This is the second in a series of three articles on Screening Guidelines for Chronic Kidney Disease in Sri Lanka.

Collecting and Dispatching Urine Samples

- Urine sample of 30 ml, preferably from the second void needs to be collected in a screw capped container.
- Overnight rest with a good sleep and adequate hydration need to be ensured before collecting the sample.
- Practice of proper labelling needs to be adhered to.
- Samples should be stored in Igloo type cool boxes in the temperature range of 2 to 8°C as soon as they reach the field screening clinic.
- Urine samples should not be stored with blood/serum samples.

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 S. Creatinine in an appropriated fully automated analyzer to ensure the validity of the test. MDRD formula is suggested to be used to calculate eGFR.

Quality Assurance of laboratory tests

Internal Quality Assurance

- Every testing laboratory should strictly follow the quality control guides prescribed here,
- At the beginning of the day, internal quality control should be performed at two levels. Further, level – I & II quality control should be performed on completion of every hundred tests.

External Quality Assurance

- The chemical pathology laboratory at the National Hospital of Sri Lanka will serve as the national reference laboratory for external quality control of the screening programme.
- Monthly, inter-laboratory evaluation will be carried out with standard samples.

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 Values would 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.

- **Urine Albumin Creatinine Ratio (UACR)**
  10 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 S. Creatinine or UACR would be considered as
positive for screening test, irrespective of their blood pressure reading levels.

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/eGFR or 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 for secondary evaluation would be referred to the Nephrologists’ clinics as specified in clinical management guidelines.

Responsibilities

Provisions of technical guidance and database management for the screening programme are vested with the Epidemiology Unit of the Ministry of Health. Implementation of the screening programme comes under the purview of provincial health authorities. In the North Central Province, the Renal Research Unit will take part in the planning and implementation of the screening programme.

In the districts where Medical Officers-CKD prevention have been appointed, the MO-CKD holds the responsibility of implementation of the screening programme. In other districts where there is no appointed MO-CKD, the Regional Epidemiologist is responsible for the implementation of the screening programme. The Medical Officer of Health is held responsible for conducting screening clinics in the area according to an approved advanced programme. The heads of curative care institutions in the areas are expected to support the screening programme specially with respect to human resource mobilization. The RE or MO-CKD should liaise with the MOH and heads of curative care institutions in planning and implementation of the screening programme.

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. When identifying the places, accessibility of the catchment population should be considered a priority requirement. The MO-CKD or RE should work together to identify the sites to conduct Field Screen Clinics.

The clinics should commence by 8.00 am and continue till the target is covered. The clinics can be planned on any day including weekends considering the ground realities of resource mobilization. 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.

The date, time and venue of the screening clinic should be informed to the population to be screened by any means. All individuals screened at the clinic should be registered in the field screening clinic and a Clinic Registration Card should be issued. All particulars should be entered in legible letters.

At the time of Screening, a session on health education should be conducted according to the guidelines set by the Health Education Bureau.

Human Resources

The team should consist of the following categories of health staff,

- Medical Officers
- Public Health Nursing officer or Nursing Sisters or Nursing officer
- Public Health Midwife of the respective area
- Public Health Inspector of the respective area
- Medical Laboratory Technologists
- Other necessary supportive staff.

Implementation Plan

At the outset of the programme, an implementation plan for each district should be drafted covering the entire high risk area. The Provincial and Regional Directors of Health Services, Regional Epidemiologists, Medical Officers (CKD Prevention), Medical Officer – in – Charge of the Renal Research Unit of the NCP (in case of Anuradhapura and Polonnaruwa Districts only) and heads of curative care institutions should take part in the planning process. The areas with high disease burden should be covered in the initial stages of the programme. Following factors need to be considered in planning the programme.

- Spatial distribution of cases
- Availability of logistics
- Availability of human resources
- Capacities of laboratories to handle samples
- Routine health care delivery in the field

The plan should include

- The number of clinic secessions per district with a breakdown at MOH division level for each quarter
- Locations of field screening clinics
- Tentative dates of each clinic
- Locations and tentative dates of central screening clinics
- The number of individuals to be covered in each clinic session
- Human resource mobilization plan for each clinic
- The tentative district programme should be submitted to the Deputy Director General of Health Services (Public Health Services) I and the Chief Epidemiologist.

Compiled by Dr. H. A. Shanika Rasanjalee of the Epidemiology Unit
**Table 1: Selected notifiable diseases reported by Medical Officers of Health 02nd – 08th Aug 2014 (32nd Week)**

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<th>Kandy</th>
<th>Nuwara Eliya</th>
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Notes:
- **A**: Cases reported during the current week.
- **B**: Cumulative cases for the year.
Table 2: Vaccine-Preventable Diseases & AFP

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<tr>
<th>Disease</th>
<th>No. of Cases by Province</th>
<th>Number of cases during current week in 2014</th>
<th>Number of cases during same week in 2013</th>
<th>Total number of cases to date in 2014</th>
<th>Total number of cases to date in 2013</th>
<th>Difference between the number of cases to date in 2013 &amp; 2014</th>
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</table>

Key to Table 1 & 2

Data Sources:

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH.

Dengue Prevention and Control Health Messages
Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them.