R1 OK)	LR rate
Adequate	49%	10%	60%	9%	78%	15%	88%	14%
Inadequate	51%	23%	40%	37%	22%	28%	12%	38%
Overall LR		17%		20%		18%		17%

Does amputation improve survival?



Surgical outcomes in osteosarcoma

R. J. Grimer, A. M. Taminiau, S. R. Cannon

From the Surgical Subcommittee on behalf of the European Osteosarcoma Intergroup

- 200 patients with osteosarcoma
- 3 centres – different philosophy
- One centre – amputate unless wide margins:
 - LSS 49%, LR 2.5%
- Two centres – LSS unless have to:
 - LSS 84%, LR 9%

SURVIVAL = 53% at 5 yrs in all centres

i.e. surgery (and LR) do not effect survival (much)

Functional Scores by Procedure

Amputation

Above knee
Below Knee
Forequarter
Hindquarter

TESS

49%
67%
32%
55%

MSTS

46%
67%
70%

EPR

Distal femur
Prox Tibia
Prox Humerus
Prox Femur
Pelvis
Mid Femur
Total Femur

77%
77%
77%
69%
54%
81%
64%

83%
80%
86%
75%
66%
81%
70%

OSTEOSARCOMA POOR RESPONSE TO CHEMO





**THE
CHOICE**
How do you
know what
to do?



RISKS OF DEVELOPING LOCAL RECURRENCE

<90% necrosis

>90% necrosis

Adequate
margins

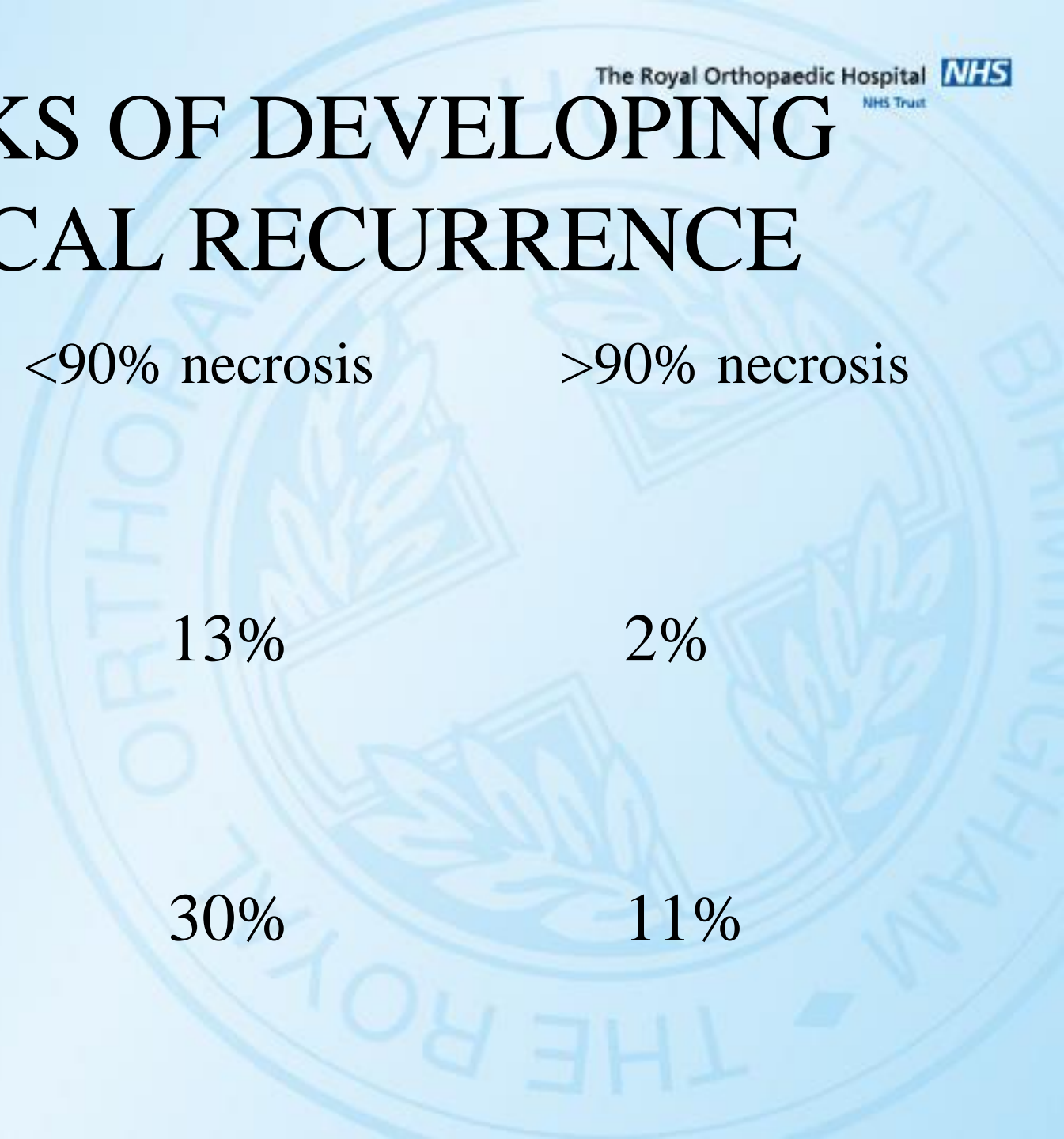
13%

2%

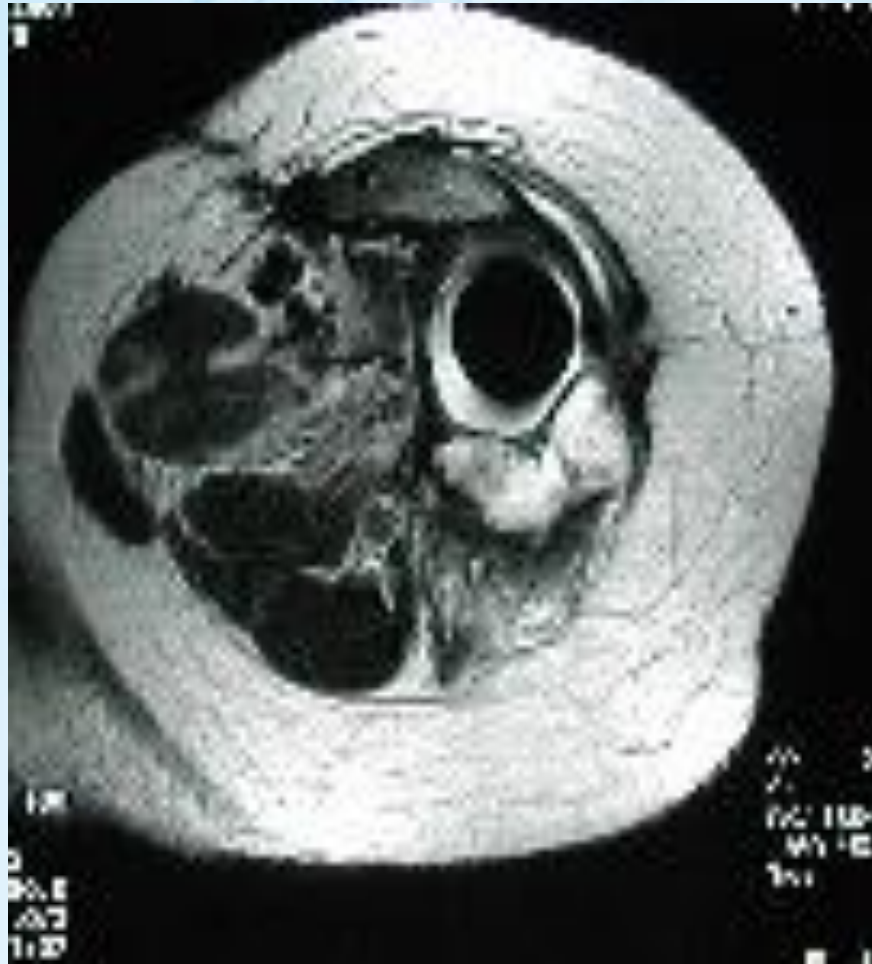
Inadequate
margins

30%

11%



AND WHAT DO YOU DO NOW?



**2yrs from
EPR, 50%
necrosis.
Has lung
met -
solitary**

**Could this
have been
prevented?**

Some observations

- Sarcomas come in many different sites and diagnoses
- Impossible to lump them all together

Possible best options

- % in whom **no delays** on referral pathway
- Treated by appropriate specialist
- Treatment adheres to current ‘best practice’
 - e.g. timely RT after STS excision
- Offered trial entry / information