WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

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WER SRI LANKA 2017

Screening of Chronic Kidney Disease in Sri Lanka (Part II)

Testing for S.Creatinine and calculating eGFR

The testing should be done as soon as the samples reach the testing laboratory, necessarily not exceeding 24 hours from the time of sample collection. Jaffe Kinetic Method should be used in testing for serum creatinine in an appropriated fully automated analyzer to ensure the validity of the test. CKD-EPI formula is suggested to be used to calculate eGFR.

Cutoff Values for Blood Pressure and Laboratory Investigations

Blood Pressure: 140 mmhg and 90 mmhg would be stipulated as upper limit of normal for systolic and diastolic blood pressure respectively. Either of the readings above these levels would be taken as high blood pressure.

Serum Creatinine: Laboratory Reference Valueswould be taken as the upper limit normal for serum creatinine. Any value above this cut off would be considered as high levels of S.Creatinine. Estimated Glomerular Filtration Rate below 60ml/1.76m^2/min would indicate impaired renal function.

Urine Albumin Creatinine Ratio: 30 mg/g would be stipulated as the upper limit normal for UACR. Any value above this level would be considered as high level of UACR.

Interpretation of Results

If a person gets **high level** of values for **either** Serum Creatinine or low eGFR or high level UACR would be considered as **positive** for screening test, **irrespective of** their blood pressure reading levels.

Criteria for diagnosing Chronic Kidney Disease of Uncertain-aetiology

There are three levels of case definition are as below;

Suspected CKDu

Essential criteria: eGFR< 60 mL/min using CKD EPI equation: One time measurement using standardized methods for creatinine measurement **OR** albuminuria > = 30 mg/g

Exclusion criteria to identify suspect CKDu among those satisfying above criteria

Urine protein: creatinine ratio > 2 g/g creatinine**OR** urine albumin: creatinine ratio >0.3g/g creatinine

Hypertensives on treatment with more than two drugs **OR** untreated blood pressure of more than 160/100 mmHg (preferably using electronic BP apparatus, sitting position, at least two readings one minute apart)

History of diabetes **OR** being on treatment **OR** capillary random plasma glucose >200 mg/dL

Probable CKDu

Repeat assessment of eGFR after 12 weeks and eGFR< 60 mL/min using CKD EPI equation **OR** Repeat albuminuria > = 30 mg/g

Satisfying the exclusion criteria above for 'Suspected CKDu'

Exclusion criteria to identify probable CKDu among those satisfying above criteria

Diabetes based on fasting plasma glucose >126 mg/dL

Polycystic kidney, congenital malformation, obstructive nephropathy by ultrasound imaging

Haematuria of >10 red blood cells/HPF

Other known causes of CKD such as autoimmune diseases, glomerular diseases, kidney stones or any other obstruction in the urinary

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tract based on the clinical evaluation **and** laboratory investigations

Confirmed CKDu

All the above mentioned criteria for probable CKDu
AND (in addition)

Histopathological features consistent with CKDu on biopsy, preferably the demonstration of absence of immune deposits

Referral Procedure for Persons with Abnormal Test Results

Persons who are negative for both investigations and for blood pressure measurements will be considered as **negative** for screening and reviewed in three years time in a similar screening programme.

Persons who report **only** elevated blood pressure would be referred to nearby curative care facilities for follow up with regard to elevated blood pressure. This category is also considered as **negative** for the screening programme.

Persons who are considered as **positive** (having either elevated S.Creatinine or low eGFR or elevated UACR irrespective of blood pressure levels) for screening should be channelled to curative care facilities for further evaluation by means of history, clinical examination, biochemical investigations and radiological, histological assessments (protocols need to be developed).
Persons who are found positive at secondary evaluation would be referred to the Nephrologists' clinics as specified in clinical management guidelines.

Field Screening Clinics

The screening clinics should be planned in such a way that once a round of screening clinic is over, the entire Medical Officer of Health area should be covered. The clinics should commence by 8.00 am and continue till the target is covered. Every fortnight, a screening clinic should be conducted in the office of the MOH (Central Screening Clinic) to cater for those who missed the area field clinic. All individuals screened at the clinic should be registered in the field screening clinic and a Clinic Registration Card should be issued.

Monitoring and Evaluation

The programe would be continuously monitored and evaluated quarterly at district, provincial and national level. The Regional Directors and the Provincial Directors should continuously monitor the implementation of the screening programme in the respective districts and provinces.

District level Indicator and targets

District level Indicators and targets are Total number screened during the month, proportion of Screening Clinics conducted, Percent coverage of screening at field clinics, Percent positive, Number screened at the central clinic and the Percent screened at central clinic

National level Indicators

The national level Indicators are total number screened, percent coverage and percent positive. These national level indicators will be analyzed at quarterly reviews.

Data Analysis and dissemination of information

Data will be compiled and analyzed at the Epidemiology Unit together with the statistics generated by the Sentinel Surveillance and information will be published in the Quarterly Epidemiological Bulletin.

Dr. Chamly Premajayatha and Dr. T.A.P. Perera Source; Screening Guidelines, Chronic Kidney Disease Sri Lanka, 2017.

Table 1 : Water Quality Surveillance
Number of microbiological water samples January 2017

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	90
Gampaha	15	90	22
Kalutara	12	72	NR
Kalutara NIHS	2	12	NR
Kandy	23	138	NR
Matale	13	78	NR
Nuwara Eliya	13	78	NR
Galle	20	120	NR
Matara	17	102	29
Hambantota	12	72	NR
Jaffna	12	72	60
Kilinochchi	4	24	0
Manner	5	30	0
Vavuniya	4	24	33
Mullatvu	5	30	NR
Batticaloa	14	84	81
Ampara	7	42	0
Trincomalee	11	66	31
Kurunegala	29	174	59
Puttalam	13	78	4
Anuradhapura	19	114	NR
Polonnaruwa	7	42	16
Badulla	16	96	98
Moneragala	11	66	98
Rathnapura	18	108	46
Kegalle	11	66	5
Kalmunai	13	78	NR

* No of samples expected (6 / MOH area / Month)
NR = Return not received

Table 1: Selected notifiable diseases reported by Medical Officers of Health 11th – 17th Feb 2017 (07th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmani-asis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	444	4097	5	21	0	0	1	5	0	3	2	12	0	1	0	5	0	0	12	42	2	8	0	1	**75**	**88**
Gampaha	66	2183	0	10	0	6	0	7	0	0	0	11	0	2	0	3	1	1	0	28	0	13	0	4	**20**	**40**
Kalutara	55	780	0	7	1	1	0	1	0	6	1	32	0	2	0	0	0	0	7	62	1	14	0	0	**50**	**71**
Kandy	51	431	0	9	0	2	0	0	0	0	2	10	2	25	2	5	0	1	2	47	2	10	2	2	**87**	**100**
Matale	22	193	0	3	0	0	0	0	0	0	0	9	0	1	0	3	0	0	1	4	0	19	0	2	**54**	**85**
NuwaraEliya	5	74	1	6	0	1	0	2	0	0	1	8	1	26	0	2	0	0	4	25	2	10	0	0	**77**	**92**
Galle	83	1188	1	9	0	2	1	4	0	5	3	30	1	13	0	0	0	0	3	46	2	9	0	0	**55**	**65**
Hambantota	55	373	0	11	0	1	0	3	1	1	1	13	2	11	1	3	0	0	6	44	1	4	24	54	**75**	**83**
Matara	96	730	1	8	0	2	0	0	0	2	1	12	2	8	0	1	0	1	9	30	0	1	7	15	**94**	**100**
Jaffna	118	869	9	63	0	2	1	10	1	19	2	13	27	220	0	3	0	0	6	63	2	9	0	0	**100**	**100**
Kilinochchi	4	95	0	5	0	0	0	1	0	0	0	1	0	8	0	2	0	0	0	0	0	0	0	3	**50**	**75**
Mannar	26	216	0	3	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	**60**	**100**
Vavuniya	23	114	1	5	0	0	3	8	0	1	0	4	1	1	0	1	0	0	1	11	0	0	1	3	**100**	**100**
Mullaitivu	9	57	0	1	0	0	0	2	0	0	0	7	0	2	0	0	0	0	0	1	0	4	0	0	**60**	**60**
Batticaloa	37	435	5	29	1	6	2	4	0	0	0	5	0	0	0	2	0	0	4	35	1	10	0	1	**50**	**79**
Ampara	2	76	1	5	0	0	1	1	0	0	0	4	0	1	0	1	0	0	0	32	1	5	0	1	**43**	**86**
Trincomalee	144	817	1	3	0	1	1	2	0	1	1	4	0	5	0	3	0	0	1	33	0	3	0	0	**69**	**85**
Kurunegala	75	673	1	17	0	0	0	0	0	2	0	16	1	14	1	2	0	0	15	90	2	13	2	21	**59**	**86**
Puttalam	17	273	2	13	0	1	0	0	0	0	0	2	0	9	0	1	0	0	5	30	0	11	0	1	**36**	**57**
Anuradhapura	16	237	0	4	0	1	0	0	0	2	1	19	0	9	0	2	0	0	7	60	0	10	4	42	**32**	**53**
Polonnaruwa	5	95	0	5	0	1	0	0	0	0	0	10	0	1	0	1	0	0	1	30	0	3	1	19	**14**	**71**
Badulla	20	324	0	20	0	3	0	2	0	1	0	11	1	8	2	9	0	0	6	58	2	35	0	1	**65**	**88**
Monaragala	24	160	0	10	0	1	0	0	0	1	3	20	7	32	0	4	0	0	0	23	1	12	0	4	**82**	**91**
Ratnapura	26	603	2	21	1	23	0	3	0	0	2	52	0	6	1	14	0	0	7	39	1	30	0	0	**39**	**72**
Kegalle	27	348	1	11	1	1	1	1	2	9	1	6	3	15	0	1	0	0	3	41	1	14	0	2	**64**	**91**
Kalmune	9	487	0	15	0	4	0	1	0	4	0	2	0	0	0	0	0	0	0	45	0	3	0	0	**31**	**77**
SRILANKA	**1459**	**15928**	**31**	**314**	**4**	**59**	**11**	**58**	**4**	**57**	**21**	**313**	**48**	**421**	**7**	**68**	**1**	**3**	**100**	**922**	**21**	**250**	**41**	**176**	**59**	**80**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 17th February , 2017 Total number of reporting units 337 Number of reporting units data provided for the current week: 279 **C****-Completeness

A = Cases reported during the current week. **B** = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

11th – 17th Feb 2017 (07th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2017	Number of cases during same week in 2016	Total number of cases to date in 2017	Total number of cases to date in 2016	Difference between the number of cases to date in 2017 & 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	01	00	00	00	00	00	00	01	00	16	07	-128.5%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	00	01	00	01	00	00	00	01	04	13	38	60	-36.6%
Measles	01	00	00	00	00	01	00	00	01	03	11	49	111	-56.1%
Rubella	00	00	00	00	00	00	00	00	00	00	01	01	04	-75%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	02	01	+100%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	04	00	0%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	02	15	-86.6%
Tuberculosis	128	17	21	06	03	04	00	01	34	214	256	1185	1225	-3.2%

Key to Table 1 & 2

Provinces: **W**: Western, **C**: Central, **S**: Southern, **N**: North, **E**: East, **NC**: North Central, **NW**: North Western, **U**: Uva, **Sab**: Sabaragamuwa.

RDHS Divisions: **CB**: Colombo, **GM**: Gampaha, **KL**: Kalutara, **KD**: Kandy, **ML**: Matale, **NE**: Nuwara Eliya, **GL**: Galle, **HB**: Hambantota, **MT**: Matara, **JF**: Jaffna, **KN**: Killinochchi, **MN**: Mannar, **VA**: Vavuniya, **MU**: Mullaitivu, **BT**: Batticaloa, **AM**: Ampara, **TR**: Trincomalee, **KM**: Kalmunai, **KR**: Kurunegala, **PU**: Puttalam, **AP**: Anuradhapura, **PO**: Polonnaruwa, **BD**: Badulla, **MO**: Moneragala, **RP**: Ratnapura, **KG**: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS =**Congenital Rubella Syndrome

Influenza Surveillance in Sentinel Hospitals - ILI & SARI								
Month	Human					Animal		
	No Received	ILI	SARI	Infl A	Infl B	Pooled samples	Serum Samples	Positives
January	4705	57	48	23	0	1235	457	0

Source: Medical Research Institute & Veterinary Research Institute

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Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to **chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

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