



DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND


04/18/04

MEMORANDUM FOR: 59 MDW/CC, ALL AETC MEDICAL GROUP COMMANDERS

FROM: HQ AETC SG
63 Main Circle, Suite 3
Randolph AFB TX 78150-4549

SUBJECT: Severe Acute Respiratory System (SARS) Preparedness and Response

1. In Feb 03, SARS emerged as a contagious respiratory illness in several Asian countries with the potential for negative impacts on US military operations. In response to this threat, HQ AF/SG tasked each MTF with developing a SARS medical response plan NLT 30 May 03 to provide early recognition and effective management of presenting patients. The HQ USAF/SGO memorandum, 9 Feb 04, at Atch 1 now requires MTF commanders to review the content of their SARS response plan to ensure continued preparedness against a re-emergence of this disease.
2. Experience indicates early recognition and isolation of cases, strict adherence to infection control precautions and case reporting, and aggressive contact tracing and monitoring can minimize the impact of a SARS outbreak by interrupting the disease transmission cycle. MTFs will thus ensure SARS response plans address the key components of surveillance, screening and containment, and reporting procedures. Also, until DoD-level response guidance is available, MTFs should include Centers for Disease Control (CDC) preparedness and response guidelines (<http://www.cdc.gov/ncidid/sars/>) when updating plans.
3. Distinguishing SARS from other respiratory illnesses remains difficult and highlights the importance of provider awareness and effective screening mechanisms. The enclosed provider information sheet updates clinical diagnostic protocols and infection control precautions for SARS. Of note, surgical masks may be worn by both patients and providers during initial evaluation and most outpatient settings. However, if SARS is strongly suspected or confirmed, the patient should be placed in airborne isolation and providers and other staff must then wear N95 respirators. The enclosed CDC screening algorithms (Atch 2) also assist in distinguishing SARS from other respiratory illnesses by tailoring criteria to identify both sentinel and post-outbreak cases.
4. Your infection control function or similar committee is an ideal forum for reviewing existing SARS response plans. MTFs should also take this opportunity to re-educate providers on SARS, as well as to discuss contingency strategies for educating patients and the public. Additionally, the MTF requirement to provide deploying personnel with SARS information sheets as stated in AETC/CV memo (22 Apr 03), *Severe Acute Respiratory Syndrome* (<https://www.afms.mil/aetcs/pol-letters/sgpm/SARS.pdf>) is temporarily rescinded pending the announcement of future health advisory alerts.
5. My POC for public health issues is Col Tom Stedman, HQ AETC/SGPM, DSN 487-6536, e-mail thomas.stedman@randolph.af.mil. My POC for clinical issues is Lt Col Robert Miller, HQ AETC/SGOK, DSN 487-5748, e-mail robert.miller@randolph.af.mil.


JED JAMES J. DOUGHERTY, Col, USAF, MC, CFS
Command Surgeon/Director of Med Svs & Tng

Attachments:

1. HQ USAF/SGO ltr, 9 Feb 04 w/ 2 Atch
2. SARS Screening Algorithms



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

00 FEB 2004

MEMORANDUM FOR SEE DISTRIBUTION

FROM: HQ USAF/SGO
110 Lake Avenue, Room 400
Bolling AFB, DC 20032-7050

SUBJECT: Severe Acute Respiratory Syndrome (SARS) Preparedness and Response

The outbreak of Severe Acute Respiratory Syndrome (SARS) in early 2003 demonstrated that undetected SARS-associated coronavirus (SARS-CoV) can result in rapid global transmission, potentially with significant impacts on our military population and operational mission. In preparation for the re-emergence of community transmission of SARS-CoV, MTF commanders will re-examine their MTF medical response plan to ensure preparedness for early detection and effective management of SARS-CoV cases.

DoD-level SARS response guidance is under development and will be made available upon completion. As a starting point, use the Centers for Disease Control and Prevention's (CDC) clinical and public health SARS preparedness and response guidance as the framework for MTF SARS preparedness and response (available at <http://www.cdc.gov/ncidod/sars>). Information on SARS for MTF healthcare workers is contained in the fact sheet developed by the Deployment Health Clinical Center (attachment 1, also available at <http://www.pdhealth.mil>).

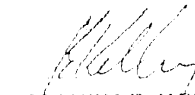
MTF SARS preparedness and response should include three key components: surveillance, screening and containment, and reporting procedures. Priority activities for these components are as follows:

- a. Surveillance. Ensure healthcare providers have up-to-date information on SARS recognition and response, especially since SARS is dynamic in nature and the response recommendations are evolving. For laboratory surveillance, follow the instructions outlined in the DoD Influenza and Viral Respiratory Surveillance Guidance (ASD(HA) memo, 29 Oct 03) (attachment 2). Providers should be judicious when considering SARS-CoV laboratory testing and should coordinate with the Air Force Institute for Operational Health (AFIOH) on procedures for submitting specimens for SARS testing.
- b. Screening and Containment. Implement screening procedures to identify and isolate potential SARS patients. In the event of local or on-going SARS-CoV transmission, HQ USAF may direct additional screening procedures for travel, deployment, and other scenarios. When appropriate, implement infection control measures, contact tracing, and isolation/quarantine to interrupt SARS-CoV transmission.
- c. Reporting Procedures. Report all cases meeting the CDC case definition for suspected, probable, or confirmed SARS to AFIOH and state/local public health officials.

In addition, MTF commanders should consider other issues associated with response to SARS or other emerging diseases of public health significance. These include, but are not limited to,

surge capacity (manpower and supplies); public affairs/communications and coordination with state/local public health officials.

My POC for this issue is Major Mylene Haynie, AFMSA/SG-PP, 110 Luke Avenue, Room 405, Bolling AFB, DC 20032-7050, DSN 297-4260, e-mail: mylene.haynie@pentagon.af.mil.



JOSEPH E. KELLEY
Major General, USAF, MC, CFS
Assistant Surgeon General, Health Care Operations
Office of the Surgeon General

Attachments:

1. SARS Fact Sheet for MTF Healthcare Workers
2. ASD(HA) memo, DoD Influenza and Viral Respiratory Surveillance Guidance, 29 Oct 03

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Severe Acute Respiratory Syndrome (SARS) Information for MTF Healthcare Workers

A Collaborative Effort of CDC-BEIS, D-CC, USACHPPM, AFDP, AFRD, AFRS, AFPO, JWRAND

12 December 2003

Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a coronavirus, called SARS-associated coronavirus (SARS-CoV). SARS began in October/November 2002 and was first reported in Asia in February 2003, spread to more than two dozen countries in North America, South America, Europe, and Asia, and was contained in July 2003. If SARS re-emerges, early case detection is critical to prevent the disease from spreading. This fact sheet outlines key actions that healthcare workers (HCWs) should take to prepare for the possibility that SARS may re-emerge.

Key Clinical and Epidemiologic Concepts:

- SARS has a non-specific clinical presentation (i.e., difficult to distinguish from other respiratory illnesses).
- Early clinical recognition of SARS still relies on a combination of clinical and epidemiological features.
- Only travel/contact information will assist in differentiating a new SARS case from all other respiratory diseases.
- Laboratory tests can be helpful but do not reliably detect infection early in the illness.
- Nearly all lab-confirmed cases had x-ray evidence of pneumonia by day 7 of the illness.
- Early case diagnosis can prevent further transmission.

Patients with respiratory symptoms should be provided with surgical masks and should be kept in an area of the waiting room where they can remain at least 3 feet from other patients. HCWs should wear surgical masks when evaluating these patients. During reception, technicians should remain at least 3 feet from unmasked patients. If possible, patients with respiratory symptoms should be placed in a private room or cubicle for further evaluation.

SARS Surveillance

Detecting "Sentinel" Cases in the Absence of SARS Activity

The Centers for Disease Control and Prevention (CDC) recommends that providers ask individuals with radiographic evidence of pneumonia or Acute Respiratory Distress Syndrome (ARDS) requiring hospitalization:

- "In the last 10 days, have you traveled to mainland China, Hong Kong or Taiwan, or been in close contact with other ill persons who have?"
- "Are you employed as a healthcare worker with direct patient contact?"
- "Do you have close contacts who have been told they have pneumonia?"

If the answer to any of the 3 questions is "Yes", healthcare providers will need to:

- Institute droplet precautions.
- Report through the service specific reporting system and notify the state/local health department.
- Evaluate for alternative diagnoses as clinically indicated.
- Consider SARS testing if the etiologic agent is not found within 72 hours of hospitalization.

Detection Should SARS Re-Emerge

If SARS re-emerges, increased surveillance for early case finding is the key to effective control. In addition to asking the three questions above, HCWs should screen all patients presenting with fever or respiratory symptoms for the following SARS risk factors:

- Travel within 10 days of the illness' onset to foreign or domestic locations with documented or suspected SARS-CoV, or close contact with an ill person with such exposure history.
- Close contact within 10 days of the illness' onset with a person who has known or suspected SARS infection.
- Exposure to a facility or setting with recent or ongoing SARS transmission.

SARS Diagnosis

Follow the CDC's case definition for SARS-CoV posted on its website at <http://www.cdc.gov/ncidod/sars/>. This website contains the most current SARS information and may change rapidly and frequently during another outbreak.

SARS Work Up

Again, refer to <http://www.cdc.gov/ncidod/sars/>, the CDC SARS-CoV site, for the most up-to-date information.

Initial testing may include:

- CBC with differential.
- Pulse oximetry.
- Blood cultures.
- Sputum Gram stain and culture.
- Acute Serum sample.
- Testing for viral respiratory pathogens, notably influenza A and B and respiratory syncytial virus (RSV).
- Legionella and pneumococcal urinary antigen testing if radiographic evidence exists of pneumonia.

Respiratory specimens should be collected for viral and bacterial diagnostics. These include: nasopharyngeal wash/aspirates, nasopharyngeal and oropharyngeal swabs, bronchoalveolar lavage, tracheal aspirate, pleural tap, sputum, and stool. Nasopharyngeal wash/aspirates are the specimen of choice to detect most respiratory viruses and are the preferred collection method among children under 2 years of age. The acute serum sample and other available clinical specimens (respiratory, blood, and stool) should be saved for additional testing until a specific diagnosis is made. In addition, every effort should be made to obtain a convalescent serum sample 2 to 3 weeks after onset of illness for suspected cases.

Several laboratory tests can be used to detect SARS-CoV. A reverse transcription polymerase chain reaction (RT-PCR) test can detect SARS-CoV in clinical specimens, including blood, stool, and nasal secretions. Serologic testing also can be performed to detect SARS-CoV antibodies produced after infection. In addition, viral culture has been used to detect SARS-CoV.

Although current SARS tests can be sensitive and specific, they also can yield false positive results in a low-disease prevalence setting. In addition, laboratory capacity may be limited in some settings. **Therefore, testing for SARS-CoV should only be done with prior consultation with public health professionals from the respective military services.**

SARS Infection Control

All healthcare facilities need to reemphasize the importance of basic infection control measures to control SARS. Most transmission appears to occur through droplets, close contact, and, possibly, fomite contact; however, airborne transmission remains a possibility.

Suspected SARS patients who need hospitalization should be placed in an airborne infection isolation room as soon as possible.

SARS Treatment

No specific treatment recommendations can be made at this time. Empiric therapy should include coverage for organisms associated with any community-acquired pneumonia of unclear etiology, including agents with activity against both typical and

atypical respiratory pathogens. Treatment choices may be influenced by severity of the illness. Infectious disease consultation is recommended. Clinicians evaluating suspected cases should use standard precautions (e.g., hand hygiene) together with droplet (e.g., surgical mask) and contact (e.g., gowns, gloves, and eye protection) precautions. N95 respirators are recommended when performing airway management on suspected SARS patients (e.g., intubation).

SARS Testing Laboratories

In addition to providing specimens to local public health authorities as requested, clinical specimens may be sent to the Air Force Institute for Operational Health (AFIOH), the Naval Health Research Center (NHRC), the Armed Forces Institute of Pathology (AFIP), or the US Army Medical Research Institute of Infectious Diseases (USAMRIID). Appropriate media and storage conditions are critical for optimal recovery and diagnosis. In addition, laboratory capacity may be limited in some settings. **Therefore, contact and consult with the receiving laboratory prior to shipping.**

Contact information is located at <http://www.geis.ha.osd.mil/GEIS/SurveillanceActivities/Laboratory/LabTestsRespDisFinJG16Jul03.doc>

SARS Reporting

Report all potential SARS cases through existing service reportable event systems and to the state/local health department. Service specific contact information is below:

Air Force: Air Force Institute for Operational Health
episervices@brooks.af.mil, DSN 240-3471, commercial
210-536-3471

Army: U. S. Army Office of the Surgeon General (OTSG),
Paula.Underwood@otsg.amedd.army.mil, 703-681-3160

Coast Guard: CG Commandant Health and Safety Directorate,
Operational Medicine Division: sludwig@comdt.uscg.mil

Navy: Navy Environmental Health Center, CDR Mark Malakooti,
malakootim@nehc.med.navy.mil, (757) 953-0700, DSN 377-0700,
after hours (757) 621-1967

Additional Information on SARS

Centers for Disease Control and Prevention

<http://www.cdc.gov/nceidod/sars/index.htm>

World Health Organization

<http://www.who.int/csr/sars/en/>

DOD Global Emerging Infections System (also contains DOD guidance and policy documents)

<http://www.geis.ha.osd.mil/GEIS/IDTopics/SARSMenu.asp>

Laboratory Testing and Pathology Exploration Resources for Respiratory Disease Cases

<http://www.geis.ha.osd.mil/GEIS/SurveillanceActivities/Laboratory/LabTestsRespDisFinJG18Jul03.doc>

Deployment Health Clinical Center

www.pdhealth.mil

This Information Sheet is a Collaborative Effort Involving DOD-GEIS, DHCC, USACHPPM, AFIOH, NHRC, NEHC & WRAMC



HEALTH AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE
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OCT 29 2003

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (M&RA)
ASSISTANT SECRETARY OF THE NAVY (M&RA)
ASSISTANT SECRETARY OF THE AIR FORCE (M&RA)
DIRECTOR, JOINT STAFF

SUBJECT: Department of Defense Influenza and Viral Respiratory Surveillance
Guidance for the 2003-2004 Influenza Season

The attached Department of Defense (DoD) Influenza and Viral Respiratory Surveillance Guidance provides instructions to military treatment facilities (MTF) on viral respiratory activities for the 2003-2004 influenza season. This is an important force health protection program, with participation from across the Services with worldwide sentinel locations, including in-theater sites.

Influenza kills on average 36,000 people each year in the United States, and is responsible for over 100,000 people requiring hospitalization for pneumonias. The emergence of Severe Acute Respiratory Syndrome coronavirus in 2003 highlights the need for continued vigilance in our viral respiratory pathogen surveillance. Intensive surveillance efforts ensure early identification of outbreaks and identify the circulating virus.

New to this year's viral respiratory surveillance are in-theater sentinel sites and active surveillance of hospitalized cases of acute non-bacterial pneumonias. The U.S. Air Force is the executive agent for laboratory-based influenza surveillance. MTF commanders should ensure participation and compliance with the DoD Influenza and Viral Respiratory Surveillance Program guidance. My point of contact at Health Affairs is LTC Phillips, (703) 575-2669.

William Winkenwerder, Jr.
William Winkenwerder, Jr., MD

Attachment:
As stated

cc:
Assistant Secretary of Defense (Reserve Affairs)
Joint Staff (J-4 (HSSD))
Surgeon General, Army
Surgeon General, Navy
Surgeon General, Air Force
Director of Health and Safety, US Coast Guard
Director, TRICARE Management Activity

HA POLICY: 03-020

DoD Influenza and Viral Respiratory Surveillance Guidance for the
2003-2004 Influenza Season

The U.S. Air Force is the executive agent for influenza surveillance. The Air Force Institute for Operational Health (AFIOH) provides the laboratory and epidemiology support for one part of this effort, the worldwide sentinel surveillance. Sentinel sites are chosen on the basis of location, mission, and training status. In addition to laboratory-based data, AFIOH will analyze data from the Department of Defense (DoD) Global Emerging Infection Surveillance System, Electronic System for the Early Notification of Community-based Epidemics (ESSENCE) for influenza-like illnesses, and DoD hospitalization data for influenza and influenza-related hospitalizations, and include these in their weekly reports. The Epidemiology Branch of AFIOH updates the influenza surveillance statistics including the ESSENCE surveillance twice weekly during the season on their website (<https://zumbo.brooks.af.mil/pestilence/influenza>).

The Naval Health Research Center (NHRC) Respiratory Disease Laboratory performs the second part of influenza surveillance: population-based influenza-like illness surveillance. This surveillance is conducted at eight recruit training facilities within the Navy, Marines, Army, and Coast Guard. On-site staff counts individuals meeting the case definition, and a selection sampled for diagnostic work-up. The total susceptible population is also recorded at each site. Rates of infection, as cases per 100 recruits per week, are thereby tracked in this important population. In this highly vaccinated group, increasing rates of influenza can be an early indication of vaccine failures against the circulating strain. Other population-based influenza surveillance performed by NHRC includes a selection of Naval ships and critical deployments. The staff at NHRC updates information on population (recruit) based surveillance on their website ([http:// http://www.nhrc.navy.mil/geis/studies](http://http://www.nhrc.navy.mil/geis/studies)).

a. *Case definition of Influenza-like Illness (ILI)*: Case definition includes patients with fever (> or equal to 100.5 °Fahrenheit/38 °Centigrade, oral or equivalent), and cough or sore throat (of < 72 hours duration) Operating Room patients with clinical radiographic evidence of acute non-bacterial pneumonia. Nasopharyngeal or oropharyngeal swabs should be taken from patients fitting the case definition and meeting the early illness requirement (< 72 hours). The population to be sampled includes all beneficiaries active duty, retirees, and dependents. Sampling earlier in the course of illness is desirable, since the amount of virus declines rapidly.

b. *Acute non-bacterial pneumonias* and acute pneumonias of uncertain etiology that require hospitalization should have a *nasopharyngeal* swab taken either in conjunction with or in place of an oropharyngeal swab. *These specimens should be labeled as coming from patients that have a viral pneumonia requiring hospitalization.*

c. *Sentinel bases* are encouraged to institute an active influenza surveillance program in which the influenza incidence rate is determined and tracked over time.

d. *Worldwide sentinel bases are* Al Udeid AB UAE, Andersen AB GU, Andrews AFB MD, Aviano AB IT, NS Bremerton WA, Elmendorf AFB AK, Hickam AFB HI (in coord with NEPMU-6), Incirlik AB TU, Kadena AB JA, CGS Ketchikan AK, Kunsan AB SKO, Lakenheath RAFB UK, Little Creek NAB VA, Manas AB KG, Maxwell AFB AL, McGuire AFB NJ, Misawa AB JA, Osan AB SKO, Pearl Harbor NH HI, Ramstein AB GE, Shepard AFB TX,

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NMC San Diego CA, Travis AFB CA, Tripler AMC HI, USAF Academy CO, NS Yokosuka JA, and Yokota AB JA. Specimen submission requirements: weekly, each sentinel site will submit at least 6 throat or nasopharyngeal swabs to 311 HSW/AFIOH/SDE AFIOH/SDEM, 2730 Louis Bauer Drive, Bldg 930, Brooks City-Base TX 78235-5132; DSN: 240-1679 Comm: 210-536-1679 Fax: 210-536-2638) during active influenza season from October through May. Additional samples can be sent, especially during outbreaks, but not more than 20 per week without prior authorization from the surveillance laboratory. Upon request, new viral transport system media kits will be sent to sentinel base public health offices by 311 HSW/AFIOH/SDE. These kits will be sent with collection information. Non-sentinel bases are also encouraged to submit specimens and may obtain sampling kits from 311 HSW/AFIOH/SDE, DSN 312-240-8378/1679. Installations interested in participating as a surveillance site should contact the Air Force Institute for Operational Health (AFIOH) by email at INFLUENZA@brooks.af.mil for details.

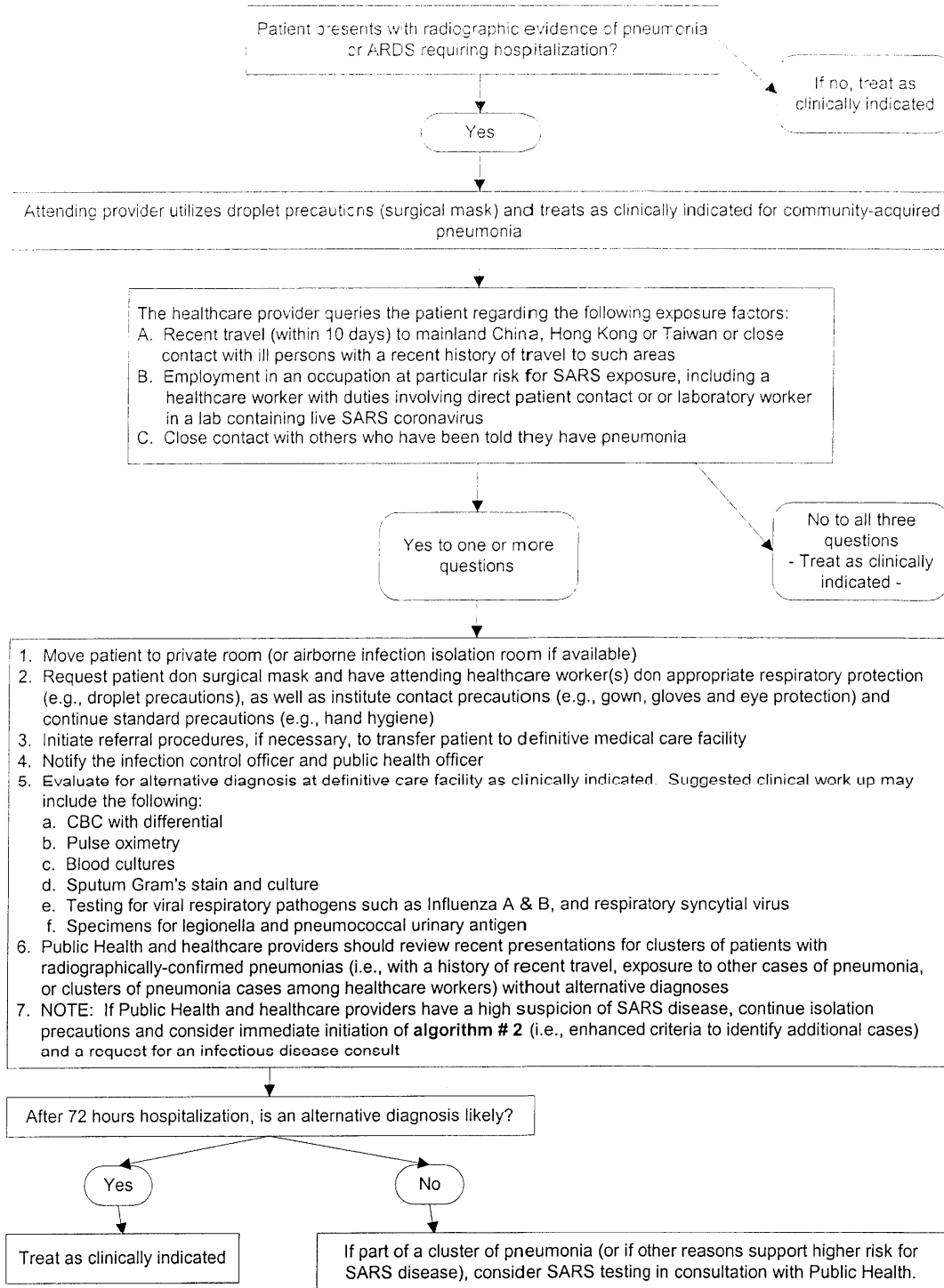
e. Population-based sentinel bases are. Lackland AFB TX, MCRD San Diego CA, NRTC Great Lakes IL, CGTC Cape May NJ, Ft Leonard Wood MO, Ft Jackson SC, Ft Benning GA, and MCRD Parris Island SC. Specimen submission requirements: Weekly, each sentinel site will obtain viral throat culture specimens from a systematic sample of cases, not to exceed 10 specimens per week. Specimens are preserved at -70°C and are shipped to NHRC on dry ice every 4 weeks. In addition, sites will provide weekly numerator (# of cases) and denominator (# of total population) data to NHRC. Viral transport system media kits will be sent to surveillance sites by NIIRC. Additionally, NIIRC is conducting similar population-based surveillance for ILI aboard several Navy ships that are deployed out of San Diego. Further information on the population-based surveillance program is available from NHRC at their website (<http://www.nhrc.navy.mil/geis>) or by calling DSN 553-7522.

f. Reporting: Patients fitting the case definition with laboratory confirmation will be recorded as a reportable event with information entered in the respective service reportable event surveillance system (Air Force Reportable Event Surveillance System (AFRESS), Naval Disease Reporting System (NDRS), Army Reportable Medical Event System (RMES) in accordance with DoD regulations. The reporting priority for the 2003/2004 season is ROUTINE, except for acute viral or undetermined pneumonias requiring hospitalization where the reporting priority is URGENT. The base-level public health/prevention activity is required to monitor weekly ILI rates and report to 311 HSW/AFIOH/RSRH (AF), any influenza-like outbreaks.

g. Influenza-like illness suspected outbreaks. All MTFs (Chief of the Professional Staff, professional staff, laboratory officer, public health/preventive medicine officer, and infection control officer) should develop and enter on a flow-chart their process to ensure procedures for virus isolation are in place *before* the event of a potential epidemic. The process (physician order, specimen collection, virus identification, reporting) should be reviewed and briefed annually at the onset of influenza season to all health care providers. Should ILI rates exceed normal background levels for a specific time period, public health is required to report the increase to 311 HSW/AFIOH/RSRH and submit specimens to 311 HSW/AFIOH/SDE. Discussion with the lab and epidemiology personnel should occur before large increases in submissions occur (>20 spec/week). Specimen kits can be obtained by calling DSN 240-8378.

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- Detection of SARS Cases During Absence of Recent World Cases of Person-to-Person SARS Transmission -
 (Evaluation & Management of Patients Requiring Hospitalization for Radiographically-Confirmed Pneumonia or Acute Respiratory Distress Syndrome (ARDS) symptoms)



- Detection of SARS Patients During Known Worldwide Re-emergence of SARS Activity -

