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: / Centre:

***A. Centre Name:** _____

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

***C. Type of Biopsy (Auto):** **Native kidney biopsy**

D.i) eGFR: *(Auto)* **D.ii) CKD Grade:** *(Auto)*

SECTION 1 : PATIENT PARTICULARS

***1. Patient Name :** Hj/Hjh/Dato'/Dr _____ **2. RN:**

***3. Identification Card Number :** *MyKad / MyKid:* __ __ __ __ __ __ - __ __ - __ __ __ __ *Old IC:*

Other document No: *Specify type (eg.passport, armed force ID):*

***4. Date of Birth (dd/mm/yy):** __ __ - __ __ - __ __ __ __ ***5. Gender:** ◯ Male ◯ Female

***6. Ethnic Group:** ◯ Malay ◯ Chinese ◯ Indian ◯ Other M'sian, specify : ..... ◯ Foreigner, specify : .....

SECTION 2 : CLINICAL DATA AT PRESENTATION TO NEPHROLOGIST

***1. Date :** *(dd/mm/yy)* *(If exact date not known, pls estimate date)*

(Compulsory for first notification)

a. At presentation to a doctor: __ __ - __ __ - __ __ __ __ ☐ Not available

(Doctor refer case to nephrologist)

b. Seen by first Nephrologist: __ __ - __ __ - __ __ __ __ ☐ Not available

*** 2a. Indication for biopsy:**

- ◯ Asymptomatic urine abnormalities
  - ◯ Asymptomatic hematuria
  - ◯ Asymptomatic hematuria and proteinuria
  - ◯ Asymptomatic proteinuria
- ◯ Nephritic syndrome
- ◯ Nephrotic syndrome
- ◯ Nephritic - Nephrotic syndrome
- ◯ Not available
- ◯ Raised serum creatinine
- ◯ Rapidly progressing glomerulonephritis

*** 2b. Renal function** ◯ Impaired → ◯ Acute ◯ Chronic ◯ Normal ◯ Not available

2c.Other clinical presentation:

- ◯ a. Gross hematuria → ◯ Present ◯ Absent ◯ Not available
- ◯ b. Pulmonary haemorrhage → ◯ Present ◯ Absent ◯ Not available

2d.Concomitant medical morbidities/ conditions:

- ☐ a. Diabetes mellitus → Retinopathy: ◯ Present ◯ Absent ◯ Not available
- ☐ b. Hypertension ☐ c. Dyslipidaemia
- ☐ d. Cardiac disease, specify: ..... ☐ e. Liver disease
- ☐ f. Pregnancy
- ☐ g. Rheumatological diseases, specify: .....
- ☐ h.Lymphoproliferative disorder
- ☐ i. Cancer

2e. Current Medication ☐ a. ACE Inhibitor ☐ b. ARB ☐ c. SGLT2i

3. Family History of Glomerulonephritis ◯ Yes → ◯ Biopsy proven, specify : ..... ◯ Not biopsy proven ◯ Genetic testing ◯ No

4. Prior to Biopsy:

a. Weight (kg):	☐ Not taken	**c. Dialysis required :** ◯ Yes ◯ No
b. Height (cm):	☐ Not taken	

SECTION 3 : FOR SLE ONLY

1. SLE ☐ Check if Yes

1.1 SLE Clinical domain

- ☐ a. Constitutional
- ☐ b. Haematologic
- ☐ c. Neuropsychiatric
- ☐ d. Mucocutaneous
  - ☐ i. Malar rash ☐ ii. Discoid rash
  - ☐ iii. Photosensitivity ☐ iv. Oral ulcers
- ☐ e. Serosal
- ☐ f. Musculoskeletal (arthritis)
- ☐ g. Renal

1.2 SLE Immunological domain

	Positive	Negative	Not Available
a) ANA (if positive → titre:)	◯	◯	◯
b) dsDNA (if positive → titre:)	◯	◯	◯
c) ssDNA	◯	◯	◯
d) Anti-phospholipid	◯	◯	◯
i) Anti-cardiolipin	◯	◯	◯
ii) Anti-β2 GP1	◯	◯	◯
iii) Lupus anticoagulant	◯	◯	◯
e) Histone	◯	◯	◯

	Positive	Negative	Not Available
f) Nucleosome	◯	◯	◯
g) Ro (SSa)	◯	◯	◯
h) La (SSb)	◯	◯	◯
i) Sm	◯	◯	◯
j) Ribosomal P	◯	◯	◯

☐ k) Others,specify: .....

SECTION 4 : LAB DATA

1. Haematology:	**a. Hb**	g/dL		☐ Not available
	b. TWC	10^{9}/L		☐ Not available
	c. Platelet	10^{9}/L		☐ Not available
2. Urine: *	**a. Urine RBC:**		◉ Yes → Urine dipstick ◉ 1+ ◉ 2+ ◉ 3+ / Urine microscopy ◉ <20 cells/ul ◉ 20-50 cells/ul ◉ >50 cells/ul ◉ No ◉ Not available	
	b. Urine Protein:		◉ Yes → ◉ 1+ ◉ 2+ ◉ 3+ ◉ 4+ ◉ No ◉ Not available	
	c. 24 hrs Urine Protein, (g/day)			☐ Not available
	d. Urine PCI/PCR		◉ mg/mg ◉ mg/g ◉ mg/mmol ◉ g/mmol mg/mmol	☐ Not available
	e. Urine ACR		◉ mg/mg ◉ mg/g ◉ mg/mmol ◉ g/mmol mg/mmol	☐ Not available

3. Biochemistry: *

				Date
a. Albumin		◉ g/L ◉ g/dL Autocalc g/L	☐ Not available	/ /
b. Creatinine *(If on dialysis give pre dialysis result)* *		◉ umol/L ◉ mg/dL Autocalc umol/L	☐ Not available	/ /
c. CMV PCR	**Level:**	IU/ml ◉ Undetectable	◉ Not done	/ /
	Level:	IU/ml ◉ Undetectable	◉ Not done	/ /
	Level:	IU/ml ◉ Undetectable	◉ Not done	/ /
d. BKV PCR	**Level:**	IU/ml ◉ Undetectable	◉ Not done	/ /
	Level:	IU/ml ◉ Undetectable	◉ Not done	/ /
	Level:	IU/ml ◉ Undetectable	◉ Not done	/ /
e. Others				/ /
f. eGFR	Autocalc			
g. CKD Grade	Autocalc			

4. Complement factors:	**a. C3**	◉ Low ◉ Normal - High ◉ Not available
	b. C4	◉ Low ◉ Normal - High ◉ Not available
5. Serology	**a. HBsAg**	◉ Positive ◉ Negative ◉ Not available
	b. HB core Ab	◉ Positive ◉ Negative ◉ Not available
	c. Anti-HCV	◉ 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 → Titre: ◉ Negative ◉ Not available
	i. PR3	◉ Positive → Titre: ◉ Negative ◉ Not available
	j. ASOT (iu / L)	◉ ≥ 200 ◉ <200 ◉ Not available
	k. Anti-PLA2R Ab	◉ Positive → Titre: ◉ Negative ◉ Not available
	l. Anti-GBM	◉ Positive → Titre: ◉ Negative ◉ Not available
	m. Anti - THSD7A (thrombospondin)	◉ Positive ◉ Negative ◉ Not available
	n. Anti-NELL	◉ Positive ◉ Negative ◉ Not available
	o. Others, specify	

SECTION 5 : HPE DATA

***1a. Date Biopsy (dd/mm/yy):** [ ][ ] - [ ][ ] - [ ][ ][ ][ ]

1b. Is this the first biopsy? ○ No → **Biopsy Count:** ○ Yes

1c. Re-biopsy: *(Applicable for biopsy number >= 2)*

Reason :
- ☐ Recurrence/relapse
- ☐ Inconclusive previous biopsy
- ☐ Others, specify: .....
- ☐ Inadequate response to treatment
- ☐ To prognosticate
- ☐ to assess CNI toxicity

2a. Biopsy specimen sent to:

Name of Histopathology Lab:

2b. Biopsy read by:

Histopathologist Name :

2c. HPE Report Number: /

3. Biopsy report

3a. 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 (ATN/ inflammation)
- ○ Acute on chronic
- ○ Chronic (interstitial fibrosis tubular atrophy) → ○ Mild ○ Moderate ○ Severe

v. **Hypertensive vascular changes** ○ Yes ○ No

3b.Immunofluorescence/ immunohistochemistry

○ Yes →
- ☐ Ig G
- ☐ Ig A
- ☐ Ig M
- ☐ Kappa
- ☐ PLA2R
- ☐ C3
- ☐ C1q
- ☐ C4d
- ☐ Lambda
- ☐ No Significant Deposit/Negative

○ No → ○ Not done ○ Not sent ○ No glomeruli Remark: .....

3c. Additional staining ○ Congo red ○ Others, specify .....

3d. Electronmicroscopy ○ Yes ○ No

4. HPE Diagnosis (specify):

5. HPE diagnosis

i)
- ☐ **Report not conclusive**
  - ○ No / not enough glomeruli
  - ○ Others, specify : .....

ii) Diagnosis classification

☐ 1. **Lupus nephritis**

a) ISN/PRS
- ○ Class I ** ○ Class IV
- ○ Class II ** ○ Class IV + V
- ○ Class II + V * ○ Class V
- ○ Class III * ○ Class VI
- ○ Class III + V ○ Others

*c) Subclass ISN III	**d) Subclass ISN IV
○ A	○ A
○ A/C	○ A/C
○ C	○ C

b) Thrombotic microangiopathy
- ○ Yes
- ○ No

e) Activity index (AI) : [ ] /24

f) Chronicity index (CI): [ ] /12

iii)

☐ 2. **Minimal change**
- ○ a. Primary
- ○ b. Secondary
  - ○ Malignancy
  - ○ Drug, specify: .....

☐ 3. **FSGS**

a) Diagnosis pattern
- ○ a. Primary
  - ○ Collapsing
  - ○ Non-collapsing
- ○ b. Secondary
  - ○ Drug, specify: .....
  - ○ Infection
    - ○ Hepatitis B
    - ○ Hepatitis C
    - ○ HIV
    - ○ Others: .....
  - ○ Obesity
  - ○ Reduced nephron number
  - ○ Others, specify: .....

4. **IgA nephropathy** a. MEST-C score: M0 M1 E0 E1 S0 S1 T0 T1 T2 C0 C1 C2 Not Available	b. Primary	c. 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**	a. Primary thrombotic microangiopathy syndrome Diarrhoea associated HUS Complement-mediated TM TTP Drug-induced Coagulation-mediated Metabolism-mediated	b. Secondary to systemic disorders Infection Malignancy Pregnancy-related Severe hypertension Rheumatological disease Post haematopoietic transplant Post solid organ transplant
7. **Membrano - proliferative (MPGN)**	a. Immunoglobulin-/ Immune complex-mediated Infection, specify: Autoimmune disease, specify Deposition disease Idiopathic b. Complement-mediate C3 glomerulonephritis/DDD C4 glomerulonephritis/DDD c. Without immune complexes or complement	
8. **Mesangial proliferative GN-non IgA**		
9. **ANCA associated GN**	Sclerotic (>=50% globally sclerosed) Crescentic (>=50% cellular crescent) Focal (>=50% normal glomeruli) Mixed	
10. **Anti-GBM disease**	___ % Crescent	
11. **Infection-associated**	Post-infectious GN Shunt nephritis Endocarditis-related IgA-dominant infection-related GN Hepatitis-related cryoglobulinemia	
12. **Deposition/ infiltrative disease**	Amyloidosis Paraproteinemia / lymphoproliferative disease Multiple myloma MGRS (LCDD/HCDD) Immunotactoid / fibrilliary GN	

☐	13. **Diabetic nephropathy**	
☐	14. **Polyarteritis nodosa**	
☐	15. **Hereditary**	◉ Alport syndrome ◉ Thin Basement Membrane Disease ◉ Others, specify: _____
☐	16. **Vascular**	◉ Athero-embolic syndrome ◉ Hypertensive nephroslerosis ◉ Systemic sclerosis
☐	17. **Tubulointerstitial disease**	◉ Acute interstitial nephritis ◉ Acute tubular necrosis ◉ Chronic interstitial nephritis ◉ IgG4 disease
☐	18. **Advanced glomerulosclerosis**	
☐	19. **Others, specify:**	