Laboratory Errors in the Handling and Processing of Bone and Soft Tissue Tumors



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Introduction

- Bone and soft tissue (BST) tumors are uncommon, but when detected, can cause significant morbidity and mortality.
- For optimal treatment and prognostication, clinicians rely on the pathology lab to provide a timely, precise diagnosis and critical staging information.
- Recently, errors have emerged in the handling and processing of BST tumors in our lab (CLS), which could potentially have clinical impact.
- This aim of this study was to quantify and qualify the errors and identify problem areas in the processing and handling steps where improvement interventions can be targeted.

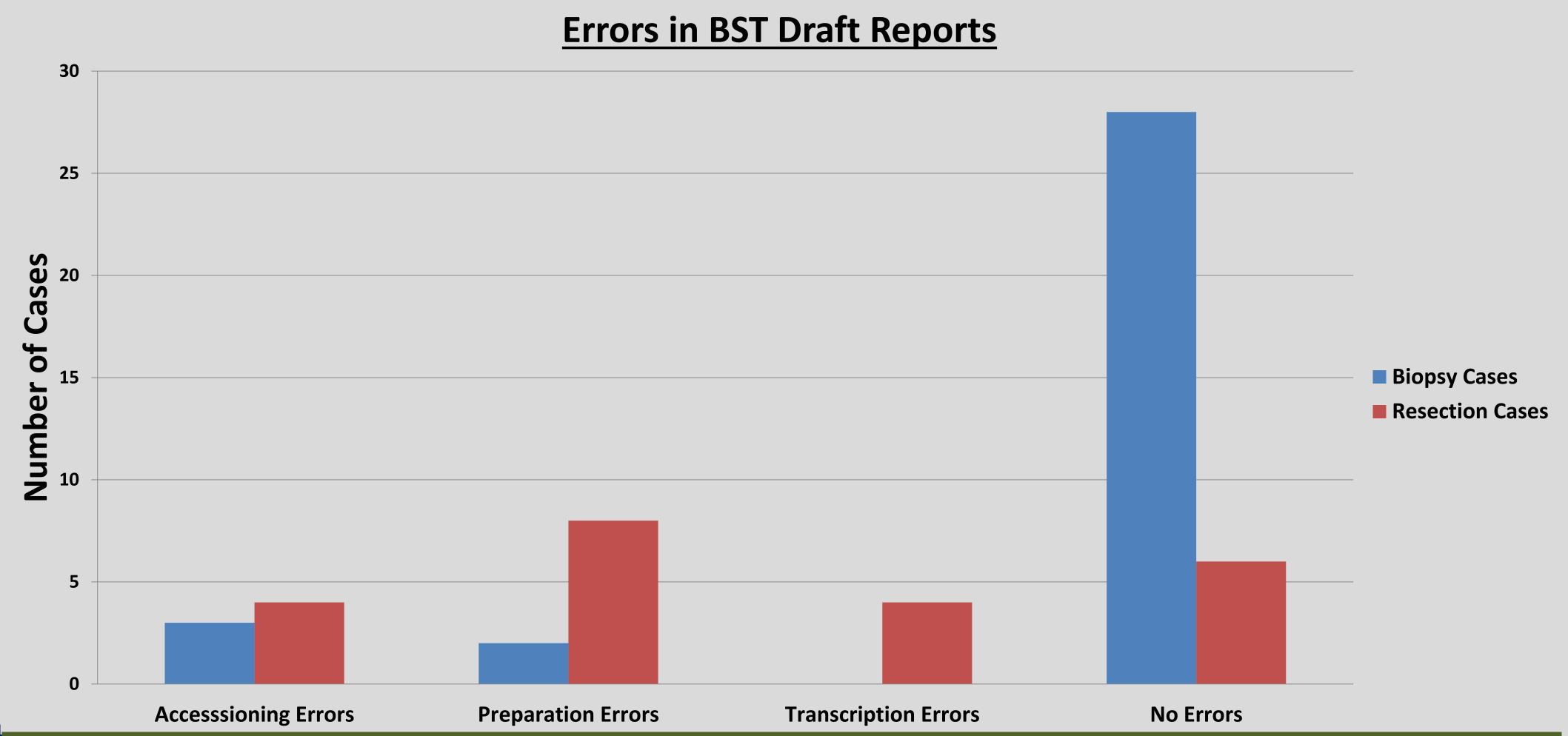
Osteosarcoma

Methods

- Pathology reports from all BST cases from Jan-March 2016 were collected and scored for type and number of errors
- A scoring sheet was designed to assess errors in 3 areas: Specimen Accessioning, Preparation, and Transcription.
- A process map was created by a team composed of representatives involved in the processing and handling of BST specimens
- Gaps and opportunities for improvement were highlighted and causes were discussed.
- Solutions for the opportunities for improvement were discussed with the team.

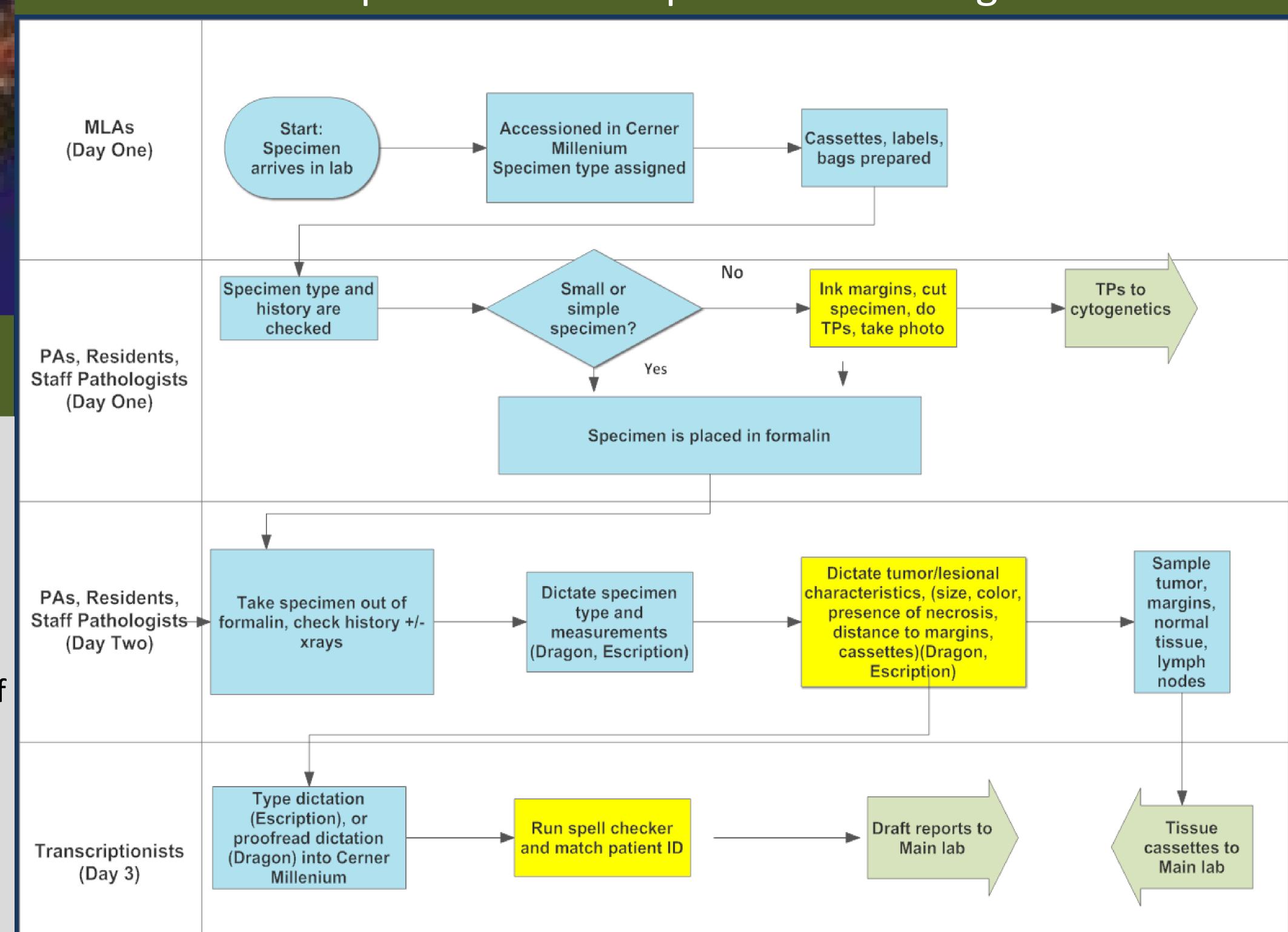
Results 1:

Review of Draft Reports for Errors



Results 2:

Process Map: Flow of BST Specimens Through the Lab



Conclusions

- The rate of laboratory errors was higher than expected, although most of the errors were not critical.
- This study helped to identify and highlight the type and frequency of errors that were being encountered in the lab.
- Building a process map was useful for identifying areas of concern and also served to generate potential solutions.
- The results of this study can be used to target specific areas for improvement, as follows:
- Teach staff how to edit specimen types in Cerner, re-inforce communication of any SOP changes, ensure hard copies of SOPs are easily available, buy more cameras, prepare an in-service or ppt for grossing staff.
- Limitations of the study included the small sample size and the relatively narrow scope of the process mapping.

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