



Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

JAN 15 2021

ADMINISTRATIVE ORDER

No. 2020-0009

2021

SUBJECT: Guidelines for the Establishment of Dengue Centers of Excellence (COEs) in Tertiary Hospitals

I. RATIONALE

Dengue has been recognized as a major public health concern, both globally and nationally. Based on the 2015 Global Burden of Disease Study, the global incidence of Dengue increased from 32.7 million in 2005 to 79.6 million in 2015. Currently, the cumulative number of reported Dengue cases within the Philippines from January 1, 2019 to December 31, 2019 was determined at 430,282 including 1,612 deaths, with a Case Fatality Rate (CFR) of 0.37%.

The Department of Health (DOH), in collaboration with the World Health Organization (WHO), conducted a capacity building mission in 2018 with the primary aim of reducing CFR to 0.1% over the next four (4) years. The said capacity building mission was able to identify several gaps in clinical management of Dengue such as insufficient monitoring of Dengue patients, lack of a special Dengue clinical case report form, lack of standardized mortality review forms, detailed hospital-based and central audits of mortality cases, absence of bed-side access to ultrasonography and hematocrit measurements for early detection of capillary leakage. Hence, several recommendations were made including the establishment of Dengue Centers of Excellence (COEs) in tertiary hospitals wherein the goal of the centers are to improve the clinical management of Dengue and reduce the case fatality rate below 0.1% within a 5-year period, which can later be translated into better health service delivery.

For this pilot implementation, seven (7) tertiary hospitals were identified to pilot the implementation of COE based on service capability, strategic location, manpower complement and the willingness to be part of the project. The following hospitals identified are:

1. Jose B. Lingad Memorial Regional Hospital
2. National Children's Hospital
3. Philippine Children's Medical Center
4. San Lazaro Hospital
5. Southern Philippines Medical Center
6. University of the Philippines- Philippine General Hospital
7. Vicente Sotto Memorial Medical Hospital

The COEs aim to improve the management of Dengue in terms of absorptive capacity, equipment, and human resources. Ultimately, the COE is expected to transition into a facility that is capable of conducting research; generating evidence-based best practices; recommending policies; proposing clinical health advocacies; and providing capacity-building and technical support for its health facility referral network.

This is in line with Priority 8 of the ASEAN Health Cluster 2, which is the prevention and control of communicable diseases, emerging infectious diseases and neglected tropical diseases; and Administrative Order 2020-0019: Guidelines on the Service Delivery Design of Health Care Provider Networks to ensure that the continuum of care is delivered through a

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people-centered and integrated health system. This policy aims to contribute and strengthen the clinical management of Dengue to complement the existing public health measures such as vector control and health promotion.

II. OBJECTIVES

- A. To provide policy direction in the development of standards in the establishment of Dengue COEs.
- B. To define the role of the tertiary hospitals identified as COEs in providing clinical management of Dengue cases in the country

III. SCOPE OF APPLICATION

This Order covers the establishment of Dengue Centers of Excellence in identified pilot site tertiary hospitals specifically, Jose B. Lingad Memorial Regional Hospital, National Children's Hospital, Philippine Children's Medical Center, San Lazaro Hospital, Southern Philippines Medical Center, University of the Philippines- Philippine General Hospital, Vicente Sotto Memorial Medical Hospital, Offices, Bureaus and Services of the DOH, including the Centers for Health Development (CHD), attached agencies, Local Government Units (LGUs) and other agencies, upon concurrence by these agencies' respective governing boards.

IV. DEFINITION OF TERMS

- A. **Dengue Center of Excellence (COE)** - is a tertiary health facility that can provide services, leadership, health advocacy, training, best practices, research, health policy recommendations, and technical support for the clinical management of Dengue cases.
- B. **Dengue Specialized Unit (DSU)** - shall be a specialized area, operating within a Dengue COE, with the exclusive purpose of provision of care to patients suffering from Dengue WITH warning signs, Dengue WITHOUT warning signs, Severe Dengue and Dengue-related cases
- C. **Level 3 or tertiary hospital** - shall have as minimum all of Level 2 capacity, including but not limited to the following: teaching and/or training hospital with at least two (2) accredited residency training programs for physicians in any medical/surgical specialty and/or subspecialty; provision for a Physical Medicine Rehabilitation Unit (PMRU); Provision for ambulatory surgical clinic (ASC) in the outpatient department or designate one of its major operating rooms in the OR complex solely for elective day surgeries; Provision for a dialysis facility - hemodialysis or peritoneal dialysis or both.

V. GENERAL GUIDELINES

- A. A Dengue COE shall be determined by DOH, with adherence to the highest standards of healthcare delivery, patient safety, and compliance to statutory laws and requirements set forth by the Department.
- B. A Dengue COE shall be a tertiary hospital operating a DSU with expertise in the provision of care particular, but not limited, to Dengue WITH warning signs, Severe Dengue and Dengue-related cases with complications.
- C. The selection criteria for a Dengue COE shall be based on the number of patients that are admitted as per clinical impression and diagnosis within hospitals, health centers, clinics or any private health facilities, the absorptive capacity and service capability of the hospital as a tertiary hospital. The current capability of the hospital to deal with surge capacity as stipulated in Department Memorandum No. 2019-0317: Guidelines in the Management of Surge

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Capacity during Dengue Epidemic, and availability of trained medical and allied health staff that are well-versed in the clinical management of Dengue and Dengue-related cases.

- D. The Dengue COE shall possess a diverse and efficient referral system that would enable a multispecialty approach to clinical Dengue case management. Patients shall be referred to pertinent specialties that include, but not limited to, cardiology, pulmonology, neurology, infectious diseases, pediatrics, surgery, and the like.
- E. The Dengue COE shall have access to quality diagnostic tests from the Dengue COE hospital's laboratory. The minimum turn-around time for laboratory and other diagnostic procedures shall be observed. Likewise, an efficient referral system to other institutions shall be in place if the hospital diagnostic areas are incapable of a particular procedure.
- F. As a Dengue COE, the hospital shall be responsible for coordinating with other public health facilities, through the inter-local health zones for monitoring and recording of admitted Dengue WITH warning signs, Dengue WITHOUT warning signs, Severe Dengue and Dengue-related cases. They shall be guided by Republic Act No. 11332: Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern.
- G. The DOH shall conduct an annual/bi-annual review of the performance and operation of the identified Dengue COEs, subject to the auditing rules by the Department, as deemed necessary.

VI. SPECIFIC GUIDELINES

A. Establishment of Dengue Center of Excellence (COE)

1. Development

The Dengue COE shall undergo four (4) phases of development as follows:

| Phase | Objective | Inclusion/Deliverables | Proposed Timeline |
|---------|---|--|-------------------|
| Phase 1 | Enhancement of service delivery component | <ul style="list-style-type: none"> a. Providing necessary resources such as equipment, facility renovation/enhancement, medical supplies and medicines (i.e. colloids), and human resource complement b. Establishment of a DSU c. Implementing standardized Outpatient Department (OPD) triaging d. Developing hospital referral linking (including back linking) e. Ensuring that the blood bank is capable of providing blood components and blood products all the time f. Establishing 24/7 helpline for the management of difficult cases g. Developing a rapid response team for outbreak mitigation (hospital medical support team) | 2020-2021 |
| | Development as Training Center | <ul style="list-style-type: none"> a. Providing and identifying necessary resources b. Coordinating with the academe, medical societies, Commission on Higher Education (CHED), etc. c. Developing standardized training programs | 2020-2021 |

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| | | d. Capacitation of master trainers e. Offering regular trainings | |
| Phase 2 | Conduct of research & technology transfer | a. Providing a supportive and conducive environment for research b. Establishing a laboratory specifically for Dengue research with available records (e.g. patient charts) and adequate staff. | 2021-2022 |
| Phase 3 | Act as Information Center | a. Establishing a state-of-the-art communication center that is capable and knowledgeable in handling Dengue and Dengue-related cases b. Capacity to generate data analysis and synthesis from research efforts c. Serves as the central hub of dengue- related data | 2022-2023 |
| Phase 4 | Health Policy Advocacy | Cascading of information through proper protocols and regulations for the reference of other health service facilities included in the referral network, especially primary care facilities to further strengthen existing preventive Dengue protocols. | 2023-2024 |

2. Components

| Components | Functions and Minimum Standards |
|-----------------------------------|---|
| National Referral Hospital | <ul style="list-style-type: none"> a) Tertiary hospital with expertise in the clinical management of Dengue and Dengue-related cases, especially the severe and fatal types. b) Composed of medical and allied health staff trained in the early recognition and appropriate clinical management of Dengue and its complications. c) Medical equipment, diagnostic technologies and treatment modality are of global-standard, consistent with the highest level of care required for all cases of Dengue d) Establishment of a DSU within the Dengue COE, wherein the management of Dengue WITH warning signs, Severe Dengue and Dengue-related cases with complications |
| Training Center | <ul style="list-style-type: none"> a) Conduct of specialized training in Dengue management for medical and allied health professionals b) Conduct of specialized training for the formation of a dedicated Dengue COE and DSU staff c) Conduct of information campaigns and seminars regarding Dengue prevention and control in susceptible communities d) Conduct of trainings for rapid response during Dengue outbreaks |
| Research Center | <ul style="list-style-type: none"> a) Analysis of monitoring and surveillance data on admitted cases of Dengue and Dengue-related cases b) Conduct of clinical Dengue research activities including local and international collaborative research c) Active publication of research findings on Dengue |

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| Health Policy Advocacy | Collaborate with the national government, the DOH, and WHO in health policy formulation and development such as updating of CPGs, revision of Dengue clinical management for adults and pediatrics, or updating of triage practices. |
| Reference Center | <ul style="list-style-type: none"> a) Spearhead the development and continuous improvement of national CPGs for Dengue b) Collaborate as technical experts for the development of national guidelines for rapid response during Dengue outbreaks c) Serve as a repository for atypical and unique forms of Dengue and Dengue-related cases |
| Networking | <ul style="list-style-type: none"> a) A highly developed intra- and inter-hospital networking and referral system for clinical Dengue case management. b) Collaborate with ASEAN countries for exchanges of expertise and best practices on the clinical management of Dengue and Dengue-related cases |

B. Establishment of Dengue Specialized Unit (DSU)

1. Standards

a. Physical Facility

The DSU shall have physical facilities that are in accordance with global standards, promoting patient safety and utmost efficiency in the provision of care for patients suffering from severe or fatal types of Dengue and Dengue-related cases. The DSU shall also promote ease of workflow for the dedicated medical and allied health staff.

b. Personnel

The DSU shall be supervised by competent and trained medical and allied health staff that are well-versed in the clinical management of severe or fatal types of Dengue and Dengue-related cases.

c. Equipment and medical supplies

The DSU shall be equipped/provided with the necessary and dedicated equipment and medical supplies to handle the complexity of its intended function and workload.

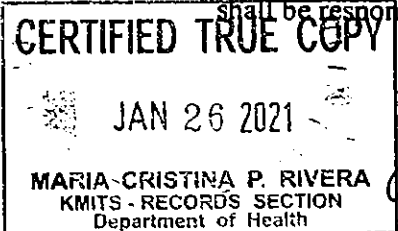
d. Service Delivery

The DSU shall be a specialized area, operating within a Dengue COE, with the exclusive purpose of provision of care to patients suffering from severe or fatal types of Dengue and Dengue-related cases. It shall provide a multispecialty approach handled by a competent DSU staff and an organized assessment and referral system.

Likewise, the DSU shall be supported by a tertiary level laboratory and blood bank services, with Memorandum of Agreement (MOAs) with other institutions for performance of otherwise unavailable special diagnostics or procedures.

C. Continuous Quality Monitoring

The Dengue COE shall conduct continuous quality improvement monitoring activities and shall be responsible for establishing a quality assurance program.



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Furthermore, the Dengue COE shall be subjected to the auditing rules by the DOH. An annual/bi-annual review on the performance and operation shall be spearheaded by the DOH-National Dengue Prevention and Control Program (NDPCP) to evaluate its continuous certification into the COE status.

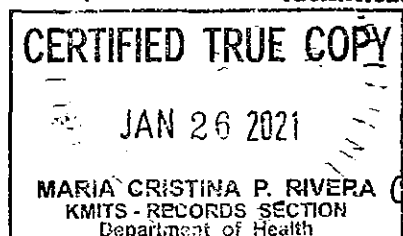
D. Data Management

The Dengue COE shall be responsible for coordinating, monitoring, surveillance and reporting of Dengue and Dengue-related cases within their inter-local health zones, and shall participate in the continuing improvement of monitoring and surveillance of notifiable diseases by the DOH as stated in the RA 11332 otherwise known as the "Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act".

A Dengue COE shall act as a knowledge repository for clinical management data and shall actively perform data analysis and synthesis, supported by a highly developed information technology and efficient record management systems.

VII. ROLES AND RESPONSIBILITIES

- A. Bureau of International Health Cooperation (BIHC)** – shall identify relevant collaborating centers in ASEAN and international health partner agencies for expertise training, technical and financial assistance on this initiative
- B. Centers for Health Development** – shall provide supervisory oversight on the functions of the tertiary hospitals identified as a COE
- C. Disease Prevention and Control Bureau (DPCB)** - shall provide policy directions and technical assistance in the development of Dengue COEs, strengthen public health programs to improve the provision of Dengue and Dengue-related health care services in the primary and community levels and perform monitoring and evaluation of the Dengue COEs.
- D. Epidemiology Bureau (EB)** – shall take charge as the head of the monitoring and surveillance activities and shall serve as the repository of epidemiological information based on the collected data from Dengue and Dengue-related cases admitted to the Dengue COEs in addition to the routinely collected surveillance data on Dengue.
- E. Field Implementation and Coordination Team (FICT)** - shall provide guidance and oversight to the selected CHDs whose regions include an identified tertiary hospital for Dengue COEs
- F. Health Promotion and Communication Service (HPCS)**- shall be responsible for raising public awareness about the services offered within the Dengue COEs and shall conduct thematic advocacy campaigns for various Dengue activities.
- G. Health Facilities Development Bureau (HFDB)** – shall provide technical assistance in developing the guidelines for the establishment of Dengue COEs including the identification of standard/criteria for designating a hospital as a COE.



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H. Health Facilities Enhancement Program (HFEP)- shall ensure that the funding for the infrastructure and equipment of the identified tertiary hospitals shall be included in the HFEP until the target years of completion of the Dengue COEs.

I. Tertiary hospitals identified as COEs- shall lead and guide the surrounding district hospitals and shall continuously provide technical assistance and capacity building activities for health human resources regarding the clinical management of Dengue and Dengue-related cases. They shall also coordinate with their respective CHDs and LGUs in leading and guiding the surrounding district hospitals.

VIII. FINANCING AND SUSTAINABILITY

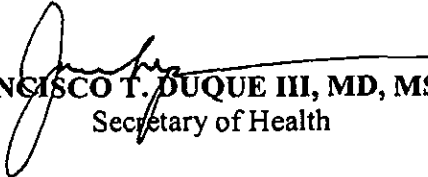
The DOH shall provide funding for the establishment and operation of Dengue COEs until Phase 4 of its development has been achieved in year 2024 while its sustainability in the following years shall be carried by the tertiary hospitals through a Business Plan. The DOH and the tertiary hospitals identified as COE may tap other NGAs and International Health Partners or enter into private sector engagements in order to augment funding for the establishment and operation of Dengue COEs.

IX. REPEALING CLAUSE

Provisions in previous issuances inconsistent and contrary to this Administrative Order are hereby repealed, revised, or modified accordingly.

X. EFFECTIVITY CLAUSE

This Administrative Order shall take effect fifteen (15) days after publication to an official gazette or a newspaper of general circulation


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Secretary of Health

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