

## Background

Sarcomas are a heterogeneous group of tumors that arise from connective tissues (1,2). Treatment guided by multidisciplinary tumor boards is associated with better compliance to clinical practice guidelines and survival (3-5).

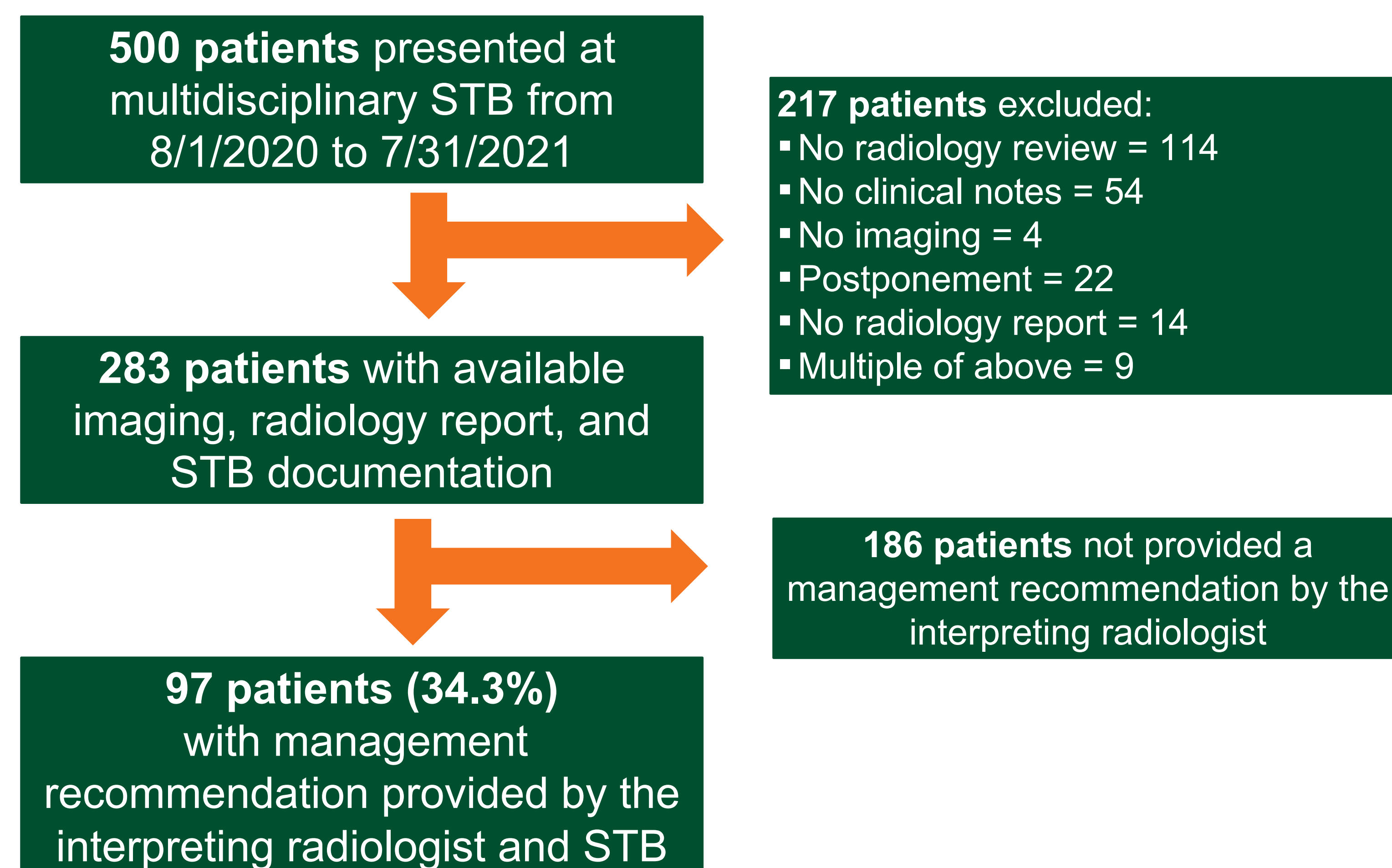
## Purpose

To measure agreement between multidisciplinary sarcoma tumor boards (STB) and radiology reports' clinical recommendations and disease assessment.

## Methods

This single-center retrospective study evaluated cases presented at our weekly STB from 8/1/2020-7/31/2021. Data collected included patient's clinical status at time of STB, the presence of clinical recommendations on radiology reports, the disease assessment by the STB and the radiologist, and the STB's recommendations. Agreement between the radiologist and STB on disease assessment and management recommendations was performed using kappa statistics (6).

## Inclusion Criteria



## Disease Assessment

Interpreting Radiologist	Sarcoma Tumor Board
▪ Stable disease = 71	▪ Stable disease = 94
▪ Partial response = 44	▪ Partial response = 50
▪ Complete response = 0	▪ Complete response = 0
▪ Progressive disease = 142	▪ Progressive disease = 111
▪ New = 14	▪ New: 13
▪ N/A = 12	▪ N/A = 15

$\kappa = 0.74$   
82.3% agreement

## Management Recommendation

Interpreting Radiologist	Sarcoma Tumor Board
▪ Sx/RO referral = 12	▪ Sx/RO referral = 84
▪ Short term F/U = 45	▪ Short term F/U = 45
▪ Regular F/U = 31	▪ Regular F/U = 78
▪ Change STx = 0	▪ Change STx = 72
▪ Other = 9	▪ Other = 4

$\kappa = 0.18$   
36% agreement

**Abbreviations:**  
STB=Sarcoma Tumor Board  
F/U=follow up  
Sx/RO=Surgery/Radiation Oncology  
STx=Systemic therapy

## Results

Of 500 cases identified, 283 patients met inclusion criteria. A radiologist provided a clinical recommendation in 97 (34.3%) cases, which was followed by the ordering provider in 71/97 (73%) cases.

There was moderate agreement between the STB versus the radiology report on disease assessment (82.3% agreement;  $\kappa=0.74$ ), and no agreement on clinical recommendations (36%,  $\kappa=0.18$ ).

When comparing disease assessment by STB versus the radiology report, amongst 175 patients undergoing treatment at time of STB there was moderate agreement (81.1 % agreement;  $\kappa=0.72$ ). Amongst 86 patients undergoing surveillance, there was moderate agreement (82.6% agreement;  $\kappa=0.70$ ).

Radiologists were more likely to assign progressive disease/recurrence than STBs (142/283, 50.2% vs 111/283, 39.2%,  $z = 2.608$ ;  $p=0.0088$ ).

## Conclusion

While radiologists are valuable in assessing disease in patients with sarcomas, radiologists' recommendations are commonly incongruent with STB's recommendations. Radiologists caring for patients with sarcomas may benefit from participation in multidisciplinary tumor boards to familiarize themselves with best clinical practices and make appropriate recommendations.

## References

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