

AUDIT OF FNA CYTOLOGY,
ADEQUACY AND REPORTING AT THE
DERRIFORD HOSPITAL ONE STOP
HEAD & NECK LUMP CLINIC

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What is it?

- The Derriford “one stop clinic” (OSC) allows patients to have their scan and cytology reported the same day saving repeat appointments and streamlining the diagnostic pathway.

FINE NEEDLE ASPIRATION

- Valuable technique in the diagnostic assessment and management of patients with suspicious neck lumps.
- When combined with ultrasound examination it allows for a more confident clinical assessment and management triage.
- Rapid on site diagnosis has benefits for the clinical team and patient..... but
- Cytopathologists must be aware of potential diagnostic pitfalls

THE AUDIT

- Gold standard: continuation of Mr David Courtney's (Consultant MaxFax surgeon) audit "One stop head and neck lump clinic" in 2006.
- The clinic was set up following the NICE document in 2004 'Improving Outcomes In Head and Neck Cancer – The Manual' in which it was recommended that patients with persistent head and neck lumps have access to a rapid access designated OSC with MDT discussion if cancer diagnosed.
- Adequacy of head and neck FNA prior to the OSC was 50%. This rose to 90% at the first audit
- We aimed to determine if adequacy had been maintained at this level since the last audit

THE AUDIT

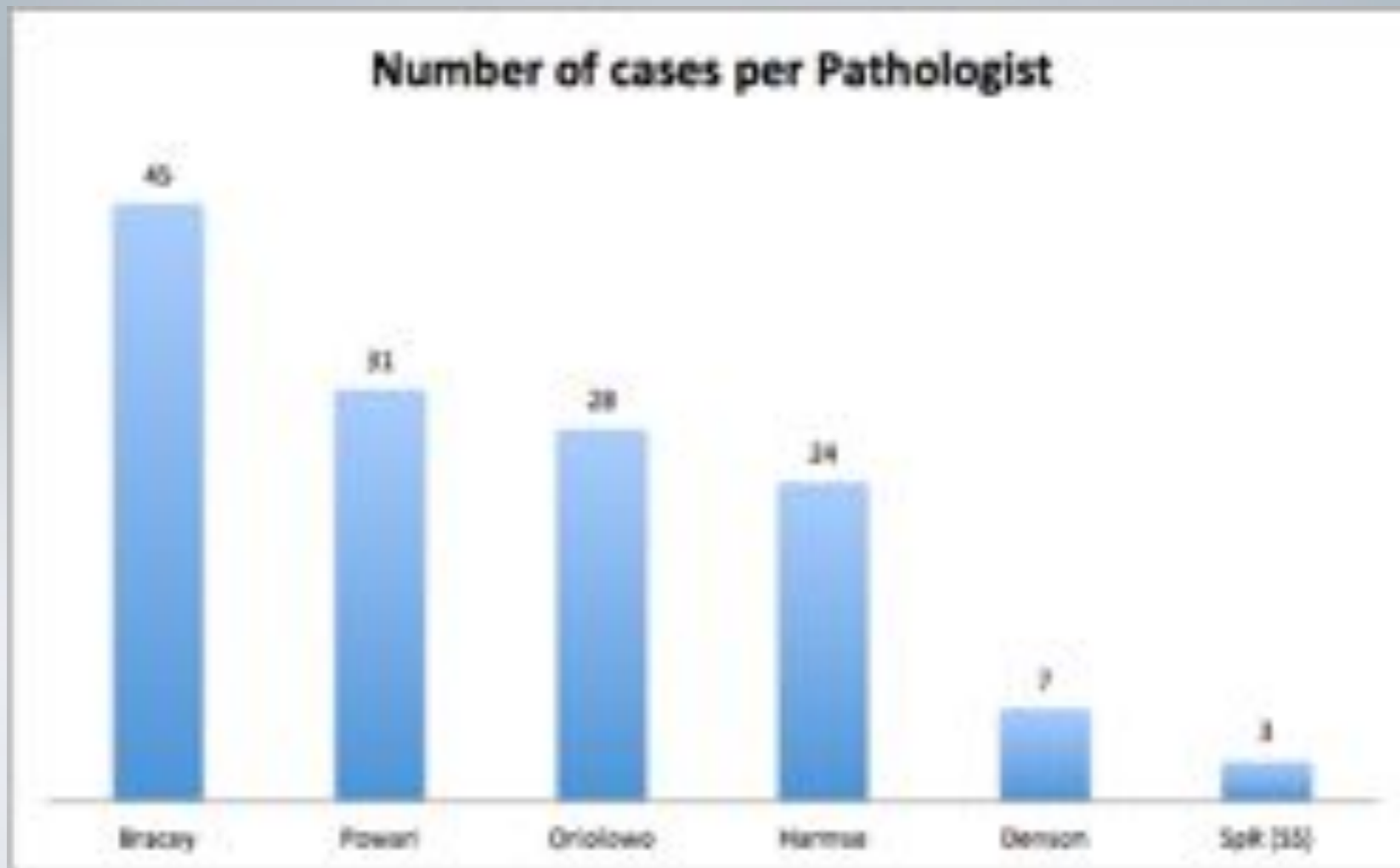
- A provisional report is given in clinic and a different pathologist issues a final report (including the documented provisional) in the department
- Prov. and Final reports were compared with histology when subsequent biopsy/excision had taken place.
- We also wished to potential sources of false positive, false negative and general quality of cytology reporting.

METHOD

- The information was gathered by searching the pathology database for all head and neck cytology reports, and then comparing with the list of US examinations at the OSC, to give a list of all US guided cytology performed in the OSC during 2012.
- A total of 72 cytology reports were identified.

CYTOLOGY REPORTS

- 5 consultant pathologists and a trainee pathologist reported cytology in the OSC.



AUDIT RESULTS

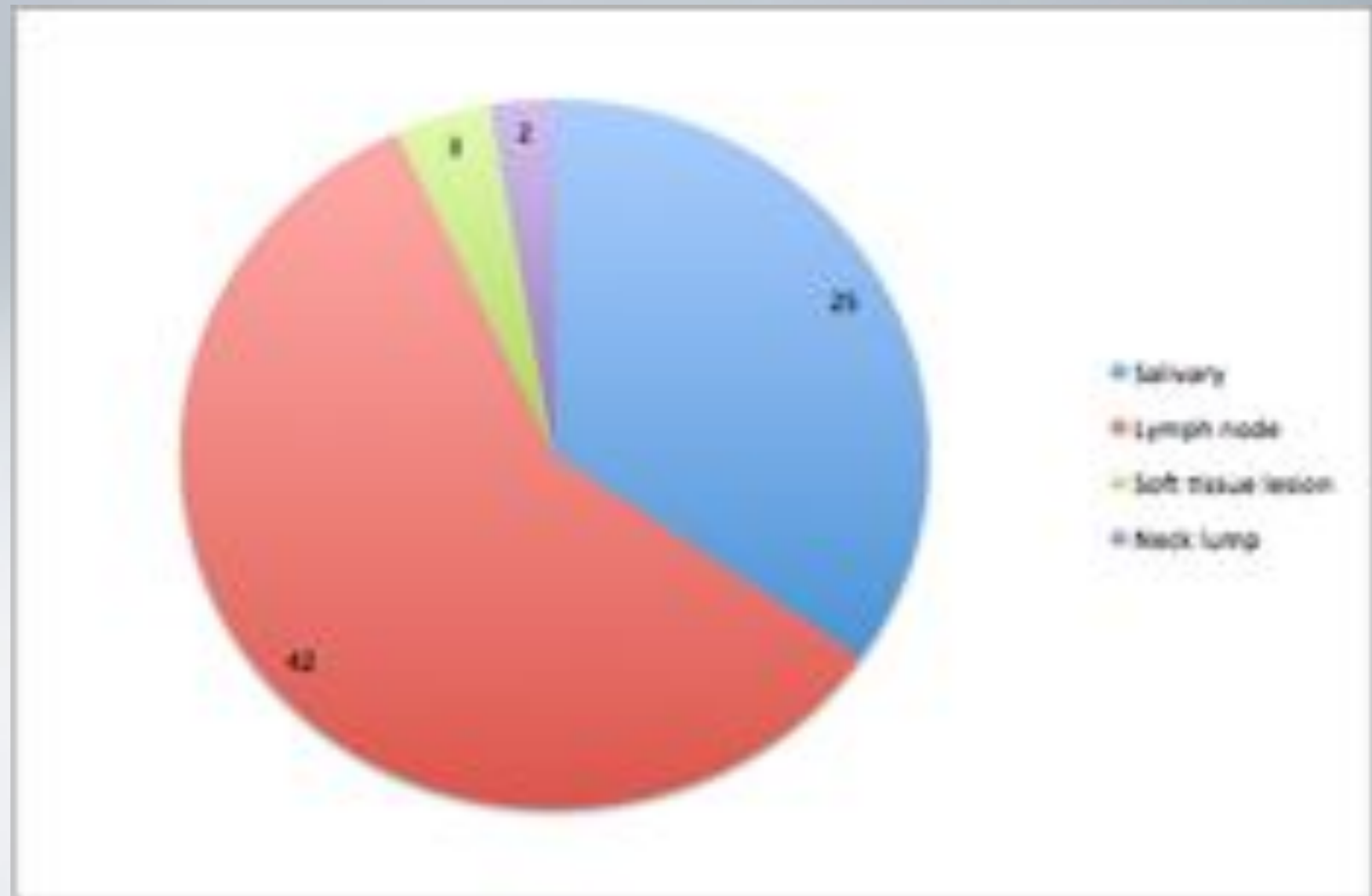
- The pathology encountered was broadly classified into:

Salivary

Lymph Node

Soft Tissue

Neck Lump



AUDIT RESULTS

- Cytology reports were analysed, and broadly divided into
- C1-C5, equivalent to breast OSC cytology reporting categories:

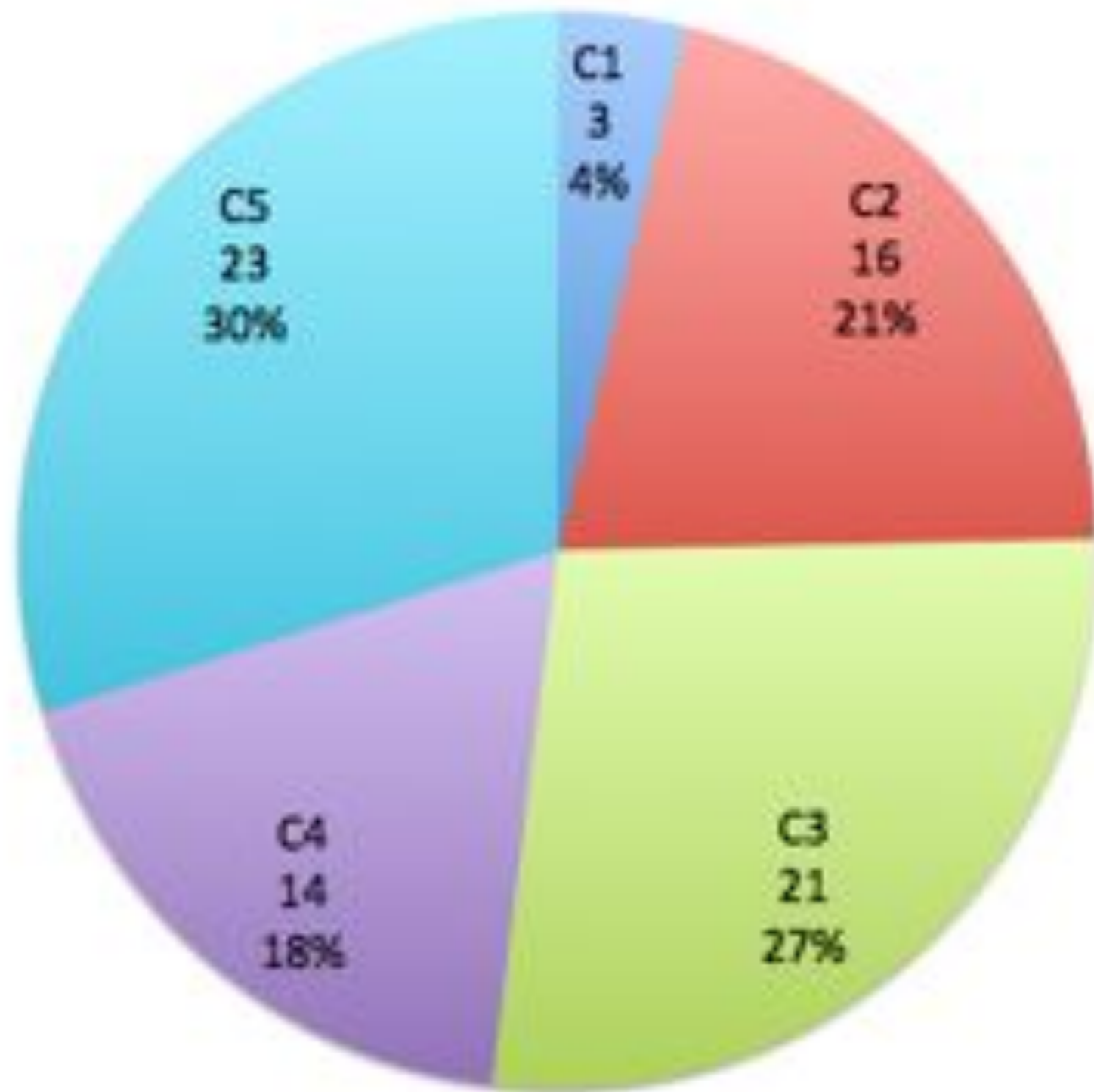
C1 = inadequate

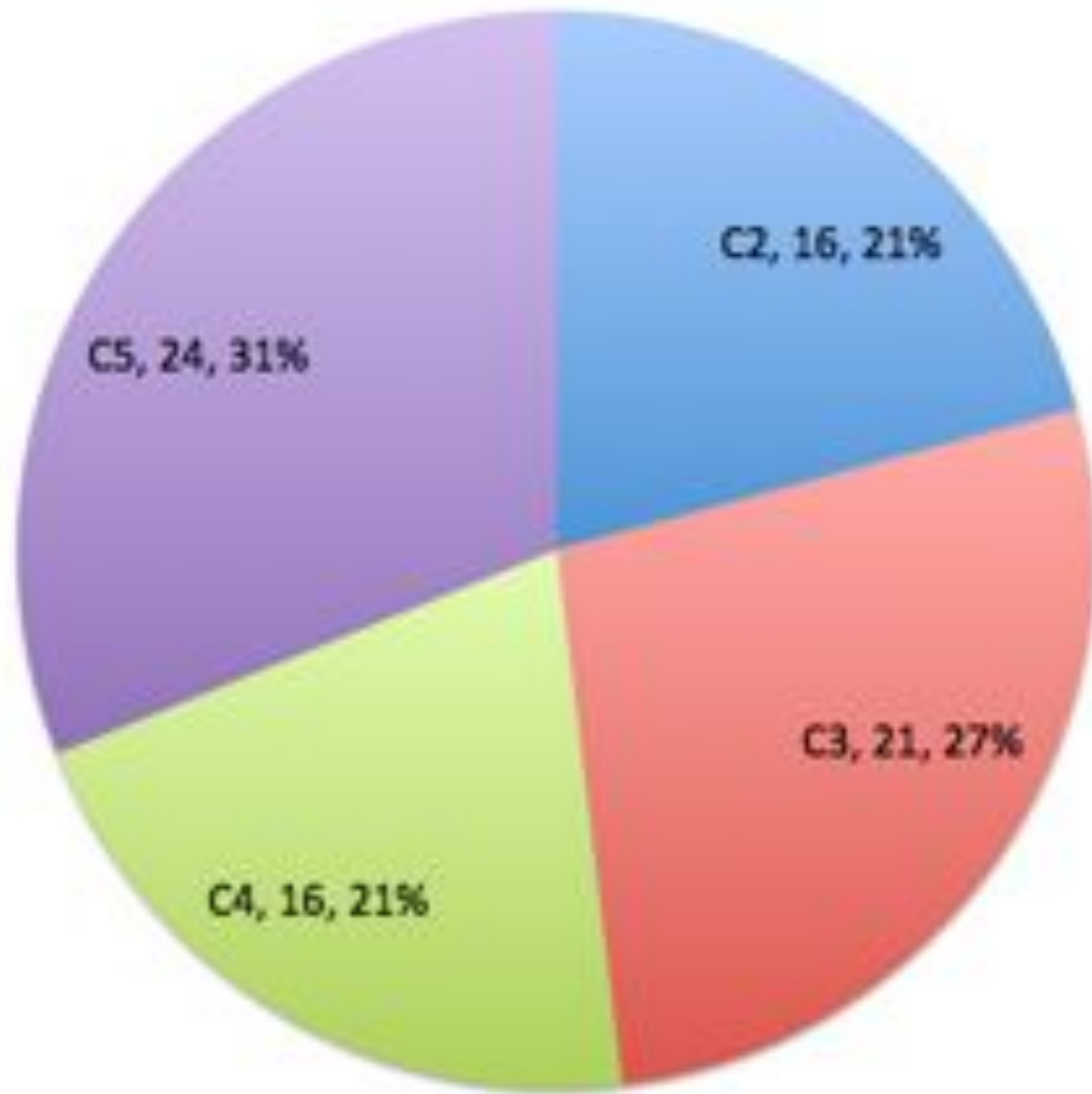
C2 = benign

C3 = Probably benign

C4 = probably malignant

C5 = malignant





REPORTING LEARNING POINTS

- 16/72 reports did not have the provisional report transcribed and for this audit had to be retrieved from the Dart Viewer.
- Accurate transcription of the provisional impression into the final report should be done by secretarial staff but ensuring this is done is the responsibility of the final reporting (authorising) pathologist.
- The provisional and final report should be done by different pathologists as a means of quality control and increasing the number of cases seen by each pathologist.

MALIGNANT MISMATCHES

- 5 mismatches were found between primary and final report.
- A provisional impression of high grade lymphoma was diagnosed as carcinoma on the final report.
- **Learning point** - Some types of carcinoma can have very scanty cytoplasm and be relatively dyscohesive. Lymphoma (unlike carcinoma) is usually associated with lymphoglandular bodies.
- *Mismatch between provisional and final report is unlikely to adversely affect patient management*

MALIGNANT MISMATCH 2

- A lymph node FNA was reported both provisionally and finally as high grade lymphoma. On histology it was a small cell carcinoma to a lymph node from tonsil primary.
- **Learning point** - Look for cohesion and lymphoglandular bodies. Paranuclear blue dots should be present in SmCC and nucleoli are usually indiscrete in SmCC but visible in high grade lymphoma.
- Clinically a radiologically there was a tonsil primary and nodes in distribution consistent with metastasis from tonsil primary. *Patient management was not adversely affected and this was a rare diagnosis that required external specialist review*

MALIGNANT MISMATCH 3

- Provisional report for a LN aspirate was suspicious of carcinoma. The final report with cell pellet stated inflammatory cells only present. The subsequent biopsy confirmed Warthin's tumour within a lymph node.
- **Learning point** - Warthin tumour usually gives the appearance of epithelial cells in lymphoid background and can be intranodal. Sloughed cyst lining cells can be angular and squamoid but should lack nuclear atypia and are usually in flat sheets or single pale cells rather than three dimensional clusters in carcinoma.

MALIGNANT MISMATCH 4

- Provisional and final pathologists reported a LN to be suspicious but not diagnostic of carcinoma. Biopsy revealed Warthin's tumour.
- **Learning point** - always think of Warthin's when suspicion is metastatic ca to a lymph node in the anterior neck (particularly level II which includes tail of parotid). If FNA is equivocal the lesion can be biopsied or surgically removed.

MALIGNANT MISMATCH 5

- Finally, a LN aspirate was reported as high grade lymphoma. The node was excised and showed HIV related lymphadenopathy.
- **Learning point** - more clinical information than is written on the form may be available in the OSC environment.

Florid reactive lymphadenopathy may not be reliably distinguishable from lymphoma (and vice versa) with cytology alone.

CONCLUSION

- The audit showed an adequacy rate of 96% on first FNA (100% including OSC repeats) compared to 92.4% in 2004 and 50% in 2002.
- Of the 4% that were inadequate all were diagnostic on the second attempt.
- Several potential pitfalls and mismatches were identified, which can be learnt from in future practice, thus allowing for quality improvement for patients.
- All of the mismatches were picked up at MDT review and had subsequent confirmation by histology

We plan to reaudit within 2 years

THANK YOU

QUESTIONS...?