Comparison of histopathology turnaround times for mandibulectomies, glossectomies and routine tongue biopsies

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Introduction
Histopathology is essential to achieve a diagnosis from a tissue sample and provide guidance to the clinical team. However the histopathology process can be slow and cause delays in patient management. The aims of this study were to:
• Compare the time interval between receipt of the specimen and issue of the histopathology report (the turnaround time) for mandibulectomies, glossectomies and incisional tongue biopsies,
• Determine how many mandibulectomies and glossectomies meet 7 & 10 day key performance indicators (KPI) of the RCPath.

Methodology
Retrospective data collected from LIMS Winpath over 5-year period:
• 100 mandibulectomies (4 subgroups), 100 glossectomies (2 subgroups) and 100 incisional tongue biopsies.
The information retrieved included:
• Date specimen was entered in the system,
• Number of days until embedding,
• Number of days until slides were sent out,
• Number of days until report was authorised
• Number of days tissue was in decalcification,
• Number of blocks processed per sample,
• Presence of bone/teeth,
• Tumour staging.
Statistical analysis was performed using descriptive and inferential methods.

Results
Statistically significant differences were found between means of laboratorial and reporting turnaround times for the three different groups (p < 0.001).

Discussion and conclusion
Presence of teeth and bone, the number of blocks processed, and stage of malignant disease all had an impact on turnaround times for histopathology specimens.
Dissection, microtomy and reporting were identified as the “bottlenecks” where there is potential for improvement.
Since few resections specimens meet 7 & 10 day KPIs, the oncology Multidisciplinary Team needs to be realistic with regard to turnaround times.
Furthermore, improvement in interdepartmental communication would lead to a better patient care.