## Audit of Ultrasound Guided Renal Biopsy

## Descriptor

To audit diagnostic adequacy and complications of ultrasound guided renal biopsies.

## Background

Renal biopsies assess the histopathological diagnosis of native and transplant renal disease. Adequate samples are necessary for diagnosis and to enable prompt treatment of patients.

## The Cycle

### The Standard

Renal transplant - Banff Criteria(1,2,3)

Adequate sample: 10+ glomeruli and 2+ arteries

Marginal sample: 7 - 10 glomeruli and 1 artery

Unsatisfactory sample: < 7 glomeruli or no arteries

Native kidney – local pathology guideline, literature(4)

Adequate sample: 10+ glomeruli

Unsatisfactory sample: <10 glomeruli

Optimal Needle Gauge: 16G (5,6)

### Target

Diagnostic adequacy:  >75% (4,6,7)

Re-biopsy rate: <5% (7)

Major complications requiring further intervention: <1% (6,7)

Minor complications e.g. macroscopic haematuria, perirenal haematoma <5% (6,7)

## Assess local practice

### Indicators

Number of glomeruli per sample

Presence of arteries

Complications

### Data items to be collected

All departmental ultrasound guided renal biopsies from RIS

Operator (consultant, trainee)

Transplant and native: number of glomeruli

Transplant: number of arteries

Complications: from RIS/radiology software and discharge summaries/clinic letters

### Suggested number

100, or all biopsies over 1 year

## Suggestions for change if target not met

Present audit results at local & regional meetings

Seminar with operators concerning technique and importance of sample adequacy

Close supervision of trainees

Each operator to analyse their results

Trainees results reviewed at end of placement / appraisal

In room pathologist for ‘hot’ assessment

Appoint a lead consultant to supervise biopsies

Re-audit annually

## Resources

## References

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## Editors Comments

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