MRRB NOTIFICATION FORM (NATIVE KIDNEY BIOPSY)

Instruction: Where check boxes ☐ are provided, check (√) one or more boxes.
Where radio buttons ○ are provided, check (√) one box only.
** indicates compulsory field.*

Office use: ID : _____ / _____
Centre: _____

***A. Centre Name:** _____

***B. Date of Notification :** __ __ / __ __ / __ __ __ __ *(dd/mm/yyyy)*

***C. Type of Biopsy: Native Kidney Biopsy**

SECTION 1: PATIENT PARTICULARS					
1.	***Name**				
2.	***Identification Card Number** (Please enter either MyKad/MyKid **OR** Other ID Document type and number)	*MyKad/MyKid*	__ __ __ __ __ __ - __ __ - __ __ __ __		
		Other ID Document Number		*Specify type (eg. Old IC, passport)*	
3.	***Date of Birth**	__ __ / __ __ / __ __ __ __ *(dd/mm/yyyy)*			
4.	***Gender**	○ Male	○ Female		
5.	***Ethnic group**	○ Malay	○ Chinese	○ Indian	
		○ Other M'sian, specify: _____	○ Foreigner, specify: _____		

SECTION 2: CLINICAL DATA AT PRESENTATION TO NEPHROLOGIST				
1.	***a. Indication for biopsy**	○ Asymptomatic urine abnormalities →	○ Asymptomatic hematuria ○ Asymptomatic proteinuria	○ Asymptomatic hematuria and proteinuria
		○ Nephritic syndrome	○ Nephrotic syndrome	○ Nephritic - Nephrotic syndrome
		○ Raised serum creatinine	○ Rapidly progressing glomerulonephritis	
	b. Concomitant medical morbidities / conditions:	☐ a. Diabetes Mellitus	☐ b. Hypertension	☐ c. Cardiac disease, specify: _____
		☐ d. Liver disease	☐ e. Pregnancy	
		☐ f. Cancer	☐ g. Lymphoproliferative disorder	☐ h. Rheumatological diseases, specify: _____
	c. Current medication	☐ a. ACE Inhibitor	☐ b. ARB	☐ c. SGLT2i
2.	**Family history of glomerulonephritis**	○ Yes	○ No	○ Unsure
3.	**Dialysis required?**	○ Yes	○ No	
4.	**Weight & height prior to biopsy (For age <18 only)**	**a. Weight**	__ __ __ . __ kg ☐ Not taken	
		b. Height	__ __ __ . __ cm ☐ Not taken	

SECTION 3: LAB DATA						
1.	***Urine**					
	a. Urine RBC	○ Yes	○ No			
	b. Urine Protein					
	i. 24 hrs Urine Protein	_____ g/day				☐ Not available
	ii. Urine PCI/PCR	_____	○ mg/mg	○ mg/g	○ mg/mmol ○ g/mmol	☐ Not available
		(Autocalc)	mg/mmol			
	iii. Urine ACR	_____	○ mg/mg	○ mg/g	○ mg/mmol ○ g/mmol	☐ Not available
		(Autocalc)	mg/mmol			
2.	***Biochemistry at presentation**					
	a. Albumin	_____	○ g/L	○ g/dL		☐ Not available
		(Autocalc)	g/L			
	b. i. Serum creatinine	_____	○ umol/L	○ mg/dL		☐ Not available
		(Autocalc)	umol/L			
	ii. eGFR	_____mL/min/1.73m² *(Autocalc)*		**iii. CKD Grade**	*(Autocalc)*	
3.	**Complement factors**					
	a. C3	○ Low	○ Normal-High	○ Not available		
	b. C4	○ Low	○ Normal-High	○ Not available		
4.	**SLE Immunological domain** *(compulsory if Lupus Nephritis)*					
	a. ANA	○ Positive	○ Negative	○ Not available		
	b. dsDNA	○ Positive	○ Negative	○ Not available		
	c. ssDNA	○ Positive	○ Negative	○ Not available		
	d. Anti-phospholipid	○ Positive	○ Negative	○ Not available		
	i. Anti-cardiolipin	○ Positive	○ Negative	○ Not available		
	ii. Anti-β2 GP1	○ Positive	○ Negative	○ Not available		
	iii. Lupus anticoagulant	○ Positive	○ Negative	○ Not available		
	e. Histone	○ Positive	○ Negative	○ Not available		
	f. Nucleosome	○ Positive	○ Negative	○ Not available		
	g. Ro (SSa)	○ Positive	○ Negative	○ Not available		

	h. La (SSb)	○ Positive	○ Negative	○ Not available
	i. Sm	○ Positive	○ Negative	○ Not available
	j. Ribosomal P	○ Positive	○ Negative	○ Not available
	k. Others, specify:	_____		
5.	**Serology**			
	a. HBsAg	○ Positive	○ Negative	○ Not available
	b. HB core Ab	○ Positive	○ Negative	○ Not available
	c. Anti-HCV Ab	○ Positive	○ Negative	○ Not available
	d. HIV Combo	○ Positive	○ Negative	○ Not available
	e. VDRL	○ Positive	○ Negative	○ Not available
	f. c-ANCA	○ Positive	○ Negative	○ Not available
	g. p-ANCA	○ Positive	○ Negative	○ Not available
	h. MPO	○ Positive	○ Negative	○ Not available
	i. PR3	○ Positive	○ Negative	○ Not available
	j. ASOT (iu/L)	○ ≥ 200	○ <200	○ Not available
	k. Anti-PLA2R Ab	○ Positive	○ Negative	○ Not available
	l. Anti-GBM Ab	○ Positive	○ Negative	○ Not available
	m. Anti-THSD7A Ab (thrombospondin)	○ Positive	○ Negative	○ Not available
	n. Anti-NELL Ab	○ Positive	○ Negative	○ Not available
	o. Others, specify	○ Positive	○ Negative	○ Not available
6.	**Genetic Testing**			
	a. Genetic Testing	○ Yes	○ No	○ Not relevant

SECTION 4: HPE Data				
1.	***a. Date Biopsy**	__ __ / __ __ / __ __ __ __ *(dd/mm/yyyy)*		
	***b. Is this the first biopsy?**	○ Yes		
		○ No →	**i. Biopsy count**	
	***c. Re-biopsy reason** *(Applicable for biopsy number ≥ 2)*	☐ Recurrence/relapse ☐ Inconclusive previous biopsy ☐ Inadequate response to treatment ☐ To prognosticate ☐ To assess CNI toxicity ☐ Others, specify: _____		
2.	***a. Light microscopy**			
	***i. Number of glomeruli**	__ __	*[If report shown 'no glom' please enter as '0']*	
	***ii. Glomerular sclerosis**	☐ a. Segmental #	__ __ Glomeruli /	__ __ __ *% (Autocalc)*
		☐ b. Global #	__ __ Glomeruli /	__ __ __ *% (Autocalc)*
	***iii. Crescent**	☐ a. Cellular #	__ __ Glomeruli /	__ __ __ *% (Autocalc)*
		☐ b. Fibrous #	__ __ Glomeruli /	__ __ __ *% (Autocalc)*
		☐ c. Fibrocellular #	__ __ Glomeruli /	__ __ __ *% (Autocalc)*
	***iv. Tubular interstitial changes**	○ None ○ Acute tubular necrosis ○ Acute interstitial nephritis ○ Acute with chronic changes		
		○ Chronic interstitial fibrosis tubular atrophy →	○ Mild <25% ○ Moderate 25 to 50% ○ Severe > 50%	
	***v. Hypertensive vascular changes**	○ Yes ○ No		
	b. Immunofluorescence/ immunohistochemistry	○ Yes → ☐ Ig G ☐ Ig A ☐ Ig M ☐ Kappa ☐ PLA2R ☐ C3 ☐ C1q ☐ C4d ☐ Lambda ☐ No significant deposit / Negative		
		○ No		
	c. Additional staining	○ Congo red ○ Others, specify: _____		
	d. Electronmicroscopy	○ Yes ○ No		
3.	**HPE Diagnosis (specify)**			
4.	***HPE Diagnosis**			
	i. ☐ Report not conclusive	○ No / not enough glomeruli ○ Other, specify: _____		

ii. Diagnosis classification

☐ 1. Lupus nephritis

a. ISN/PRS

○ Class I ○ Class II ○ Class II + V ○ Class III
○ Class III + V ○ Class IV ○ Class IV + V ○ Class V
○ Class VI ○ Others

a(i). Subclass ISN III, III + V	○ A	○ A/C	○ C
a(ii). Subclass ISN IV, IV + V	○ A	○ A/C	○ C

b. Thrombotic microangiopathy ○ Yes ○ No

c. Activity Index (AI) __ __ / 24

d. Chronicity Index (CI) __ __ / 12

e. SLE clinical domain

☐ Renal only
☐ Renal and extra-renal manifestations (haematologic , neuropsychiatric, mucocutaneous, serosal, musculoskeletal)

☐ 2. Minimal change

○ **a. Primary**

○ **b. Secondary**
- ○ Malignancy
- ○ Drug, specify: _____

☐ 3. FSGS

○ **a. Primary**
- ○ Collapsing
- ○ Non-collapsing

○ **b. Secondary**
- ○ Drug, specify: _____
- ○ Infection
  - ○ Hepatitis B ○ Hepatitis C
  - ○ HIV ○ Others: _____
- ○ Obesity
- ○ Reduced nephron number
- ○ Other, specify: _____

○ **c. Genetic**

○ **d. FSGS of undetermined cause**

☐ 4. IgA nephropathy

c. MEST-C score

○ M0	○ M1	
○ E0	○ E1	
○ S0	○ S1	
○ T0	○ T1	○ T2
○ C0	○ C1	○ C2

☐ Not available

○ **a. Primary**

○ **b. Secondary**
- ○ Vasculitis (HSP)
- ○ Infection, specify:
- ○ Inflammatory bowel disease
- ○ Liver cirrhosis
- ○ Autoimmune disease

☐ 5. Membranous nephropathy

○ **a. Primary**

○ **b. Secondary**
- ○ Malignancy
- ○ Drug, specify:_____
- ○ Infection
  - ○ Hepatitis B ○ Hepatitis C
  - ○ HIV ○ Others: _____
- ○ Rheumatological disease, specify:_____

☐ 6. Thrombotic Microangiopathy (TMA)

○ Thrombocytopenia Purpura (TTP)
○ Complement-mediated aHUS
○ STEC - HUS
○ Triggering factors
- ○ Other infection, specify: _____
- ○ Malignancy
- ○ Pregnancy
- ○ Malignant hypertension
- ○ Autoimmune diseases
- ○ Transplant
- ○ Drug
- ○ Metabolic
- ○ No identifiable trigger

☐ 7. Membrano - proliferative (MPGN)

○ **a. Immunoglobulin-/ Immune complex-mediated**
- ○ Infection, specify:
- ○ Deposition disease
- ○ Autoimmune disease, specify:
- ○ Idiopathic

○ **b. Complement-mediated**
- ○ C3 glomerulonephritis/DDD
- ○ C4 glomerulonephritis/DDD

○ **c. Without immune complexes or complement**

	☐ **8. Mesangial-proliferative GN - non IgA**		
	☐ **9. ANCA associated GN (Auto)**	○ Sclerotic (>=50% globally sclerosed) ○ Crescentic (>=50% cellular crescent)	○ Focal (>=50% normal glomeruli) ○ Mixed
	☐ **10. Anti-GBM Disease (Auto)**	__ __ __ % Crescent (Auto)	
	☐ **11. Infection-associated**	○ Post streptococcal GN ○ IgA-dominant infection-related GN ○ Hepatitis-related cryoglobulinemia	○ Post-infectious GN ○ Shunt nephritis ○ Endocarditis-related
	☐ **12. Deposition/ infiltrative disease**	○ Amyloidosis ○ Immunotactoid / fibrilliary GN	○ Paraproteinemia / lymphoproliferative disease ○ Multiple myloma ○ MGRS (LCDD/HCDD)
	☐ **13. Diabetic nephropathy**		
	☐ **14. Polyarteritis nodosa**		
	☐ **15. Collagen-associated nephropathy**	○ Alport syndrome ○ Other, specify: _____	○ Thin Basement Membrane Disease
	☐ **16. Vascular**	○ Athero-embolic syndrome ○ Hypertensive nephroslerosis	○ Systemic sclerosis
	☐ **17. Tubulointerstitial disease**	○ Acute interstitial nephritis ○ Acute tubular necrosis ○ Sarcoidosis	○ Chronic interstitial nephritis ○ IgG4 disease ○ Other, specify: _____
	☐ **18. Advanced glomerulosclerosis**		
	☐ **19. Other, specify**		