Introduction Liver biopsy (LB) remains central to the diagnosis and accurate staging of liver disease. It is, however, an invasive procedure with recognised morbidity and mortality. It is imperative that biopsy samples are adequate for histological assessment.

The guidelines vary considerably with regard to what constitutes an adequate sample for accurate histological interpretation. The authors reviewed their LB samples in light of Royal College of Pathologists (RC Path) and American Association for the Study of Liver diseases (AASLD) guidelines.

Methods Retrospective analysis of patient records and pathology reports of 150 consecutive LB procedures between September 2009 and March 2010 was performed. Biopsy samples were referenced to the available guidelines. Samples that did not fulfil guidelines recommendations were re-referred to the histopathology for review.

Results Male:Female=89:61, Age range 17–79, median 49. 131 (87%) were performed percutaneously (all ultrasound guided) and 19 (13%) were trans-jugular. 18 gauge needle was used in 138 (92%), needle size not recorded in 12 (8%) cases. 92 (61%) were done by 3 non-medical practitioners with cumulative experience of >600 procedures.

6 (4%) samples measured 20 mm and out of these 3 (2%) had 11 or more Complete Portal Tracts (CPT). 128 (85%) measured 10 mm or more and out of these 70 (47%) had 6 or more CPT. 47% samples fulfilled both length and CPT criteria for RC Path and only 2% samples for AASLD guidelines. All but 2 (1.33%) samples were reported. No comments were made on the number of CPT in 53 (35%) cases.

At review, all of <5 mm and 78% of 5–9 mm samples were deemed inadequate for accurate histological diagnosis and staging.

Conclusion The authors are a tertiary centre with a large volume and experience of LB but majority their samples did not fulfil RC Path or AASLD criteria for an adequate specimen. There was also considerable interobserver variation among pathologists in recording of the number of CPT. Changes to local practice are being made including use of 16 gauge needle with an aim to take at least 15 mm long samples. There is, however, also a vital need for consistent and unanimous guidance from international clinical and pathological bodies.

Competing interests None.