Republic of the Philippines
Department of Education
REGION VII – CENTRAL VISAYAS
Division of City Schools – Tagbilaran City

Office of the Schools Division Superintendent

DIVISION MEMORANDUM
No. 263 , s. 2020

November 3, 2020

ADVISORY ON THE IMPLEMENTATION OF THE MEDICAL- NURSING SERVICES AND THE ADOLESCENT REPRODUCTIVE HEALTH PROGRAM FOR SY 2020-2021

TO: All Public Elementary and Secondary School Principals
School Health and Nutrition Personnel
All Others Concerned

1. This Office hereby disseminates OUA MEMO 00-1020-0198 dates October 19, 2020 entitled " Advisory on the Implementation of the Medical-Nursing Services and the Adolescent Reproductive Health Program for SY 2020-2021" for the information and guidance of all concerned.

2. Attached herewith are the following:

   a. OUA Memo 00-1020-0198, "Advisory on the Implementation of the Medical-Nursing Services and the Adolescent Reproductive Health Program for SY 2020-2021"
   b. DOH DM No. 2020-0351, "Interim Guidelines in the Implementation of Human Papillomavirus (HPV) Vaccination amid COVID-19 Pandemic"
   c. DOH DM No. 2020-0341. "Interim Guidelines on Continuous Provision of Adolescent Health Services During the COVID-19 Pandemic"
   d. DOH DM. No. 2020-0237, "Interim Guidelines for the Delivery of Nutrition Services in the Context of COVID-19 Pandemic"
   e. DOH DC No. 2020-0167, "Continuous Provision of Essential Health Services During the COVID-19 Pandemic"

3. Wide dissemination and strict compliance of this memorandum is desired.

JOSEPH IRWIN A. LAGURA, Ph D
Schools Division Superintendent
Office of the Schools Division Superintendent

Address: Dampas District, Tagbilaran City, Bohol
Telephone Nos.: (038)427-1702; (038)427-2506; (038)422-8177; (038)427-6718; (038)544-2147
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Republic of the Philippines
Department of Education
REGION VII - CENTRAL VISAYAS

Office of the Regional Director

OCT 26 2020

REGIONAL MEMORANDUM
No. **0527** , s. 2020

ADVISORY ON THE IMPLEMENTATION OF THE MEDICAL-NURSING SERVICES AND THE ADOLESCENT REPRODUCTIVE HEALTH PROGRAM FOR SY 2020-2021

To: Schools Division Superintendents
Assistant Schools Division Superintendents
Schools Health and Nutrition Personnel
School Heads
All Others Concerned

1. This office disseminates to the Schools Division Offices OUA MEMO 00-1020-0198 dated October 19, 2020 entitled, *"Advisory on the Implementation of the Medical-Nursing Services and the Adolescent Reproductive Health Program for SY 2020-2021"* for the information and guidance of all concerned.

2. Attached herein are the following:

   a. OUA Memo 00-1020-0198, *"Advisory on the Implementation of the Medical-Nursing Services and the Adolescent Reproductive Health Program for SY 2020-2021"*
   b. DOH DM No. 2020-0351, *"Interim Guidelines in the Implementation of Human Papillomavirus (HPV) Vaccination amid COVID-19 Pandemic"*
   c. DOH DM No. 2020-0341, *"Interim Guidelines on Continuous Provision of Adolescent Health Services During COVID-19 Pandemic"*
   d. DOH DM No. 2020-0237, *"Interim Guidelines for the Delivery of Nutrition Services in the Context of COVID-19 Pandemic"*
   e. DOH DC No. 2020-0167, *"Continuous Provision of Essential Health Services During the COVID-19 Pandemic"*

3. Widest dissemination and strict compliance of this Memorandum is desired.

SALUSTIANO T. JIMENEZ JD, EdD, CESO V
Director III
OIC-Regional Director

STJ/CAE/ESSD/TTP/RMV

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OUAD00-1020-0198
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Republika ng Pilipinas

Kagawaran ng Edukasyon

Tanggapan ng Pangalawang Kalihim

OUA MEMO 00-1020-0198
MEMORANDUM
19 October 2020

To: **Regional Directors and BARMM Education Minister**
Schools Division Superintendents
School Heads

Subject: **ADVISORY ON THE IMPLEMENTATION OF THE MEDICAL-NURSING SERVICES AND THE ADOLESCENT REPRODUCTIVE HEALTH PROGRAM FOR SY 2020-2021**

Due to the current situation brought about by the COVID-19 pandemic, during which face-to-face classes have been suspended, the implementation of the following School Health Programs for SY 2020-2021 shall be **community-based**, to be **conducted by the Department of Health (DOH).** Concerned personnel at the regional and division offices and schools are **requested to provide necessary support** in the following activities, expected to be completed on or before December 31, 2020:

School Health Program	Expected Roles of the Regional and Division Offices, and Schools in the Community-Based Implementation of the Programs
1. Medical and Nursing Services a. School-Based Immunization Program (SBI) – Measles-Rubella (MR), Tetanus diphtheria (Td) and Human Papillomavirus (HPV) b. Weekly Iron Folic Acid (WIFA) Supplementation	• For the SDOs to provide the needed **Master List of Learners** for SY 2020-2021 to their respective counterpart Local Health Units. The master list shall also serve as the basis for the accomplishment report of the school, and shall be a communal property of both the Local Health Unit and the school • For the Regional and Division Focal Persons to attend **program-related activities organized by the DOH** (e.g., virtual coordination, consultative meetings, orientation, awareness campaigns, etc.) • For the Regional and Division Focal Persons to conduct **health promotion advocacies on the programs** to teachers, parents, and learners utilizing various platforms

c. Integrated Helminth Control Program (IHCP)	• For the Regional and Division Focal Persons Focal Persons to help/facilitate the **transfer of commodities for IHCP and WIFA supplementation** (deworming and iron folic acid tablets) from the schools to local health units
2. Adolescent Reproductive Health (ARH)- Rapid Psychosocial Assessment for Adolescents	• For the SDOs to provide the needed **Master List of Learners** for SY 2020-2021 to their respective counterpart Local Health Units • For the Regional and Division Health Personnel, ARH Coordinators, and teachers to attend **self-paced online trainings** on Adolescent Health Education and Practical Training (ADEPT) and the use of Rapid Psychosocial Assessment Tool accessible at the DepEd Professional Development-Learning Management System (DepEd PD-LMS) • For the Regional and Division Health Personnel, ARH Coordinators, and teachers to attend **program-related activities organized by the DOH** (e.g., virtual coordination, consultative meetings, orientation, awareness campaigns) • For the Regional and Division Health Personnel, ARH Coordinators, and teachers to assist the Local Health Units in the **distribution of self-administered forms**, through the existing mechanisms/platforms set up by the schools for module distribution for Grades 5 to 12. Schools, in coordination with the Local Health Units, can opt to create an online form for their learners. • For ARH Coordinators, health personnel, and teachers to help facilitate the **collection of the printed forms** from the learners upon the return of their modules. The forms shall be a communal property of both the Local Health Unit and the school. • For personnel trained in the use of the Rapid Psychosocial Assessment Tool, ADEPT, and Psychological First Aid (PFA) to assist in the **consolidation and analysis of data**, **conduct PFA** to identified learners in need, if necessary, and refer to proper health care professionals • For ARH Coordinators and health personnel to conduct **health promotion advocacies on the program** to teachers, parents and learners utilizing various platforms

It is emphasized that the participation of DepEd personnel in the implementation of the abovementioned programs shall be on **personal and voluntary capacity**.

Furthermore, the implementation of the SBI, WIFA Supplementation, and IHCP shall be done under the **Fixed Site Administration approach**, stated in the DOH Department Circular No. 2020-0167. Should the health personnel be involved, the Local Health Unit must **ensure the safety and health of the DepEd personnel** by providing the necessary personal protective equipment (PPE), alcohol, sanitizers, and other disinfectants, and implementing stringent physical distancing measures; and paying remuneration or allowances, as may be warranted by law.

The **Data Privacy Act and related policies** of the DOH and DepEd shall be followed in the handling and sharing of data.

The following memoranda issued by DOH to its field coordinators in the implementation of above-mentioned health programs are enclosed for ready reference:

1. **DOH Department Circular No. 2020-0167**- Continuous Provision of Essential Health Services During the COVID-19 Pandemic
2. **DOH Department Memorandum No. 2020-0237**- Interim Guidelines for the Delivery of Nutrition Services in the Context of COVID-19 Pandemic
3. **DOH Department Memorandum No. 2020-0341**- Interim Guidelines on Continuous Provision of Adolescent Health Services during COVID-19
4. **DOH Department Memorandum No. 2020-0351**- Interim Guidelines in the Implementation of Human Papillomavirus (HPV) Vaccination amid COVID-19 Pandemic

For all future correspondence and queries on these School Health Programs, please contact **Ms. Girlie A. Azurin**, Senior Education Program Specialist, SBI Coordinator; **Ms. Ma. Lee L. Alpuerto**, Nurse II, WIFA and IHCP Coordinator; and **Ms. Lien Ivy C. Callado**, HEPO II, ARH Coordinator, Bureau of Learner Support Services-School Health Division, at 02 (8632-9935) and email at blss.shd@deped.gov.ph .

For immediate and appropriate action.

ALAIN DEL B. PASCUA
Undersecretary

OUAD00-1020-0198
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Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

July 28, 2020

DEPARTMENT MEMORANDUM
No. 2020- 0351

TO: **ALL UNDERSECRETARIES AND ASSISTANT SECRETARIES; DIRECTORS OF BUREAUS AND CENTERS FOR HEALTHDEVELOPMENT; MINISTER OF HEALTH - BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO; CHIEFS OF MEDICAL CENTERS, HOSPITALS, SANITARIA AND INSTITUTES; AND ALL OTHERS CONCERNED**

SUBJECT: **Interim Guidelines in the Implementation of Human Papillomavirus (HPV) Vaccination amid COVID-19 Pandemic**

I. BACKGROUND

Following the declaration of the country under the State of Public Health Emergency due to COVID-19 situation, classes are suspended hereby affecting the conduct of school-based immunization services.

In the enforcement of general community quarantine, alternative modes of learning are adopted by schools for children and adolescents to prevent the risk of contracting the virus. Therefore, to mitigate the COVID-19 impact on school-based immunization service and minimize the risk of transmission during vaccination sessions, the Department of Health issues these interim guidelines to ensure that eligible female adolescents are continuously provided the recommended vaccination for Human Papillomavirus (HPV).

II. GENERAL GUIDELINES

A. The recommended vaccinations against Human Papillomavirus (HPV) shall be given to female aged 9-14 years old in health facilities in accordance with immunization guidelines, only if the following conditions are met:
   1. No COVID-19 signs and symptoms, and
   2. No close contact with suspect/probable/confirmed COVID-19 case

   If any of these conditions are not met, the client should be referred to Barangay Health Emergency and Response Team (BHERT) or COVID Task Force in order to navigate the client to the appropriate facility and conduct COVID-19 surveillance in accordance with Department Memorandum No. 2020-0178.

B. Infection, prevention and control (IPC) measures shall be observed at all times.

C. Recording and reporting system of DOH shall be implemented and maintained.

III. SPECIFIC GUIDELINES

A. Immunization service delivery shall include a mix/combination of the following strategies:

   a. HPV vaccination shall be provided at all fixed posts stations located at permanent health facilities such as health centers, rural health units or barangay health stations following the national immunization schedule. This shall be considered as routine dose and be given at the health facilities for the whole day and daily, including weekends and holidays. Immunization services shall be separated from curative services, where acutely ill individuals are more likely to be present (Annex A).

   b. Door-to-door approach may be done when feasible, as per policy of the local government unit. Vaccination may be conducted during house visit by the health care workers/vaccination team (Annex A).

   c. If eligible adolescent cannot be vaccinated during the visit, the team shall conduct a follow-up visit.Special vaccination sessions in temporary posts (barangay halls, basketball courts, social service institutions and multi-purpose halls) may be done in a barangay or clustered barangays.

B. All health personnel shall be adequately protected to carry out their duties safely during the COVID-19 pandemic. Ensure proper compliance with the following IPC measures:
   1. Health care workers should maintain physical distancing of 1-2 meters apart between client (except vaccinator) and client's parents or family members, use surgical masks, use face shields and perform of hand hygiene in between clients using soap and water, if possible, or alcohol-based preparation.
   2. The client and her parent or guardian during vaccination shall also wear face masks and face shields.

C. Health workers shall conduct assessment of eligible adolescents prior to vaccination to determine any contraindications and precautions in accordance with DOH Guidelines in the Implementation of HPV vaccination.

D. Health workers must ensure that those who received the 1st dose of HPV shall be given the 2nd dose after 6 months. An interval no greater than 12-15 months is highly encouraged in order to complete the schedule promptly and before the female adolescent becomes sexually active.

E. If HPV vaccination is not feasible or where the risk assessment is high, immunization may be temporarily suspended and shall be referred to BHERT/COVID Task Force. In instances where immunization is temporarily suspended, healthcare workers shall maintain list of eligible female adolescents who have missed their vaccinations and active catch-up immunization activities shall be implemented as soon as possible once the COVID 19 situation permits.

F. Health workers shall ensure proper storage and handling of vaccines, and observe immunization safety measures at all times. Reporting of adverse events following HPV vaccination shall follow existing DOH Guidelines in Surveillance and Response to Adverse Events Following Immunization (AEFI).

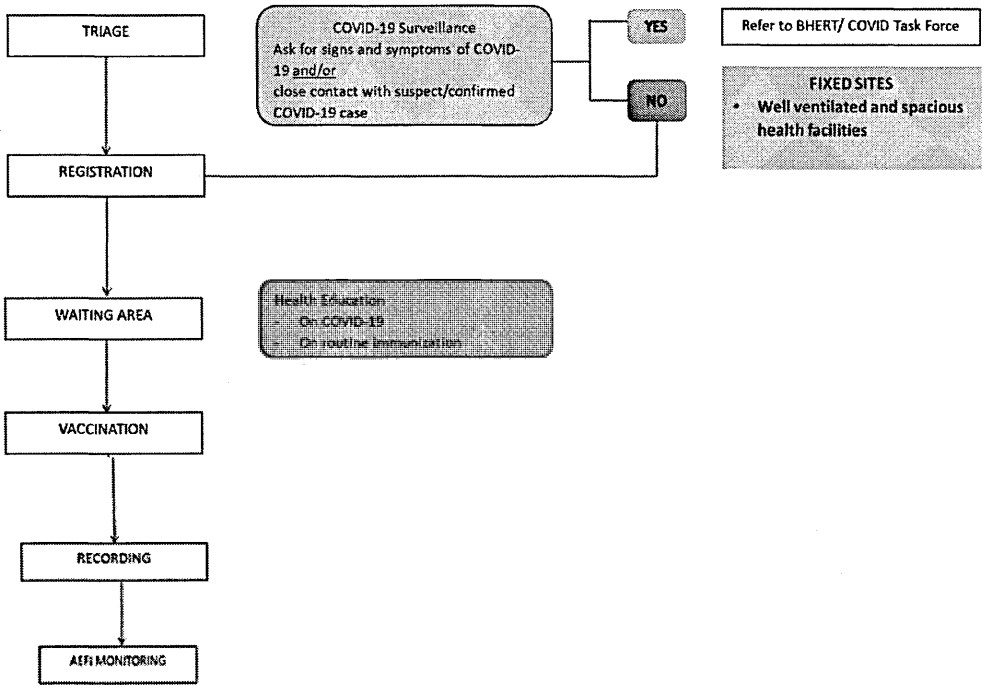
G. Recording and reporting forms shall be completed and submitted from the service delivery point to the next higher administrative level (Annex B).

For strict compliance and dissemination to all concerned.

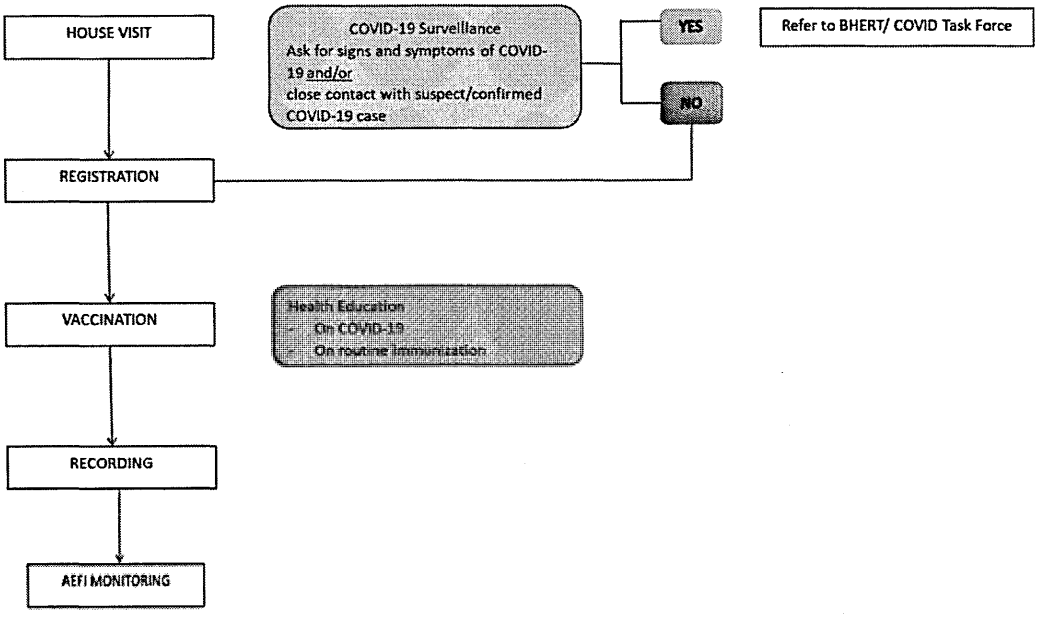
FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

Annex A. Algorithm for HPV Vaccination

A. Fixed post Vaccination



B. Door-to-door Vaccination



Annex B. Master listing Form for HPV Vaccination

Region: _____ **Province/City:** _____ **Municipality:** _____

Barangay: _____ **Target Female Eligible 9-14 y/o:** _____ **Date of Vaccination:** _____

Name (Last, First, MI)	Complete Address (House No, Street, Sitio/Purok, Barangay)	Birthday (mm/dd/yy)	Age (yrs)	1st dose Screened (Y/N)	Date Given 1st dose& Lot #	AEFI 1st dose (Y/N)	Deferred (Y/N); Reason	2nd dose Screened (Y/N)	Date Given 2nd dose& Lot #	AEFI 2nd dose (Y/N)	Deferred (Y/N); Reason	Remarks

Total Vaccinated: _____ **No. Deferred:** _____ **No. of AEFIs:** _____

Prepared by: _____ **Date Accomplished:** _____

Name & Designation

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

July 7, 2020

DEPARTMENT MEMORANDUM
2020- 0341

TO: **ALL UNDERSECRETARIES AND ASSISTANT SECRETARIES; DIRECTORS OF BUREAUS AND CENTERS FOR HEALTHDEVELOPMENT; MINISTER OF HEALTH — BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO; CHIEFS OF MEDICAL CENTERS, HOSPITALS, SANITARIA AND INSTITUTES; DIRECTOR OF PHILIPPINE NATIONAL AIDS COUNCIL AND TREATMENT AND REHABILITATION CENTERS AND ALL OTHERS CONCERNED**

SUBJECT: **Interim Guidelines on Continuous Provision of Adolescent Health Services During Covid-19 Pandemic**

I. BACKGROUND

The Philippines was declared under a State of Public Health Emergency due to increasing cases of COVID-19. The current situation has overwhelmed the health systems and may have disrupted the sexual and reproductive health information and services for adolescents. Hence, vulnerability of young people to experience psychosocial risks, gender-based violence, and reproductive health issues including difficulties in accessing services because of stigma, culture, economic, physical or mental limitations may be heightened.

In view of the present condition, the Department of Health issues these interim guidelines to ensure adolescents are protected, and essential health information and services are provided within the Health Care Provider Network (HCPN).

II. GENERAL GUIDELINES

A. Essential adolescent health information using various platforms (social media) and services during community quarantine shall be integrated to other services (e.g. immunization, prenatal and postpartum care, provision of FP services) utilizing the following modalities/mechanism to reach out adolescents:
   1. Teleconsultation/telemedicine, including SMS or text messages
   2. Pre-recorded online videos
   3. House-to-house visits, where appropriate
   4. Consultation at the health facilities/adolescent-friendly health facilities, barangay health stations, and teen hubs/centers, if situation allows
   5. Community outreach (e.g. cluster barangays in a city/municipality)

B. Health facilities (RHUs, barangay health stations, health centers, hospitals) shall continue to provide response activities and ensure availability of supplies (e.g. vaccines, micronutrients, condoms, HIV test kits) to avoid interrupted provision of services.

C. Primary care providers of HCPNs shall navigate patients to the appropriate facility in accordance to DM No. 2020-0178.
D. Health care professionals (including specialists engaging in teleconsultation) and support staff shall protect and fulfill adolescents' rights to information, while maintaining privacy, confidentiality, non-discrimination, non-judgmental attitude, and respect as indicated in DOH MC No. 2020-0016 and DOH & NPC JMC 2020-0001 (DOH & National Privacy Commission Joint Circular on Guidelines on the Use of Telemedicine in COVID-19 Response).
E. Parental consent shall be secured, for patients under 18 years, when providing health and psychosocial services.
F. Infection, prevention and control measures shall be observed at all times (DOH – AO No. 2020-0015). Likewise, use of appropriate PPE for different settings, personnel and activity (DM 2020-0176).
G. Tracking, monitoring, referral to designated health facilities and specialized services, and recording and reporting system of DOH shall be implemented and maintained.

III. SPECIFIC GUIDELINES

Primary care facilities, including designated barangay health emergency response team (BHERT) and hospitals, shall ensure that the following health services are provided to adolescents:

A. Sexual and Reproductive Health (SRH) Services. SRH information shall be made available and accessible through multiple media channels - newspaper, social media, TV, radio and others emphasizing the prevention of teenage pregnancy. Linkage of adolescents to age- and gender-appropriate information and services (psycho-social support, counseling and referral to Adolescent-Friendly Health Facilities, as necessary) following the operational guidelines and protocols of adolescent-friendly services to include ASRH in Emergencies.

The HCPN and telemedicine providers shall:

1. Provide Family Planning (FP) education/information and services adhering to the principles of informed choice and voluntarism, and FP counseling. For clients below 18, parental consent shall be secured.
   1.1 FP services for adolescent mothers shall continually be integrated with essential health services such as but not limited to: maternal care, immunization services, women and child protection services, among others (e.g. birth plans of all pregnant women shall continue to include FP counselling and choices of postpartum FP methods).
   1.2 Proper management of stocks, distribution of FP commodities and referrals to ASRH networks, when needed, shall be made.
   1.3 Adolescent clients (young mothers) who are due for re-supply shall be provided with contact numbers to communicate via text message, phone call, or through the Barangay Health Emergency Response Team (BHERTs) to visit the primary care facility to get their supply and bring with them the FP client card.
2. Refer high risk pregnant women (10-19 years old, G1 or pregnancy with co-morbidities) to hospitals with CEmONC capacity for provision of antenatal, delivery and postpartum services in accordance to DM 2020-0261.However, if referral to

CEmONC may pose further risk to the patient due to any difficulties, BEmONC facilities may cater patients regardless of their parity as long as the pregnant mother has no comorbidities, provided the following conditions: 1) BEmONC trained physician is present; 2) emergency transport vehicle is on standby; and 3) referral hospital is available in cases of emergency complications.

B. Nutrition Services. Promotion of healthy diets, nutrition counselling, promotion and prevention of non-communicable diseases and assessment of nutritional status shall be provided to all adolescents.

1. Adolescent girls shall continue to be provided with iron with folic acid (IFA) supplements to be given weekly for 3 consecutive months for 2 rounds (with 3 months interval).
2. Pregnant adolescents shall be given iron with folic acid supplementation, dietary supplementation and deworming following DOH guidelines. Lactating adolescents shall be provided with appropriate nutrition counseling and supplementation (Vitamin A).
3. Health care providers shall provide support to adolescents who are nutritionally-at-risk or show signs of malnutrition to appropriate services and referral mechanisms including but not limited to nutrition counseling, Infant and Young Child Feeding (IYCF) in Emergencies, Integrated Management of Acute Malnutrition, and Micronutrient Supplementation.

C. Mental Health and Psychosocial Services (MHPSS). MHPSS shall be accessible and adapted appropriately to the needs of adolescents, with disabilities and other vulnerable groups (adolescent boys and girls, LGBT, with disabilities, people at risk of domestic violence).

1. A **self-administered mental and psychosocial assessment** form (Annex A) may be given to adolescents during house-to-house visits by BHERT and submitted to staff trained on ADEPT or in a **sealed envelope** once accomplished, for consolidation by the health worker at the RHU.
2. If a risk factor (s) is/are determined (a "YES" response in any of the questions), the health care worker shall provide health promotion and counseling using available information, education and communication materials (e.g. Healthy Young Ones). Proper referral shall be made if an adolescent needs consultation from experts and medical management at a higher health facility.
3. In cases of gender-based violence, psycho-social support, counseling, management of mental health concerns, and referral (e.g. Women and Children Protection Unit (WCPU) or to appropriate agencies) shall be provided to ensure that measures to prevent, protect and mitigate the consequences of all forms of violence, stigma and discrimination against adolescents are implemented during quarantine (DOH-DM No. 2020 -0230).The health personnel shall also alert child protection authorities like the Philippine National Police through the VAWC desk, Municipal Social Welfare Office and the Local Child Protection Council (Barangay/Municipal).
4. Provision of activities and programs (e.g. stress management activities, promotion of suicide prevention, expressive arts) that will promote psycho-social well-being are encouraged.

D. Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) and Sexually Transmitted Infections (STI) Services.

1. Key affected population aged 15-24 years old shall be supported and provided with the information, communication and services on HIV and STI:
   1.1 Consent to voluntary HIV testing shall be obtained from the child without the need of consent from a parent or guardian for fifteen (15) to below eighteen (18) years of age. A person aged below 15 years who is pregnant or engaged in high-risk behavior shall be eligible for HIV testing and counseling with the assistance of a licensed social worker or health worker.
   1.2 Parental or proxy consent shall be secured when providing services in condom access points (ie. free condoms and lubricants) for those below 18 years of age.
   1.3 Social media/web-based health promotion and other related demand generation activities.
2. Public and Private Sector Engagement for Prevention and Testing Strategies through:
   2.1 Online Outreach Approaches for referrals to HIV prevention, testing and treatment service; and
   2.2 Online Telehealth Modalities by linking them for access to mental health services and other related services.
3. Ensure adolescents have access to testing and antiretroviral treatment when needed by supporting Social Hygiene Clinic, Key affected population-Led Community Centers and Treatment centers.

E. Immunization Services.

1. Human Papillomavirus (HPV) vaccines shall be given to adolescent girls aged 9-14 years following the standard DOH immunization guidelines and schedule (2 doses at 6 months interval). Community vaccination shall be implemented following DOH Guidelines on the Infection Prevention and Control measures in light of Covid-19 pandemic.
2. Health care workers shall ensure that complete doses are provided, prioritizing those with incomplete doses.
3. Recording and reporting forms shall be completed and submitted from the service delivery point to the next higher administrative level.

For strict compliance and dissemination to all concerned.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

Annex A. Rapid Psychosocial Assessment for Adolescents (10-19 years old)

Sagutin nang tapat ang mga sumusunod na katanungan. Ang iyong mga sagot ay ***CONFIDENTIAL***

Petsa: _____

Pangalan:			Kapanganakan:	Edad:
Tirahan:				
Sex: □ Lalake □ Babae				
Katayuan:	□ Estudyante/ Nag-aaral □ Hindi Estudyante/ Hindi Nag-aaral	□ Nagtatrabaho □ Hindi Nagtatrabaho	□ Walang Asawa □ May Kinakasama/Live In □ May Asawa, Kasal	□ Naninirahan kasama ang mga magulang □ Iba pang kasama sa bahay bukod sa magulang:_____ _____ □ Naninirahan mag-isa
Cell Phone/landline:			e-mail address/ FB account:	

1. Ikaw ba ay nakakaranas ng pananakit o pananakot sa inyong bahay, paaralan o trabaho?	□ Hindi □ Oo
2. May mga pagkakataon ba na pinag-isipan moong maglayas o umalis ng inyong bahay?	□ Hindi □ Oo
3. May pagkakataon ba na seryoso mong naisip na wakasanangiyongbuhay?	□ Hindi □ Oo
4. Naninigarilyo ka ba?	□ Hindi □ Oo
5. Umiinom ka ba ng alak?	□ Hindi □ Oo
6. Nakakita ka na ba ng ipinagbabawal na gamot or drugs?	□ Hindi □ Oo
7. Ikaw ba ay nakaranas ng magka-boyfriend / girlfriend?	□ Hindi □ Oo
8. May karanasan ka na ba sa pakikipag-sex o makipagtalik?	□ Hindi □ Oo
9. Nakaranas ka ba na ikaw ay pinilit makipag-sex?	□ Hindi □ Oo
10. Ikaw ba ay nakaranas nang mabuntis, o makabuntis?	□ Hindi □ Oo

Gusto mo bang magpa-counsel o kumunsulta sa health service provider para matulungan ka?
___Oo ____ Hindi
Maaari kang tumawag sa: _____ O mag e-mail: _____
o bisitahin kami sa FB page: _____

PAALALA: *Ibalik sa envelope pagkatapos sagutin at muling i-seal gamit ang tape o stapler*

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

May 11, 2020

DEPARTMENT MEMORANDUM
No. 2020-0237

TO : **ALL UNDERSECRETARIES AND ASSISTANT SECRETARIES; DIRECTORS OF CENTERS FOR HEALTH DEVELOPMENT, DIRECTORS OF BUREAUS, INSTITUTES AND SERVICES; EXECUTIVE DIRECTORS OF SPECIAL AND SPECIALTY HOSPITALS; CHIEFS OF MEDICAL CENTERS, HOSPITALS, SANITARIA AND INFIRMARIES; ATTACHED AGENCIES; AND OTHERS CONCERNED**

SUBJECT : **Interim Guidelines for the Delivery of Nutrition Services in the Context of COVID 19 Pandemic.**

I. BACKGROUND

The COVID-19 pandemic has drastically affected the lives of families in the Philippines and the whole world. Many parents and caregivers have lost their jobs or livelihood. In affected local government units (LGUs), many children are no longer receiving supplementary feeding in day care centers and schools. In addition, many families are experiencing hunger or have difficulty consuming diversified and balanced diets making all vulnerable to all forms of malnutrition, including micronutrient deficiency and obesity.

Malnutrition and other co-morbidities are considered a risk factor for complications in people with COVID-19 due to a compromised immune system. Although available information on COVID-19 infections indicates that infants and children generally present milder symptoms than older groups, there is no known information yet on how it will affect infants and children with moderate or severe acute malnutrition. In relation to this, the nutrition of pregnant, postpartum and/or lactating women, including adolescent girls, and older persons are also of utmost concern during this time of epidemic.

As a result, the enforcement of the Enhanced Community Quarantine (ECQ) and the General Community Quarantine (GCQ) have limited the movement of people; hence, their access to food and basic necessities and provision of essential health and nutrition services are hampered. However, these services should still be made available to protect people of all ages, especially the most vulnerable groups: infants and children 0-5 years old, pregnant, postpartum and/or lactating women.

Pursuant to Department Circular No. 2020-0167 on the Continuous Provision of Essential Health Services During COVID-19 Epidemic, as the Department's measure to minimize the impact of this disease to health and nutrition outcomes, the following guidelines for delivery of essential nutrition services is hereby provided. It includes but is not limited to Infant and Young Child Feeding, Micronutrient Supplementation, Management of Acute Malnutrition, Promotion and Monitoring of a Child's Growth and Development, and Promotion of Healthy Diet.

II. IMPLEMENTING GUIDELINES

A. Prevention of Micronutrient Deficiencies

a. Rural Health Units (RHUs) and Barangay Health Centers shall maintain routine Micronutrient Supplementation targeting infants, children, pregnant and lactating women, adolescent girls, and women of reproductive age aligned with the national guidelines, without compromising the COVID-19 response measures.

b. The following important commodities shall be provided to prevent micronutrient deficiencies during this time are: Vitamin A (retinol palmitate) capsules, multiple Micronutrient Powder (MNP) sachets among infants and children 6 months to 5 years old and iodized oil capsule for pregnant, postpartum or lactating women.

c. Likewise, for pregnant, postpartum and/or lactating women, Iron and Folic Acid (IFA) shall be continuously distributed to prevent anemia and the consequent low birth weight of the unborn infant.

d. Mass supplementation campaign, however, is **NOT** encouraged at this time but shall be integrated in the immunization activities, prenatal and postpartum checkups, family planning and other outreach services, feeding programs, food pack deliveries and home visits, where appropriate, following strict infection prevention and control (IPC) guidelines.

e. Families and household members are reminded to consume iron-fortified products such as rice, flour and cereals, vitamin A-fortified cooking oil and sugar, and iodized salt. Likewise, the use of these fortified food products and micronutrient powder sachets must be considered in the distribution of food packs.

f. The procurement, routine use, and distribution of other vitamins and minerals (e.g. vitamin C or ascorbic acid, oral zinc preparations and other combined preparations) for immune boosting purposes is not recommended due to lack of global public health recommendations. Only the use of zinc sulfate oral drops or syrup for the management of diarrhea as part of oral rehydration salt solution is allowed for public health use.

B. Infant and Young Child Feeding (IYCF)

a. All health care providers (HCPs) shall inform pregnant women of the benefits of breastfeeding, as well as the risks and harm of formula feeding, during prenatal visits done at health facilities or through other means during the ECQ or GCQ.

b. Both the pregnant woman and her health care provider shall discuss the birth plan, which shall include early initiation of exclusive breastfeeding following the essential intrapartum and newborn care (EINC) protocol (or *Unang Yakap*) and rooming-in after delivery. Concerns related to COVID-19 should be acknowledged by the health care provider and addressed using standardized, evidence-based messaging

c. HCPs shall advise mothers to practice continuous Kangaroo Mother Care (KMC), which provides warmth, promotes and sustains exclusive breastfeeding, and promotes brain development for preterm, small for age and low birth weight infants. This also assures the preterm and small baby's survival and nutrition from birth, upon discharge and reaching the household.

d. HCPs shall encourage mothers to exclusively breastfeed or continue breastfeeding their infants and young children because of the immune-protective properties of breastmilk. This is also to ensure food security of the infants and young children during ECQ/GCQ.

e. Mothers should be encouraged to exclusively breastfeed their infants from birth up to the first six (6) months of age. At six (6) months of age, mothers shall introduce and provide age-appropriate complementary foods to infants with continued breastfeeding up to 2 years and beyond.

f. Mothers who are asymptomatic, or those who are close contacts, suspect, probable, or confirmed case of COVID-19 who do not have severe illness and/or who are not in respiratory distress, can continue to exclusively breastfeed their infants in the first six (6) months or continue breastfeeding their infants six (6) months old up to two (2) years and beyond, provided that they observe strict infection prevention and control measures (e.g. use of surgical mask, cover her mouth during coughing with disposable wipes and not her elbow, washing of hands with soap and water before breastfeeding or complementary feeding).

g. If the mother is unable to breastfeed or express milk (e.g. due to severe illness), and pasteurized donor milk is available from a human milk bank, donor human milk can be fed to the baby while the mother is recovering.

h. LGUs are encouraged to include fruits and green leafy vegetables, rice and other root crops in the provision of additional complementary food in the food pack.

i. Locally-prepared and commercially-developed complementary foods, such as those developed by the DOST-FNRI, can be considered for procurement by the LGU and be included in the food packs with proper nutrition guidance.

j. Families are encouraged to use food groups from the raw produce purchased from the market and from the cooked food for the whole family for the source of complementary feeding for infants and children. Household members preparing the menu for the whole family should limit the use of salt, sugar, spices and seasoning which may not be healthy to the infant or young child.

k. Breastfeeding and age-appropriate complementary feeding counseling shall be integrated in the pre-natal, postpartum and postnatal care visits, and family planning services provision, during immunization activities or health facility visits. If the mentioned services are not permitted due to community quarantine restrictions, SMS or text messaging, telemedicine, virtual counseling through social media platforms, or the use of pre-recorded online videos and other available virtual platforms may be used to provide counseling and support.

l. Mothers shall practice responsive feeding during breastfeeding and complementary feeding, including responsive infant and child care for early stimulation and learning as part of early childhood care and development (ECCD).

m. The Barangay Health Emergency Response Team (BHERT) shall provide assistance to women with breastfeeding difficulties/challenges (e.g. breasts conditions, newborn concerns, living with HIV and not on ART, etc.) to access pasteurized donor breastmilk from the nearest human milk banks (HMBs) or LGU/community-managed breastmilk storage facilities. The BHERT shall also refer these women to known lactation support groups in the community, wet nurses and breastmilk donors through SMS or text message and/or through social media platforms.

n. Individuals, families, and LGUs shall **NOT** accept milk formula, other breastmilk substitutes and breastmilk supplement donations as defined by RA 11148, EO 51 and its revised Implementing Rules and Regulations. Furthermore, LGUs shall monitor compliance of the EO 51 (Milk Code), its rIRR (DOH AO 2006-0012), and the DOH AO 2007-0017, and report violations through the Mother-Baby Friendly Philippines web-based portal http://mbfp.doh.gov.ph/ or through the mobile app available on iOS or Google Play store.

C. Management of Acute Malnutrition

a. Similar to infants and young children without malnutrition, parents and caregivers should continue responsive feeding during the administration of RUSF or RUTF, with continued breastfeeding and complementary feeding as appropriate. This also includes

responsive infant and child care for early stimulation and learning as part of ECCD. Infants and young children with moderate acute malnutrition (MAM) and severe acute malnutrition (SAM) have greater need for responsive feeding and stimulation. This ensures a holistic approach of the infant or young child during nutrition rehabilitation.

b. Ensure the continuity of provision of treatment of MAM and SAM using Ready-to-Use Supplementary Food (RUSF) and Ready-to-Use Therapeutic Food (RUTF), respectively, among infants and children 6 months to 5 years old and nutritionally-at-risk pregnant, postpartum or lactating women, including adolescent girls.

c. Provide adequate supply of RUTF for infants and children with SAM good for two weeks instead of weekly. Likewise, provide adequate monthly supply of RUSF for MAM infants and children and for nutritionally-at-risk pregnant, postpartum or lactating women, including adolescent girls, instead of bi-monthly, to minimize the contact of health care provider or volunteer to the mother and child. (Refer to **Annex 2 - DM No. 2019-0304** Simplified Guidelines on the Distribution and Utilization of Various Micronutrients and Ready-to-Use Supplementary and Therapeutic Foods)

d. Instruct the beneficiaries and/or caregivers to individually wash the RUSF/RUTF sachets and their hands before and after eating the ration.

e. If the RUTF is not available, RUSF may be given to SAM patients. Conversely, if RUSF is not available, RUTF may be provided to MAM cases. This can be done in the interim while awaiting normalcy and availability of supplies. (Refer to **Annex 3 - DM No. 2019-0034** Guidelines on the Distribution and Utilization of Various Micronutrients and Ready-to-Use Supplementary Foods in Exceptional Circumstances)

f. In the absence of RUSF (or RUTF) for the Management of Moderate Acute Malnutrition, designed local MAM recipes can also be used, provided it is prepared at home and given to the infant or child immediately. This can be accessed at **https://tinyurl.com/ybn54r7j**

g. If both RUSF or RUTF commodities are not available to treat MAM and SAM without complications, and there is available lipid-based nutrient supplement products that can be accessed and distributed, i.e., LNS-SQ[1] or LNS-MQ[2], then these products may be given one sachet once a day for at least 30 days as part of expanded targeted supplementary feeding. (Refer to **Annex 4 DM No. 2019-0365** Interim Guidelines on the Use of Lipid-Based Nutrient Supplement-Small Quantity (LNS-SQ))

h. Nutritionally-at-risk pregnant and chronically-energy deficient lactating women, including adolescent girls and PLHIV not under ARV treatment, shall be provided with RUSF for mothers. If this commodity is not available, supplementary feeding rations may be provided.

i. MUAC tape measurement will be used instead of the weight and length/height to admit, assess progress of the infant/child or non-response to treatment and discharge from treatment, to minimize contact with patients.

j. Disinfect MUAC tapes and other anthropometric measurement tools after each use.

k. Conduct regular follow up of MAM and SAM cases using SMS, messenger and other available virtual platforms and during home visits when re-supply is provided. Refer non-responsive SAM cases or those whose conditions have deteriorated to ITC referral hospital.

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[1] **LNS-SQ** (*Lipid Nutrient Supplement-Small Quantity*), is used for the prevention of micronutrient deficiency and stunting especially for infants and young children aged 6-23 months. It provides 107-110 kcal and contains 2.6 grams protein, 7 grams fat and 20 vitamins and minerals. It comes is 20 grams/sachet, with a dosage of 1 sachet per child per day. Examples: Enov'Nutributter® (Nutriset) and eeZee 20 (GC Rieber)

[2] **LNS-MQ** (*Lipid Nutrient Supplement- Medium Quantity*), is used for the prevention of acute malnutrition for infants and young children aged 6-36 months and even older. It provides 250-270 kcal and contains 6 grams protein, 16 grams fat and 20 vitamins and minerals. It comes is 50 grams/sachet, with a dosage of 1 sachet per child per day. Examples: Plumpy'Doz™ (Nutriset) and eeZee 50 (GC Rieber)

D. Growth and Development Monitoring and Promotion

a. Promotion and monitoring of growth and development of infants and children under five years old shall still be done during health facility visits, community outreach, and if the situation allows, with strict observance of infection prevention and control measures. Parents and caregivers have to be reminded for responsive feeding, infant and child care as part of early stimulation, learning and development.

b. HCPs shall give positive feedback to parents or caregivers on their breastfeeding and complementary feeding practices, and on maintaining or improving the nutritional status, growth and development of their children.

c. HCPs shall encourage and guide parents or caregivers who have breastfeeding or complementary feeding difficulties/challenges, and whose infants and children need further support in the management of malnutrition.

d. HCPs shall emphasize the need to breastfeed more frequently or provide more frequent meals during and after the infant or the child's illness to prevent malnutrition.

e. HCPs shall encourage parents to promote early childhood development through responsive parenting and caregiving during breastfeeding, complementary feeding and/or administration of RUSF or RUTF.

f. MUAC tape measurements may be used instead of the weight and length/height measurements to limit health care provider contact with the infant or child.

   1) If MUAC tape measurement is 125 mm or higher (12.5 cm or higher) or the **"green"** category and no bilateral pitting edema, the infant or child is considered with **"normal"** nutritional status.

   2) If MUAC measurement is between less than 125 mm and more than or equal to 115 mm (<12.5 cm and ≥11.5 cm) or the "**yellow**" category, and no bilateral pitting edema, the infant or child is considered with moderate acute malnutrition (MAM). Hence, the infant or child shall be enrolled to the nearest Outpatient Therapeutic Care (OTC) for proper management of MAM.

   3) If MUAC tape measurement is between less than 115 mm (<11.5 cm) or the "**red**" category, with or without edema, and passed the appetite test, the infant or child is considered with severe acute malnutrition (SAM) with no medical conditions. Hence, the infant or child shall likewise be enrolled in the nearest OTC for management of SAM.

   4) If MUAC tape measurement of the infant or child is more than or equal 125 mm (≥12.5 cm, "**green**") or less than 125 mm and more than or equal to 115 mm (<12.5 cm and ≥11.5 cm, "**yellow**"), but the infant or child HAS bilateral pitting edema, then the infant or child also has SAM. If the infant or child has appetite and does not have any medical complications, enroll in the nearest OTC facility.

   5) If the infant or child has medical complication(s) and/or IMCI danger signs, severe (+3) bilateral pitting edema, or failed the appetite test, refer to SAM inpatient therapeutic care facility (ITC referral hospital).

g. When referring patients, HCPs shall fill out referral documents and arrange patient transportation after explaining the reason for referral to the mother/caregiver. Referral of infants and children with SAM shall be done immediately as their conditions can easily deteriorate.

h. HCPs shall disinfect MUAC tapes and other anthropometric measurement tools after each use in accordance with DOH DM 2020-0167–Interim Guidelines on the Proper Handling and Disinfection of Non-Critical Items Used in the Management of COVID-19 Patients in All Health Facilities and Temporary Treatment and Monitoring Facilities.

E. Promotion of Healthy Diet for the Prevention or Management of Non-Communicable Diseases (NCDs), including Overweight and Obesity

HCPs, through their designated health and nutrition workers, shall practice the following in order to promote healthy diet:

a. Promote healthy diet following the Nutritional Guidelines for Filipinos (the National Nutrition Council's "**Ten** (10) **Kumainments**") and "*Pinggang Pinoy*" developed by the DOST-Food and Nutrition Research Institute (FNRI) for children, adolescents, pregnant and lactating women, adult, older persons and the elderly.

b. Assess body mass index (BMI) of children and adolescents 5 years old and above, adult household members, if the situation allows, using standard growth charts and nationally adapted guidelines.

   i. BMI for age more than 2 or 3 Z Score for children and adolescents are considered overweight and obese, respectively. Likewise, weight for length/height (WFL/WFH) of children less than 59 months more than 2 or 3 Z Score are considered overweight and obese, respectively.

   ii. BMI of adults, older persons and elderly above 23 up to 24.9 are considered overweight and above 25 to be obese (using WHO Western Pacific Region cut off points).

c. Promote consumption of at least 400 g (i.e. five portions) of fruits and vegetables per day not only to boost the immune system, and provide fiber and essential micronutrients to better regulate body processes, but also to lower the risk of obesity, heart disease, stroke, diabetes and certain types of cancer. These may be, but not necessarily, included in the purchase or distribution of canned goods and other highly processed foods.

d. Advise clients of all ages, most especially school age children, adolescents, and adults, to limit the consumption of salty, fatty, and highly sweetened foods and beverages to prevent the onset of NCDs and obesity. Those with high risk conditions like hypertension, diabetes, dyslipidemias, obesity, other cardio-, neuro-vascular and renal diseases, those who are HIV seropositive, and cancer, should likewise be advised to restrict the consumption of these foods so as not to aggravate their current conditions.

e. Advise and remind patients diagnosed with chronic conditions like hypertension, diabetes mellitus, hypercholesterolemia, renal disease, HIV, those who are immunocompromised, among others, on taking their maintenance medications regularly or daily as prescribed by their doctor. If personal visit to the health facility for provision of free DOH NCD maintenance medicines (or anti-retroviral therapy drugs) is not possible or permitted, a facility staff or BHW can be assigned to deliver the medicines to the patients' household based on the facility registry. Patients can also notify the health facility through SMS or text messages or online messaging if they have low stocks already. Blood pressure or sugar monitoring can also be scheduled by the health facility at least 2 -3 times a week, if possible.

f. Promote drinking of at least 8 glasses of water per day, apart from other beverages.

g. Encourage all clients to engage in moderate to vigorous intensity physical activity for at least 150 minutes throughout the week or at least 20 to 30 minutes per day, to achieve and maintain desirable body weight, improve blood circulation and boost the immune system.

h. Outdoor physical activity may be done with strict precautions using an appropriate surgical mask and maintaining social or physical distancing.

i. Advise clients to avoid smoking (in all forms, cigarette, tobacco, e-cigarettes, vapes, etc.), alcohol consumption and drug abuse; sleep 7 to 8 hours daily; and manage stress appropriately to maintain health and prevent onset of NCDs.

j. If face-to-face counseling is not possible or permitted, SMS or text messages, telemedicine, virtual counseling through social media messaging platforms, or pre-recorded online videos and other available virtual platforms may be used to provide counseling and information and education messages.

F. Promotion of Hygiene and Food Safety

HCPs shall promote hygiene and food safety through the following methods:

a. Instruct mothers and caregivers to perform hand washing, especially before and after breastfeeding, food preparation, infant and child feeding, and after using the toilet.
b. Instruct mothers and caregivers to perform hand washing, especially before and after breastfeeding, food preparation, infant and child feeding, and after using the toilet.
c. Advise mothers to clean the surfaces used for food preparation, play areas of infants and children, and parts of the home frequently touched or used by the household members.
d. Counsel parents and caregivers to thoroughly wash market produce, cook food properly, re-heat and store cooked food correctly and avoid food wastage.
e. Observe and practice proper and safe disposal of solid wastes.
f. Inform clients on proper handwashing, and practice cough and sneeze etiquette.

Refer to **Annex 1** – Scenarios at the Local Government units and Nutrition Responses and Interventions during COVID-19.

For strict compliance and wide dissemination of the above information to all concerned.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

ANNEX 1 – SCENARIOS AT THE LOCAL GOVERNMENT UNITS AND NUTRITION RESPONSES AND INTERVENTIONS DURING COVID-19

	Food security and Nutritional Status of Mothers, Children and Other Groups	Maternal, Infant and Young Child Health and Nutrition Interventions and Healthy Diet
Scenario 1 during Recognition Phase Stage 1 Zero Cases or importation	1. Food secure community 2. Low incidence of underweight, stunting, wasting and childhood overweight/obesity. 3. Low incidence of nutritionally-at-risk pregnant, postpartum or lactating women (maternal undernutrition) 4. Low incidence of low birth weight or preterm births 5. High rates of exclusive breastfeeding for infants less than six months 6. High proportion of infants and children meeting the minimum acceptable diet for complementary feeding practices 7. High rates of continued breastfeeding 8. Low incidence micronutrient deficiencies (e.g. anemia) 9. Adequate sanitation and water facilities 10. Low incidence of soil-transmitted helminthiasis or other	1. Ensure compliance to EO 51, its revised IRR (DOH AO 2006-0012) and DO HAO 2007-0017, and other applicable laws, e.g. RA 11148. 2. Continue exclusive breastfeeding counselling by facility (RHU or OPD) visits, online support or home visitation (with strict infection prevention and control measures) during provision of routine immunization services. 3. Continue diet and nutrition counselling for age-appropriate complementary feeding and continued breastfeeding by facility (RHU or OPD) visits, online support or home visitation (with strict infection prevention and control measures during provision of routine immunization services 4. Continue growth and developmental monitoring and promotion through measurement of weight and length/height, or mid-upper arm circumference (MUAC), during facility visit or during routine immunization 5. Continue providing Vitamin A capsules and micronutrient powder (MNP) sachets during provision of routine immunization services among infants and young children 6-59 months old 6. Continuity of essential maternal nutrition interventions (i.e. iron-folic acid supplementation, dietary supplementation and deworming) 7. Continue providing iron and folic acid (IFA) supplements to adolescent girls. 8. Continue counselling and support on appropriate nutrition for women during pregnancy and lactation.

	forms of intestinal parasitism 11. Low incidence of non-communicable diseases, including overweight and obesity	9. Continue responsive feeding and responsive care for early childhood care and development. 10. Continue counselling on consumption of fortified foods (through MNP sachets) 11. Consider targeted supplementary feeding programs for infants six (6) months old and above with Moderate Acute Malnutrition (MAM) to prevent wasting. 12. Continue early identification and appropriate management of infants and children 0-59 months with severe wasting (or Severe Acute Malnutrition) including focused support for their mothers/caregivers to optimize breastfeeding and complementary feeding practices and referral to appropriate medical and social welfare services as needed. 13. Emphasize hand hygiene and proper use of toilet or sanitary facilities 14. Provide age-appropriate anti-helminthic drugs 15. Continue nutrition surveillance and/or consider virtual surveillance (including health and nutrition commodities tracking to ensure utilization and prevent stock outs) 16. Provide counselling for healthy diets and prevention of NCDs for adolescent and adult members of the household.
Scenario 2 during Recognition Phase Stage 1 Zero Cases or importation	1. Mixed food secure and insecure communities 2. Low to moderate incidences of underweight, stunting, wasting and childhood overweight/obesity. 3. Low to moderate incidence of nutritionally-at-risk pregnant, postpartum or lactating women (maternal undernutrition)	1. Ensure compliance to EO 51, its revised IRR (DOH AO 2006-0012) and DO HAO 2007-0017, and other applicable laws, e.g. RA 11148. 2. Strengthen exclusive breastfeeding counselling during facility (RHU or OPD) visits (with strict infection prevention and control measures) during provision of routine immunization services. 3. Consider focused breastfeeding support through home visitation or through face-to-face online support. 4. Continue growth and developmental monitoring and promotion through measurement of weight and length/height, or mid-upper arm circumference (MUAC)

4. Low to moderate incidence of low birth weight or preterm births
5. Moderate to high rates of exclusive breastfeeding for infants less than six months
6. Moderate to high proportion of infants and children meeting the minimum acceptable diet for complementary feeding practices
7. Moderate to high rates of continued breastfeeding
8. Low to moderate incidence micronutrient deficiencies (e.g. anemia) in women and children.
9. Variable access to safe or potable water and sanitation facilities
10. Moderate to high incidence of intestinal parasitism
11. Low to moderate incidence of non-communicable diseases, including overweight and obesity

measurements, during facility visit or during immunization.

5. Provide diet and nutrition counselling during provision of routine immunization services on complementary feeding for infants who turned six (6) months old and above at the health facility (RHU or OPD) visits (with strict infection prevention and control measures)
6. Continue face-to-face diet and nutrition counselling on age-appropriate complementary feeding and continued breastfeeding for infants who turned six (6) months old through home visits or online support
7. Continuity of essential maternal nutrition interventions (i.e. iron-folic acid supplementation, dietary supplementation and deworming)
8. Continue providing iron and folic acid (IFA) supplements to adolescent girls.
9. Continue counselling and support on appropriate nutrition for women during pregnancy and lactation.
10. Continue responsive feeding and responsive care for early childhood care and development.
11. Continue providing Vitamin A capsules and micronutrient powder (MNP) sachets during provision of routine immunization services among infants and young children 6-59 months old
12. Continuity of essential maternal nutrition interventions (i.e. iron-folic acid supplementation, dietary supplementation and deworming)
13. Continue providing iron and folic acid (IFA) supplements to adolescent girls.
14. Continue counselling on hand hygiene and use of sanitary facilities
15. Continue counselling on consumption of fortified foods (through MNP sachets)

		16. Provide RUSF or RUTF for infants and young children 6-59 months old for those with MAM or SAM through house visits or during facility visit and during routine immunization 17. Strengthen OTCs and ITCs to ensure early identification and appropriate management of children 0-59 months with severe wasting (or Severe Acute Malnutrition) including focused support for their mothers/caregivers to optimize breastfeeding and complementary feeding practices and referral to appropriate medical and social welfare services as needed. 18. Strengthen Health Care Provider Network and include OTCs, ITCs, HMBs and clearly define referral mechanisms 19. Consider provision of supplementary food to food insecure households 20. Continue nutrition surveillance and/or consider virtual surveillance (whenever the situation allows just to minimize health and nutrition commodities stock outs) 21. Provide age-appropriate anti-helminthic drugs 22. Provide counselling for health diets and prevention of NCDs for adolescent and adult members of the household
Scenario 3 Initiation Phase **STAGE 2** **LOCALIZED TRANSMISSION**	1. <u>Health and nutrition staff are engaged in COVID-19 response</u> 2. Mixed food secure and insecure communities 3. Low to moderate, or moderate to high incidences of underweight, stunting, wasting and childhood overweight/obesity. 4. Low to moderate or moderate to high incidence of nutritionally-at-risk pregnant, postpartum	As routine immunization services may be currently suspended due to non-availability of health staff, continue the following: 1. Ensure compliance to EO 51, its revised IRR (DOH AO 2006-0012) and DO HAO 2007-0017, and other applicable laws, e.g. RA 11148. 2. Strengthen exclusive breastfeeding counselling focused on breastfeeding support through home visitation or online support. 3. Provide diet and nutrition counselling on age appropriate complementary feeding for infants who turned six (6) months old and continued breastfeeding thereafter from 6 months up to two (2) years and beyond through SMS, telemedicine, online support, social media, radio broadcast or home visits

or lactating women (maternal undernutrition)	4. Continue responsive feeding and responsive care for early childhood care and development.
5. Low to moderate or moderate to high incidence of low birth weight or preterm births	5. Provide enough supply of RUSF or RUTF for infants and young children 6-59 months old for those with MAM or SAM through house visits (One [1] month supply for MAM and two weeks supply for SAM). Monitor nutritional status using the MUAC tape measurement.
6. Low to moderate rates of exclusive breastfeeding for infants less than six months	6. Continuity of essential maternal nutrition interventions (i.e. iron-folic acid supplementation, dietary supplementation and deworming) during house-to-house visits
7. Low to moderate proportion of infants and children meeting the minimum acceptable diet for complementary feeding practices	7. Continue providing iron and folic acid (IFA) supplements to adolescent girls during house-to house visits.
8. Low to moderate, or moderate to high rates of continued breastfeeding	8. Include administration of Vitamin A capsules and distribution of micronutrient powder (MNP) sachets during house-to-house visits
9. Low to moderate, or moderate to high incidence micronutrient deficiencies (e.g. anemia) in women and children.	9. Promote hand hygiene and proper use of sanitary facilities through social media or radio broadcast
10. Variable access to water and sanitation facilities	10. Promote consumption of fortified foods (through MNP sachets) through social media or radio broadcast
11. Low to moderate or moderate to high incidence of intestinal parasitism	11. Consider house-to-house provision of supplementary food to food insecure households– if health staff availability is an issue – consider tapping other agency presence like DSWD, Barangay Officials or the BHERT to assist in the house-to-house provision of supplementary food
12. Low to moderate, or moderate to high incidence of non-communicable diseases, including	12. Continue nutrition surveillance and/or consider virtual surveillance (whenever the situation allows just to minimize health and nutrition commodities stock outs)
	13. Provide age-appropriate anti-helminthic drugs

	overweight and obesity	14. Provide counselling for health diets and prevention of NCDs for adolescent and adult members of the household
Scenario 4 During Acceleration Phase **STAGE 3 COMMUNITY TRANSMISSION**	• *Regardless of food security and nutritional status of infants and young children* • ALL HEALTH AND NUTRITION STAFF AND OTHER HEALTH OFFICE PERSONNEL ARE ENGAGED IN COVID-19 RESPONSE.	1. Visits to non-emergency concerns to primary health care facilities are suspended 2. Ensure compliance to EO 51, its revised IRR (DOH AO 2006-0012) and DO HAO 2007-0017, and other applicable laws, e.g. RA 11148. 3. Household visits by health and nutrition workers of the barangay health emergency response team (BHERT), with strict observance of infection prevention and control measures, are maximized to provide age-appropriate essential nutrition service package: a. Breastfeeding and complementary feeding counselling b. Responsive feeding and response care giving for ECCD. c. Healthy diet and nutrition counselling for PLWs, adolescents and adult household members d. Nutrition commodities (micronutrient powder sachets and Vitamin A capsules for infants and children, IFA tablets for PLWs and adolescent girls) e. RUSF and RUTF sachets to existing and newly diagnosed cases of MAM or SAM during household visits. (One [1] month supply for MAM and two weeks supply for SAM). Monitor nutritional status using the MUAC measurement. f. Food rations as part of supplemental feeding program g. Counselling on food safety, hand hygiene and other infection prevention and control measures

ANNEX 2- DM NO. 2019-0304

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

July 25, 2019

DEPARTMENT MEMORANDUM
NO. 2019 - 0304

TO: **DOH CENTERS FOR HEALTH DEVELOPMENT REGIONAL DIRECTORS, MINISTER OF HEALTH BANGSAMORO AUTONOMOUS REGION FOR MUSLIM MINDANAO (BARMM), DOH CHIEFS OF HOSPITALS, MEDICAL CENTER CHIEFS, HOSPITAL EXECUTIVE DIRECTORS, AND OFFICERS OF OTHER CONCERNED UNITS AND OFFICES**

SUBJECT: **Simplified Guidelines on the Distribution and Utilization of Various Micronutrient Supplements and Ready-to-Use Supplementary and Therapeutic Foods**

Malnutrition in all its forms (stunting, wasting, overweight and obesity, micronutrient deficiencies) can cause inter-generational consequences. The level of health care and nutrition that women receive before and during pregnancy, at childbirth and immediately post-partum has significant bearing on the survival, growth and development of their fetus and newborn. Undernourished babies tend to grow into undernourished adolescents. When undernourished adolescents become pregnant, they in turn, may give birth to low-birth weight infants with greater risk of multiple micronutrient deficiencies.

Malnutrition have considerable impact on economic productivity, growth and national development. Widespread iron deficiency is estimated to decrease the gross domestic product (GDP) by as much as 2% per year in the worst affected countries. Conservatively, this translates into a loss of about Php 172 per capita or 0.9% of GDP. Productivity losses for anemic manual laborers have been documented to be as high as 5% for severely stunted workers and 5% and 17% for workers engaged in moderate and heavy physical labor respectively.

The government through the Department of Health has adopted the Strategic Framework for Comprehensive Nutrition Implementation Plan to address the triple burden of malnutrition: undernutrition, obesity and micronutrient deficiencies in the country. The overall policy on MS is contained in DOH AO No. 2010-0010 entitled "Revised Policy on Micronutrient Supplementation" to Support Achievement of 2015 MDG Targets to Reduce Under-Five and Maternal Deaths and Address Micronutrient Needs of Other Population Groups. The DOH has since provided augmentation of nutrition commodities to Local Government Units (LGUs) procurement.

Likewise, the Department of Health has issued Administrative Order No. 2015-0055, National Guidelines on the Management of Acute Malnutrition for Children Under 5 Years of Age last December 18, 2015 and the corresponding Manual of Operations for Management of Severe and Acute Malnutrition. Since then capacity building of health workers to provide both

ANNEX 3 – DM NO. 2019-0034

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

January 7, 2019

DEPARTMENT MEMORANDUM
NO. 2019 - 0034

TO: **DOH REGIONAL DIRECTORS, SELECTED DOH HOSPITAL DIRECTORS/MEDICAL CENTER CHIEFS AND CONCERNED PROVINCIAL HEALTH OFFICERS**

SUBJECT: **Guidelines on the Distribution and Utilization of Ready-to-Use Therapeutic Food (RUTF) and Ready-to-Use Supplementary Food for Exceptional Circumstances**

The Department of Health has issued Administrative Order No. 2015-0055, National Guidelines on the Management of Acute Malnutrition for Children Under 5 Years of Age last December 18, 2015 and the corresponding Manual of Operations for Management of Severe and Acute Malnutrition. Since then capacity building of health workers to provide both inpatient and outpatient therapeutic care has been scaled up. Likewise, the Department has procured and issued guidelines on the use of Ready-to-Use Therapeutic Food (RUTF) and Ready-to-Use Supplementary Food (RUSF).

In late 2017, the UNICEF, WFP and six other agencies, with input from technical experts, developed an interim operational guidance on the use of RUTF and RUSF to be applied in exceptional circumstances. These protocol options for Community-based Management of Acute Malnutrition (CMAM) in exceptional circumstances support life-saving measures in acute crisis situations in the absence of either an Outpatient Therapeutic Program (OTP), or a Targeted Supplementary Feeding Program (TSFP) or both.

Thus, based on this interim operational guidance and in the absence of a Supplementary Feeding Program (SFP) or an adequate supply of Ready-to-Use Supplementary Food (RUSF), children with Moderate Acute Malnutrition (MAM) can temporarily be treated with Ready-to-Use Therapeutic Food (RUTF) in the Out-Patient Therapeutic Program (OTP) provided that there are sufficient and qualified staff and supplies to handle the extra patient load:

- Admission criteria into the OTP is expanded to <125mm
- Discharge criteria from the OTP is ≥125mm and no edema on two consecutive visits, with a 3-week minimum stay.

ANNEX 4- DM NO. 2019-0365

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

August 8, 2019

DEPARTMENT MEMORANDUM
NO. 2019 - 0365

FOR: **DOH CENTERS FOR HEALTH DEVELOPMENT DIRECTORS, MINISTER OF HEALTH BANGSAMORO AUTONOMOUS REGION FOR MUSLIM MINDANAO (BARMM), DOH CHIEFS OF HOSPITALS, MEDICAL CENTER CHIEFS, AND OTHER CONCERNED UNITS AND OFFICES**

Subject: **Interim Guidelines on the Use of Lipid-Based Nutrient Supplement-Small Quantity (LNS-SQ) for Pregnant and Lactating Women and Young Children Ages 6-23 months to prevent stunting**

I. BACKGROUND AND RATIONALE

Globally, stunting affects 159 million children under 5 years old mostly living in 34 countries in Asia, sub-Saharan Africa and Latin America. By 2030, the global target is to reduce this number by 40%. In the Philippines, 3 out of 10 children are stunted making it imperative to address the nutritional deficiencies of pregnant women, improve exclusive breastfeeding (EBF) practices, introduce adequate and timely complementary feeding, along with continued breastfeeding for up to 2 years or beyond to be able to save the lives of 1.5 million children under 5 years of age annually.

The Philippine Plan of Action (PPAN) 2017-2022 has identified supplementary feeding of pregnant and lactating women and children 6-23 months old, along with the treatment of severe and moderate acute malnutrition, as one of the drivers to stunting reduction in its focus areas. Chronically energy deficient (CED) pregnant women have higher chances of giving birth to Low Birth Weight (LBW) infants, thus, the need to address their nutritional deficiencies.

Interest in the use of lipid-based nutrient supplements to combat child malnutrition has grown, accelerated by the success of ready-to-use therapeutic foods (RUTF) for the treatment of severely malnourished children. This has motivated the development of a range of lipid-based products designed for different purposes, including treatment of moderate acute malnutrition (MAM), and the prevention of wasting or stunting (low height-for-age).

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

March 23, 2020

DEPARTMENT CIRCULAR
No. 2020- 0167

TO: **ALL UNDERSECRETARIES AND ASSISTANT SECRETARIES; DIRECTORS OF BUREAUS AND CENTERS FOR HEALTH DEVELOPMENT; MINISTER OF HEALTH – BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO; EXECUTIVE DIRECTORS OF SPECIALTY HOSPITALS AND NATIONAL NUTRITION COUNCIL; CHIEFS OF MEDICAL CENTERS, HOSPITALS, SANITARIA AND INSTITUTES; PRESIDENT OF THE PHILIPPINE HEALTH INSURANCE CORPORATION; DIRECTORS OF PHILIPPINE NATIONAL AIDS COUNCIL AND TREATMENT AND REHABILITATION CENTERS AND ALL OTHERS CONCERNED**

SUBJECT: **Continuous Provision of Essential Health Services During the COVID-19 Epidemic**

The COVID-19 epidemic or any form of disaster or calamity does not remove the daily requirement for essential health services (e.g. immunization, maternal care, family planning services) that exists under normal circumstances. Rather, these services need to continue both in the community and in health facilities in parallel with the activation of an emergency response plan.

In light of the current situation of the country, the Department of Health issues and reiterates the following directives on the continuous provision of essential health services under the Code Red alert.

1. Under Proclamation No. 922 from the Office of the President, the Local Government Units (LGUs) shall immediately act to prevent serious disruption of the functioning of the government and community during and following the COVID-19 epidemic. Hence, the LGU shall take the lead in the provision of essential health services through the rural/city health centers, satellite health centers, birthing centers, treatment hubs and infirmaries which shall REMAIN OPEN during the enhanced community quarantine.

2. DOH Administrative Order (AO) 2017-0007 shall provide the guidelines on the identified essential health services to be delivered continuously during the COVID-19 enhanced community quarantine.

3. The following health services shall CONTINUE to be provided:
    a. Antenatal and post-partum care services including Basic Emergency Obstetric and Newborn Care (BEmONC). Birthing facilities shall still continue to provide

BEmONC services to low risk pregnancies, while high risk pregnancies are to be referred to a hospital with Comprehensive Emergency Obstetric and Newborn Care (CEmONC) capacity;

b. Essential Intrapartum and Newborn Care, especially promotion of exclusive breastfeeding;
c. Routine immunization for children 0-12 months;
d. Sexual and Reproductive Health (SRH) services including provision of family planning commodities;
e. Women and child protection services for gender-based violence;
f. Management of malnutrition and micronutrient supplementation;
g. Tuberculosis screening, testing, and treatment;
h. HIV screening, testing, and provision of anti-retroviral treatment;
i. Mental health services;
j. Health services for saving lives (e.g. basic life support, standard first aid) and services to prevent and control disaster-related morbidities including non-communicable diseases; and
k. Health support services for vulnerable population e.g. services for older persons and people with disabilities;

4. Health workers can be mobilized within the community to cater to the health needs of the population provided that they will observe strict Infection Prevention and Control (IPC) practices issued through Department Memorandum No. 2020-0072 Annex A, which enumerates the IPC practices that should be observed by the health personnel, to wit:
   a. Proper hand hygiene practices using soap and water and availability of alcohol-based hand rubs at point-of-care and other areas inside the health facility;
   b. Decontamination, disinfection, and sterilization; and
   c. Social distancing measures.

5. Mobilization of health workers and clients seeking care can be done through the following:
   a. Utilizing the family health profile, health workers can employ active provision of health services through house visits (e.g. an infant has a scheduled immunization);
   b. Providing health services simultaneously with other barangay activities (e.g. rationing of food supplies); and
   c. Other methods employed by the LGU.

6. Clients seeking care must secure quarantine pass from the respective barangay LGU, in accordance to LGU-specific guidelines.

7. Inventory of health commodities shall be done through the Pharmaceutical Management Information System (PMIS). Repositioning of commodities among the rural/city health centers shall be allowed to avoid stock-outs and overstocking.

8. To the extent possible, resupply of commodities shall be allowed. For example, three (3) months-worth of family planning commodities (COC, POP, and condom) can be supplied to a client.

9. In cases when a client seeking routine health services are with symptoms similar to COVID-19, the LGU shall follow Department Memorandum No. 2020-108, which

provides the algorithm for triage of patients with possible COVID-19 infection (Annex B).

10. Recording and reporting for the Field Health Service Information System (FHSIS) shall likewise be sustained.

11. Conduct of mass health education and gathering is prohibited. One-on-one health counseling is allowed provided that IPC practices are followed.

Dissemination of the above information is requested.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

ANNEX A

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

February 3, 2020

DEPARTMENT MEMORANDUM
No. 2020 - 0072

TO: **ALL UNDERSECRETARIES AND ASSISTANT SECRETARIES; DIRECTORS OF BUREAUS AND CENTERS FOR HEALTH DEVELOPMENT; MINISTER OF HEALTH – BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO); EXECUTIVE DIRECTORS OF SPECIALTY HOSPITALS AND NATIONAL NUTRITION COUNCIL; CHIEFS OF MEDICAL CENTERS, HOSPITALS, SANITARIA AND INSTITUTES; PRESIDENT OF THE PHILIPPINE HEALTH INSURANCE CORPORATION; DIRECTORS OF PHILIPPINE NATIONAL AIDS COUNCIL AND TREATMENT AND REHABILITATION CENTERS AND OTHERS CONCERNED**

SUBJECT: **Interim Guidelines for 2019 Novel Coronavirus Acute Respiratory Disease (2019-nCoV ARD) Response in Hospitals and Other Health Facilities**

I. BACKGROUND

After a cluster of pneumonia cases of unknown etiology was reported in Wuhan City, Hubei Province of China last December 31, 2019, Chinese health authorities preliminarily identified the cause of this viral pneumonia as a new or novel type of coronavirus (2019-nCoV).

With an increasing number of cases spreading to various territories and confirmed human-to-human transmission, the World Health Organization declared the outbreak as a Public Health Emergency of International Concern (PHEIC) last January 30, 2020.

The Department of Health (DOH) hereby issues these interim guidelines for all health facilities and institutions whether public or private on the necessary precautions, preparations of the health facilities, and management of persons under investigation (PUI) and confirmed cases of the 2019-nCoV ARD.

II. GENERAL GUIDELINES

1. All Level 2 and Level 3 hospitals shall attend to all PUIs.
2. All hospitals and health facilities shall establish and maintain an Infection Prevention and Control Committee (IPCP) in the health facility, headed by an infection control physician and infection control nurse. The IPCP shall be responsible for the formulation, implementation, and monitoring of policies, guidelines, and procedures related to infection control. *(Refer to the National Standards in Infection Control for Healthcare Facilities, 2009 Edition)*

3. All hospitals and health facilities shall ensure that all hospital personnel are familiar with and adhere to infection prevention policies, guidelines, and procedures of the hospital, and shall be protected at all times since they are the first in line for exposure.
4. All hospitals and health facilities shall ensure that all resources and contingencies needed for the implementation of infection prevention and control measures are adequately available.
5. All hospitals and health facilities shall ensure that appropriate personal protective equipment (PPE) are appropriately used by patients and hospital personnel, according to existing protocols.

III. SPECIFIC GUIDELINES

A. Infection Prevention and Control

Universal precautionary measures are implemented in all health facilities. However, for an emerging infectious disease event such as the 2019-nCoV ARD, standard prevention and control strategies must be employed.

IPC strategies to prevent or limit infection transmission in health-care settings are summarized in ***Annex A.***

B. Case Definition

1. **Patient under Investigation (PUI)**
   Clinical features and epidemiological risk should be considered in identifying persons as PUI for 2019-nCoV ARD. A person meeting the following criteria should be evaluated as a PUI in association with the outbreak of 2019-nCoV ARD:

   a) A person with Severe Acute Respiratory Infection (SARI), with history of fever and cough requiring admission to hospital, with no other etiology that fully explains the clinical presentation (clinicians should also be alert to the possibility of atypical presentations in patients who are immunocompromised), and ANY of the following:
      (1) A history of travel to China and other 2019-nCoV ARD affected areas in the 14 days prior to symptom onset.
      (2) The disease occurs in a health care worker who has been working in an environment where patients with severe acute respiratory infections are being cared for, without regard to place of residence or history of travel;
      (3) The person develops an unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment, without regard to place of residence or history of travel, even if another etiology has been identified that fully explains the clinical presentation.

   OR

   b) Individuals with acute respiratory illness of any degree of severity who, within 14 days before onset of illness, had ANY of the following exposures:
      (1) Close physical contact with a confirmed case of 2019-nCoV ARD infection, while that patient was symptomatic;

(2) A healthcare facility in a country where hospital associated 2019-nCoV ARD infections have been reported;
(3) Direct contact with animals (if animal source is identified) in countries where the 2019-nCoV ARD is known to be circulating in animal populations or where human infections have occurred as a result of presumed zoonotic transmission

PUIs may present a range of signs and symptoms from mild, moderate, or severe illness; the latter includes severe pneumonia, ARDS, sepsis and septic shock. (See page *3* of ***Annex B*** for clinical manifestation of 2019-nCoV ARD*)* The criteria and the DOH decision tool ***(Annex C)*** shall be used to guide evaluation.

2. **Close Contact**
Persons visiting patients or staying in the same close environment of a 2019-nCoV ARD confirmed case who are either:
   a) Within approximately 6 feet (2 meters), or within the room or care area, of a confirmed case for a prolonged period of time while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection); **OR**
   b) Having direct contact with infectious secretions of a novel coronavirus case (e.g., being coughed on) while not wearing recommended personal protective equipment.

Close contact can include caring for, living with, visiting, or sharing a health care waiting area or room with a confirmed case.

The epidemiological link may have occurred within a 14-day period before or after the onset of illness in the case under consideration.

C. Patient Screening

The objective of screening is to quickly identify people with a travel history to countries with ongoing transmission of 2019-nCoV ARD. All personnel in health facilities should be trained on the following 2019-nCoV ARD screening procedures:

1. Screen at all points of entry to the health facility (to catch every patient and visitor).
2. Use broad criteria to quickly identify all patients at risk (i.e. travel to China in the last 14 days).
3. Train screening staff on what to probe. e.g., Have you traveled overseas in the last 14 days? Did you travel to China? Have you visited any animal or seafood market? Did you visit any healthcare facility or sick person during your travel?
4. Train screening staff on what to do once a PUI is identified.
5. Identify holding and isolation areas and healthcare workers who will perform further assessment of patients.
6. Ensure that effective triage checklist and patient flow are in place.
7. Ensure that necessary precautions are observed:
   a) Designate a well-ventilated area.
   b) Maintain a minimum 1-meter distance from patients.
   c) Provide symptomatic patients with facemask for source control when possible.

d) Perform hand hygiene frequently.
e) Follow standard precautions and droplet precautions when evaluating patients with acute respiratory tract infections.

8. Once identified, immediately isolate PUIs in designated holding or isolation areas with full infection control precautions.
9. There should be prompt reporting of cases to surveillance units for immediate contact tracing and quarantine measures. Ensure that the relevant contact numbers are readily available.

D. Patient Triage

The objective of triage is to determine if patients have symptoms of 2019-nCoV ARD infection and if so, to promptly isolate them. Only health care personnel should perform triage.

1. Triage should ideally be conducted in an isolation room with negative pressure and/or adequate ventilation.
2. Other respiratory hygiene supplies (such as facial tissues), trash cans, and hand hygiene facilities should be available inside the room.
3. Triage officers should wear the appropriate PPE.
4. Triage officers shall conduct a complete history and physical examination, and decide whether a patient fulfills the case definition or criteria for the specific Respiratory Infection of Pandemic or Outbreak Potential (RIPOP) in consultation with surveillance officers and consultant(s) in charge of EREIDs.
5. If patients are in queue (surge of patients), separate the "sick" from the "well" patients by 6 feet (2 meters) , and ensure patients are at least 3 feet (1 meter) apart from each other.

E. Referral for Admission

1. Symptomatic contacts or PUIs should be considered for admission for close observation in a health facility.
2. Based on WHO guidelines, coordination with a health facility and/or health care provider should be done during the observation period. Medical personnel should be involved in reviewing the current health status of the contacts by phone and, ideally, by scheduled visits on a regular (e.g. daily) basis, performing specific diagnostic tests as necessary.
3. Doctors and other health care professionals should give advance instructions on where to seek care when a contact becomes ill, what should be the most appropriate mode of transportation, when and where to enter the designated health care facility, and what infection control precautions should be followed.
4. Once the receiving medical facility has been notified that a symptomatic contact will be referred to their facility, the facility should facilitate transport of patient to the facility.
5. The ill contact should be advised to perform respiratory hygiene and stand or sit as far away from others as possible or at least 3 feet (1 meter), when in transit and when in the health care facility.
6. Appropriate hand hygiene should be employed by the ill contact and caregivers. Any surfaces that become soiled with respiratory secretions or body fluids during transport should be cleaned with regular household cleaners or a diluted bleach solution, whichever is most appropriate.

F. Isolation Precautions

1. The duration of infectivity for 2019-nCoV ARD is unknown. While Standard Precautions should continue to be applied always, additional isolation precautions should be used during the duration of symptomatic illness and continued for 24 hours after the resolution of symptoms. ***(Annex A2)***
2. Given that little information is currently available on viral shedding and the potential for transmission of 2019-nCoV ARD, testing for viral shedding should assist the decision making when readily available.
3. Patient information (e.g. age, immune status and medication) should also be considered in situations where there is concern that a patient may be shedding the virus for a prolonged period.

G. Notification

1. Designated disease surveillance officers in hospitals and other facilities shall be responsible for doing the preliminary assessment of suspected cases in their respective health facility and report accordingly using the form in ***Annex D***.
2. Healthcare providers should immediately notify the infection control personnel at their healthcare facility and report any event of a possible case of 2019-nCoV ARD to the Municipal Health Officer (MHO) or City Health Officer (CHO) for verification and initial investigation. The MHO/CHO shall then report to the Regional Epidemiology Surveillance Unit (RESU) using the Event-Based Surveillance System (ESR) system of the Epidemiology Bureau (EB) of DOH.

H. Clinical Management

1. There is no current evidence from RCTs to recommend any specific anti-2019-nCoV ARD treatment for PUIs or confirmed cases.
2. All healthcare providers are advised to use the latest available clinical practice guidelines issued by local specialty societies and duly-endorsed by the DOH. In the interim, a separate issuance will be published by the DOH.

I. Discharge and Follow-up

Due to the evolving nature of the etiology of 2019-nCOV, guidance for discharge criteria and management during follow-up shall be regularly updated and published in a separate issuance. In the interim, the following shall apply.

1. Confirmed positive cases on admission SHOULD ONLY be discharged if ALL of the following conditions are fulfilled:
    a. Two negative RT-PCR tests for 2019-nCoV ARD done 48 hours apart.
    b. Afebrile and asymptomatic (including cough and respiratory symptoms) for 48 hours.
    c. Laboratory and radiologic tests done according to clinical case management (e.g. chest x-ray WBC, platelet count, CPK, liver functions tests, plasma sodium) previously abnormal returning to normal
2. PUIs admitted as per DOH Decision Tool (***Annex C***), shall be discharged upon NEGATIVE 2019-nCoV ARD test from RITM. Until then PUIs shall be admitted in isolation even if asymptomatic. Repeat testing for patients with an initial negative nCoV test result may be performed if a high index for suspicion

for 20191-nCoV ARD remains despite an initial negative test result. Such conditions include, but are not limited, to the following:

a. Clinical deterioration in the presence of an established disease etiology and with adequate treatment. A single negative test result, particularly if this is from an upper respiratory tract specimen, does not exclude infection. Repeat sampling and testing, preferably of lower respiratory specimen, is strongly recommended in severe or progressive disease. Consider a possible co-infection with 2019-nCoV.
b. No other etiology for the patient's signs and symptoms has been identified despite work-up.
c. Clinical specimen(s) initially sent was/were deemed to be unsatisfactory or insufficient (delay in transport and processing, only NPS or OPS was sent).

3. For mortalities of 2019-nCoV ARD, refer to guidelines for Disposal and Shipment of the Remains of confirmed cases of 2019-nCoV ARD.

4. Hospital Disease Surveillance Officer shall report to the RESU within 24 hours the patients that have been discharged. The RESU shall then report to the DOH Regional Director and the 2019-nCoV ARD Task Force
   a. One week after discharge, confirmed cases should submit to mandatory follow-up and retesting for chest x-ray, complete blood count, and other laboratory tests which previously yielded abnormal results.

H. Sources of 2019-nCoV ARD Information and Advisories

1. Everyone is advised to refrain from sharing unverified reports and/or false news to avoid undue stress and worry due to misinformation.
2. For announcements and public advisories, you may visit the following official DOH channels:
   - Website: https://www.doh.gov.ph/2019-nCoV
   - Facebook: https://www.facebook.com/OfficialDOHgov/
   - Twitter: https://twitter.com/DOHgov
3. DOH health promotion materials (e.g. infographics, social media cards among others) may be reproduced by hospitals and other health facilities for instructional use or to keep health workers and patients informed free of charge.

For strict compliance of all concerned.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

Annex A. Infection Prevention and Control Practices

1. **HAND HYGIENE**
    a. Proper handwashing is the single most effective way to prevent infections in the hospital.
    b. Hand hygiene practices in the health facility must be emphasized using the WHO Multimodal Hand Hygiene Strategy: 5 Moments of Hand Hygiene *(Annex A1)* and proper handwashing technique.
    c. The availability of alcohol-based hand rubs at point-of-care and other areas of the facility must be ensured.

2. **ISOLATION PRECAUTION**
    To achieve effective interruption in the transmission of an infectious agent, it is essential to use two tiers of precautions (***Annex A2***)
    a. Standard Precautions for the care of all patients; AND
    b. Transmission-based precautions for patients with known or suspected disease spread by any of these routes: Airborne Precautions, Droplet Precautions or Contact Precautions

3. **PERSONAL PROTECTIVE EQUIPMENT**
    a. Appropriately wearing personal protective equipment (PPE), such as gloves, masks, and gowns, is also essential to protect healthcare workers from contact with infectious agents. The selection of PPE is based on the nature of the patient interaction and/or mode of transmission (***Annex A3***).
    b. Hand hygiene is always the first and the final step before wearing or after removing and disposing of PPE.

4. **DECONTAMINATION, DISINFECTION AND STERILIZATION**
    Proper cleaning, disinfection and sterilization is one of the most effective ways of disrupting the transmission and spread of microorganisms in the healthcare setting. Existing protocols need to be strictly implemented by healthcare personnel (***Annex A4***).

5. **SPECIMEN COLLECTION**
    a. All specimens collected for laboratory testing shall be regarded as potentially infectious.
    b. All Health Care Workers who will collect, handle or transport, perform testing any clinical specimens shall adhere rigorously to the standard precaution measures such as Personal Protective Equipment (i.e. gloves, laboratory gown, N95 Masks, face shield, etc.), and ensure biosafety practices are observed to minimize the possibility of exposure to pathogens.
    c. For further details of the guidelines kindly refer to the "Interim Laboratory Biosafety Guidelines for Handling and Processing Suspected 2019 Novel Coronavirus (2019 nCoV) Specimens" of Research Institute for Tropical Medicine.

6. **SPECIMEN HANDLING, PROCESSING, PACKAGING AND TRANSPORT**
    To ensure that proper handling, processing, packaging and transport of laboratory specimens from suspected Person Under Investigation (PUI) is observed, please refer to the DOH Manual on Packaging and Transport of Laboratory Specimen for Referral and Interim Laboratory Biosafety Guidelines for Handling and Processing Suspected 2019-nCoV Specimens (http://bit.ly/2tdLr4x)

7. FLOW OF PATIENTS SUSPECTED TO BE INFECTIOUS

Early detection and placement of patients to appropriate areas in the health facility is critical in the prevention of spread of infectious diseases. For guidelines on the management of patients suspected to be infectious, kindly refer to the Interim Guidelines on the Preparedness and Response to Novel Coronavirus (2019-nCoV) issued.

Health facilities should ensure that all resources and contingencies needed to support the management of patients and for the implementation of infection prevention and control measures are adequately available.

8. DISPOSAL OF INFECTIOUS BODY

For proper handling of infectious body, strict adherence to precautionary measures is a must. Kindly refer to the Guidelines on Disposal of Dead Persons from Dangerous Communicable Diseases for guidance.

9. HEALTHCARE WASTE MANAGEMENT

a. "Health Care Waste" (HCW) includes all the solid and liquid waste generated as a result of any of the following: (***Annex A5***)
   i. Diagnosis, treatment, or immunization of human beings;
   ii. Research pertaining to the above activities;
   iii. Research using laboratory animals for the improvement of human health;
   iv. Production or testing of biological products; and
   v. Other activities performed by health care facilities.

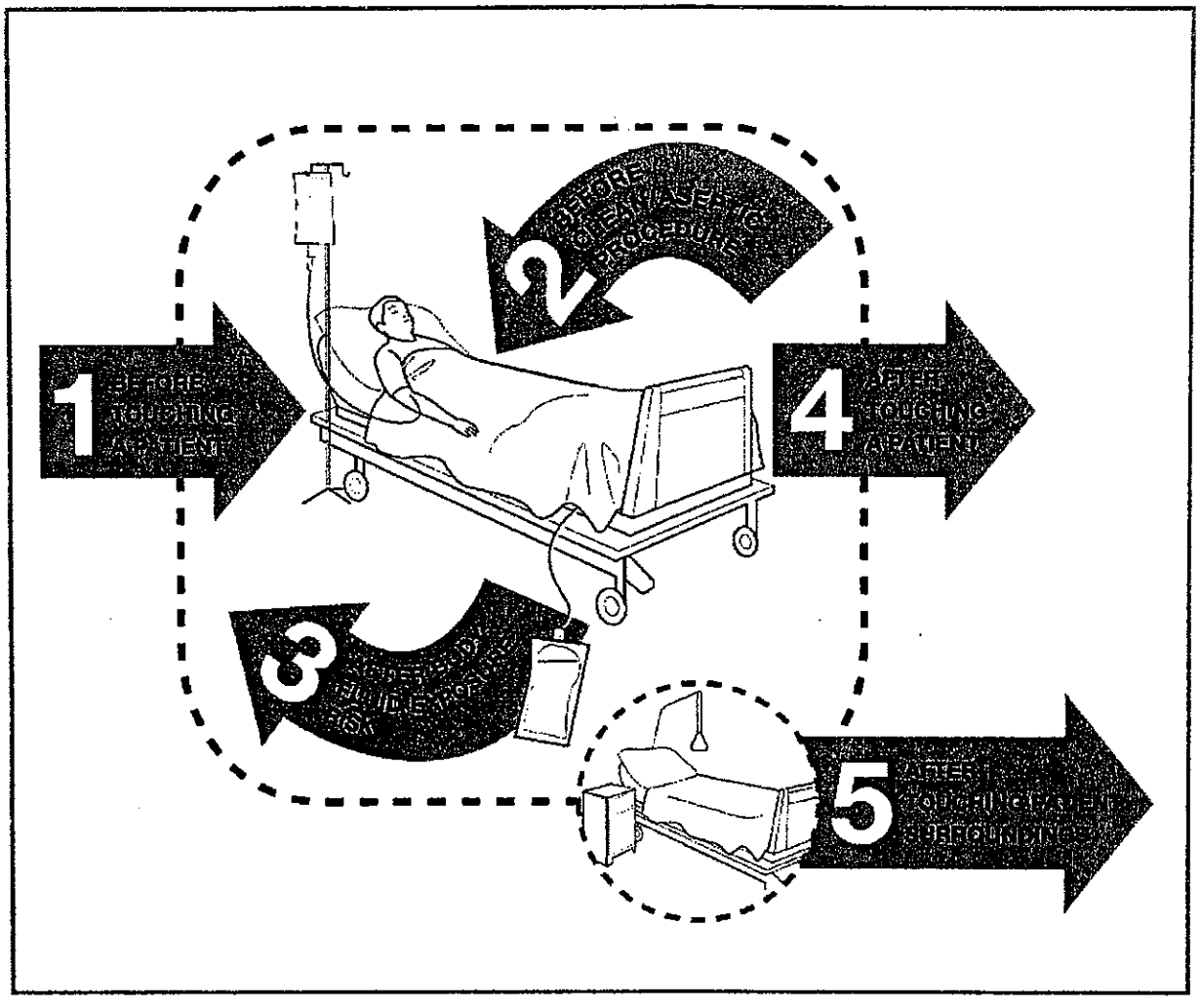
b. Management of health care waste, more specifically of the hazardous waste types (which include infectious waste) must be done through proper waste disposal to mitigate risks and potential health hazards to people exposed. Infectious waste should always be assumed to potentially contain a variety of pathogenic microorganisms that may enter the human body through the following routes:
   i. through a puncture, abrasion, or cut in the skin
   ii. through the mucous membrane
   iii. by inhalation
   iv. by ingestion

10. REFERENCES

Full WHO guidelines are available at Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care. Retrieved from the following:

- https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125; and
- https://www.who.int/publications-detail/advice-on-the-use-of-masks-the-community-during-home-care-and-in-health-care-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak

Annex A1. Five Moments of Handwashing



Source:
The patient zone, health-care area, and critical sites with inserted time-space representation of "My five moments for hand hygiene" (Figure I.21.5b). Reprinted by the World Health Organization from Sax, 2007 with permission from Elsevier. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/44102/9789241597906_eng.pdf;jsessionid=F58881D16DB6861F4F387CFD85E3A998?sequence=1

Annex A2. Isolation Precautions

A. Standard Precautions

1. Standard precautions are recommended for all hospitalized patients should consist of hand hygiene and respiratory hygiene with cough etiquettes. This also includes safe disposal of instruments and soiled linens.
2. All healthcare workers should use appropriate barrier precautions to avoid skin and mucous membrane exposure when contact with blood or body fluids from any patient.
3. Gloves should be worn for contact with blood and body fluids, mucous membranes, or non-intact skin; when handling surfaces or items soiled with blood or body fluids; or for venipuncture or other procedures involving vascular access.
4. Gloves should be changed after each patient contact.
5. Masks and protective eyewear or face shields should be worn when procedures are likely to generate aerosols or droplets of blood or other body fluids.
6. Gowns should be worn for procedures that are likely to soil clothing.
7. Hands or skin contaminated with blood or body fluids should be washed immediately using soap and water. Hand hygiene should be done after removing gloves.
8. Precautions should be taken to prevent sharps or needlestick injuries. Needles should not be recapped, removed from disposable syringes, or manipulated by hand. After use, needles, disposable syringes, scalpels, and other disposable sharp instruments should immediately be placed in a designated puncture-resistant container.
9. Mouthpieces and resuscitation devices should be readily available for use in areas where resuscitation procedures may be anticipated.
10. All healthcare workers with exudative skin lesions should not be involved in direct patient care or should not handle patient-care equipment until the condition has resolved.

B. Transmission-based Precautions

1. When standard precautions are not able to completely interrupt the route of transmission of certain infections, transmission-based precautions are implemented.

C. Contact Precautions

1. Contact Precautions are intended to prevent transmission of pathogens which are spread by direct or indirect contact with the patient or the patient's environment. It applies when there is presence of excessive wound drainage, fecal incontinence, or other discharges from the body suggest an increased potential for extensive environmental contamination and risk of transmission.
2. A single-patient room is preferred for patients who require Contact Precautions.
3. When a single-patient room is not available, consultation with the ICC is recommended to assess the various risks associated with other patient placement options (e.g., cohorting, keeping the patient with an existing roommate).
4. In multi-patient rooms, ≥3 feet spatial separation between beds is advised to reduce the opportunities for inadvertent sharing of items between the infected/colonized patient and other patients.
5. Healthcare personnel caring for patients on Contact Precautions MUST wear a gown and gloves for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment.

6. Donning PPE upon room entry and discarding before exiting the patient room is done to contain pathogens, especially those that have been implicated in transmission through environmental contamination.

D. Droplet Precautions

1. Droplet Precautions are intended to prevent transmission of pathogens spread through close respiratory or mucous membrane contact with respiratory secretions. Because these pathogens do not remain infectious over long distances in a healthcare facility, special air handling and ventilation are not required to prevent droplet transmission.
2. A single patient room is preferred for patients who require Droplet Precautions.
3. When a single-patient room is not available, consultation with the ICC is recommended.
4. Spatial separation of ≥3 feet and drawing the curtain between patient beds is especially important for patients in multi-bed rooms with infections transmitted by the droplet route.
5. Healthcare personnel caring for patients on Droplet Precautions MUST wear a mask (a respirator is not necessary) for close contact with infectious patient; the mask is generally donned upon room entry.
6. Patients on Droplet Precautions who must be transported outside of the room should wear a mask if tolerated and follow Respiratory Hygiene and Cough etiquette.

E. Airborne Precautions

1. Airborne Precautions prevent transmission of infectious agents that remain infectious over long distances when suspended in the air (ie. rubeola virus [measles], varicella virus [chickenpox], M. tuberculosis, and SARS-CoV).
2. The preferred placement for patients who require Airborne Precautions is in an airborne infection isolation room (AIIR).
3. An AIIR is a single-patient room that is equipped with special air handling and ventilation capacity that meet international standards (i.e., monitored negative pressure relative to the surrounding area, 12 air exchanges per hour for new construction and renovation and 6 air exchanges per hour for existing facilities, air exhausted directly to the outside or recirculated through HEPA filtration before return)
4. It is best that isolation rooms are present in hospitals, emergency departments, and nursing homes that care for patients with M. tuberculosis.
5. In settings where Airborne Precautions cannot be implemented due to limited engineering resources (e.g., physician offices), masking the patient, placing the patient in a private room (e.g., office examination room) with the door closed, and providing N95 or higher level respirators or masks if respirators are not available for healthcare personnel will reduce the likelihood of airborne transmission until the patient is either transferred to a facility with an AIIR or returned to the home environment, as deemed medically appropriate.
6. Healthcare personnel caring for patients on Airborne Precautions MUST wear a mask or respirator, depending on the disease-specific recommendations that is donned prior to room entry.

Annex A3. Personal Protective Equipment (PPE)

A. Gloves

1. Gloves are used to prevent contamination of healthcare personnel hands when:
   a) anticipating direct contact with blood or body fluids, mucous membranes, non-intact skin and other potentially infectious material
   b) having direct contact with patients who are colonized or infected with pathogens transmitted by the contact route
   c) handling or touching visibly or potentially contaminated patient care equipment and environmental surfaces.
2. The healthcare personnel should use the following during specimen collection on a PUI: Double Gloves (preferably: Nitrile); Scrub suit; Disposable Laboratory Gown (impermeable/ breathable/ long sleeves/ back enclosure) ; Fit Tested N95 mask; Face shield / visor.
3. During patient care, transmission of infectious organisms can be reduced by adhering to the principles of working from "clean" to "dirty" and confining or limiting contamination to surfaces that are directly needed for patient care.
4. It may be necessary to change gloves during the care of a single patient to prevent cross-contamination of body sites.
5. It also may be necessary to change gloves if the patient interaction also involves touching portable computer keyboards or other mobile equipment that is transported from room to room.
6. Discarding gloves between patients is necessary to prevent transmission of infectious material.
7. Gloves must not be washed for subsequent reuse because microorganisms cannot be removed reliably from glove surfaces and continued glove integrity cannot be ensured.
8. When gloves are worn in combination with other PPE, they are put on last.
9. Hand hygiene following glove removal further ensures that the hands will not carry potentially infectious material that might have penetrated through unrecognized tears or that could contaminate the hands during glove removal.

B. Isolation Gowns

1. Isolation gowns are used as specified by Standard and Transmission-Based Precautions to protect the HCW's arms and exposed body areas; and to prevent contamination of clothing with blood, body fluids, and other potentially infectious material.
2. When applying Standard Precautions, an isolation gown is worn only if contact with blood or body fluid is anticipated.
3. When Contact Precautions are indicated, donning of both gown and gloves upon room entry is indicated to address unintentional contact with contaminated environmental surfaces.
4. Gowns are usually the first piece of PPE to be donned. Full coverage of the arms and body front, from neck to the mid-thigh or below will ensure that clothing and exposed upper body areas are protected.
5. Isolation gowns should be removed before leaving the patient care area to prevent possible contamination of the environment outside the patient's room.
6. Isolation gowns should be removed in a manner that prevents contamination of clothing or skin. The outer, "contaminated" side of the gown is turned inward and rolled into a bundle, and then discarded into a designated container for waste or linen to contain contamination.

C. Face Protection

a. Face Masks

1. Masks are used for three primary purposes:
    a. Placed on HCWs to protect them from contact with infectious material from patients, example, respiratory secretions and sprays of blood or body fluids, consistent with Standard Precautions and Droplet Precautions;
    b. Placed on HCWs when engaged in procedures requiring sterile technique to protect patients from exposure to infectious agents carried in a HCW's mouth or nose;
    c. Placed on coughing patients to limit potential dissemination of infectious respiratory secretions from the patient to others (Respiratory Hygiene/Cough Etiquette).
2. Masks may be used in combination with goggles to protect the mouth, nose and eyes, or a face shield may be used instead of a mask and goggles, to provide a more complete protection for the face

b. Goggles

1. The eye protection chosen for specific work situations depends upon the circumstances of exposure, other PPE used, and personal vision needs.
2. Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
3. Even if Droplet Precautions are not recommended for a specific respiratory tract pathogen, protection for the eyes, nose and mouth by using a mask and goggles, or face shield alone, is necessary when it is likely that there will be a splash or spray of any respiratory secretions or other body fluids .

Annex A4. Decontamination, Disinfection and Sterilization

A. Decontamination and Disinfection Practices

The following must be observed in the decontamination and disinfection practices:

1. Use appropriate hand hygiene, PPE (e.g., gloves), and isolation precautions during cleaning and disinfecting procedures.
2. Have clear instructions and provide feedback to the personnel on how to properly wear PPE appropriate for a surface decontamination and cleaning task.
3. Discard used PPE by using routine disposal procedures or decontaminate reusable PPE as appropriate.
4. Use standard cleaning and disinfection protocols to control environmental contamination.
5. Pay close attention to cleaning and disinfection of high-touch surfaces in patient-care areas (e.g., bed rails, carts, charts, bedside commodes, bed rails, doorknobs, or faucet handles)
6. Ensure compliance by housekeeping staff with cleaning and disinfection procedures by putting up checklists.
7. When contact precautions are indicated for patient care, use disposable patient-care items wherever possible to minimize cross-contamination with multiple-resistant microorganisms.

B. Spaulding Classification for Disinfection & Sterilization of Healthcare Items

CLASSIFICATION	ITEM USE	GOAL	APPROPRIATE PROCESS
Critical Items	Items entering sterile tissue, the body cavity, the vascular system and non intact mucous membranes, e.g. surgical instruments	Objects will be sterile (free of all microorganisms including bacterial spores)	**Sterilization (or use of single use sterile product)** • Steam sterilization • Low temperature methods (ethylene oxide, peracetic acid, hydrogen peroxide plasma)
Semi-critical Items	Items that make contact, directly or indirectly, with intact mucous membranes or non intact skin, e.g. endoscopes, diagnostic probes (vaginal/rectal), anesthetic equipment	Objects will be free of all microorganisms, with the exception of high numbers of bacterial spores	**High level disinfection** • Thermal disinfection • Chemical disinfection (glutaraldehyde, OPA) *It is always preferable to sterilize semi-critical items

			whenever they are compatible with available sterilization processes
Non-critical Items	Objects that come into contact with intact skin but not mucous membranes, e.g. crutches, BP cuffs	Objects will be clean	**Low level disinfection** • Cleaning (manual or mechanical)

Annex A5. Healthcare Waste

A. Healthcare Waste Types

Healthcare waste (HCW) can be broadly categorized into "hazardous" and "non-hazardous" waste types, as listed below.

HAZARDOUS	NON-HAZARDOUS (General)
- Sharps - Infectious - Pathological - Anatomical - Pharmaceutical - Genotoxic - Chemical - Radioactive - Pressurized Containers	- Recyclable - Biodegradable - Residual

Hazardous HCW, which includes infectious wastes, refers to waste that may pose a variety of environmental and health risks. Infectious waste is most likely to contain pathogens (bacteria, viruses, parasites, or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts.

B. Risks Associated with Health Care Waste

1. All individuals coming into proximity with hazardous HCW are potentially at risk, including those who generate hazardous HCW, as well as those who either handle such waste or are exposed to it as a consequence of improper management.
2. The main groups of people at risk to potential health hazards associated with HCW are the following:
    a. HCF staff, e.g., doctors, nurses, auxiliaries, and maintenance personnel
    b. Patients in the HCF or receiving home care
    c. Visitors to the HCF
    d. Workers providing support and allied services to the HCF, such as laundry
    e. Workers transporting hazardous HCW to treatment, storage, and disposal facilities
    f. Workers and operators of waste management facilities (e.g., sanitary landfill and Treatment, Storage, Disposal (TSD) facilities) including informal recyclers or scavenger.
3. The General Public could also be at risk whenever hazardous HCW is abandoned or disposed of improperly.

C. Health Care Waste Disposal

1. HCW that is properly treated with the applicable technology as stated in the Health Care Waste Management Manual can be disposed of in a sanitary landfill but must not be mixed with the municipal waste. Dedicated cells for the treated HCW must be provided in a sanitary landfill. To allow the disposal of HCW to the sanitary landfill, the following must be met:
    a. The waste treatment facility/system passed the standards for microbial inactivation test;
    b. The properly treated HCW passed the spore strip test;

c. The waste treatment facility/system has a valid CPR from the DOH-Bureau of Health ·Devices and Technology (BHDT), and;
d. The waste treatment facility is an EMB-registered TSD facility.

Clinical management of severe acute respiratory infection when novel coronavirus (2019-nCoV) infection is suspected

Interim guidance

28 January 2020

WHO/nCoV/Clinical/2020.2

World Health Organization

Introduction

This is the first edition of this document for novel coronavirus, an adaption of WHO Clinical management of severe acute respiratory infection when MERS-CoV infection is suspected publication (2019).

This document is intended for clinicians taking care of hospitalised adult and paediatric patients with severe acute respiratory infection (SARI) when 2019-nCoV infection is suspected. It is not meant to replace clinical judgment or specialist consultation but rather to strengthen clinical management of these patients and provide to up-to-date guidance. Best practices for SARI including IPC and optimized supportive care for severely ill patients are essential.

This document is organized into the following sections:

1. Triage: recognize and sort patients with SARI
2. Immediate implementation of appropriate infection prevention and control (IPC) measures
3. Early supportive therapy and monitoring
4. Collection of specimens for laboratory diagnosis
5. Management of hypoxemic respiratory failure and acute respiratory distress syndrome (ARDS)
6. Management of septic shock
7. Prevention of complications
8. Specific anti-nCoV treatments
9. Special considerations for pregnant patients

These symbols are used to flag interventions:

✔ Do: the intervention is beneficial (strong recommendation) **OR** the intervention is a best practice statement

✘ Don't: the intervention is known to be harmful.

Consider: the intervention may be beneficial in selected patients (conditional recommendation) **OR** be careful when considering this intervention.

This document aims to provide clinicians with updated interim guidance on timely, effective, and safe supportive management of patients with 2019-nCoV and SARI, particularly those with critical illness.

The recommendations in this document are derived from WHO publications.[1-4] Where WHO guidance is not available, we refer to evidence-based guidelines. Members of a WHO global network of clinicians, and clinicians who have treated SARS, MERS or severe influenza patients have reviewed the recommendations (see Acknowledgements). For queries, please email outbreak@who.int with '2019-nCoV clinical question' in the subject line.

1. Triage: early recognition of patients with SARI associated with 2019-nCoV infection

✔ **Triage: recognize and sort all patients with SARI at first point of contact with health care system (such as the emergency department). Consider 2019-nCOV as a possible etiology of SARI under certain conditions (see Table 1). Triage patients and start emergency treatments based based on disease severity.**

Remarks: 2019-nCoV infection may present with mild, moderate, or severe illness; the latter includes severe pneumonia, ARDS, sepsis and septic shock. Early recognition of suspected patients allows for timely initiation of IPC (see Table 2). Early identification of those with severe manifestations (see Table 2) allows for immediate optimized supportive care treatments and safe, rapid admission (or referral) to intensive care unit according to institutional or national protocols. For those with mild illness, hospitalization may not be required unless there is concern for rapid deterioration. All patients discharged home should be instructed to return to hospital if they develop any worsening of illness.

Table 1. Definitions of patients with SARI, suspected of 2019-nCoV infection*

SARI	An ARI with history of fever or measured temperature ≥38 C° and cough; onset within the last ~10 days; and requiring hospitalization.[5] However, the absence of fever does NOT exclude viral infection.[6]
Surveillance case definitions for 2019-nCoV*	A. Patients with severe acute respiratory infection (fever, cough, and requiring admission to hospital), AND with no other etiology that fully explains the clinical presentation[1] AND at least one of the following: • a history of travel to or residence in the city of Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or • patient is a health care worker who has been working in an environment where severe acute respiratory infections of unknown etiology are being cared for. B. Patients with any acute respiratory illness AND at least one of the following: • close contact[2] with a confirmed or probable case of 2019-nCoV in the 14 days prior to illness onset, or • visiting or working in a live animal market in Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or • worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital-associated 2019-nCov infections have been reported.

*see https://www.who.int/health-topics/coronavirus for latest case definitions

[1] clinicians should also be alert to the possibility of atypical presentations in patients who are immunocompromised;

[2]: Close contact' is defined as:

- Health care associated exposure, including providing direct care for nCoV patients, working with health care workers infected with novel coronavirus, visiting patients or staying in the same close environment as a nCoV patient.
- Working together in close proximity or sharing the same classroom environment with a nCoV patient
- Traveling together with a nCoV patient in any kind of conveyance
- Living in the same household as a nCoV patient

The epidemiological link may have occurred within a 14-day period from onset of illness in the case under consideration.

Table 2. Clinical syndromes associated with 2019-nCoV infection

Uncomplicated illness	Patients with uncomplicated upper respiratory tract viral infection, may have non-specific symptoms such as fever, cough, sore throat, nasal congestion, malaise, headache, muscle pain or malaise. The elderly and immunosuppressed may present with atypical symptoms. These patients do not have any signs of dehydration, sepsis or shortness of breath.
Mild pneumonia	Patient with pneumonia and no signs of severe pneumonia. Child with non-severe pneumonia has cough or difficulty breathing + fast breathing: fast breathing (in breaths/min): <2 months, ≥60; 2–11 months, ≥50; 1–5 years, ≥40 and no signs of severe pneumonia.
Severe pneumonia	Adolescent or adult: fever or suspected respiratory infection, plus one of respiratory rate >30 breaths/min, severe respiratory distress, or SpO_2 <90% on room air (adapted from [1]). Child with cough or difficulty in breathing, plus at least one of the following: central cyanosis or SpO_2 <90%; severe respiratory distress (e.g. grunting, very severe chest indrawing); signs of pneumonia with a general danger sign: inability to breastfeed or drink, lethargy or unconsciousness, or convulsions. Other signs of pneumonia may be present: chest indrawing, fast breathing (in breaths/min): <2 months, ≥60; 2–11 months, ≥50; 1–5 years, ≥40.[2] The diagnosis is clinical; chest imaging can exclude complications.
Acute Respiratory Distress Syndrome[7-9]	**Onset:** new or worsening respiratory symptoms within one week of known clinical insult. **Chest imaging (radiograph, CT scan, or lung ultrasound):** bilateral opacities, not fully explained by effusions, lobar or lung collapse, or nodules. **Origin of oedema:** respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g. echocardiography) to exclude hydrostatic cause of oedema if no risk factor present. **Oxygenation (adults):** • Mild ARDS: 200 mmHg < PaO_2/FiO_2 ≤ 300 mmHg (with PEEP or CPAP ≥5 cmH_2O,[7] or non-ventilated[8]) • Moderate ARDS: 100 mmHg < PaO_2/FiO_2 ≤200 mmHg with PEEP ≥5 cmH_2O,[7] or non-ventilated[8]) • Severe ARDS: PaO_2/FiO_2 ≤ 100 mmHg with PEEP ≥5 cmH_2O,[7] or non-ventilated[8]) • When PaO_2 is not available, SpO_2/FiO_2 ≤315 suggests ARDS (including in non-ventilated patients) **Oxygenation (children; note OI = Oxygenation Index and OSI = Oxygenation Index using SpO_2):** • Bilevel NIV or CPAP ≥5 cmH_2O via full face mask: PaO_2/FiO_2 ≤ 300 mmHg or SpO_2/FiO_2 ≤264 • Mild ARDS (invasively ventilated): 4 ≤ OI < 8 or 5 ≤ OSI < 7.5 • Moderate ARDS (invasively ventilated): 8 ≤ OI < 16 or 7.5 ≤ OSI < 12.3 • Severe ARDS (invasively ventilated): OI ≥ 16 or OSI ≥ 12.3
Sepsis[10,11]	Adults: life-threatening organ dysfunction caused by a dysregulated host response to suspected or proven infection, with organ dysfunction*. Signs of organ dysfunction include: altered mental status, difficult or fast breathing, low oxygen saturation, reduced urine output, fast heart rate, weak pulse, cold extremities or low blood pressure, skin mottling, or laboratory evidence of coagulopathy, thrombocytopenia, acidosis, high lactate or hyperbilirubinemia. Children: suspected or proven infection and ≥2 SIRS criteria, of which one must be abnormal temperature or white blood cell count.
Septic shock[10,12]	Adults: persisting hypotension despite volume resuscitation, requiring vasopressors to maintain MAP ≥65 mmHg and serum lactate level >2 mmol/L. Children (based on [12]): any hypotension (SBP <5th centile or >2 SD below normal for age) or 2-3 of the following: altered mental state; tachycardia or bradycardia (HR <90 bpm or >160 bpm in infants and HR <70 bpm or >150 bpm in children); prolonged capillary refill (>2 sec) or warm vasodilation with bounding pulses; tachypnea; mottled skin or petechial or purpuric rash; increased lactate; oliguria; hyperthermia or hypothermia.

Abbreviations: ARI, acute respiratory infection; BP, blood pressure; bpm, beats/minute; CPAP, continuous positive airway pressure; FiO_2, fraction of inspired oxygen; MAP, mean arterial pressure; NIV, noninvasive ventilation; OI, Oxygenation Index; OSI, Oxygenation Index using SpO_2; PaO_2, partial pressure of oxygen; PEEP, positive end-expiratory pressure; SBP, systolic blood pressure; SD, standard deviation; SIRS, systemic inflammatory response syndrome; SpO_2, oxygen saturation. *If altitude is higher than 1000m, then correction factor should be calculated as follows: PaO_2/FiO_2 x Barometric pressure/760.

* The SOFA score ranges from 0 to 24 and includes points related to 6 organ systems: respiratory (hypoxemia defined by low PaO_2/FiO_2), coagulation (low platelets), liver (high bilirubin), cardiovascular (hypotension), central nervous system (low level of consciousness defined by Glasgow Coma Scale), and renal (low urine output or high creatinine). Sepsis is defined by an increase in the Sequential [Sepsis-related] Organ Failure Assessment (SOFA) score[13] of ≥2 points. Assume the baseline score is zero if data are not available

2. Immediate implementation of appropriate IPC measures

IPC is a critical and integral part of clinical management of patients and should be initiated at the point of entry of the patient to hospital (typically the Emergency Department). Standard precautions should always be routinely applied in all areas of health care facilities. Standard precautions include hand hygiene; use of PPE to avoid direct contact with patients' blood, body fluids, secretions (including respiratory secretions) and non-intact skin. Standard precautions also include prevention of needle-stick or sharps injury; safe waste management; cleaning and disinfection of equipment; and cleaning of the environment.

Table 2. How to implement infection prevention and control measures for patients with suspected or confirmed 2019-nCoV infection [14,15]

At triage	Give suspect patient a medical mask and direct patient to separate area, an isolation room if available. Keep at least 1meter distance between suspected patients and other patients. Instruct all patients to cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others. Perform hand hygiene after contact with respiratory secretions
Apply droplet precautions	Droplet precautions prevent large droplet transmission of respiratory viruses. Use a medical mask if working within 1-2 metre s of the patient. Place patients in single rooms, or group together those with the same etiological diagnosis. If an etiological diagnosis is not possible, group patients with similar clinical diagnosis and based on epidemiological risk factors, with a spatial separation. When providing care in close contact with a patient with respiratory symptoms (e.g. coughing or sneezing), use eye protection (face-mask or goggles), because sprays of secretions may occur. Limit patient movement within the institution and ensure that patients wear medical masks when outside their rooms.
Apply contact precautions	Droplet and contact precautions prevent direct or indirect transmission from contact with contaminated surfaces or equipment (i.e. contact with contaminated oxygen tubing/interfaces). Use PPE (medical mask, eye protection, gloves and gown) when entering room and remove PPE when leaving. If possible, use either disposable or dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers). If equipment needs to be shared among patients, clean and disinfect between each patient use. Ensure that health care workers refrain from touching their eyes, nose, and mouth with potentially contaminated gloved or ungloved hands. Avoid contaminating environmental surfaces that are not directly related to patient care (e.g. door handles and light switches). Ensure adequate room ventilation. Avoid movement of patients or transport. Perform hand hygiene.
Apply airborne precautions when performing an aerosol generating procedure	Ensure that healthcare workers performing aerosol-generating procedures **(i.e. open suctioning of respiratory tract, intubation, bronchoscopy, cardiopulmonary resuscitation)** use PPE, including gloves, long-sleeved gowns, eye protection, and fit-tested particulate respirators (N95 or equivalent, or higher level of protection). (The scheduled fit test should not be confused with user seal check before each use.) Whenever possible, use adequately ventilated single rooms when performing aerosol-generating procedures, meaning negative pressure rooms with minimum of 12 air changes per hour or at least 160 litres/second/patient in facilities with natural ventilation. Avoid the presence of unnecessary individuals in the room. Care for the patient in the same type of room after mechanical ventilation commences.

Abbreviations: ARI, acute respiratory infection; PPE, personal protective equipment

3. Early supportive therapy and monitoring

✔ **Give supplemental oxygen therapy immediately to patients with SARI and respiratory distress, hypoxaemia, or shock.**

Remarks: Initiate oxygen therapy at 5 L/min and titrate flow rates to reach target SpO_2 ≥90% in non-pregnant adults and SpO_2 ≥92-95 % in pregnant patients.[1,2] Children with emergency signs (obstructed or absent breathing, severe respiratory distress, central cyanosis, shock, coma or convulsions) should receive oxygen therapy during resuscitation to target SpO_2 ≥94%; otherwise, the target SpO_2 is ≥90%.[4] All areas where patients with SARI are cared for should be equipped with pulse oximeters, functioning oxygen systems and disposable, single-use, oxygen-delivering interfaces (nasal cannula, simple face mask, and mask with reservoir bag). Use contact precautions when handling contaminated oxygen interfaces of patients with nCoV infection.

✔ **Use conservative fluid management in patients with SARI when there is no evidence of shock.**

Remarks: Patients with SARI should be treated cautiously with intravenous fluids, because aggressive fluid resuscitation may worsen oxygenation, especially in settings where there is limited availability of mechanical ventilation.[16]

✔ **Give empiric antimicrobials to treat all likely pathogens causing SARI. Give antimicrobials within one hour of initial patient assessment for patients with sepsis.**

Remarks: Although the patient may be suspected to have nCoV, administer appropriate empiric antimicrobials within **ONE hour** of identification of sepsis.[17] Empiric antibiotic treatment should be based on the clinical diagnosis (community-acquired pneumonia, health care-associated pneumonia [if infection was acquired in healthcare setting], or sepsis), local epidemiology and susceptibility data, and treatment guidelines. Empiric therapy includes a neuraminidase inhibitor for treatment of influenza when there is local circulation or other risk factors, including travel history or exposure to animal influenza viruses.[18] Empiric therapy should be de-escalated on the basis of microbiology results and clinical judgment.

✘ **Do not routinely give systemic corticosteroids for treatment of viral pneumonia or ARDS outside of clinical trials unless they are indicated for another reason.**

Remarks: A systematic review of observational studies of corticosteroids administered to patients with SARS reported no survival benefit and possible harms (avascular necrosis, psychosis, diabetes, and delayed viral clearance).[19] A systematic review of observational studies in influenza found a higher risk of mortality and secondary infections with corticosteroids; the evidence was judged as very low to low quality due to confounding by indication.[20] A subsequent study that addressed this limitation by adjusting for time-varying confounders found no effect on mortality.[21] Finally, a recent study of patients receiving corticosteroids for MERS used a similar statistical approach and found no effect of corticosteroids on mortality but delayed lower respiratory

tract (LRT) clearance of MERS-CoV.[22] Given lack of effectiveness and possible harm, routine corticosteroids should be avoided unless they are indicated for another reason. See section 6 for the use of corticosteroids in sepsis.

- **Closely monitor patients with SARI for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis, and apply supportive care interventions immediately.**

Remarks: Application of timely, effective, and safe supportive therapies is the cornerstone of therapy for patients that develop severe manifestations of 2019-nCoV.

- **Understand the patient's co-morbid condition(s) to tailor the management of critical illness and appreciate the prognosis. Communicate early with patient and family.**

Remarks: During intensive care management of SARI, determine which chronic therapies should be continued and which therapies should be stopped temporarily. Communicate proactively with patients and families and provide support and prognostic information. Understand the patient's values and preferences regarding life-sustaining interventions.

4. Collection of specimens for laboratory diagnosis

WHO guidance on specimen collection, processing, and laboratory testing, including related biosafety procedures, is available.[23]

- **Collect blood cultures for bacteria that cause pneumonia and sepsis, ideally before antimicrobial therapy. DO NOT delay antimicrobial therapy to collect blood cultures.**

- **Collect specimens from BOTH the upper respiratory tract (URT; nasopharyngeal and oropharyngeal) AND lower respiratory tract (LRT; expectorated sputum, endotracheal aspirate, or bronchoalveolar lavage) for 2019-nCoV testing by RT-PCR. Clinicians may elect to collect only LRT samples when these are readily available (for example, in mechanically ventilated patients).**

- **Serology for diagnostic purposes is recommended only when RT-PCR is not available.[23]**

Remarks: Use appropriate PPE for specimen collection (droplet and contact precautions for URT specimens; airborne precautions for LRT specimens). When collecting URT samples, use viral swabs (sterile Dacron or rayon, not cotton) and viral transport media. Do not sample the nostrils or tonsils. In a patient with suspected novel coronavirus, especially with pneumonia or severe illness, a single URT sample does not exclude the diagnosis, and additional URT and LRT samples are recommended.[23] LRT (vs. URT) samples are more likely to be positive and for a longer period.[23] Clinicians may elect to collect only LRT samples when these are readily available (for example, in mechanically ventilated patients). Sputum induction should be avoided due to increased risk of increasing aerosol transmission.

Remarks: Dual infections with other respiratory viral infections have been found in SARS and MERS cases. At this stage we need detailed microbiologic studies in all suspected cases. Both URT and LRT specimens can tested for other respiratory viruses, such as influenza A and B (including zoonotic influenza A), respiratory syncytial virus, parainfluenza viruses, rhinoviruses, adenoviruses, enteroviruses (e.g. EVD68), human metapneumovirus, and endemic human coronaviruses (i.e. HKU1, OC43, NL63, and 229E). LRT specimens can also be tested for bacterial pathogens, including *Legionella pneumophila*.

- **In hospitalized patients with confirmed 2019-nCoV infection, repeat URT and LRT samples should be collected to demonstrate viral clearance. The frequency of specimen collection will depend on local circumstances but should be at least every 2 to 4 days until there are two consecutive negative results (both URT and LRT samples if both are collected) in a clinically recovered patient at least 24 hours apart. If local infection control practice requires two negative results before removal of droplet precautions, specimens may be collected as often as daily.**

5. Management of hypoxemic respiratory failure and ARDS

- **Recognize severe hypoxemic respiratory failure when a patient with respiratory distress is failing standard oxygen therapy.**

Remarks: Patients may continue to have increased work of breathing or hypoxemia even when oxygen is delivered via a face mask with reservoir bag (flow rates of 10-15 L/min, which is typically the minimum flow required to maintain bag inflation; FiO_2 0.60-0.95). Hypoxemic respiratory failure in ARDS commonly results from intrapulmonary ventilation-perfusion mismatch or shunt and usually requires mechanical ventilation.

- **High-flow nasal oxygen (HFNO) or non-invasive ventilation (NIV) should only be used in selected patients with hypoxemic respiratory failure. The risk of treatment failure is high in patients with MERS treated with NIV, and patients treated with either HFNO or NIV should be closely monitored for clinical deterioration.**

Remark 1: HFNO systems can deliver 60 L/min of gas flow and FiO_2 up to 1.0; paediatric circuits generally only handle up to 15 L/min, and many children will require an adult circuit to deliver adequate flow. Compared to standard oxygen therapy, HFNO reduces the need for intubation.[24] Patients with hypercapnia (exacerbation of obstructive lung disease, cardiogenic pulmonary oedema), hemodynamic instability, multi-organ failure, or abnormal mental status should generally not receive HFNO, although emerging data suggest that HFNO may be safe in patients with mild-moderate and non-worsening hypercapnia.[25] Patients receiving HFNO should be in a monitored setting and cared for by experienced personnel capable of endotracheal intubation in case the patient acutely deteriorates or does not improve after a short trial (about 1 hr). Evidence-based guidelines on HFNO do not exist, and reports on HFNO in MERS patients are limited.[26]

Remark 2: NIV guidelines make no recommendation on use in hypoxemic respiratory failure (apart from cardiogenic pulmonary oedema and post-operative respiratory failure) or pandemic viral illness (referring to studies of SARS and pandemic influenza).[27] Risks include delayed intubation, large tidal volumes, and injurious transpulmonary pressures. Limited data suggest a high failure rate when MERS patients receive NIV.[28] Patients receiving a trial of NIV should be in a monitored setting and cared for by experienced personnel capable of endotracheal intubation in case the patient acutely deteriorates or does not improve after a short trial (about 1 hr). Patients with hemodynamic instability, multiorgan failure, or abnormal mental status should not receive NIV.

Remark 3: Recent publications suggest that newer HFNO and NIV systems with good interface fitting do not create widespread dispersion of exhaled air and therefore should be associated with low risk of airborne transmission.[29-31]

Endotracheal intubation should be performed by a trained and experienced provider using airborne precautions.
Remarks: Patients with ARDS, especially young children or those who are obese or pregnant, may desaturate quickly during intubation. Pre-oxygenate with 100% FiO_2 for 5 minutes, via a face mask with reservoir bag, bag-valve mask, HFNO, or NIV. Rapid sequence intubation is appropriate after an airway assessment that identifies no signs of difficult intubation[32].

The following recommendations in this section pertain to mechanically ventilated patients with ARDS.[17,33] These focus on adults; consensus-based recommendations for children are available.[34]

Implement mechanical ventilation using lower tidal volumes (4–8 ml/kg predicted body weight, PBW) and lower inspiratory pressures (plateau pressure <30 cmH_2O).
Remarks: This is a strong recommendation from a clinical guideline for patients with ARDS,[33] and is suggested for patients with sepsis-induced respiratory failure who do not meet ARDS criteria.[17] The initial tidal volume is 6 ml/kg PBW; tidal volume up to 8 ml/kg PBW is allowed if undesirable side effects occur (e.g. dyssynchrony, pH <7.15). Hypercapnia is permitted if meeting the pH goal of 7.30-7.45. Ventilator protocols are available.[35] The use of deep sedation may be required to control respiratory drive and achieve tidal volume targets. Although high driving pressure (plateau pressure–PEEP) may more accurately predict increased mortality in ARDS compared to high tidal volume or plateau pressure,[36] RCTs of ventilation strategies that target driving pressure are not currently available.

In patients with severe ARDS, prone ventilation for >12 hours per day is recommended.
Remarks: Application of prone ventilation is strongly recommended for adult and paediatric patients with severe ARDS[33] but requires sufficient human resources and expertise to be performed safely.[37,38]

Use a conservative fluid management strategy for ARDS patients without tissue hypoperfusion.
Remarks: This is a strong guideline recommendation;[17] the main effect is to shorten the duration of ventilation. See reference [39] for details of a sample protocol.

In patients with moderate or severe ARDS, higher PEEP instead of lower PEEP is suggested.
Remarks: PEEP titration requires consideration of benefits (reducing atelectrauma and improving alveolar recruitment) vs. risks (end-inspiratory overdistension leading to lung injury and higher pulmonary vascular resistance). Tables are available to guide PEEP titration based on the FiO_2 required to maintain SpO_2.[35] A related intervention of recruitment manoeuvres (RMs) is delivered as episodic periods of high continuous positive airway pressure [30–40 cm H_2O], progressive incremental increases in PEEP with constant driving pressure, or high driving pressure; considerations of benefits vs. risks are similar. Higher PEEP and RMs were both conditionally recommended in a clinical practice guideline.[33] For PEEP, the guideline considered an individual patient data meta-analysis[40] of 3 RCTs. However, a subsequent RCT of high PEEP and prolonged high-pressure RMs showed harm, suggesting that the protocol in this RCT should be avoided.[41] Monitoring of patients to identify those who respond to the initial application of higher PEEP or a different RM protocol, and stopping these interventions in non-responders, is suggested.[42]

In patients with moderate-severe ARDS (PaO_2/FiO_2 <150), neuromuscular blockade by continuous infusion should not be routinely used.
Remarks: One trial found that this strategy improved survival in patients with severe ARDS (PaO_2/FiO_2 <150) without causing significant weakness,[43] but results of a recent larger trial found that use of neuromuscular blockage with high PEEP strategy was not associated with survival when compared to a light sedation strategy without neuromuscular blockade[44]. Continuous neuromuscular blockade may still be considered in patients with ARDS in certain situations: ventilator dyssnchony despite sedation, such that tidal volume limitation cannot be reliably achieved; or refractory hypoxemia or hypercapnia.

In settings with access to expertise in extracorporeal life support (ECLS), consider referral of patients with refractory hypoxemia despite lung protective ventilation.
Remarks: A recent guideline made no recommendation about ECLS in patients with ARDS.[33] Since then, an RCT of ECLS for patients with ARDS was stopped early and found no statistically significant difference in the primary outcome of 60-day mortality between ECLS and standard medical management (including prone positioning and neuromuscular blockade).[45] However, ECLS was associated with a reduced risk of the composite outcome of mortality and crossover to ECLS,[45] and a *post hoc* Bayesian analysis of this RCT showed that ECLS is very likely to reduce mortality across a range of prior assumptions.[46] In patients with MERS-CoV infection, ECLS vs. conventional treatment was associated with reduced mortality in a cohort study.[47] ECLS should

only be offered in expert centres with a sufficient case volume to maintain expertise and that can apply the IPC measures required for 2019-nCoV patients.[48]

Avoid disconnecting the patient from the ventilator, which results in loss of PEEP and atelectasis. Use in-line catheters for airway suctioning and clamp endotracheal tube when disconnection is required (for example, transfer to a transport ventilator).

6. Management of septic shock

Recognize septic shock in adults when infection is suspected or confirmed AND vasopressors are needed to maintain mean arterial pressure (MAP) ≥65 mmHg AND lactate is ≥2 mmol/L, in absence of hypovolemia.
Recognize septic shock in children with any hypotension (systolic blood pressure [SBP] <5th centile or >2 SD below normal for age) or 2-3 of the following: altered mental state; tachycardia or bradycardia (HR <90 bpm or >160 bpm in infants and HR <70 bpm or >150 bpm in children); prolonged capillary refill (>2 sec) or warm vasodilation with bounding pulses; tachypnea; mottled skin or petechial or purpuric rash; increased lactate; oliguria; hyperthermia or hypothermia.

Remarks: In the absence of a lactate measurement, use MAP and clinical signs of perfusion to define shock. Standard care includes early recognition and the following treatments within 1 hour of recognition: antimicrobial therapy and fluid loading and vasopressors for hypotension.[49] The use of central venous and arterial catheters should be based on resource availability and individual patient needs. Detailed guidelines are available for the management of septic shock in adults[17] and children.[2,3,12]

In resuscitation from septic shock in adults, give at least 30 ml/kg of isotonic crystalloid in adults in the first 3 hours. In resuscitation from septic shock in children in well-resourced settings, give 20 ml/kg as a rapid bolus and up to 40-60 ml/kg in the first 1 hr.

Do not use hypotonic crystalloids, starches, or gelatins for resuscitation.

Fluid resuscitation may lead to volume overload, including respiratory failure. If there is no response to fluid loading and signs of volume overload appear (for example, jugular venous distension, crackles on lung auscultation, pulmonary oedema on imaging, or hepatomegaly in children), then reduce or discontinue fluid administration. This step is particularly important where mechanical ventilation is not available. Alternate fluid regimens are suggested when caring for children in resource-limited settings[50]

Remarks: Crystalloids include normal saline and Ringer's lactate. Determine need for additional fluid boluses (250-1000 ml in adults or 10-20 ml/kg in children) based on clinical response and improvement of perfusion targets. Perfusion targets include MAP (>65 mmHg or age-appropriate targets in children), urine output (>0.5 ml/kg/hr in adults, 1 ml/kg/hr in children), and improvement of skin mottling, capillary refill, level of consciousness, and lactate. Consider dynamic indices of volume responsiveness to guide volume administration beyond initial resuscitation based on local resources and experience.[17] These indices include passive leg raises, fluid challenges with serial stroke volume measurements, or variations in systolic pressure, pulse pressure, inferior vena cava size, or stroke volume in response to changes in intrathoracic pressure during mechanical ventilation.

Starches are associated with an increased risk of death and acute kidney injury vs. crystalloids. The effects of gelatins are less clear, but they are more expensive than cyrstalloids.[51,52] Hypotonic (vs. isotonic) solutions are less effective at increasing intravascular volume. Surviving Sepsis also suggests albumin for resuscitation when patients require substantial amounts of crystalloids, but this conditional recommendation is based on low-quality evidence.[17]

Administer vasopressors when shock persists during or after fluid resuscitation. The initial blood pressure target is MAP ≥65 mmHg in adults and age-appropriate targets in children.

If central venous catheters are not available, vasopressors can be given through a peripheral IV, but use a large vein and closely monitor for signs of extravasation and local tissue necrosis. If extravasation occurs, stop infusion. Vasopressors can also be administered through intraosseous needles.

If signs of poor perfusion and cardiac dysfunction persist despite achieving MAP target with fluids and vasopressors, consider an inotrope such as dobutamine.

Remarks: Vasopressors (i.e. norepinephrine, epinephrine, vasopressin, and dopamine) are most safely given through a central venous catheter at a strictly controlled rate, but it is also possible to safely administer them via peripheral vein[53] and intraosseous needle. Monitor blood pressure frequently and titrate the vasopressor to the minimum dose necessary to maintain perfusion and prevent side effects. Norepinephrine is considered first-line in adult patients; epinephrine or vasopressin can be added to achieve the MAP target. Because of the risk of tachyarrhythmia, reserve dopamine for selected patients with low risk of tachyarrhythmia or those with bradycardia. In children with cold shock (more common), epinephrine is considered first-line, while norepinephrine is used in patients with warm shock (less common).

No RCTs have compared dobutamine to placebo for clinical outcomes.[17]

7. Prevention of complications

Implement the following interventions (Table 3) to prevent complications associated with critical illness. These interventions are based on Surviving Sepsis[17] or other guidelines,[54-57] and are generally limited to feasible recommendations based on high quality evidence.

Table 3. Prevention of complications

Anticipated Outcome	Interventions
Reduce days of invasive mechanical ventilation	• Use weaning protocols that include daily assessment for readiness to breathe spontaneously • Minimize continuous or intermittent sedation, targeting specific titration endpoints (light sedation unless contraindicated) or with daily interruption of continuous sedative infusions
Reduce incidence of ventilator-associated pneumonia	• Oral intubation is preferable to nasal intubation in adolescents and adults • Keep patient in semi-recumbent position (head of bed elevation 30-45°) • Use a closed suctioning system; periodically drain and discard condensate in tubing • Use a new ventilator circuit for each patient; once patient is ventilated, change circuit if it is soiled or damaged but not routinely • Change heat moisture exchanger when it malfunctions, when soiled, or every 5–7 days
Reduce incidence of venous thromboembolism	• Use pharmacological prophylaxis (low molecular-weight heparin [preferred if available] or heparin 5000 units subcutaneously twice daily) in adolescents and adults without contraindications. For those with contraindications, use mechanical prophylaxis (intermittent pneumatic compression devices).
Reduce incidence of catheter-related bloodstream infection	• Use a checklist with completion verified by a real-time observer as reminder of each step needed for sterile insertion and as a daily reminder to remove catheter if no longer needed
Reduce incidence of pressure ulcers	• Turn patient every two hours
Reduce incidence of stress ulcers and gastrointestinal bleeding	• Give early enteral nutrition (within 24–48 hours of admission) • Administer histamine-2 receptor blockers or proton-pump inhibitors in patients with risk factors for GI bleeding. Risk factors for gastrointestinal bleeding include mechanical ventilation for ≥48 hours, coagulopathy, renal replacement therapy, liver disease, multiple comorbidities, and higher organ failure score
Reduce incidence of ICU-related weakness	• Actively mobilize the patient early in the course of illness when safe to do so

8. Specific anti-Novel-CoV treatments and clinical research

There is no current evidence from RCTs to recommend any specific anti-nCoV treatment for patients with suspected or confirmed 2019-nCoV infection.

Unlicensed treatments should be administered only in the context of ethically-approved clinical trials or the Monitored Emergency Use of Unregistered Interventions Framework (MEURI), with strict monitoring.
https://www.who.int/ethics/publications/infectious-disease-outbreaks/en/

Clinical characterization protocols are available, at the WHO 2019 nCoV website:
https://www.who.int/emergencies/diseases/novel-coronavirus-2019. WHO has established Global 2019-nCoV Clinical Data Platform, for member countries to contribute. Contact EDCARN@who.int for additional questions.

9. Special considerations for pregnant patients

Pregnant women with suspected or confirmed 2019-nCoV infection should be treated with supportive therapies as described above, taking into account the physiologic adaptations of pregnancy.

The use of investigational therapeutic agents outside of a research study should be guided by individual risk-benefit analysis based on potential benefit for mother and safety to fetus, with consultation from an obstetric specialist and ethics committee.

Emergency delivery and pregnancy termination decisions are challenging and based on many factors: gestational age, maternal condition, and fetal stability. Consultations with obstetric, neonatal, and intensive care specialists (depending on the condition of the mother) are essential.

10. Acknowledgements

The original version of this document was developed in consultation with International Forum for Acute Care Trialists (InFACT), ISARIC and Surviving Sepsis Campaign. The following individuals contributed to or reviewed the current version. Confidentiality and declarations of interest were collected and reviewed.

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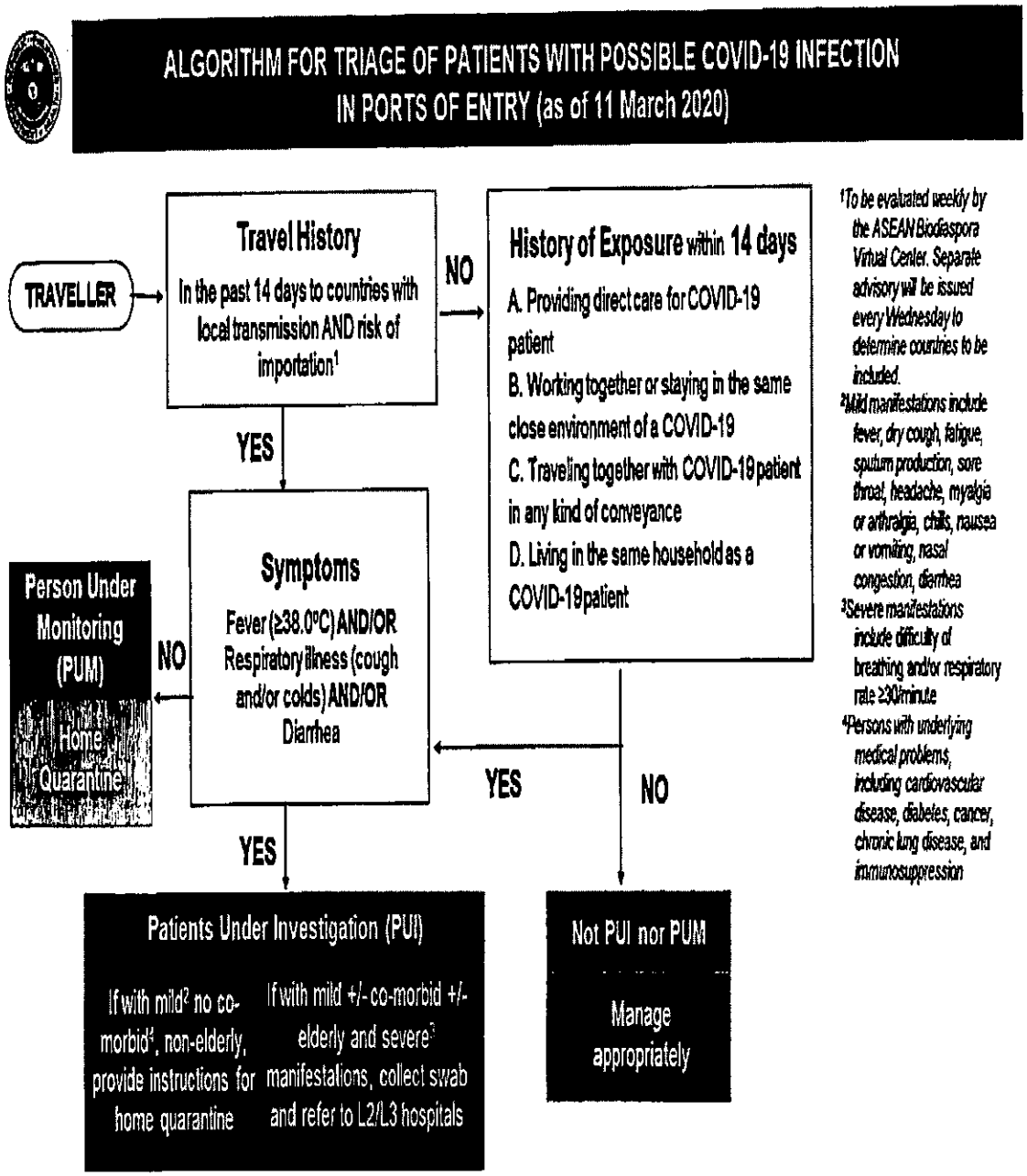
Annex C. Decision Tool for Novel Coronavirus Assessment for Bureau of Quarantine and Hospitals
(Version as of January 30, 2020)

Fever ≥38°C (current fever or with history of fever)	Respiratory Infection (cough AND/OR colds)	Travel History for the past 14 days in China	History of Exposure[1]	Case Category/ Intervention
+	+	+	+	**Category: Patient Under Investigation (PUI)** **Bureau of Quarantine (BoQ)** • Gives mask and isolate PUI • Collects and evaluates the BoQ Health Declaration Card • Endorses patient for admission in a hospital. • Arranges transportation of PUI to hospital **Hospitals** • Completes the case investigation form (CIF) • Trained hospital staff collects specimens (nasopharyngeal swab [NPS] and oral pharyngeal swab [OPS]) and sends to RITM. (NPS/OPS must be collected upon admission and after 24 to 48 hours) • Coordinates with RESU for reporting and transport of specimens • Manages PUI accordingly
+	+	+	-	
+	+	-	+	
+	-	+	+	
-	+	+	+	
+	-	+	-	
-	+	+	-	
+	-	-	+	
-	+	-	+	
-	-	+	+	**Category: Person under Monitoring*** **Bureau of Quarantine** • Collects and evaluates the BoQ Health Declaration Card • Advises person to go on self-quarantine for 14 days, monitor body temperature daily, and observe any signs and symptoms of respiratory infection • If symptoms worsen, immediately notify the nearest hospital for consultation and provide travel history **Centers for Health Development** • Monitor strictly those who are self-quarantined *Anyone who came from other parts of the world with confirmed 2019-nCoV ARD infection except China, has no history of exposure, but with fever and/or cough, is considered **Person under Monitoring** and is advised to go on self-quarantine for 14 days
-	-	+	-	
-	-	-	+	

[1] History of exposure Include:
a. close contact who took care, handled specimens and/or lived with a confirmed case of 2019-nCoV infection; or
- Close contact is defined as:
  - o Health care associated exposure, including providing direct care for nCoV patients, working with health care workers infected with novel coronavirus, visiting patients or staying in the same close environment as a nCoV patient
  - o Working together in close proximity or sharing the same classroom environment with a nCoV patient
  - o Traveling together with a nCoV patient in any kind of conveyance
  - o Living in the same household as a nCoV patient

b. visiting/working in a live animal market in China
c. direct contact with animals in China with circulating 2019-nCoV in human and animals

Annex B: Algorithm for Triage of Patients with Possible COVID-19 Infection