

# WEEKLY EPIDEMIOLOGICAL REPORT

# A publication of the Epidemiology Unit Ministry of Healthcare and Nutrition

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### 22<sup>nd</sup> – 28<sup>th</sup> August 2009

Guidelines on immunization of live attenuated JE vaccine SA14-14-2 (LJEV) Part 2

#### Storage:

LJEV should be stored and transported in a temperature between 2 and 8  $^{\circ}$  C and should be protected from sun light. Hence this vaccine should NEVER be stored in the freezer compartment and should preferably be kept in the middle shelf of the main compartment of the refrigerator with the diluent in all places storing the vaccine including MOH offices.

While transporting the vaccine, vials should NOT be kept in contact with ice in vaccine carriers / flasks and during clinic sessions vaccine vials should NOT be kept in contact with ice.

If the vaccine is not used immediately after reconstitution, it should be stored at  $2^{\circ}$ C to  $8^{\circ}$ C not longer than 2 hours and away from light. After 2 hours it should be discarded.

#### Injection safety:

At present only auto-disable (AD) syringes are used in the National Immunization Programme in the country. Therefore, administration of live JE vaccine will be carried out using AD syringes and used syringes should be discarded to safety boxes.

#### Vaccine accountability:

LJEV vials are presented as 5 dose vials. Therefore, measures should be taken at immunization clinics whenever possible to open a vaccine vial when a group of five eligible children are identified. Each vial of vaccine is accountable and any significant wastage should be clearly documented, and reported to both Epidemiology Unit and RDHS.

Role of MOH in the introduction of LJEV into the National Immunization Programme

- Training of MOH staff on introduction of LJEV
- Creating public awareness regarding the LJEV by organizing public education programmes
- Timely requisition of adequate vaccine stocks for the area, supervision of storage, transport of vaccines and maintenance of cold chain
- Timely requisition of adequate stocks for the area, identifying mechanisms for disposal of AD syringes and sharp waste for the area and monitoring the implementation and sustenance of the activity
- Screening and excluding children for whom offering the LJEV is contra indicated
- Monitoring vaccines for immediate AEFI and initiating appropriate actions

- Monitoring and supervision of immunization coverage, vaccine wastage and reporting of AEFI at MOH level with regard to LJEV quarterly, according to the quarterly EPI return for the area and taking corrective measures when required.
- Monitoring of record keeping at clinic level and MOH level
- Monitoring timeliness of EPI returns sent from MOH office to RDHS/RE
- MOH is responsible for vaccine management accountability.

#### Role of Public Health Nursing Sister Supervisory Public Health Midwife in the introduction of live JE vaccine to the National Immunization Programme.

- Training of PHMM on LJEV
- Education of the public regarding the LJEV
- Monitoring and supervision of maintenance of cold chain and proper storage of vaccine stocks
- Supervision and organization of immunization clinics to facilitate administration of LJEV
- Supervision of disposal of sharps waste in the area with regard to AD syringes and other injection materials
- Monitoring of immunization coverage, vaccine wastage, AEFI with regard to LJEV at Clinic/ PHM level and MOH level
- Monitoring recruitment of backlog recipients of 2007,2008 and 2009 for vaccination with LJEV by the field staff
- Monitoring and supervision of record keeping at clinic level and MOH level
- Accurate, timely compilation of EPI data at MOH level

# Role of Public Health Midwife in the introduction of live JE vaccine to the National Immunization Programme.

- Education of the public on LJEV
- Maintenance of cold chain during transport of vaccines and clinic sessions
- Providing immunization and monitoring vaccines for immediate AEFI at the clinic level
- Enforcing vigilance and providing personal attention to prevent dropouts from immunization and to detect AEFI with regard to live JE vaccine
- and Safety assurance of the sharps waste disposal activity in the immunization clinics

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- Recruitment of current and backlog recipients of 2007,2008 & 2009 for vaccination with LJEV
- Maintenance of accurate records regarding all immunization at clinic level especially on live JE vaccination: Birth and Immunization Register, Clinic Immunization Register, Clinic AEFI Register, Part A/B of CHDR, Clinic Summary, Quarterly MCH Clinic Return

# Role of Regional Epidemiologist/ MO-MCH in the introduction of live JE vaccine to the National Immunization Programme.

- Conduct of district training programmes for MOH and hospital staff at district level and active participation, coordination and supervision of training programmes at MOH level
- Estimation of required stocks of LJEV for the district
- Close monitoring of requisition of LJEV, vaccine storage and maintenance of cold chain at Regional Drug Stores and at MOH level
- Close supervision of vaccine and AD syringes supply in the region
- Overall supervision of mechanisms developed in the region for disposal of AD syringes and sharp waste
- Close monitoring and supervision of immunization coverage and vaccine wastage quarterly and reporting of AEFI monthly with regard to live JE vaccine

# Role of Heads of Health Institutions in the introduction of live JE vaccine to the National Immunization Programme.

- Timely requisition of adequate vaccine stocks and AD syringes for the immunization clinic
- Close monitoring of vaccine storage and maintenance of cold chain at the institutional level
- Close supervision of vaccine and AD syringe supply to the clinic
- Overall monitoring of immunization coverage, vaccine wastage and AEFI with regard to live JE vaccination at hospital level
- Overall monitoring and supervision of record keeping at hospital level
- Officer in charge of the EPI clinics is responsible and accountable for vaccine management. Each vial of vaccine is accountable and any significant wastage should be clearly documented and reported to both Epidemiology Unit and RDHS.

# Role of Officer In-Charge/ Regional Medical Supply Division (RMSD) in the introduction of live JE vaccine to the National Immunization Programme.

- Timely request of adequate vaccine stocks and AD syringes for the district
- Timely distribution of vaccines and AD syringe to MOH and medical institutions
- Maintenance of cold chain for vaccine during storage at RMSD and transport
- Preparation of correct monthly stock return for the district
- OIC RMSD is totally responsible and accountable for vaccine management at the RMSD. Each vial of vaccine is accountable and any significant wastage should be clearly documented, and reported to both Epidemiology Unit and RDHS. OIC RMSD will be held responsible for any losses due to unacceptable reasons.

#### **Records and returns**

With the replacement of killed JE vaccine with the LJEV in the National Immunization Programme, it is very important and vital to monitor the coverage of JE immunization and AEFI very closely. This could be done using the same returns and records used in the EPI programme. It is very important to collect, enter, consolidate and forward accurate and quality data on time.

#### Registers and returns used

- ☑ Child Health Development Record (CHDR)
- ☑ Clinic Immunization Register
- ☑ Clinic Summary
- 🗹 Clinic AEFI Register

- ☑ Birth and Immunization Register
- Quarterly MCH clinic Return
- ☑ Quarterly EPI Return
- Monthly Surveillance Report on AEFI (AEFI Form 2)
- ☑ Notification Form on AEFI (AEFI Form 1)
- ☑ Adverse Events Following Immunization (AEFI)case investigation form (AEFI Form 3)
- ☑ Monthly stock return of vaccines
- ☑ Vaccine Movement Register
- ☑ Clinic Vaccine Movement Register

#### Monitoring and Evaluation

Close monitoring and evaluation of live JE immunization programme from its initiation is important for sustenance of the programme. Monitoring of live JE immunization coverage, vaccine wastage and adverse events reported following live JE immunization should be done at MOH level by MOH and PHNS and at district level by RE and MO/MCH. Epidemiology Unit will be responsible for monitoring at the national level as for other EPI antigens.

#### Monitoring of live JE immunization coverage

Monitoring of live JE vaccine coverage will be incorporated in to the routine immunization monitoring mechanism, the quarterly EPI return as soon as the vaccine is introduced. Special inputs to improve coverage have to be provided by responsible monitoring authorities for areas with poor coverage of live JE immunization. At national level, analysis of live JE immunization coverage will be dealt with to monitor the progress of the activity in its early years. This indicator will be important to assess the progress of the programme.

#### Monitoring of live JE vaccine wastage

- It is important to monitor the wastage and to implement strategies to minimize it at all levels concerned.
- The routine immunization monitoring tool of EPI, The quarterly EPI return will be used to monitor the wastage of live JE vaccine. It is therefore important that reliable and accurate data is provided through the quarterly EPI return.
- Assessment of causes for vaccine wastage at each MOH level is important as these vary widely between different settings. Strategies for reducing wastage could then be designed accordingly.

#### Possible causes for high vaccine wastage

- Breakdown of cold chain or inadequacy of cold chain maintenance system
- Freezing of vaccines
- Poor monitoring of proper vaccine movement between MOH office and immunization clinics

# Minimizing Vaccine Wastage at Outreach Immunization Clinics

- MOH should identify an officer at each individual outreach immunization clinic to be responsible for proper vaccine movement at individual clinic level
- Vaccine Movement Register should be rigidly maintained to monitor the flow of vaccines in each outreach immunization clinic
- Only correct amounts of vaccine stocks should be sent to the outreach clinics based on the expected and estimated number of children to be vaccinated

#### **Monitoring of Immunization Safety**

Live JE vaccine is safe. A list of possible minor adverse events that could occur following immunization of this vaccine has been mentioned above. All adverse events associated with live JE vaccine reported by mothers and public should be reported by field health workers using the Monthly AEFI Return. All field health officers should specifically inquire about AEFI following the previous immunization from mothers at the next immunization session.

(WER team wishes acknowledge the contribution of Dr. Ranjan Wijesinghe, Consultant Epidemiologist, in preparing this article.)

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## Table 1: Vaccine-preventable Diseases & AFP

### 15th-21st August 2009 (34th Week)

22<sup>nd</sup> – 28<sup>th</sup> August 2009

|                            |     |    | No | o. of Cas | es by F | Provinc | е  |    |     | Number<br>of cases                   | Number<br>of cases                | Total                                    | Total                                    | Difference<br>between the<br>number of<br>cases to<br>date in 2009<br>& 2008 |  |
|----------------------------|-----|----|----|-----------|---------|---------|----|----|-----|--------------------------------------|-----------------------------------|--|--|--|--|
| Disease                    | W   | С  | S  | Ν         | E       | NW      | NC | U  | Sab | during<br>current<br>week in<br>2009 | during<br>same<br>week in<br>2008 | number<br>of cases<br>to date in<br>2009 | number<br>of cases<br>to date in<br>2008 |  |  |
| Acute Flaccid<br>Paralysis | 00  | 00 | 00 | 00        | 00      | 00      | 01 | 00 | 00  | 01                                   | 03                                | 50                                       | 67                                       | -25.3%   |  |
| Diphtheria                 | 00  | 00 | 00 | 00        | 00      | 00      | 00 | 00 | 00  | 00                                   | 00                                | 00                                       | 00                                       | -  |  |
| Measles                    | 00  | 00 | 00 | 08        | 01      | 01      | 00 | 00 | 00  | 04                                   | 00                                | 109                                      | 85                                       | +28.2%   |  |
| Tetanus                    | 00  | 00 | 00 | 00        | 00      | 00      | 00 | 00 | 00  | 00                                   | 01                                | 18                                       | 26                                       | -30.8%   |  |
| Whooping<br>Cough          | 00  | 00 | 01 | 01        | 00      | 00      | 00 | 00 | 01  | 03                                   | 01                                | 40                                       | 30                                       | +33.3%   |  |
| Tuberculosis               | 127 | 08 | 10 | 18        | 25      | 44      | 00 | 08 | 08  | 248                                  | 265                               | 6674                                     | 5998                                     | 11.3%  |  |

### Table 2: Newly Introduced Notifiable Disease

#### 15th-21st August 2009 (34th Week)

|               |                             |    | N          | o. of Ca   | ses by             | Provin             | се         |    |                    |  |   |   |   |  |  |
|---------------|-----------------------------|----|------------|------------|--------------------|--------------------|------------|----|--------------------|--|---|---|---|--|--|
| Disease       | W                           | С  | S          | N          | E                  | NW                 | NC         | U  | Sab                | Number<br>of cases<br>during<br>current<br>week in<br>2009 | Number<br>of cases<br>during<br>same<br>week in<br>2008 | Total<br>number<br>of cases<br>to date in<br>2009 | Total<br>number<br>of cases<br>to date in<br>2008 | Difference<br>between the<br>number of<br>cases to<br>date in 2009<br>& 2008 |  |
| Chickenpox    | 17                          | 17 | 14         | 66         | 08                 | 07                 | 04         | 04 | 07                 | 144  | 95  | 11800   | 3640  | +224.2%  |  |
| Meningitis    | 20<br>GM=4<br>CB=2<br>KL=14 | 00 | 02<br>GL=2 | 01<br>VU=1 | 02<br>TR=1<br>KM=1 | 10<br>KR=3<br>PU=7 | 02<br>PO=2 | 00 | 12<br>RP=7<br>KG=5 | 49   | 13  | 739   | 919   | -19.6%   |  |
| Mumps         | 07                          | 05 | 05         | 05         | 09                 | 03                 | 03         | 04 | 07                 | 48   | 72  | 1282  | 1914  | -33.0%   |  |
| Leishmaniasis | 00                          | 00 | 05<br>MT=5 | 01<br>VU=1 | 00                 | 00                 | 02<br>AP=2 | 00 | 00                 | 08   | Not<br>available*                                       | 505   | Not<br>available*                                 | -  |  |

#### Key to Table 1 & 2

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

CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna,

**DPDHS Divisions:** 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:

Provinces:

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

Special Surveillance: Acute Flaccid Paralysis.

Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008.

#### Table 4: Surveillance of Communicable diseases among IDP's 15th-21st August 2009 (34th Week)

| Area Disease | Dysentery | Enteric fever | Viral<br>Hepatitis | Chicken Pox | Watery<br>Diarrhoea |
|--------------|-----------|---------------|--------------------|-------------|---------------------|
| Vavunia      | 0         | 13            | 6                  | 6           | -                   |
| Chendikulam  | 41        | 20            | 34                 | 255         | 513                 |
| Total        | 41        | 33            | 40                 | 261         | 513                 |

## Table 4: Selected notifiable diseases reported by Medical Officers of Health

15th-21st August 2009 (34th Week)

| DPDHS<br>Division | Dengue<br>Fever / DHF* |       | Dysentery |      | Encephali<br>tis |     | Enteric<br>Fever |      | Food<br>Poisoning |      | Leptospiros<br>is |      | Typhus<br>Fever |     | Viral<br>Hepatitis |      | Human<br>Rabies |    | Returns<br>Received<br>Timely** |
|-------------------|------------------------|-------|-----------|------|------------------|-----|------------------|------|-------------------|------|-------------------|------|-----------------|-----|--------------------|------|-----------------|----|---------------------------------|
|                   | А                      | В     | А         | В    | А                | В   | А                | В    | А                 | В    | А                 | В    | А               | В   | А                  | В    | A               | В  | %                               |
| Colombo           | 78                     | 3210  | 4         | 144  | 0                | 9   | 9                | 137  | 3                 | 45   | 19                | 391  | 0               | 5   | 4                  | 86   | 0               | 4  | 85                              |
| Gampaha           | 88                     | 3043  | 0         | 112  | 0                | 18  | 1                | 32   | 0                 | 13   | 13                | 217  | 0               | 7   | 8                  | 100  | 0               | 2  | 80                              |
| Kalutara          | 18                     | 1222  | 3         | 255  | 2                | 11  | 0                | 45   | 0                 | 43   | 2                 | 170  | 0               | 1   | 7                  | 62   | 0               | 2  | 92                              |
| Kandy             | 90                     | 3412  | 2         | 210  | 1                | 6   | 1                | 23   | 0                 | 54   | 0                 | 160  | 3               | 125 | 5                  | 85   | 0               | 0  | 84                              |
| Matale            | 40                     | 1339  | 0         | 82   | 0                | 2   | 0                | 26   | 0                 | 6    | 3                 | 282  | 0               | 5   | 2                  | 52   | 0               | 2  | 92                              |
| Nuwara Eliya      | 5                      | 209   | 4         | 343  | 0                | 2   | 1                | 147  | 0                 | 786  | 0                 | 30   | 1               | 57  | 3                  | 63   | 0               | 0  | 100                             |
| Galle             | 15                     | 455   | 3         | 179  | 0                | 10  | 0                | 3    | 18                | 40   | 4                 | 116  | 1               | 9   | 2                  | 24   | 0               | 3  | 84                              |
| Hambantota        | 11                     | 747   | 0         | 68   | 0                | 8   | 0                | 6    | 0                 | 11   | 2                 | 56   | 3               | 61  | 0                  | 37   | 0               | 0  | 82                              |
| Matara            | 31                     | 946   | 4         | 213  | 0                | 4   | 1                | 5    | 0                 | 16   | 4                 | 110  | 2               | 98  | 5                  | 45   | 0               | 1  | 100                             |
| Jaffna            | 0                      | 11    | 1         | 83   | 0                | 3   | 0                | 194  | 0                 | 28   | 0                 | 0    | 0               | 124 | 0                  | 151  | 0               | 2  | 13                              |
| Kilinochchi       | 0                      | 0     | 0         | 0    | 0                | 0   | 0                | 0    | 0                 | 0    | 0                 | 0    | 0               | 0   | 0                  | 0    | 0               | 0  | 0                               |
| Mannar            | 0                      | 4     | 8         | 68   | 0                | 1   | 0                | 88   | 0                 | 4    | 0                 | 0    | 0               | 0   | 1                  | 51   | 0               | 0  | 75                              |
| Vavuniya          | 2                      | 19    | 8         | 1418 | 0                | 21  | 48               | 285  | 0                 | 2    | 0                 | 3    | 0               | 2   | 36                 | 3399 | 0               | 0  | 75                              |
| Mullaitivu        | 0                      | 0     | 0         | 2    | 0                | 0   | 0                | 1    | 0                 | 0    | 0                 | 0    | 0               | 0   | 0                  | 0    | 0               | 0  | 0                               |
| Batticaloa        | 6                      | 496   | 12        | 204  | 0                | 12  | 1                | 12   | 0                 | 50   | 0                 | 9    | 0               | 2   | 0                  | 17   | 0               | 4  | 82                              |
| Ampara            | 3                      | 206   | 1         | 33   | 0                | 0   | 1                | 11   | 0                 | 8    | 1                 | 10   | 0               | 2   | 3                  | 23   | 0               | 0  | 100                             |
| Trincomalee       | 0                      | 316   | 1         | 79   | 0                | 2   | 1                | 5    | 0                 | 1    | 0                 | 17   | 0               | 19  | 1                  | 36   | 0               | 1  | 70                              |
| Kurunegala        | 68                     | 2326  | 8         | 136  | 1                | 9   | 3                | 50   | 0                 | 9    | 6                 | 82   | 0               | 62  | 11                 | 108  | 0               | 4  | 95                              |
| Puttalam          | 13                     | 512   | 4         | 120  | 0                | 7   | 1                | 62   | 0                 | 2    | 2                 | 68   | 0               | 31  | 3                  | 26   | 0               | 1  | 100                             |
| Anuradhapur       | 7                      | 488   | 3         | 84   | 0                | 4   | 0                | 5    | 0                 | 20   | 1                 | 81   | 0               | 28  | 12                 | 146  | 0               | 2  | 74                              |
| Polonnaruwa       | 5                      | 137   | 8         | 37   | 0                | 2   | 0                | 20   | 0                 | 6    | 0                 | 55   | 0               | 9   | 1                  | 50   | 0               | 0  | 86                              |
| Badulla           | 3                      | 248   | 10        | 195  | 0                | 2   | 0                | 33   | 0                 | 19   | 1                 | 73   | 1               | 89  | 6                  | 257  | 0               | 1  | 80                              |
| Monaragala        | 4                      | 133   | 2         | 69   | 0                | 1   | 0                | 23   | 0                 | 12   | 0                 | 13   | 0               | 54  | 1                  | 73   | 0               | 1  | 91                              |
| Ratnapura         | 51                     | 1712  | 13        | 395  | 1                | 19  | 1                | 43   | 3                 | 8    | 6                 | 194  | 0               | 30  | 3                  | 106  | 0               | 1  | 72                              |
| Kegalle           | 70                     | 3283  | 8         | 132  | 0                | 7   | 1                | 34   | 0                 | 6    | 4                 | 148  | 2               | 25  | 5                  | 168  | 0               | 1  | 82                              |
| Kalmunai          | 1                      | 155   | 0         | 78   | 0                | 1   | 0                | 13   | 0                 | 3    | 0                 | 2    | 0               | 3   | 0                  | 15   | 0               | 0  | 69                              |
| SRI LANKA         | 609                    | 24629 | 107       | 4739 | 05               | 161 | 70               | 1303 | 24                | 1192 | 68                | 2287 | 13              | 848 | 119                | 5180 | 0               | 32 | 81                              |

Source: Weekly Returns of Communicable Diseases WRCD).

\*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever. \*\*Timely refers to returns received on or before 21<sup>st</sup> August, 2009 Total number of reporting units =311. Number of reporting units data provided for the current week: 252

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

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