

**THE SAFETY OF DAY CASE NATIVE RENAL BIOPSIES: AN EVIDENCE –
BASED APPROACH**

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Renal Biopsy is the diagnostic procedure of choice in many patients with renal disease. Bleeding complications are most common, ranging from microscopic haematuria to haemorrhage requiring nephrectomy. The aim of this study was to determine the nature, timing and severity of complications of patients undergoing native renal biopsies under ‘day case’ conditions but being observed as in-patients over a 24 hour period. This in turn would determine the safety and feasibility of the performance of biopsies as day cases, on all or a subset of patients.

This Unit’s initial policy post-biopsy was 24 hours admission with 22 hours bed rest. A study of 157 consecutive biopsies performed under these conditions revealed all symptoms and observations relating to significant complications occurred within 4 hours post-biopsy [1]. The Unit’s policy was revised to keep 24 hour observation, but to mobilize post-biopsy after only 6 hours bed rest. The next 100 biopsies were re-audited for complications, the results of which are shown in table 1.

Complication rates did not change with early mobilization. ie, a reduction of bed rest from 22 to 6 hours post- biopsy. All symptomatic hypotension and serious complications in the early mobilization group occurred within 6 hours.

This study will allow the Unit to perform routine day case biopsies thereby maximizing the use of day case beds and making more inpatient beds available without compromising patient safety.

Table 1 Renal Audit Biopsy

	Audit 1 (bed rest 22 hrs) n=157	Audit 2 (bed rest 6 hrs) n=100
% experienced pain	17%	10%
% required blood transfusion	3.2%	3%
% radiologically diagnosed haematoma	3.2%	6%
% > 20mmHg drop In diastolic BP> 6hrs post-biopsy	10.7%(4.5% symptomatic)	20%(1% symptomatic)
% > 20mmHg drop In systolic BP> 6hrs post - biopsy	23.1% (13.6 % symptomatic)	11% (0% symptomatic)
Range of Hb change from pre to post biopsy	-3.3 to 2.2 g/dl (median -0.4)	-2.4 to 1.4g/dl (median -.01)
% drop in Hb .1 gm/dl	21.2%	9%
% experiencing macroscopic haematuria/clot retention	3.1%	2%
% requiring re-admission for biopsy related complications	1.5%	0%