NAVAL HEALTH CLINIC NEW ENGLAND

HEALTHCARE-ASSOCIATED INFECTION PREVENTION AND CONTROL MANUAL (HAIPC)

2012

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CHAPTER 1
INFECTION PREVENTION COMMITTEE

The Commanding Officer (CO) shall appoint, in writing, the Chairman and members of the Infection Prevention Committee (IPC) to assist in the implementation of the Healthcare Associated Infection Prevention and Control Program (HAIPC).

1. Purpose. The IPC identifies and reduces the risks of healthcare associated infections and provides recommendations to improve the HAIPC and the occupational safety of staff. An extensive surveillance program focusing on the following aspects accomplishes this:

a. Identifying, classifying, and reporting infections. See Appendix A for definitions and Appendix B for criteria for identifying and classifying healthcare associated infections.

b. Identifying potential outbreaks, clusters, or epidemics of infection and communicable diseases, initiate investigations, and recommend appropriate intervention measures.

c. Identifying contagious diseases and assuring appropriate isolation measures to prevent the spread among patients and personnel.

d. Developing, modifying, implementing, reviewing, and revising infection prevention and control policies and instructions. Also, advise key personnel of requirements, responsibilities, and means of enforcement.

e. Conducting infection prevention rounds in all outpatient areas at least quarterly, to monitor for compliance with infection prevention and control policies and procedures; report findings to clinic managers, Quality Management and Officer in Charge at each BHC.

f. Monitoring and seeking to improve mechanisms for the effective treatment and disposal of infectious waste.

g. Recommending and monitoring use of proper personal protective equipment in tasks that involve exposure to bloodborne pathogens and other infectious agents.

h. Monitoring of military and civilian staff health programs, which include required immunizations, occupational exposures, and infections.

i. Monitoring the handling of linen.

j. Reviewing, evaluating, and approving new engineering controls, products, work center practices, cleaning agents and other improvements to the HAIPC, including disinfectants, antiseptic cleaning products, soap dispensers, and new sharps disposal equipment.

k. Overseeing infection prevention and control orientation for all new personnel through Indoctrination, and reviewing annual infection prevention and control education provided to all.

i. Reviewing proposed contracts for housekeeping, waste disposal, and other services that have an impact on the infection prevention program.

j. Assuring adherence to Joint Commission, Center for Disease Control and Prevention (CDC), Occupational Safety and Health Administration (OSHA), Association for Professionals in Infection Control and Epidemiology (APIC), Association for periOperative Registered Nurses (AORN), Association for the Advancement of Medical Instrumentation (AAMI), and other applicable federal, state, and local regulations and guidance that pertain to infection prevention and control standards.

k. Each member of the IPC has the authority, through the Chairman, to initiate immediate control measures when there is an outbreak of infection or when any procedure that is being incorrectly performed puts the patient or a staff member at risk of contracting a healthcare associated infection.

2. Composition. The IPC is multidisciplinary and includes the following personnel:

- Chairman – NHCNE Infection Prevention Coordinator
- Special Advisor for Medical/Dental Affairs Representative (Physician/Dentist)
- Infection Prevention Officer, Branch Health Clinic, Groton
- Infection Prevention Officer, Branch Health Clinic, Newport
- Infection Prevention Officer, Branch Health Clinic, Portsmouth
- Infection Prevention Officer, Branch Health Clinic, Saratoga Springs
- Infection Prevention Officer, Occupational Medicine Officer
- Infection Prevention Officer, Safety Department
- Infection Prevention Officer, Facilities Department
- Infection Prevention Officer, Dental Department
- Infection Prevention Officer, Laboratory Department
- Quality Management Representative
- Patient Safety Representative
- Command Preventive Medicine representative, housekeeping representative, Central Sterilization representative, surgical representative, and Public Health Emergency Officer are ad hoc members.

Each site Officer in Charge (OIC) nominates an Infection Prevention Officer (IPO) for his or her respective clinic. The CO appoints the IPOs.

3. Responsibilities

a. Chairman, Infection Prevention Committee shall

(1) Be responsible for the administration and coordination of the infection prevention functions.

(2) Report to the Director of Public Health and Quality Management, on all matters concerning infection prevention and control.

(3) Convene the IPC at least quarterly and more frequently as needed. Document minutes, which will be reviewed and signed by Quality Manager (QM) and DPH, returned to the IPC and maintain for three years. Any Comments by QM or DPH will be discussed at next IPC meeting.

(4) Provide written reports to the CO in the form of quarterly reports. The Infection Prevention Quarterly Report is reviewed by the Special Advisor for Medical/Dental Affairs (SAMDA), the Director for Public Health and the Executive Committee of the Medical Staff, before final review by the CO. The report will be returned to the Chairman of the IPC with comments and questions via the ECOMS Dashboard, which is addressed in the next IPC meeting minutes.

(5) Provide immediate notification to the DPH and Quality Management about outbreaks of infectious disease or conditions that place beneficiaries or clinic staff members at increased risk of acquiring infectious diseases.

(6) Take immediate action to implement infection control measures when there is a significant health risk to the patient or occupational risk to command staff members. The Chairman is authorized to implement immediate infection control measures and/or initiate review of any such incident. The Director of Public Health must be notified immediately of action(s) taken or planned.

(7) Guide the committee in meeting all infection prevention and control requirements mandated by Bureau of Medicine and Surgery (BUMED), or by federal, state, or local regulations or laws.

(8) Provide infection prevention and control training at Command Orientation and Annual Training as needed.

(9) Be available and contribute to any surveys or inspections completed by federal, state or local regulatory bodies and any other regulatory authorities such as The Joint Commission. The results of the inspection will be submitted to the Command Risk Manager for routing to the Commanding Officer. Results and recommendations will be shared with all involved leadership and personnel for action.

(10) Assist/conduct Environment of Care rounds at least quarterly (biannually for NBHC Saratoga Springs) at each NHCNE site, including medical, surgical, occupational, and dental clinics. Results and recommendations will be shared with the clinic OICs for action.

(11) Serve as the liaison between the local Infection Prevention Officers (IPOs), the NHCNE Environment of Care Committee and NHCNE ECOMS and may be an ad hoc member to each as appropriate.

b. Local IPOs shall:

(1) Assist with conducting infection surveillance, reviewing specific cultures where there is a high risk of healthcare associated infection and report significant control trends or concerns to the ICC.

(2) Direct all infection prevention and control activities in the clinic areas.

(3) Develop, modify, implement, review and revise infection prevention and control policies and instructions, and advise key personnel of requirements, responsibilities, and means of enforcement.

(4) Monitor infectious and regular waste treatment and disposal, general cleanliness of clinic spaces, and other aspects of clinic sanitation. Monitor compliance with the infection prevention and control instruction throughout the clinic spaces, including, but not limited to, all medical and dental clinics, administration spaces and other areas affecting the clinics. Discrepancies will be corrected in accordance with Command policy consistent with infection prevention and control standards as set herein.

(5) Perform quarterly infection control inspections of all clinics/annexes spaces. The results of the inspection will be published on the EOC Dashboard located on the NHCNE Intranet site.

(6) Prepare and present written and verbal infection control reports as scheduled and as needed.

(7) Serve as an infection prevention consultant both in and outside of the clinic spaces.

(8) Review and evaluate new products as needed and advise as to their desirability and efficacy.

(9) Coordinate activities with Occupational Medicine, Preventative Medicine and Safety to assure appropriate reporting and follow up of patients and employees with communicable diseases and appropriate follow up of employees who are exposed through contact, needle sticks, etc., to infectious or potentially infectious diseases.

(10) Maintain accurate records and files of all ongoing infection prevention and control activities.

(11) Interface with Performance Improvement/Quality Management in identifying quality problems as they relate to infection prevention and control, and report such problems through proper channels.

(12) Develop, maintain, and monitor for compliance with OSHA Bloodborne Pathogens and OSHA Tuberculosis Exposure Control regulations.

c. Branch Clinic OICs shall:

(1) Actively support the HAIPC.

(2) Ensure that all clinic personnel comply with the policies and procedures of this instruction.

(3) Ensure that infection prevention related classes are attended by all clinic personnel at least annually (usually via CBT) and that attendance is documented in their training record.

(4) Ensure that clinic IPO's perform routine infection prevention and control inspections and that discrepancies are corrected prior to the next inspection.

(5) Nominate Clinic IPOs.

(6) Ensure personnel who are handling linen and performing housekeeping services receive appropriate training concerning cleaning procedures and adhere to the policies and procedures approved by the HAIPC.

d. Providers shall:

(1) Become thoroughly familiar with and adhere to infection prevention and control policies and procedures.

(2) Immediately report post-procedural infection in AHLTA with appropriate coding, complete a patient safety report (PSR) and report to a member of the IPC.

(3) Ensure that patients with a contagious disease are placed in clinic's designated separation room and appropriate transmission based precautions are adhered to.

(4) Immediately notify Preventative Medicine Department of any reportable and/or infectious diseases. (The IPO to be notified in the absence of Preventative Medicine staff.)

e. Department Heads shall:

(1) Ensure that newly assigned personnel receive on-site training regarding infection prevention and control procedures.

(2) Ensure staff is in compliance with the approved policy and procedures related to infection prevention and control and potentially high-risk infectious activities.

(3) Ensure that staff members who are exposed to blood or other potentially infectious material are immediately sent to the Occupational Medicine Department for medical attention or to the Primary Care Clinic in the absence of the Occupational Medicine Provider.

(4) Ensure appropriate infection prevention and control standards are maintained throughout their department and discrepancies are corrected as soon as possible.

f. Preventative Medicine Departments shall:

(1) Provide infection prevention and control information to OICs, IPC Chairman, and IPO upon request.

(2) Provide reportable communicable disease, including Methicillin-Resistant Staphylococcus Aureus (MRSA) and Sexually Transmitted Infections (STI), reporting information to the local IPO.

(3) Inform the IPC Chairman and local IPO about significant infection prevention and control issues occurring in NHCNE and community areas.

(4) Maintain liaison with federal, state, and local health authorities and meet requirements pertaining to Infection Prevention and Control, including preparing disease alert reports and meeting Disease Reporting Service internet (DRSi) requirements.

(5) Provide appropriate education, counseling, and follow up with staff and patients as needed in relation to infectious diseases and document information in AHLTA.

(6) Work collaboratively with IPO and Chairman to monitor the Military Health System (ESSENCE) for trending, outbreaks, and reportable infectious diseases.

g. Occupational Medicine Department shall:

(1) Provide medical screening of civilian employees for communicable diseases and monitor required immunizations.

(2) Provide monthly reports to IPO/IPC of Healthcare Worker's (HCW) Immunization status.

(3) Provide counseling, follow up, and monitoring of all HCW for infectious disease processes.

h. Laboratory Department shall:

(1) Properly receive, handle, and process infectious waste for transport, treatment, and disposal by the civilian contractor.

(2) Process/perform laboratory tests that are requested by attending physicians/providers, the IPO, and the IPC that are necessary to support the HAIPC.

(3) Assist the IPO by providing Laboratory Department personnel to collect laboratory data for retrospective and prospective studies.

(4) Process antimicrobial susceptibility studies when recommended.

(5) Provide written reports to the IPO/IPC as requested to support surveillance efforts.

4. Staff Education and Training. NHCNE strives to ensure that all individuals working in patient care and ancillary care areas are well informed and competent to carry out their infection prevention and control responsibilities. Staff education is an important part of these ongoing efforts and the following procedures will be adhered to:

a. All personnel new to NHCNE will receive one to two hours of lecture, videotape, and computer based instruction during Command Indoctrination. Presenters include the local Infection Prevention Officer and Infection Prevention Committee members as appropriate. The presentation topics include (but are not limited to):

(1) Standard and Transmission Based Precautions.

(2) Control of Exposure to Bloodborne Pathogens.

(3) Control of Exposure to Tuberculosis and other Communicable Diseases.

(4) Identification and Management of Medical Waste.

(5) Prevention of Healthcare Associated Infections (HAI) including Hand Washing Policies and Techniques.

(6) Pandemic Influenza.

b. All personnel are required to complete periodic infection prevention and control training. These updates consist of a review of standard infection prevention and control practices and updates on any changes or new information that may have become available during the year. The method of trainings is computer-based training (CBT).

c. On-site staff education may be presented when clusters or outbreaks of infections are identified or when specific problems are noted which can be corrected through staff education. Each clinic is encouraged to present ongoing infection prevention and control in-services to maintain staff awareness of infection prevention.

d. Both the IPC Chairman and the local Infection Prevention Officer forward pertinent new information to clinics and other concerned individuals as it becomes available. E-mail is regularly used as a tool to disseminate infection prevention and control education and information. The Infection Prevention Officer is available to provide presentations upon request.

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CHAPTER 2
INFECTION SURVEILLANCE

1. Purpose Surveillance of infections is an important part of the infection prevention and control process. By collecting data about infections, the Infection Prevention Committee (IPC) is able to detect any changes in infection trends and intervene as needed. Surveillance activities include identification, analysis, reporting, prevention, and control. Each of these activities occurs simultaneously in an ongoing manner.

2. Types of surveillance. There are several different types of surveillance systems available. Naval Health Clinic New England (NHCNE) will use a targeted surveillance approach, focusing on high-risk areas and those with a potential to reduce risks. When an infection cluster or outbreak is suspected, an outbreak approach will be implemented.

3. Procedure. The Infection Prevention Officer (IPO) at each clinic will perform the following functions as applicable:

a. Review microbiology reports received by the lab weekly and as needed.

b. Monitor number of procedures, both medical and dental, conducted on a monthly bases and calculate SSI (Surgical Site Infection) rates accordingly.

c. Initiate a review if a patient indicates he/she underwent an invasive procedure while at a NHCNE facility and a healthcare associated infection or SSI is suspected. The review may include:

(1) Patient chart review.

(2) Consultation with staff members involved with the patient's care.

(3) Visual surveillance of the procedures being performed.

(4) Cultures from personnel in the patient's care (only if increase noted in trends).

(5) Evaluation of products/instruments used in the treatment of the patient.

(6) Review of patient wound care education.

Note: It is essential for providers to advise their patients to report any signs and symptoms of infections (cough, congestion, rashes, redness, and swelling of wounds/surgical sites, fever, etc.) The provider must document and forward any incidence of HAI, infectious disease or surgical site infection to the Clinic IPO. Patients with known or suspected communicable diseases shall be reported to the Preventive Medicine Department.

4. A Patient Safety Report (PSR) shall be generated when any infection is determined or suspected to be healthcare associated.

CHAPTER 3
MICROBIOLOGICAL SURVEILLANCE

1. Culturing the Environment

a. Microbiologic sampling of air, water, and inanimate surfaces (i.e., environmental sampling) is an expensive and time-consuming process that is complicated by many variables in protocol, analysis, and interpretation. It is therefore indicated for certain situations only.

b. Microbiological sampling will be limited to evaluating contamination of a high-risk area or equipment to prevent outbreaks of infections or communicable disease (i.e., Biological Indicator for sterilization equipment).

c. Environmental culturing adds little to infection prevention/control and should be restricted to investigations of outbreaks when recommended by the IPC/IP Chairman). Results will be reported to the IPC/IPO.

2. Cultures from Staff Personnel

a. Routine culturing to monitor clinic staff members in the absence of disease outbreak will NOT be done.

b. Microbiological culturing of staff members (including anterior nares, skin lesions, rectum, hands, and stool specimens) should be limited to epidemiological investigation of infectious disease outbreaks.

3. Cultures from Patients

a. Only healthcare providers may order patient cultures for diagnostic or epidemiologic purposes.

b. Providers will answer a pre-established set of questions pertaining to the patient's surgical and recent hospitalization history status prior to a culture being ordered and/or processed.

c. Refer to Appendix B for criteria for identifying and classifying healthcare associated infections, definitions and guidelines.

CHAPTER 4
COMMUNICABLE DISEASE EXPOSURE AND REPORTING

1. Purpose - To establish guidance on how to handle exposure situations that involve a staff member or patient with a communicable disease that can affect other staff members and/or patients. All NHCNE facilities will implement procedures that minimize exposure of staff members and patients to communicable diseases and appropriately report any exposures to the appropriate state public health organizations.

2. Mechanisms of Reporting Diseases

a. Known or suspected communicable diseases or infections must be reported promptly to the Preventive Medicine Department (PMD).

b. The PMD submits completed Medical Events Reports (MER) for diseases or disease outbreaks as required by local, state and DoD organizations.

3. Reporting Procedures

a. Exposure:

(1) In the event a patient or staff member exposes other patients or personnel to a communicable disease, any staff member involved will immediately notify Preventive Medicine personnel.

(2) Preventive Medicine personnel initiate an investigation.

(3) If a staff member with a communicable disease is involved, he or she is removed from the work setting until the communicable period ends. (Refer to Chapter 5)

(4) Preventive Medicine personnel follow up on contacts; identify immunization and immune system status; and initiate further testing as appropriate.

(5) Patients who have been exposed are notified of the potential exposure and recommended follow-up.

(6) The NHCNE Infection Prevention Coordinator (IPC Chairman) will review and report quarterly to the Executive Committee of the Medical Staff (ECOMS) all Medical Event Reports (MERs) that are reported.

(7) In the event of the absence of the Preventive Medicine personnel, the IPO will receive reports of the communicable disease and will follow up as previously indicated.

b. Communicable Disease Reporting

(1) Medical officers, physicians, nurse practitioners, and the clinical laboratory identify reportable communicable diseases. Laboratory personnel and healthcare providers assure communication with the Preventive Medicine Department and/or Infection Prevention Officer (IPO) when these diseases are identified. Each laboratory and PMD maintains a list of reportable diseases.

(2) Upon receipt of the reports, Preventive Medicine personnel investigate, prepare and submit a MER and enter it into DRSi electronically as required by reference (d) reporting requirements, and based on local and state requirements. Preventive Medicine notifies the state and local public health agencies as required. The

laboratory also forwards appropriate specimens and reports to the State Department of Health as required by law. In the event the Preventive Medicine personnel are not available, the IPO will report as required in order to meet time restraint requirements.

(3) Communicable Disease Reporting requires that health care practitioners report all confirmed or suspected cases of the diseases in to Preventive Medicine by directly contacting a Preventive Medicine Technician (PMT), the IPO, or the Chairman.

CHAPTER 5
OCCUPATIONAL HEALTH AND MEDICAL SURVEILLANCE PROGRAMS FOR HEALTHCARE WORKERS

1. Introduction

a. As healthcare workers (HCWs), the Naval Health Clinic New England (NHCNE) personnel are at risk of acquiring or transmitting a communicable disease. It is of extreme importance that staff members who feel ill immediately seek treatment from their Primary Care Manager (PCM) to decrease the risk of exposing customers and staff to potential healthcare associated infections. Any staff member who is diagnosed or suspected of having a communicable disease needs to inform their clinic Infection Prevention Officer (IPO) as soon as possible.

b. Healthcare workers (HCWs) are defined as persons who provide direct health care to patients or work in areas that provide patient care, including military, civilian, contractors, volunteers and students. HCWs are divided into the following categories:

Category 1	Category 2	Category 3
Provides direct patient care: Increase risk of bloodborne exposure	Work in the patient care areas but do not perform tasks that are direct patient care: lower risk of bloodborne exposure	May frequently visit clinical areas but are not assigned to the patient care area
Providers, nurses, corpsmen, dental professionals,	Front desk personnel, medical record staff, facilities maintenance personnel, pharmacists:	MID, Human Resources, Administration personnel
2 step TST: pre-hire Tdap, Varicella, MMR Hepatitis B status Respirator (As determined by Safety department) Seasonal and/or Novel Influenza vaccine annually	2 step TST : pre-hire Tdap, Varicella, MMR Respirator (As determined by Safety department) Seasonal and/or Novel Influenza vaccine annually	Influenza recommended

c. Contracting Officers are responsible for providing documentation of the immunization status for each individual contracted HCW to Occupational Medicine Department (OMD). This must be submitted prior to employment and as required, annually.

d. Group contracted HCWs (such as housekeeping and students) will have their immunization status maintained by their employing agency. The employing agency is expected to maintain the same standards as NHCNE.

e. To afford maximum protection to the HCW, a HCW Medical Surveillance Program is provided by this command for military and civilian workers.

f. The Occupational Medicine Department (OMD) shall perform baseline health evaluations on NHCNE staff as required for their position. The OMD shall maintain the HCW spreadsheet to track all NHCNE employees

g. Medical evaluations of HCW to include Bloodborne Pathogen Exposure (BBP) exposures shall be monitored by the OMD post employment

h. Employee evaluations, procedures, vaccinations, vaccination series, post-exposure evaluation and follow-up, including prophylaxis, are provided without cost to the employee. These services will be provided according to current standard recommendations for medical practice by the United States Public Health Service (USPHS)

2. Healthcare Worker Screening Evaluation (HCWSE)

a. Category 1 and 2 NHCNE staff are required to have a baseline Healthcare Worker Screening Evaluation (HCWSE) per Medical Surveillance Procedures Manual and Medical Matrix (July 2011). Appointments shall be made through the OMD. HCWSEs shall be performed at each respective Branch Medical Clinic (BMC) by a member of the OMD staff.

(1) Baseline evaluations will be conducted as part of a pre-hire medical evaluation. The pre-hire evaluation shall be conducted prior to the employee's start date. The pre-hire evaluation shall include completion of the OF 178, SF 600 Healthcare Worker Screening Examination program 719 Medical Matrix, OPNAV Form 5100/15 Medical Surveillance Questionnaire, and Occupational Medicine Certificate of Medical Exam

(2) The pre-hire evaluation is limited to those systems and areas, which in the opinion of the examining provider and in accordance with 5CFR Part 339, is necessary to make a medical qualification determination.

(3) Results of the evaluation will be entered into AHLTA and the employee's medical record.

(4) The OF 178 will be completed to include the following:

(a) The provider's recommended limitation on employee's use of PPE and vaccinations recommended.

(b) The completed OF 178 and Occupational Medicine Certificate of Medical Exam shall be sent to Human Resources at each BMC.

(5) Each immunization clinic will administer all vaccinations and Tuberculin Skin Test (TST) as required to NHCNE staff HCW Categories 1, 2, at no charge. Pre-hire applicants who are not yet employees must submit information from their community provider. NHCNE will not administer vaccines to applicants unless they are Tricare beneficiaries.
The OMD will document the following items for category 1 and 2 HCWs

(a) Hepatitis B Vaccination (HBV

(b) Measles, Mumps and Rubella (MMR)

(c) Varicella

(d) Influenza Vaccination

(e) Tuberculin Skin Test (TST).

(f) Tetanus Toxoid reduced diphtheria toxoid and accellular pertussis vaccine (Tdap)

(6) The following immunizations will be monitored and administered as follows:

(a) Hepatitis B Vaccine Program (HBV)

1. Per BUMEDNOTE 6230, all military HCWs must receive the HBV. This is tracked by IMR clinic It is required for civilian and volunteer HCWs (Category 1) unless there is a contraindication.).

a. The All HCWs, Category 1 shall be in the Hepatitis B Vaccine Program.

b. Exemptions include employees for whom the vaccine is contraindicated for medical reasons. Documentation must be provided.

2. The vaccinations will not be offered at the pre-hire HCWSE unless the applicant is a Tricare beneficiary.

3. If an HBsAB titer is non-reactive, the HBV series will be offered again per CDC recommendations, not to exceed 6 lifetime does, at no cost to the employee. Titer will be re-checked4-8 weeks after series complete. If the titer is still non-reactive, a HBsAG and AntiHBc will be checked to determine infection status. Appropriate referral will be made as indicated.

(b) Measles, Mumps, and Rubella (MMR) (Please refer to CDC, MMWR Immunization of Health Care Personnel, Vol. 60/No.7, November 25, 2011)

1. All staff including contractors and volunteers, (Categories 1 and 2) need to have presumptive evidence of immunity to measles and mumps. The following are indicative of presumptive evidence:

a. written documentation of vaccination with 2 doses of live measles / mumps or MMR vaccine administered at least 28 days apart

b. laboratory evidence of immunity

c. laboratory confirmation of desease

d. birth before 1957.

2 . All staff including contractors and volunteers (Category 1 and 2) need to have presumptive evidence of immunity to rubella. The following are indicative of presumptive evidence:

a. written documentation of vaccination with 1 dose of live rubella or MMR vaccine

b. laboratory evidence of immunity

c. laboratory confirmation of rubella infection or disease

d. birth before 1957 (except for women of childbearing potential who could become pregnant, although pregnancy in this age group would be exceedingly rate)

3. The following applies to a female HCW who has a negative titer:

a. If she is not pregnant, she will receive the MMR immunization with proper instructions about not becoming pregnant for 28 days after receipt of a rubella-containing vaccine.

b. If she is pregnant, she will receive the immunization post delivery and within the first week she returns to work.

c. If there is a question of pregnancy, the immunization will be delayed until negative pregnancy test or menses occurs.

(c) Primary Varicella-Zoster (Chicken Pox)

1. All staff including contractors and volunteers (Category 1 and 2) need to have presumptive evidence of immunity to varicella. The following are indicative of presumptive

a. written documentation of vaccination with 2 doses of varicella vaccine
b. Laboratory evidence of immunity or laboratory confirmation of disease
c. Diagnosis or verification of a history of varicella disease by a health care provider
d. Diagnosis or verification of a history of herpes zoster by a

2. Active Duty HCWs shall be tested to confirm the Varicella IgG Titer. If the titer is negative, they will receive the two doses Varicella Vaccine. This is followed through the IMR department

3. Occasionally a person may not seroconvert after receiving the two doses of Varicella Vaccine. Most adults (94-97 percent) seroconvert after two doses of varicella vaccine. In the event of breakthrough infection, the symptoms are usually mild

(d) Influenza Vaccination

1. All military staff will be required to receive the influenza vaccination annually.

2. All Categories 1 and 2 HCWs per Department of Defense Health Affairs memo issued 4 April 2008 are required to receive the seasonal influenza vaccine and novel influenza vaccine should it be required as a condition of employment. The vaccine will be offered and recommended for Category 3 HCWs. See NHCNEINST 6230.3A

(e) Tuberculin Skin Test (TST)

1. HCWs in Categories 1 and 2 must have documented proof of negative 2-step TST at time of hire.

2. Based on the annual Tuberculosis Risk Assessment an annual TST may not be required annually. In the event the risk assessment indicated increased risk for tuberculosis all HCW will be required to obtain the TST. In some cases, a two-step TST may be indicated.

(f) Tdap. Proof of immunization shall be current for HCW Categories 1 and 2.

3. Communicable Disease Prevention and Control. All NHCNE personnel who are suspected or diagnosed with a communicable reportable disease such as chicken pox, tuberculosis, measles, influenza, shingles, or febrile illness greater than 101° during influenza season (per Health Officer's Policy: 08-005 of April 4, 2008) or have been exposed to a communicable disease, must report their status to their supervisor. Their supervisor will notify the BMC ICO and OMD to determine the staff member's potential for transmitting the disease to patients and staff. If the above applies, upon returning to work, the supervisor will send the employee to OMD with:

-a medical clearance from their PCM; and/or

-a Medical Referral Form (OPNAV 5100/9) from their supervisor.

4. Reportable Communicable Diseases – a list of reportable communicable diseases will be kept in each laboratory office and PMD office.

CHAPTER 6
INFECTION CONTROL PRECAUTIONS

1. Standard Precautions

a. Definition. Standard precautions are designed for the care of all patients regardless of their diagnosis. The concept underlying the precautions is that the source for most potentially infectious microorganisms is the colonized body substances of humans, whether the person is infected or not. This precaution applies to blood, all body fluids, non-intact skin, and mucous membranes. This type of precaution is especially valuable in ambulatory care setting because staff members often do not know the identity or even suspect the presence of a pathogen when a patient is seen initially.

b. Procedures

(1) Treat all patients' blood and body fluids as known to carry bloodborne pathogens, using standard precautions. Use personal protective equipment (PPE), including barrier precautions, routinely to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any patient is anticipated.

(2) Hand hygiene is required before and after patient contact, using a command approved antiseptic. Gloves do not take the place of the hand hygiene requirement.

(a) Bar soap will not be used.

(b) If hands or other skin surfaces are contaminated with blood or other body fluids, wash the affected areas immediately with antiseptic soap and water.

(3) Wear gown, mask, face shield/goggles, or other appropriate PPE for tasks that potentially cause splattering or aerosolization of blood or body fluids.

(4) Carry blood/body fluid specimens in well-constructed containers with secure lids to prevent leakage during transport. (Refer to reference l and Chapter 8)

(a) All blood and body fluids **MUST** be treated as contaminated with bloodborne pathogens.

(5) CPR masks and resuscitation ventilation devices must be readily available to the HCW, and the HCW must use these devices to minimize exposure during mouth-to-mouth resuscitation

c. Responsibilities

(1) Clinic Managers shall:

(a) Ensure that all personal protective equipment (PPE) is available in assorted sizes to meet the needs of the HCW to effectively perform his/her task. Examples of PPE include clean and sterile gloves, facemasks, and face shields, safety glasses with side shields, gowns and aprons or Cardio-Pulmonary Resuscitation (CPR) devices. According to OSHA, the employer is responsible for providing and maintaining any device, clothing or equipment that is deemed required PPE.

(b) Ensure that latex free gloves will be available and used for any tasks involving non-intact skin, puncturing of the skin, invasive procedures, when the staff member has cuts, abraded skin, chapped hands,

dermatitis, or any other skin condition causing breaks in the skin of the hands. Gloves also must be worn when handling blood or other body fluids, during all decontamination and cleaning of blood/body fluid spills, when handling infectious waste or contaminated linen and during any oral, endodontic, or periodontal procedure.

(c) Direct the use of gowns, aprons, or lab coats when splashes of blood/body fluids to the skin or clothing is likely to occur.

(d) Direct the use of masks and protective eyewear with side shields or face shields when exposure to splashing or aerosolization of blood or body fluids is likely to occur, such as with invasive procedures, uncapping of blood tubes and all dental procedures.

(e) Direct the usage and availability of CPR devices, including the ambu-bag and pocket masks. Pocket masks with a one-way valve must be available in every department that provides patient care.

(f) Direct that all staff members wash their hands and other skin surfaces after contact with body fluids or removal of PPE.

(g) Ensure that Standard Operating Procedures (SOPs) for departments performing invasive procedures (Dermatology, Oral Surgery) include appropriate precautions against body fluid contact, i.e., clean up and disinfection of the room and disposal of the contaminated linen and equipment after the procedure.

1. Linen (see Chapter 13).

2. All contaminated disposable material shall be discarded into the infectious waste containers and shall be processed, as indicated, in the infectious waste treatment/disposal process. Containers for bio-hazardous waste MUST BE leak proof. Refer to reference (n) for further information.

2. Hand Hygiene.

a. Hand hygiene is a key element for prevention of cross-infection in the healthcare setting. Inadequate hand hygiene in outpatient settings has contributed to outbreaks of infection.

(1) Hand hygiene removes skin bacteria (normal skin flora) and other contaminants that are normally present on hands and skin surfaces. Normal skin flora is commonly the cause of wound infections.

(2) Most preventable healthcare associated infections are caused by pathogens transported on hands of HCWs.

(3) Effective hand hygiene removes most pathogens and breaks the chain of infection.

(4) Wash hands with plain soap or antimicrobial soap and water.

(5) Alcohol-based hand rub may be used

(6) Hand hygiene must be performed before and immediately after glove application and/or patient contact.

(7) NHCNE follows the CDC guidelines for hand hygiene.

b. Hand Washing Procedures

(1) The purpose of basic hand washing is to mechanically remove soil, organic material, and transient microorganisms. The following procedure shall be followed:

(a) Wet hands with warm (not hot or cold) running water.

(b) Apply hand washing agent and liberally cover entire hands including wrists (and forearms, if contaminated).

(c) Vigorously rub all surfaces together for 15 - 20 seconds, paying particular attention to areas around fingernails and between the fingers. Clean under fingernails by placing the tips of one hand in the palm of the other and making rapid circular motions or by using the fingernails of the opposite hand.

(d) Rinse hands in running water in a downward motion from the wrists to the fingertips, ensuring complete removal of soap.

(e) Dry hands thoroughly with a clean disposable paper towel.

(f) Use the paper towel to turn off the faucet.

(g) Dispose of the paper towels in the waste container.

(2) Decontaminating hands with an alcohol-based hand rub

(a) Apply product to palm of one hand; use the amount recommended by the manufacturer

(b) Rub hands together, covering all surfaces of hands and fingers, until hands are completely dry.

(c) Shared bottles of hand lotion are prohibited.

c. Surgical Scrub. Performed before any medical, diagnostic, oral, endodontic, or periodontal surgical or invasive procedure.

(1) Remove rings, watches, and bracelets.

(2) Thoroughly wash hands and forearms with plain soap, under running water, before the first surgery of the day, including use of nail cleaner.

(3) When using antimicrobial soap, scrub hands and forearms for the length of time recommended by the manufacturer, usually two to six minutes, followed by rinsing and drying with sterile towels.

(4) When using an alcohol-based hand rub, follow the manufacturer's instructions for quantity and application method. Allow hands and forearms to dry completely before donning sterile gloves.

(5) Apply sterile gloves in a manner to prevent recontamination.

d. Definitions

(1) **Alcohol-based hand rubs** – An alcohol-containing preparation designed for waterless application to the hands to reduce microorganisms, comprised of 60% to 70% ethanol or isopropanol. Products formulated for use in health care usually contain emollients.

(2) **Antimicrobial soap** – Soap containing an antiseptic agent.

(3) **Hand antisepsis** – Either antimicrobial handwash or waterless antiseptic hand rub.

(4) **Decontaminating hands** – Reducing the number of microorganisms on hands by using an alcohol-based hand rub or washing with antimicrobial soap.

(5) **Persistent or residual activity** – Prolonged antimicrobial activity that prevents or inhibits the proliferation or survival of microorganisms after application of the product.

(6) P**lain soap** – Hand washing agents with no antimicrobial agents or low concentrations that are effective only as preservatives.

e. Handwashing Agents

(1) Alcohol - Waterless hand washing agents, usually containing 60-70% ethanol or isopropanol.

(a) Most rapid and effective antimicrobial activity.

(b) It is effective against bacteria, tuberculosis, fungi, and viruses.

(c) It is volatile, flammable, evaporates quickly, and dries the skin.

(d) Alcohol based waterless products are available in exam spaces and common areas throughout the command for staff and patients. Shall not be used in replacement of soap and water when hands are visibly dirty. Should not be used when caring for patients with gastroenteritis symptoms.

(2) Clorohexidines - Water-based antiseptic usually marketed as 4% Clorohexidines gluconate with 4% isopropyl alcohol in a sudsy base. (Hibiclens or Chloraprep)

(a) An effective antiseptic for reducing transient and resident hand flora (bacteria).

(b) Has a sustained antimicrobial effect.

(c) Does not adversely affect the skin but can be damaging to the eye, ear, neuro tissue (brain, meninges).

(d) It is approved as a surgical scrub.

(3) All products procured for use or in use, must be on the Safety authorized use list (AUL).

(4) Commercial hand hygiene products must be safe, effective and should be convenient to staff personnel to encourage compliance with hand hygiene policy to reduce the risk of cross infection.

(a) Wall mounted dispensing units that use a disposable pouch filled with antiseptic or antimicrobial liquid soap shall be used. The disposable pouch can be easily replaced and requires very little cleaning and eliminates the potential for bacterial growth associated with reusable liquid soap units.

(b) Notify the clinic Infection Prevention Officer (IPO) or Infection Prevention Committee (IPC) immediately of problems or complaints about hand washing products.

(c) New antiseptic products must be reviewed by the IPC prior to purchase.

(d) Reusable liquid soap containers shall not be used as they can become contaminated and act as a reservoir for bacteria. If containers must be reused, the container and pump must be thoroughly cleaned and dried before refilling. Department managers are responsible for ensuring compliance and initiate and maintain a cleaning log that will be available to IPO's/Chairman, if requested.

(6) Waterless hand hygiene agents must be made available for staff and patients in areas that lack easy access to a sink or if water shut off occurs.

(7) Sinks should be conveniently located and soap and towel dispensers shall be within reach of the sink.

(8) Separate sinks shall be maintained for handwashing vice instrument cleaning or disposal of laboratory specimens.

(9) Except for individual patient use, bar soap shall be forbidden in any NHCNE clinic.

(10) All hand hygiene products must be regularly checked for an expiration date. No product will be used beyond manufacturer's printed expiration date.

3. Surgical Scrub Attire

a. Scrub attire is defined as scrub tops, scrub pants, lab coat or gown and clean, durable, non-eccentric footwear. Authorized footwear includes conservative closed-toe and back shoes, washable sneakers, and surgical specialty shoes. Sandals, open-toed/backed shoes, crocs with any perforations or holes and eccentric footwear are not authorized. Only white or navy blue short-sleeved (T-shirt) garments, without logos or lettering, are authorized for wear under the scrub top. Scrubs will be worn with the shirt tucked in (exception pregnancy). Per OSHA standards, sleeves are to be worn long enough to protect the forearms when spatter or spray of blood, saliva, or other potentially infectious material (OPIM) is anticipated.

b. Scrub attire shall be worn by personnel working in authorized areas only. These approved areas include dental clinic personnel doing direct patient care, oral and general surgery department on surgery days only, and those assigned to the Centralized Sterilization Room (CSR). All other patient procedures that have the potential to contaminate the healthcare provider should utilize disposable paper gown cover-ups.

c. Scrub attire is not authorized for wear outside of the authorized clinic spaces. Smoking is prohibited in scrub attire. Soiled scrub attire and shoes will be changed before leaving respective department. Home laundering is forbidden as it presents a high risk for the inadvertent transportation of hazardous material pathogens into the home environment as well as transfer of community pathogens into the patient care setting. Scrub attire will not be removed from the clinic but placed in the appropriate receptacle for laundering by an approved facility. Clinics shall develop a local SOP, following current standards, if they launder the scrubs on site.

d. Personnel in scrub attire will wear a clean, professionally laundered lab coat completely fastened covering scrubs with command nametag when leaving authorized spaces, including dental operatories and surgical spaces. When wearing scrub attire in authorized spaces, a piece of one-inch silk tape will be worn over the left breast pocket annotated in black marker with rank and last name. Cover gowns or lab coats are not to be removed when outside authorized spaces.

e. Grooming standards (hair, jewelry, fingernails, shaving, etc.) must be maintained at all times by those personnel authorized to wear scrub attire.

f. Shoes worn with full scrubs will be a washable (cleanable), plain type shoe, leather or canvas. For the protection of staff and family members, these shoes are not to be taken home at night. Alternatively, surgical shoe covers may be worn over other types of shoes ("street shoes"). The “street shoes” still must abide by OSHA standards to prevent injury. These shoes may be taken home at night. Shoe covers will be disposed of at the end of the day, when scrubs are changed, or when visibly soiled prior to the day's end.

g. Civilian contract and GS employees may choose to use a type of scrubs as their “uniform of the day.” These “scrubs” are not to be confused with command-approved scrubs used in the surgical, dental, laboratory or other high-risk areas that are subject to commercial cleaning. The decision to wear “scrubs” as a uniform should not be interpreted as a barrier to contamination and infection prevention and control. Impervious gowns and other PPE shall be utilized during procedures where the possibility of cross contamination could occur.

4. Special Dental Procedures/precautions – Refer to Appendix G

5. Pandemic Precautions –

a. As a result of State and Federal recommendations, Naval Health Clinic New England will assume a proactive role for the protection of staff and patients. Cross contamination will be minimized by the following interventions:

(1) Alcohol-based hand rubs will be made available to all staff and patients by strategically placing dispensers throughout clinical exam rooms and common spaces.

(2) Compliance will be verified by ensuring 100% operation and availability during routine inspections. Discrepancies will be noted and results delivered to the Clinic Managers.

(3) Maintenance of alcohol-based hand rubs will be the responsibility of the clinic staff and custodial services.

(4) Refer to NHCNEINST 6320.8

b. Respiratory Etiquette Program - will be observed throughout Naval Health Clinic New England (NHCNE). NHCNE personnel will monitor and maintain the respiratory etiquette program for its patients and staff. Patients and visitors will be encouraged by staff members and visual alerts to practice respiratory etiquette while in the clinic.

(1) Visual Alerts

(a) Post visual alerts at the entrance to outpatient facilities, waiting and exam rooms, and high patient traffic areas instructing staff, patients and persons who accompany them (e.g., family, friends) to inform

healthcare personnel of symptoms of a respiratory infection and to practice Respiratory Hygiene/Cough Etiquette.

(b) Notice to Patients to Report Respiratory Symptoms: Emphasizes covering coughs and sneezes with tissue or mask and observing hand hygiene.

(c) Cover Your Cough. Tips to prevent the spread of germs from coughing.

(2) Respiratory Hygiene/Cough Etiquette measures:

(a) The following measures to contain respiratory secretions are for all individuals (including staff, patients, family, and visitors) with signs and symptoms of a respiratory infection:

1. Cover the nose/mouth when coughing or sneezing with inner elbow (vice hands).

2. Use tissues or mask to contain respiratory secretions and dispose of them in the nearest waste receptacle after use.

3. Perform hand hygiene (e.g., hand washing with anti-microbial soap and water, alcohol-based hand rub, or antiseptic hand wash) after having contact with respiratory secretions and contaminated objects/materials.

(b) Ensure the availability of materials for adhering to Respiratory Hygiene/Cough Etiquette in waiting and high traffic areas for staff, patients, and visitors.

(c) Provide tissues and/or masks, and no-touch receptacles for used tissue/mask disposal.

(d) Provide conveniently located dispensers of alcohol-based hand rub where sinks are not available; ensure that supplies for hand washing (i.e., soap, disposable towels) are consistently available.

(e) Ancillary staff will be trained by departments for the appropriate interventions of these patients.

(f) The primary care provider will be informed of precautions taken by the front desk and ancillary staff.

(3) Masking and Separation of Persons with Respiratory Symptoms:

(a) Masks are to be available to persons who are coughing and have respiratory symptoms. Either procedure masks (i.e., with ear loops) or surgical masks (i.e., with ties) may be used to contain respiratory secretions (respirators such as N-95 or above are not necessary for this purpose). When space and chair availability permit, encourage coughing persons to sit at least three feet away from others in common waiting areas.

(b) Droplet Precautions:

1. Advise healthcare personnel to observe droplet precautions (i.e., wearing a surgical mask or procedure mask for close contact), in addition to standard precautions, when examining a patient with symptoms of a respiratory infection, particularly if a fever is present. These precautions should be maintained until it is determined that the cause of symptoms is not an infectious agent that requires droplet precautions.

2. If it is determined that there is a person that requires droplet precautions (i.e., influenza, pertussis) the following actions should be taken:

a. Place a mask on the infectious person for the duration of their stay at the clinic. Mask can be removed upon exiting building.

b. Escort the person to an identified patient care room that is farthest from other patient care. ("Separation room")

c. Place a droplet precaution sign on patient care room and ensure all personnel follow the required droplet precautions.

d. Healthcare providers examining patient will don mask.

e. Decrease the amount of personnel that will be exposed to patient.

f. If patient is found to be infectious, determine any contacts the patient may have had to expedite the identification and possible treatment of contacts.

g. Contact Infection Prevention Officer and Preventive Medicine Technician (PMT) for further guidance and possible state reporting

h. After patient has been examined and released they need to exit building farthest from other staff and patients

i. Patient care room and contaminated equipment needs to be secured from further patient use until the contaminated room/equipment has been cleaned and disinfected with NHCNE approved intermediate-level disinfectant, utilizing the manufacturer's proper use and exposure time.

6. Recommended Precautions for Selected Infections and Conditions

a. See Appendix D

7. General Guidelines on Isolation

a. Introduction. There are infectious diseases that require more stringent precautions than standard precautions and in addition to transmission based precautions. In 2007, the Centers for Disease Control (CDC) reviewed these precautions, which pertain to both inpatient and outpatient medical facilities. (A sample list can be found in appendix D). The clinic areas within NHCNE cannot accommodate the physical and environmental requirements to maintain "isolation" rooms; therefore, we maintain "separation" rooms.

b. Seperation Procedures.

(1) Isolation measures include immediately placing patients with potential airborne diseases via droplet nuclei (i.e., TB, measles, rubella, and smallpox virus) in designated separation rooms. Interviews, examinations, and appropriate disposition should be accomplished as quickly as possible. All HCW's interacting with the patient must don N95 and continue with all airborne and standard precautions.

(2) Separation Room - The location of the clinic separation room will be identified and all staff working in area (i.e. Family Practice) will be aware of location. Currently, NHCNE clinics do not have the physical

conditions to support isolation rooms; therefore, patients will be placed in the separation room with appropriate Precaution sign visible and proper precautions maintained until transfer to an appropriate setting can be arranged. Potential isolation patients should be triaged with staff donning appropriate PPE. PCM will be notified immediately. All receiving/referred health facilities and transporters will be notified of potential infectious disease of patient.

(3) After patient has been examined and released, they need to exit the building farthest from other staff and patients.

(4) Patient care room and contaminated equipment needs to be secured from further patient use until contaminated room/equipment has been cleaned and disinfected with NHCNE-approved intermediate-level disinfectant, utilizing the manufacturer's proper use and exposure time.

CHAPTER 7
THERMOMETER CARE

1. Hand hygiene. Hand hygiene is required before and after taking a patient's temperature, whether oral, rectal, tympanic, or axillary. Gloves are only necessary if there are any wounds or potential for exposure to blood or other potentially infectious materials. Normally, gloves are NOT required for performing temperature procedures but are recommended when taking rectal temperatures.

2. Digital Thermometers

a. Digital thermometers (IVACs) should have probes with disposable plastic sheaths for both rectal (red) and oral (blue) use.

b. Use a new plastic sheath for each patient.

c. Electronic thermometers can be used for patients in isolation, but must be terminally disinfected following manufacturer's instructions.

3. Tympanic Thermometers

a. Tympanic thermometers should have disposable plastic sheath for use.

b. Use a new plastic sheath for each patient.

4. Tempered Thermometers. Single use only.

CHAPTER 8
HANDLING/TRANSPORTING LABORATORY SPECIMEN CONTAINERS

1. Policy. It is NHCNE's goal to provide healthcare workers (HCW) with guidelines when handling and transporting laboratory specimens to external facilities. These standard precaution guidelines must be used to contain a potential biohazard spill and to protect HCWs from blood/body fluid exposure from an infectious specimen spill.

2. Procedure

a. Gloves must be worn by HCWs when handling specimens.

b. Personnel transporting specimens must use an enclosed government vehicle (i.e., no specimens transported in the back of an open bed truck or POV) equipped with a spill kit and PPE. All specimens, the spill kit, and PPE are to be inside the vehicle and include:

(1) Gown

(2) Mask

(3) Commercially prepared spill kit

(4) Non-latex gloves

(5) Biohazardous waste container (small)

(6) Absorbent material

c. When transported to another clinic or medical treatment facility, all specimens must be placed in an insulated and covered container. The exterior of the container must not be opened by the courier unless directed by the receiving laboratory. **The courier needs to carry the biohazard statement in transport vehicle and must complete biohazard competency training available through the laboratory department before they can transport specimens.**

d. The courier should be the only individual delivering the specimens.

e. Patients normally bring the following specimens (which are not considered infectious unless contaminated with blood or other potentially Infectious Material [OPIM]) in from home:

(1) Fecal specimens

(2) Urine specimens

(3) Sputum specimens

f. Report any biohazard spill immediately to your supervisor, the clinic Infection Prevention Officer (IPO), and Safety Officer. Complete and submit a Risk Management Report and Safety Mishap Report.

g. Command staff members responsible for the delivery of laboratory specimens must be familiar with all applicable transport mandates in this HAIPC manual.

CHAPTER 9
CLEANING PROCEDURES

1. Policy

a. Environmental surfaces, equipment and examination rooms will be cleaned and disinfected to maintain a safe and sanitary environment to reduce the risk and prevent the transmission of healthcare acquired infections in patients, staff and visitors. Environmental surfaces can be divided into "clinical contact surfaces" and "housekeeping surfaces". Because housekeeping surfaces (e.g. floors, walls, sinks) have limited risk of disease transmission, they can be decontaminated with less rigorous methods than those used on patient care equipment and clinical contact surfaces. Personal protective equipment (PPE) used during cleaning and housekeeping procedures should be appropriate to the task. In order to prevent the spread of infection the following guidelines will be followed:

2. Procedures

a. Clinical Contact Surfaces

(1) Barrier protection devices (paper/plastic) of surfaces and equipment are strongly encouraged in clinical areas to prevent contamination of clinical contact surfaces. Exam room tables will have exam paper changed between each patient. Dental chairs will have plastic barrier drapes replaced after each patient. If barriers are not used, clinical surfaces/equipment shall be cleaned and disinfected between patients with an approved disinfectant. (See Appendix G)

(2) An EPA registered hospital intermediate-level disinfectant (tuberculocidal) shall be used when the surface is visibly contaminated with blood and/or other potentially infectious material. In addition, if a patient meets one or more of the following criteria, other related equipment and all furniture shall be thoroughly cleaned and disinfected after patient use following the manufacturer's guidelines for exposure time and use of disinfectant:

(a) Invasive procedure has occurred, such as IV therapy, pelvic exam, minor surgical procedures, and invasive dental procedures.

(b) Patient has known or suspected contagious illness, such as C- Diff, Group B Strep, Varicella, MRSA, etc. Patient placed under droplet or contact precautions.

(c) Blood or body fluid has made contact with the surface area.

(d) When in doubt, clean with disinfectant and/or contact the Infection Prevention Officer.

(3) General cleaning and disinfection will be performed on all clinical contact surfaces and equipment at the end of the day, including patient waiting rooms.

(4) Wipe stethoscope with alcohol pad between patients and when visibly soiled.

(5) Examination room curtains will be replaced with clean curtains every six months and/or when they become visibly soiled with blood or body fluids. Soiled fabric will be saturated with 3% hydrogen peroxide as a form of disinfection until the curtain can be changed.

(6) Consult the products' material safety data sheets (MSDS) to determine appropriate precautions to prevent hazardous conditions during product application. PPE used during cleaning and housekeeping procedures should be appropriate to the task.

(7) Disinfection of equipment will be conducted based on manufacturer's guidelines.

b. Housekeeping Surfaces

(1) The majority of housekeeping surfaces need to be cleaned and disinfected with an approved EPA-registered hospital disinfectant and AUL, depending on the nature of the surface and type and degree of contamination. Consult the product's material safety data sheet (MSDS) to determine appropriate precautions to prevent hazardous conditions during product application. PPE used during cleaning and housekeeping procedures should be appropriate to the task.

(2) Floors, sinks, and high touch surfaces should be cleaned and disinfected regularly and spills should be cleaned up promptly to avoid antimicrobial growth.

(3) Walls, window drapes, and other vertical surfaces are cleaned as necessary, or if contamination is reasonably expected. If you can anticipate, then you can prevent and avoid.

(4) Carpets and cloth furniture shall not be available in patient care areas where there is potential for contamination with blood or body fluid. If present in areas, where there is no or little potential for contamination with blood or body fluid, it shall be vacuumed (hepa-filtered) regularly to minimize bacterial colonization.

(5) Attempts shall be made to minimize contamination of cleaning solutions and cleaning tools. (i.e., mops, cleaning cloths cleaned and dried before reuse and proper preparation and use of detergents/disinfectants based on manufacturer's guidelines).

c. Special Circumstances

(1) Cleaning Strategies for Spills of Blood and Body Fluid Substances

(a) Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), and Human Immunodeficiency Virus (HIV) have never been transmitted from a housekeeping surface (i.e., floors, walls, or countertops). Nonetheless, prompt removal and surface disinfection of an area contaminated by either blood or body fluid substances are sound infection-control practices and OSHA requirements. Appropriate level of PPE must be worn based on the circumstances of the spill (gloves, eye protection, gown, etc.).

(b) In patient care areas, workers can manage small spills with cleaning and then disinfecting using an intermediate-level germicide or an EPA-registered germicide.

(c) For spills containing large amounts of blood or other body substances, workers should first remove visible organic matter with absorbent material (e.g. disposable paper towels) discarded into leak-proof, properly labeled container/red bag and then clean and disinfect the area.

d. Respiratory Equipment Cleaning

(1) Disposable single-use respiratory devices are the preferred method to reduce possible transmission of infections via respiratory equipment. In the event single use items cannot be utilized, proper cleaning of

reusable equipment is important to reduce infection. Respiratory care devices that are exposed to mucous membranes have been classified as semi-critical, requiring high-level disinfection. The most common respiratory equipment utilized at NHCNE is nebulizers, pulse oximetry, oxygen mask, or cannula, suction catheters, and resuscitation bags.

(2) Procedures

(a) Equipment and devices that are manufactured "for single use only" shall not be reprocessed.

(b) If reusable equipment is maintained within the clinic, it should be thoroughly cleaned prior to disinfection or sterilization. When a device needs to be rinsed after it has been disinfected, only sterile water shall be used. Tap water or locally prepared distilled water may harbor microorganisms that can cause pneumonia.

(c) Hands must be washed before and after all contact with the patient or the patient's environments and equipment regardless of glove use.

(d) Wear gloves for handling respiratory secretions or objects contaminated with the respiratory secretions of any patient.

(3) Cleaning and disinfection policies of the following respiratory care devices:

(a) Pulse oximeters, nebulizers, and suction machines are considered non-critical items per Spaulding's Classification System, and can be disinfected daily by wiping them down with an approved disinfectant.

(b) Nebulizer device and tubing are single patient use only.

(c) Suction catheters, tubing, and canister are single patient use only.

(d) Pulse Ox probes: single use device preferred, but if clip probes, disinfect daily by wiping down with approved disinfectant.

(e) Oxygen Delivery Devices (masks/cannulas):

1. Single-use disposable items only.

2. All the tubing as well as any device used to deliver oxygen from a wall outlet must be changed and disposed of in between patients.

(f) Peak Flow Meters:

1. Single use meters and disposable mouthpieces are preferred

2. Reusable meters: thoroughly washed with hot water and the approved disinfecting solution, rinsed and then allowed to air dry at least once daily, or when visibly soiled. Use with disposable mouthpieces.

3. Non-disposable mouthpieces require high-level disinfection

(g) Artificial Airways:

1. Includes nasal trumpet, oral airways, laryngeal mask airways (LMA's), esophageal combitubes, and endotracheal tubes.

2. Single-use devices only and are to be disposed of after single patient use.

(h) Resuscitation Bags:

1. Disposable single patient use preferred.

2. If reusable, bag valve must be rinsed clear with sterile water, followed by high-level disinfection or sterilization.

e. Cleaning and Maintenance of Medicine, Blood Specimen, and Storage Refrigerators.

(1) All refrigerators must be defrosted and cleaned monthly (this should be documented on the cleaning schedule or records containing refrigerator temperatures).

CHAPTER 10
TOYS IN THE CLINIC

1. Policy. Clinic provided toys should be of a hard material that can be easily cleaned and disinfected. Soft toys in clinic setting are prohibited, unless item is new and single use (i.e., sent home with child). Toys that are placed in a child's mouth or otherwise soiled shall be cleaned and disinfected before being handled by another child. Books and puzzles pose very little risk and need not be cleaned unless visibly soiled (APIC). Tabletops and other similar equipment used by children must be disinfected daily.

2. Procedure

a. Toy Cleaning:

(1) Toys shall be thoroughly washed with hot water and the approved disinfecting solution, rinsed, and then allowed to air dry at least once daily, or more frequently with excessive use. Toys that are placed in a child's mouth or otherwise soiled shall be cleaned and disinfected before being handled by another child.

(2) Cleaning agent must be non-toxic for children

(a) SAFE Disinfectants: 1:100 diluted bleach; 70% isopropyl alcohol; quaternary ammonium hospital grade disinfectant.

(b) Phenolic should NEVER be used on toys.

(3) After recommended exposure times for disinfectants, toys must be rinsed in water and dried. (Rinsing not required if using alcohol, if allowed to air dry.)

b. A log shall be kept to record all cleaning and disinfection of toys. This log will include date, time, and person who did the cleaning. The division officer shall review the log on a weekly basis, with an additional review conducted during the Environment of Care (EOC) Rounds.

c. Toy circulation: Mouthed and visibly soiled toys should be removed from circulation until cleaned/disinfected.

d. If children's toys are utilized within a specific clinic, the corresponding staff will require annual training on Toy Policy and documentation in their training records.

CHAPTER 11
APPROVED ANTISEPTICS AND DISINFECTANTS

1. Purpose. The NHCNE Infection Prevention Coordinator (IPC) serves as a consultant on the use of products, purchase of products, and introduction of new products at NHCNE that may have infection prevention and control implications. Considerations include assuring the quality of patient care by minimizing the risk of infection, efficiency, or effectiveness of the product, documented studies in medical literature, practicality of use and implementation, as well as to ensure standardization of approved disinfectants throughout the organization.

2. Policy

a. NHCNE IPC, along with the recommendations of the local Infection Prevention and Safety Officers, will review and approve all antiseptics, disinfectants, and cleaning agents used in NHCNE facilities for patient clinical spaces on an annual basis and will publish a complete list of the authorized products. ***No other products shall be purchased or used for disinfecting or cleaning without review and approval by the Infection Prevention and Safety Committees.***

b. Refer to Appendix E for a list of authorized antiseptic and disinfectant cleaning supplies for use across NHCNE. For general cleaning such as field day of non-clinical spaces ordinary general cleaners may be used as listed on the department or general housekeeping Authorized Use List.

c. All chemical disinfectants and cleaners will be secured and kept out of reach of children.

d. Clinic Managers/Supervisors will be responsible for maintaining all MSDS Information Sheets within clinic spaces. Staff will refer to the MSDS/Manufacturer's guidelines for PPE use, and post-exposure protocols.

e. General housekeeping supplies used by facilities and housekeeping contractors will be reviewed and updated at least annually. The contractor will be responsible for providing a list to the Safety Officer for review. Any new product must meet both Infection Prevention and Safety standards and be approved by the Infection Prevention and Safety Committees.

f. Refer questions to the NHCNE Infection Prevention Coordinator, Local Infection Prevention Officer, or the Safety Officer.

CHAPTER 12
HIGH-LEVEL DISINFECTION

1. Purpose. Provide guidance for achieving high-level disinfection of instruments and equipment.

2. Background

a. The Spaulding Classification System determines the correct processing methods to be utilized when preparing items for patient use. The level of processing required is based on the nature of the item and its use. Items are identified as non-critical, semi-critical, and critical. Items that enter sterile tissue or the vascular system are categorized as critical and should be sterilized prior to use. Items that are exposed to intact skin are categorized as non-critical and should receive intermediate-level disinfection, low-level disinfection, or cleaning. Semi-critical items are those items that have been exposed to non-intact skin or mucous membranes and should receive a minimum of high-level disinfection (HLD).

b. High-level disinfection kills most forms of microbial life but not all bacterial spores. It inactivates HBV, HIV, HCV, and TB. Glutaraldehyde has been proven as an effective solution for achieving high-level disinfection for medical devices. ***In NHCNE, Cidex OPA and Rapicide PA is used to perform high-level disinfection for flexible endoscopes and transvaginal ultrasound probes except where manufacturer's recommendations contraindicate use.***

3. Scope. This policy applies to all clinics and clinic personnel who perform high-level disinfection.

4. Policy

a. High-level disinfection will be performed by individuals who have demonstrated competency.

b. Semi-critical items will receive, at a minimum, high-level disinfection using an FDA cleared product.

c. Items should be thoroughly cleaned and decontaminated before disinfection as cleaning and decontamination are the initial and most critical steps in breaking the chain of disease transmission. Debris, blood, mucous, fat and organic matter will interfere with the action of the disinfectant.

d. After cleaning, items should be rinsed and dried before the disinfection process. Rinsing removes residual detergent and drying prevents dilution of the disinfecting solution and permits the solution to contact all surfaces of the item.

e. Manufacturer's written instructions should be followed when preparing high-level disinfectants and calculating expiration dates.

5. Procedure

a. Note expiration date on product label prior to use.

b. Don appropriate PPE.

c. Pour product into appropriate container or Automated Endoscope Reprocessor (AER).

d. Label container with product and expiration date.

e. If applicable, operate the AER according to manufacturer's written instructions.

f. Completely immerse item into disinfecting solution according to the manufacturer's guidelines.

g. Allow item to be exposed to the disinfectant for the required exposure time (usually 20 minutes at room temperature).

h. Thoroughly rinse with water. This removes toxic and irritating residues that can result in tissue damage or staining.

i. For endoscopes, be sure to rinse all channels and follow with an alcohol rinse and forced air-drying prior to storage. Hang in a vertical position in a ventilated cabinet.

j. Do not store processed items in their original storage cases that cannot be cleaned, disinfected or sterilized.

k. Dispose of high level disinfecting product according to federal, state, and local regulations.

l. Document the following:

(1) Date and time disinfection was performed.

(2) Type of disinfectant use.

(3) Test strip results that indicate proper MEC.

(4) Temp of the disinfectant.

(5) Load contents.

(6) Submersion time.

(7) Verification of rinsing.

(8) Name of person performing high level disinfection.

(9) Patient identifier when applicable to aid in tracking and recall procedures.

6. Safety Considerations

a. Chemical disinfectants should be kept in covered containers with tight fitting lids and used in a well-ventilated area.

b. No exposure limits have been established by OSHA, however they recommend a ceiling limit of 0.05 parts per million for occupational exposure to vapors.

c. Employee should be trained on the health effects, safe work practices, appropriate PPE, location of MSDS and location of nearest eye wash station.

d. The MSDS provides information about toxicity, reactivity, appropriate PPE, storage, and disposal.

7. Quality Assurance Monitoring and Strip Testing

a. Prior to filling AER or soaking container, check for solution expiration.
Unopened bottles have a 2-year shelf life; opened bottles have a 75-day expiration, and 14-day reuse life. Do not reuse solution beyond the 14-day limit. Expiration dates of solution will be documented.

b. Reuse Life:

1. A test strip specific for the disinfectant and Minimum Effective Concentration (MEC) of the active ingredient shall be used according to the manufacturer's written instructions for monitoring solution potency. Quality Assurance (MEC) will be completed prior to processing of any instruments or equipment.

2. Solution must be disposed of at 14-day mark. If solution should fall below its MEC, it should be discarded even if the expiration date has not been reached.

c. Each test strip bottle/lot number will undergo QA testing and documenting upon opening per manufacturer's guidelines. All testing will be documented and supervisors should review periodically for compliance.

d. Ensure the solution to be tested has been dispensed according to manufacturer's instructions. Test strips can be used to test the solution directly in the tray, bucket, Automated Endoscope Reprocessor (AER) or other container holding the solution.

e. Test strips expire 90 days after opening. Note the date the strip bottle was opened and the "do not use after" date in the space provided on the bottle.

f. Ensure that appropriate safety precautions, including the use of appropriate PPE, are observed when testing the solution – refer to the product labeling and the Material Safety Data Sheet (MSDS) of the solution.

g. Remove one test strip from the bottle and replace the bottle cap immediately. Store the test strips in the original bottle with the cap tightly closed. Store at controlled room temperature, 59 to 86 degrees F, and in a dry place.

h. Document the following:

a. Date QA test is performed.

b. Lot number of bottle.

c. Results of the six test strips

HIGH LEVEL DISINFECTANT QA/MIC LOG SHEET

NAVAL HEALTH CLINIC NEW ENGLAND

CLINIC SITE _____

TEST STRIP BOTTLE

LOT # _____

EXP (90 days after bottle is opened):

_____

QUALITY ASSURANCE TEST
(FOR NEW BOTTLE, note date on daily log sheet)

FULL STRENGTH (Should pass)

(+) = pass (-) = fail

1ST STRIP (+) (-)

2ND STRIP (+) (-)

3RD STRIP (+) (-)

Date	Minimum Effective Concentration (MEC) Test Result (PASS/FAIL)	ITEM(s)	SERIAL #, If Applicable	Initials	Exp Time/ Temp, if applies

Chapter 13
STERILIZATION PROCEDURES AND PROTOCOLS

1. Background. The Central Sterile Reprocessing (CSR) area is a specialty designed section for receiving, decontaminating, processing, sterilizing, storing, and distribution of reusable sterile instruments and supplies. Depending on clinic site, its medical equipment may be comprised of steam, dry heat and liquid sterilizers, ultrasonic cleaners, washer sanitizer, water distillers, flexible endoscope processors, heat sealers, and biological monitor incubators. Infection prevention and control guidelines will provide standardized policies, procedures, and protocols for pre-cleaning, transporting, receiving, decontaminating, processing, storing, and distribution of processed items. Since CSR is recognized as a high-risk area, rigid standards for construction, traffic flow, competency of personnel, and quality of products and processes utilized should be maintained.

2. Policy. To provide knowledgeable and responsible individuals with the appropriate guidance in maintaining a safe and efficient environment while maintaining compliance with regulatory standards when processing sterile or terminally disinfecting items for use in dental and medical clinical areas. Utilization of consistent practices throughout the command is essential.

3. Design. The area is arranged so work flows from “dirty to clean” to sterilization and then to storage. When possible, physical barriers or space will separate these areas. When feasible, the ventilation system should be designed so the flow of air is from clean to dirty.

4. General Objectives

a. To provide an environment conducive to safe, economical, and efficient preparation, storage, and issue of processed supplies and equipment.

b. To utilize current accepted practices for decontamination, processing, packaging, labeling and sterilization and storage of reusable supplies and equipment.

c. To provide consistent quality assurance measures. To monitor and document sterilization and disinfecting procedures, utilizing biological monitors, air removal tests (i.e., Bowie Dick/DART) when applicable, and performing mechanical and chemical indicator checks.

d. To collaborate with the Biomedical Department for tracking of preventive maintenance of high-risk medical equipment utilized in the area.

5. Procedures

a. Visitor Traffic Control

(1) Visitors are a potential source of contamination and therefore access to the department should be restricted to only authorized personnel. Access to the decontamination room is limited to staff members from the clinics engaged in patient care activities. The area is not used for social visits.

(2) All ancillary personnel and visitors will be cleared by the Department Head, Division Officer, Leading Petty Officer, or their official designee.

(3) All visitors must adhere to the appropriate dress code as directed by the authorizing individual. Prior to entering the clean area, outside equipment will be wiped down with a NHCNE approved germicidal disinfecting solution.

(4) Visitors are required to abide by all policies and procedures of the area.

(a) Qualified CSR staff will supervise all visitors, including orientees.

b. Housekeeping. End of Day (EOD) or terminal cleaning will be performed daily. This includes disinfecting countertops, door handles and push plates, and sinks with a NHCNE approved disinfectant according to manufacturer's instructions, and removal of trash and linen. Field Days will be done once a week and include entire workspace.

c. Maintenance

(1) The Biomedical Repair Department conducts routine preventative maintenance checks on electrical equipment based on the type of equipment used. Documentation is maintained in the CSR area.

(2) Equipment should be operating correctly. If a defect exists or equipment malfunctions, the equipment is to be removed from use or secured immediately. Reports of breakdown of essential equipment will be made to the Biomedical Repair Department. The equipment item is clearly labeled as malfunctioning and the nature of the problem explicitly documented.

(3) Manufacturer safety instructions and operating instructions are to be kept with the equipment or in close proximity of the equipment. Copies of all instructions/manuals are maintained in Medical Repair. User manuals for equipment are maintained in the CSR area.

(4) All new medical electrical equipment will be initially inspected by Medical Repair. Medical Repair maintains the database of the preventative maintenance schedule for each item and the repairs performed on each item. It is important the manufacturer's recommendation for routine maintenance be also followed thus ensuring our equipment functions properly and meets its maximal life expectancy.

d. Personnel

(1) Staffing

(a) The CSR is staffed to assure completion of processes in a timely, safe, and efficient manner.

(b) A staff member appropriately trained by the primary CSR staff member will provide coverage when the primary CSR member needs relief, assistance, is on leave or absent for any reason. No other personnel will provide coverage.

(2) Competency. Staff competency guidelines are documented in individualized supervisor/training folders. An orientation checklist is issued to all newly reporting personnel, and a skills inventory (competency) is completed prior to performing activities independently. Competency will be reevaluated annually. Annual training includes updates on Infection Prevention and Control and Safety. Staff will maintain awareness of current trends and practice changes with the specialty area. Every effort will be made to send the CSR technician for job specific in-service training. The CSR staff maintains a close working relationship with the designated infection prevention representative. This support will ensure that appropriate infection prevention and control practices are maintained. Training of individuals will be conducted by the primary CSR staff member only. The competency of the primary CSR staff member is evaluated by the site specific infection prevention officer.

e. Hygiene. Cleanliness and good personal hygiene are mandatory. Hand hygiene is the single most important method to prevent disease transmission. Adherence to NHCNE's Hand Hygiene Protocol is essential. Hand washing will not be performed at sinks where "dirty" instruments are washed.

f. Dress Code. Scrub attire and head covers are required while working in the decontamination and clean areas. Full PPE is required when the potential for splash is present. This includes mask and eye protection or face shield, gloves and a fluid resistant FULL LENGTH DOWN TO KNEE long sleeve gown. (Refer to chapter 6 for further guidance)

g. Orientation, Cross Training and Evaluation of New Staff Member. New staff members and designated CSR personnel will receive an area specific orientation in addition to Command Orientation. Each new staff member will be assigned to the preceptor who will conduct a structured, formalized, and individualized orientation to the CSR. The skills inventory will be initialed and signed off as progress is made. The preceptor/supervisor is responsible for signing off as many topics as feasible during the orientation period. The staff member is responsible for having items signed off by the time the orientation period is completed. The staff member will not perform CSR responsibilities independently until documented proof of competency is obtained.

h. Quality Assurance tests will be completed daily or when equipment is in use (for those sites that do not utilize CSR on a daily basis)

(1) Perform residual air test ("D.A.R.T." or Bowie Dick) on prevacuum steam autoclaves DAILY and document. Report any discrepancies to clinic Biomed Technician.

(2) Perform Biological ("ATTEST") monitoring test DAILY for each mode (gravity/ prevacuum) for steam autoclaves and document. Report any positive biological results to clinic Biomed Technician immediately. In the event of a positive biological test, hold all instruments from that load. Do not allow release until a negative test result.

(3) Perform Biological monitoring test with EVERY load that contains an implant. Do not use implant until negative biological is verified.

i. Flash Sterilization will NOT be used.

j. Perform “diagnostic” test cycle per manufacturer’s guidelines daily and document.

k. Monitor temperature and humidity levels of storage area DAILY and document. If outside of parameters [temperature (65-75°) and humidity (30-60 %)], report to clinic Infection Prevention Officer and Facilities manager.

l. Perform chamber and drain cleaning on autoclaves at least WEEKLY per manufacturer's instructions, using NHCNE approved agent.

m. At the end of the day (EOD), remove all linens, wipe counters with germicidal product, and take out trash and dirty linen. A weekly Field Day MUST be performed in the Decontamination Room.

n. Document all QA measures and save for five years. Keep at least one-year’s worth of documentation on-site for review by IG and Joint Commission surveyors.

o. Ultrasonic Use

(1) Empty, clean and disinfect the Ultrasonic machine daily.

(2) Utilize appropriate ratios of diluents when using Ultrasonic machine for cleaning instruments.

(3) Perforation test: verify the ultrasonic is functioning properly by following the manufacturer instructions.

p. Manual cleaning will be performed below water level to avoid potential aerosolization and/or splashing of microorganisms.

q. Appropriate Personal Protective Equipment (PPE) will be utilized at all times depending on the action being performed.

(1) Dirty area- At a minimum, head cover, mask, eye protection or face shield, long sleeve, water resistant gown to the knee, and puncture resistant, waterproof gloves when handling loose instruments.

(2) Clean area- At a minimum head covers and gowns.

r. After-hours CSR responsibilities, when required, will be completed by trained personnel.

s. All potentially hazardous materials utilized in CSR have a corresponding MSDS in the manual. MSDS shall be readily available to all personnel.

6. Storage

a. All items sterilized by the CSR will have an indefinite shelf life unless the package/pack/tray/ or containers integrity is suspected to be compromised. The user before use must inspect all sterile packaged items.

b. Packaged items should be considered NOT STERILE if they have:

(1) Holes or torn wrappers.

(2) Non-secure tape or seals/locks removed or tampered with.

(3) Broken seals in peel pouches.

(4) Missing load control information.

(5) Internal or external chemical indicators are missing or questionable.

(6) Filters damaged or missing.

(7) Been dropped.

(8) Been exposed to contaminated surfaces or environments.

(9) Been exposed to any type of moisture i.e., appears wet or has water spots.

(10) Questionable sterility. “When in doubt, throw it out.”

(a) Crammed together.

(b) Mixing sterile items with unsterile items

c. Load identification stickers/labels are applied to all sterilized items for tracking purposes. prior to placement of load into sterilizer Each item will have the following documentation and Load Control information:

(1) Assembler initials written on self-sealing strip or the plastic side of a peel pouch, or on the sealing tape never on the material itself.

(2) Autoclave identifier.

(3) Julian date with two digit year identifier. (No expiration date will be assigned.)

(4) Load number.

(5) Initials of person sterilizing the load.

d. When using the polypropylene single thickness wrappers or muslin, all items packaged for sterilization will be double wrapped.

e. Individual instruments in peel pouches may be single wrapped. Use of point protectors is encouraged for instruments with sharp protrusions, to decrease the occurrence of punctures to the packaging and personnel.

f. Use of dust covers shall be used if muslin is used as a packaging material, items will be transported to an outside source (such as another clinic within the command) or if the sterile packaged item will be infrequently used, such as internal cardiac paddles, cut down trays etc.

g. Storage

(1) Three conditions can directly compromise the ability of a package to maintain the sterility of its contents: moisture, soil, physical damage. Storage should protect gear from these conditions.

(a) The storage area should have/be:

1. Air that is clean and dust free.

2. Air flow from clean to dirty.

3. Temperature between 65° to 72° .

4. Relative humidity between 30-60 percent.

5. Away from general traffic areas.

(2) Original shipping cartons shall not be used as storage containers.

(3) Closed shelves are the preferred method of storage. If open shelves are used they should be:

(a) Kept dust free.

(b) At least 8 inches from the floor.

(c) Two inches from outside walls.

(d) 18 inches from the ceiling.

(e) Kept away from sinks, windows, doors or exposed pipes or dirty areas.

(f) Protected by having a barrier between the bottom shelf and floor.

(g) Protected by having a barrier on the top shelf.

(4) All sterilized items will be rotated utilizing the FIRST IN FIRST OUT concept to assure usage of “oldest” sterile items first. “Oldest” items will be placed to the front of shelves, with the more recently processed items placed to the rear.

(5) Avoid storing sterile items with unsterile items.

(6) A weekly inventory of sterile items will be conducted to check the integrity of packaging and storage methodology.

h. Handling

(1) Keep handling to a minimum.

(2) Use of rubber bands is prohibited.

(3) Avoid compression and crowding of sterile packaged items in storage areas.

(4) Sterile packaged items will be handled with clean, dry hands.

7. Smoking and Eating Restrictions

a. Smoking is restricted to designated areas outside the building.

b. Eating and/or drinking will be restricted to the lounge area.

CHAPTER 14
LINEN AND CURTAIN CLEANING

1. Purpose. To establish a formal policy to address in-house medical laundry services. Soiled linen may harbor large numbers of pathogenic microorganisms. The risk of actual disease transmission from soiled linen is negligible.

2. Policy. Naval Health Clinic New England (NHCNE) facilities that provide in-house laundry service will follow industry policy when processing soiled linens and exam room curtains.

3. Procedure

a. All soiled linen is considered potentially infectious.

b. Handle soiled linen as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen.

c. All soiled linen should be bagged at the location where it was used.

d. Handwashing should be performed after having contact with any soiled linen.

e. PPE should be used as follows:

(1) Gloves should be worn for actual or potential contact with soiled linen contaminated with blood or body substances.

(2) Gowns should be worn for the management of soiled linen if contamination of the clothing is likely to occur.

(3) Masks should be worn if there is a potential for exposure to aerosolized blood or body substances. This may occur if soiled linen is extensively agitated.

f. Laundry will areas have two separate sections: a “dirty” area for receiving and handling the soiled laundry and a “clean” area storage of clean items. Clean scrubs/linen will be stored in a closed cabinet or protected from dust and airborne microorganisms.

g. Clean laundry/scrubs should be handled during transport as such that the items will not be recontaminated. i.e. not carrying against body, remained covered when in open areas.

h. For exam room curtain cleaning follow the care instructions attached to the curtains.

CHAPTER 15

STORAGE UNDER SINKS

1. Policy

a. For the safety and welfare of our patients and staff, it is the general policy of Naval Health Clinic New England (NHCNE) that sterile supplies, patient care items, hazardous materials, or information management for paper records will not be stored under sink. Exceptions to this policy must be requested and approved by the Infection Prevention Committee, based on current industry standards and regulations.

b. Cleaners/disinfectants may be stored under the sink.

CHAPTER 16
PRE-CONSTRUCTION RISK MANAGEMENT

1. Policy. It is the responsibility of the Facility Manager at each site to follow the procedures identified below for all projects involving demolition, renovation, and construction to ensure proper safeguards are in place to protect staff and patients from infection.

2. Procedure. The local Facility Manager will evaluate the scope of work on each construction project using the Risk Assessment Matrix. Instructions on how to use the Matrix are as follows:

STEP 1: Determine the Construction type using the following guideline:

TYPE A: Activity generates low to moderate levels of dust. Examples:

- Sanding of walls for painting.
- Wall covering, electrical trim work, minor plumbing, and activities that do not generate dust or require cutting of walls.
- Cutting of walls or ceiling where dust migration can be controlled.

TYPE B: Activity generates moderate to high levels of dust. Examples:

- Removal of floor coverings, ceiling tiles and casework.
- New wall construction.
- Minor ductwork or electrical work above ceilings.
- Major cabling activities.

TYPE C: Major duration construction activities

STEP 2: Determine the Infection Control Risk based on the sensitivity of the location of the construction:

Low Risk: Spaces without any specific requirements for sterilization. Examples:

- Administration Spaces
- Behavioral Health

Medium Risk: Spaces that have furniture/equipment that needs to be disinfected before use: Examples:

- Family Practice
- Occupational Health
- Physical Therapy
- Radiology
- Optometry
- Pharmacy

High Risk: Spacers that are required to be sterile or are highly sensitive to environmental influences. Examples:

- Surgical Clinic;
- Central Sterile Supply Room
- Laboratory

STEP 3: Using the determined Construction Type and the Infection Control Risk, apply to the

following Risk Assessment Matrix to determine the Risk Classification and the required action.

RISK ASSESSMENT MATRIX

RISK ASSESSMENT MATRIX			
Construction type	**A**	**B**	**C**
Low Risk	**I**	**I**	**II**
Medium Risk	**I**	**I**	**II**
High Risk	**I**	**II**	**II**

CLASS I: The Facility Manager will assess and implement controls prior to start of work. The Facility Manager will consult with other members of the Pre-Construction Risk Assessment Team if necessary.

CLASS II: The Facility Manager will complete the Risk Assessment form, detailing the location and scope of the proposed work. The form will be forwarded to members of the Pre-Construction Risk Assessment Team to include Safety, Infection Control, Risk Management, Industrial Hygiene, and OIC for comment. If the comments indicate particular concern or if the scope of work is more complicated or at a higher risk for injury, a meeting will be established to include all Risk Assessment party members. The Facility Manager will retain this document with the contract documents for this project.

PRE-CONSTRUCTION RISK ASSESSMENT

1. PROJECT INFORMATION

Clinic Location		Facility Manager:	
Construction Location:		Telephone:	
Contractor:		Work Supervisor:	
Project Start Date:		Est. Completion:	

Scope of Work:

2. COMMENTS SECTION

Facilities Management:	Date:
Comments:	
Safety:	Date:
Comments:	
Infection Control:	Date:
Comments:	
Risk Management:	Date:
Comments:	
Industrial Hygiene:	Date:
Comments:	
Director / OIC:	Date:
Comments:	

NHCNE FORM 11110/1 (01/09)

Once the Pre-Construction Risk Assessment (PRCA) sheet has been completed, the NHCNE Facilities Manager will enter the relevant information into a database (see example below) and maintain it and a record of the PCRA forms. . The NHCNE Facilities Program Manager will be responsible for reporting this information at the NHCNE EOC committee upon request.

Pre-Construction Risk Assessment					
Tracking Number	Clinic Location	Facility Manager	Construction Location	Brief Scope	Start Date

NHCNE FORM 11110/2 (01/09)

CHAPTER 17
ASSESSING FOR LATEX ALLERGIES

1. Purpose. To reduce the risk of latex sensitization among staff members and patients throughout Naval Health Clinic New England (NHCNE). The guidance contained herein should be incorporated, whenever applicable, into the management of NHCNE patients at risk for latex sensitization.

2. Policy. Latex sensitivity is now recognized to be a potentially significant problem for specific patient groups as well as healthcare workers.

3. Procedure. The following will support latex sensitization prevention:

a. To the greatest extent possible, all gloves and medical devices used NHCNE-wide will be non-latex.

b. During the assessment process, the patient is asked about any known or possible allergies (including latex). If latex sensitive, the Latex Allergy Questionnaire will be completed. Patients with a history of asthma, allergic reactions to latex gloves, balloons and latex medical devices or patients with chronic bladder catheterizations or multiple surgeries are considered high-risk. The identification of individuals with a known latex sensitization or who are at high risk for a reaction will be documented in the medical/dental record and on the outside cover of the medical/dental record stating that the individual has a latex allergy

c. Educate healthcare workers in risk behaviors for latex sensitization and the appropriate interventions to reduce the risk. All healthcare workers, civilian, contractor, and volunteers will be screened for latex allergy using the Latex Allergy Questionnaire. This may also be completed in the questionnaire module of AHLTA. If detected to have an allergy or sensitivity, a Provider's Written Opinion will be completed. The supervisor will be given a copy. If it is determined that they do have an allergy or sensitivity to latex, alternative latex-free products will be made available for use. In addition, an allergy sticker will be placed on the front of their medical record indicating “Latex Allergy/ Sensitivity.”

Naval Health Clinic New England
LATEX ALLERGY
QUESTIONNAIRE

Patient/Staff Name: _____

		Yes	No
1.	Have you ever had allergies, asthma, hay fever, eczema, or problems with rashes?	❑	❑
2.	Have you ever had anaphylaxis or an unexplained reaction during a medical procedure?	❑	❑
3.	Have you ever had swelling, itching, or hives on your lips or around your mouth after blowing up a balloon?	❑	❑
4.	Have you ever had swelling, itching, or hives on your lips or around your mouth during or after a dental examination or procedure?	❑	❑
5.	Have you ever had swelling, itching or hives following a vaginal or rectal examination or after contact with a diaphragm or condom?	❑	❑
6.	Have you ever had swelling, itching, or hives on your hands during or within one hour after wearing rubber gloves?	❑	❑
7.	Have you ever had a rash on your hands that lasted longer than one week?	❑	❑
8.	Have you ever had swelling, itching, or hives after being examined by someone wearing rubber or latex gloves?	❑	❑
9.	Have you ever had swelling, itching, or hives, running nose, eye irritation, wheezing or asthma after contact with any latex or rubber product?	❑	❑
10.	Has a physician every told you that you have rubber or latex allergy?	❑	❑
11.	Are you allergic to bananas, avocados, or chestnuts?	❑	❑
12.	Are you presently on beta-blockers?	❑	❑

Signature: _____ Date: _____

OCCUPATIONAL EXPOSURE TO LATEX

Provider's Written Opinion in the case of:

Name: _____ SSN: _____

Dept/Code_____

1. The above named individual was examined regarding occupational exposure to Latex. On the basis of this exam, the following comments are submitted:

2. A medical condition WAS/WAS NOT detected that would place the employee at increased risk of material impairment of health from exposure to latex. Comments (if applicable):

3. Limitations ARE/ARE NOT recommended on this individual's exposure or use of personal protective equipment, including respirators. Comments (if applicable)

4. The employee has been counseled regarding the results of this medical evaluation and of any medical condition resulting from latex exposure that require further explanation or treatment, as noted by his/her signature below.

_____

Employee's Signature

_____

Examiner's signature and stamp/date

Original: Employer/Supervisor
Copies: Employee Medical Record

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974

CHAPTER 18
USE OF MULTIDOSE VIALS

1. Policy. Single dose unit medications will be encouraged for patient medication administration across Naval Health Clinic New England (NHCNE) to reduce the potential for medication error, compromised sterility, and/or risk of infection. Multi Dose Vials (MDV) will be maintained according to the following guidance.

2. Procedure

a. Vials, which are diluted in clinic areas, should have the final concentration and dilution date recorded on or attached to the vial (recommend pharmacy to provide concentrated medications).

b. A MDV containing parenteral medications may be reused if the following procedures are followed to reduce the risk of infection:

(1) Use strict aseptic technique.

(2) Once opened or entered (e.g., needle-punctured), label the MDV with the date of expiration (28 days after entry)
.

(3) Discard any opened MDV that does not require addition of a diluent 28 days post opening date on vial, unless otherwise specified by manufacturer (e.g., vaccines that expire in *less* than 28 days).

(4) Vaccines are exempt from the 28-day rule and will be discarded per manufacturer's recommendations.

(5) For MDVs that require the addition of a diluent:

(a) The manufacturer's recommended reconstituted/diluted expiration date/time must be written on the vial once the diluent is added.

(b) The vial shall be discarded by the reconstituted/diluted expiration date/time.

(c) In the event the manufacturer's recommended expiration date/time is not available, the NHCNE pharmacy should be contacted for guidance concerning expiration date/time.

(6) Prior to use, staff members will inspect vial for discoloration or particulates. Discard contaminated vials immediately upon detection.

(7) Do not store MDV in the refrigerator unless required to do so by the manufacturer.

(8) Proper handling and disposal of vaccines must be in accordance with manufacturer's guidelines.

c. For non-parenteral medications: Single-Unit Dose medications should be utilized to the maximum extent possible to reduce the potential for medication error, compromised sterility, and/or diminished efficacy.

(1) Opened, non-parenteral medications are considered expired on the manufacturer's expiration date, unless contamination occurs prior to that date.

(2) The NHCNE pharmacy can assist in procurement of single-dose unit medications.

CHAPTER 19
ANIMALS IN THE CLINIC

1. Policy. Animals will not be allowed in any NHCNE patient care areas except for service animals and Military dogs when an MOU is in place. Service animals can access the facility in accordance with the Americans with Disabilities Act of 1990, unless the presence of the animal creates a direct threat to other persons or a fundamental alteration in the nature of services.

2. Procedures

a. When a decision must be made regarding a service animal's or Military animal access to any particular area of the clinic, evaluate the service animal, patient and healthcare situation on a case-by-case basis to determine whether significant risk of harm exists and whether reasonable modifications in policies and procedures will mitigate this risk.

(1) Animal must be in good health (well nourished and well groomed).

(2) Animal must have all required vaccinations.

b. If a patient must be separated from his or her service animal while in the healthcare facility, ascertain from the person what arrangements have been made for supervision or care of the animal during this period of separation; and make appropriate arrangements to address the patient's needs in the absence of the service animal. Appointments for Military animals should be made at the end of the day to minimize any inference with the other populations served.

c. Minimize contact with animal saliva, dander, urine, and feces.

d. Practice strict hand hygiene after any animal contact.

(1) Wash hands with soap and water if hands are visibly soiled or contaminated.

(2) Use alcohol-based hand rubs when hands are not visibly soiled or contaminated.

e. Use routine cleaning and disinfecting protocols for housekeeping surfaces after animal leaves clinic spaces.

f. Any equipment or devices utilized to treat or exam a Military animal (per MOU) should be single use only and disposed of immediately after use. If the equipment is not single use (such as XRAY machine), it shall be disinfected immediately after use.

f. Fish tanks are allowed in non-patient care areas.

(1) Tanks will be cleaned on a regular basis and when visibly soiled.

(2) Cleaning should be done by a nonpatient-care staff member. Staff member must ensure proper PPE utilized and removed before leaving area cleaning performed. Proper hand hygiene practices to be performed by anyone who cleans the tank.

(3) Any equipment or supplies associated with maintaining or cleaning the fish tank must be stored in a closed container and separate from any patient care supplies.

CHAPTER 19
INVASIVE PROCEDURES

1. Intravenous Therapy

a. Background. Vascular access is associated with substantial potential for Healthcare Associated Infection (HAI), especially bloodstream infection (BSI). NHCNE clinics only utilize Peripheral Venous Catheter devices and only to a specific population. Although the incidence of local and systemic infections is low with these devices, any infection can be serious and can cause a variety of morbidity and mortality concerns. There are two major sources of IVDR (Intravascular Device Related) HAI, colonization of the device (catheter-related infection) and contamination of the fluid administered through the device (infusate-related infection). Skin microorganisms can cause catheter-related infections by either invading the percutaneous tract or the catheter hub during insertion. Most Peripheral IVD BSIs are cutaneous in origin, and originate at the insertion site. In contrast, the infusate-related BSIs with these devices are infrequent.

b. Policy. Any IV therapy, being an invasive procedure, has a risk of causing infection of different degrees. Any staff member in any NHCNE clinic administering IV therapy will assure proper aseptic procedures are followed and signs and symptoms of infection monitored closely. (Refer to IV SOP for more detailed explanation of IV policy and procedures.)

c. Procedure

(1) Catheter Insertion Care:

(a) Gather all equipment and supplies needed prior to beginning to prevent leaving field and decrease risk of cross-contaminating areas. Equipment shall be placed and arranged on a disinfected surface. Be careful to maintain sterility of appropriate equipment.

(b) Inspect IV bags and devices carefully for cracks, leaking, punctures, precipitate, turbidity, expiration, or any other sign of physical damage or contamination. Do not use any infusate with these discrepancies.

(c) Wash hands with approved antibacterial soap or alcohol-based hand rub. Apply clean non-sterile gloves and follow “no touch” protocols.

(d) Establish site for insertion

1. Upper extremities recommended.

2. Ensure site clear of sores, dermatitis, and other skin conditions.

(e) Scrub insertion site with a NHCNE approved antiseptic (Chloraprep) by starting at the center and, with circular motions, gravitate outward. Do not palpate site after cleansing.

(f) Use sterile technique to insert catheter to minimize contamination and risk of infection.

(g) After securing catheter in place, cover site with sterile gauze or a transparent semi-permeable polyurethane dressing. (The latter provides a means of better monitoring of insertion site.) Avoid contamination of the insertion site when applying the dressing. Do not use any ointment on the insertion site; its use has been contradictory.

(2) Infusion System Care:

(a) Maintain a closed system. Access the system through ports rather than open hubs.

(b) Cleanse catheter injection hubs and connections with 70% alcohol before accessing the system.

(c) Use needleless devices to access ports.

(d) Ensure aseptic technique utilized whenever manipulating system; including proper hand hygiene and glove use.

(e) Infusion pumps must be cleaned and disinfected between patients.

(f) Sterile solution bags are single use only and must be discarded after use. Never add more solution to a partially filled bag.

2. Urinary Catheterization

a. Background. Catheter associated urinary tract infection (CAUTI) is the most common HAI in acute care settings. This risk extends to short-term catheterization, including the process of straight catheterizing for urine sampling. CAUTIs are generally benign, are asymptomatic in otherwise healthy individuals, and will likely resolve spontaneously. The concern lies with the infection that does not resolve and leads to complications such as prostatitis, epididymitis, cystitis, pyelonephritis, and gram-negative bacteremia, especially in high-risk groups. The latter of the complications is associated with a high mortality rate. Although urinary catheterization is infrequently performed at NHCNE, care still needs to be taken during this procedure to reduce the risk of infection.

b. Policy. Urinary catheterization is an invasive procedure and requires sterile technique and sterile equipment. Catheters will only be used for laboratory purposes and should be discouraged for patients that are able to void. Indwelling catheters will not be placed at any NHCNE clinic.

c. Procedure

(1) Thoroughly wash hands with antiseptic soap.

(2) Explain procedure to the patient to minimize anxiety and decrease risk of contamination of sterility during procedure by patient.

(3) Set up sterile field. Sterile gloves and technique must be maintained throughout procedure.

(4) Thoroughly cleanse insertion site with approved antiseptic swabs. Start at center of site and work outwards, using swabs only once for each swipe.

(5) Insert catheter carefully, ensuring tip does not touch uncleansed areas.

(6) If the catheter is contaminated before insertion, discard and restart process.

APPENDIX A

DEFINITIONS

Communicable Disease. An illness caused by a specific infectious agent or toxic product that occurs through transmission of that agent or its product from an infected person, animal, or inanimate reservoir to a susceptible host, either directly or indirectly.

Contamination. Infectious agents (bacteria, viruses, or fungi) that are temporary and present on the body surface without tissue invasion or physiological ration. Contamination also means the presence of infectious agents on or in an inanimate object.

Infection. The entry and growth/multiplication of an infectious agent in the body of man or animal. The result may be clear clinical disease (infectious disease) or sub clinical (unapparent) disease.

Infection Control Program. A coordinated effort by all staff members to reduce the occurrence of healthcare associated infections in all ambulatory medical care facilities. The infection control program consists of infection surveillance, epidemiology, education, visual surveillance, employee health program, and consultation.

Infectious Agent. An organism (virus, rickettsia, bacteria, fungus, or parasite) that is capable of producing infection or infectious disease.

Infectious Disease. A clinically obvious disease of human or animal resulting from an infection carried by microorganisms.

Healthcare Associated Infection. Infection that develops during hospitalization, or as a result of ambulatory care. Healthcare Associated Infections may occur in anyone who has been in a hospital or ambulatory care facility including patients, staff members, volunteers, visitors, workers, salespersons, and delivery personnel. **NOTE:** Infections that develop 48 hours after ambulatory medical care are considered healthcare associated.

Other Potential Infectious Material (OPIM). Includes semen, vaginal secretions, cerebral fluid, synovial fluid, pericardial fluid, amniotic fluid, and microbiological waste, any body fluid that is visibly contaminated with blood, and all body fluids where it is difficult or impossible to determine what body fluid is present. In addition, OPIM includes any unfixed human tissue or organ from a living or dead human, and any HIV or HBV containing solutions, or media, blood, organs or other tissues from experimental animals infected with HIV and HBV. Body fluids that are NOT OPIM include urine, feces, perspiration, saliva, and tears.

APPENDIX B

CRITERIA FOR IDENTIFYING AND CLASSIFYING HEALTHCARE ASSOCIATED INFECTIONS – DEFINITIONS AND GUIDELINES

PURPOSE. To provide guidelines for identifying, classifying, and monitoring Healthcare Associated Infections (HAIs), in an effort to reduce the occurrence and spread of infectious hazards.

POLICY

1. Definition. Presence of an infectious agent and/or toxin that adversely affects the patient locally or systematically and was not present or incubating at the time of the visit or procedure.

2. Guidelines

a. Adapted from the National Nosocomial Infections Surveillance (NNIS) System Guidelines.

b. The Infection Control Committee reviews and approves these guidelines annually and makes recommendations and revisions as appropriate

c. Any questionable HAI infections are referred to NHCNE Infection Control Coordinator

d. The generally acceptable guideline for identifying and classifying an infection as HAI requires both clinical and laboratory evidence

(1) Clinical Evidence

(a) Diagnosis by a physician through direct observation of the infection site.

(b) Review of pertinent data: patient's record

(2) Laboratory Evidence

(a) Positive cultures.

(b) Antigen or antibody detection tests.

(c) Microscopic visualization.

(3) Supportive Evidence. Diagnostic studies: x-ray, ultrasound, MRI, radiolabel scan, endoscopic procedure, biopsy, or needle aspiration.

3. General Principles for HAI Infections:

a. Infection that is not present or incubating at the time of a visit/procedure.

b. Infection with an incubation period of ≥ 48 hrs from visit/procedure and/or known to be associated with a previous visit/procedure at any of NHCNE's facilities.

c. The appearance of clinical infection at a new and different site, regardless if it is same organisms as the original infection, and which meets above criteria.

d. Infections acquired during visit/procedure, but do not become evident until after discharge.

4. Infections not considered HAI include:

a. Infection present at time of visit/procedure.

b. Known incubation period, which extends beyond forty-eight hours, it is classified as a community-acquired infection.

c. Colonization without adverse signs/symptoms.

5. Definition of Colonization. The presence of microorganisms in or on a host with growth and multiplication but without tissue invasion or damage.

6. Definition of Surgical Site Infection (SSI) - No Implant

a. Infection occurs within 30 days after the operative procedure and involves skin, subcutaneous tissue, or deep soft tissue (facial and muscle layers) of the incision and patient has at least one of the following:

(1) Purulent drainage from the superficial incision.

(2) Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.

(3) At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat, and superficial incision is deliberately opened by surgeon, unless incision is culture-negative.

(4) Diagnosis of superficial incision SSI by the surgeon or attending physician.

(5) A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (>38C) or localized pain or tenderness, unless incision is culture-negative.

(6) An abscess or other evidence of infection involving the deep incision is found on direct observation.

7. Definition of Surgical Site Infection (SSI) – Implant Present

a. Infection occurs within one year after the operative procedure and involves skin, subcutaneous tissue, or deep soft tissue (facial and muscle layers) of the incision and patient has at least one of the following:

(1) Purulent drainage from the superficial incision.

(2) Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.

(3) At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat, and superficial incision is deliberately opened by surgeon, unless incision is culture-negative.

(4) Diagnosis of superficial incision SSI by the surgeon or attending physician.

(5) A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (>38C) or localized pain or tenderness, unless incision is culture-negative.

(6) An abscess or other evidence of infection involving the deep incision is found on direct observation.

NHCNE INFECTION CONTROL EOC ROUNDS CHECKLIST

Site _____ **Date** _____

	Compliant? (Y/N)	Comments
GENERAL		
Hand Hygiene Compliance		
Is hand sanitizer available for use by patients & staff (clinic waiting rooms; exam rooms; other)		
Is hand sanitizer dispenser full, functional, & dispenses correct volume?		
Is disinfectant on the approved NHCNE list?		
Can HCW verbalize proper use, handling and PPE requirements for disinfectants?		
Can staff locate the MSDS binder? Does it contain all disinfectants in use?		
Is patient care equipment cleaned & disinfected?		
Facility is clean, neat and well maintained.		
Are ceiling tiles free of watermarks?		
Is there any hazardous material, chemicals or medical documentation under sinks? Is there evidence of water leakage?		
Renovation/construction areas are free of excessive amounts of dust accumulation, etc.		
Can staff locate the Infection Control Manual/SOPs?		
Are staff refrigerators clean and food labeled?		
Other		
STANDARD PRECAUTIONS		
Has respiratory etiquette program been implemented throughout clinic? Tissues, masks, hand sanitizer available for patient use?		
Are barriers available? (exam table paper/dental plastic covers)		
Is at least one room designated for patients with infectious diseases (i.e., chicken pox)?		
Are clinic approved precaution/isolation signs available?		
Are the following PPE available in the clinic for staff use: gloves, impermeable cover gowns, face shield, goggles, and surgical masks?		
Are clean non-latex gloves available & easily accessible to staff at the point of care?		
Can staff state how a patient with infectious disease is managed in the clinic? What PPE is appropriate for various precautions (standard, droplet, respiratory, contact)?		
Can staff state what constitutes biohazardous waste?		
Are biohazardous red bags available at "point of origin" or can staff verbalize how they would handle biohazard waste disposal?		

Are Sharp containers puncture-resistant and in accordance with required safety standards?		
Are sharps and disposable syringes placed in the approved sharps containers? Are sharps containers secured to wall or counter top according to NIOSH standards?		
Can staff state the proper method of labeling & transporting biohazard waste to biohazardous waste storage area?		
Is biohazardous waste storage area labeled and locked?		
Is the biohazardous log book up-to-date & copies of manifests available?		
Is Medical Waste Management Plan available & up-to-date?		
Are needle/instrument safety devices available and being used (safety scalpels, syringes, phlebotomy needles, butterfly needles, IV catheters, IV tubing)?		
Can staff state what procedure to follow if they have a needlestick or blood/body fluid exposure?		
Can staff state proper procedure of cleaning up small blood spill?		
Are latex free supplies available for use within the clinic?		
Other		
MEDICATION / IMMUNIZATION STORAGE		
Are all medications within their expiration date or once MDV punctured, are disposed within 28 days?		
Are there "medication only" signs on refrigerators?		
Is there no food in “medication only” refrigerators?		
Are refrigerators maintained between 2 and 8 degrees Centigrade?		
Are freezers maintained at –15 degrees Centigrade or colder?		
Are the daily temperature accountability logs and thermograph records easily accessible for review? Are they up-to-date or missing any data?		
Can staff verbalize the actions that must be taken if temperature falls outside ranges or if medications have been compromised?		
Is staff comparing Stylus continual thermographs with digital thermometers daily?		
Are Stylus continual thermographs changed weekly?		
Are dates written on thermographs?		
Are temperature control limits clearly highlighted?		
Are supervisors ensuring compliance with the temperature monitoring at least once a week?		
Other		
STERILIZATION		
Is the area designated for processing instruments designed to allow flow from dirty to clean to sterile?		
Does the person performing instrument sterilization have evidence of competency training?		
Are sterile supplies stored in a manor that maintains sterility:		

Can staff explain the practice of "event related" sterility?		
Stored in a manner that encourages rotation of stock?		
Items are not over crowded?		
Handling is minimized?		
Protected from dust, moisture and other contaminates?		
Are sterilization QA log books up to date without discrepancies? (To include: type of sterilizer, date or lot control #'s, load contents, exposure times/temps, operator's name, results of controls.)		
Can staff explain chemical, biological and manual sterilization indicators?		
Can staff explain package tracking & patient identification/notification if sterilization process has been compromised?		
Are the appropriate PPE available for mechanical cleaning dirty instruments (face shield, puncture resistant gloves, long sleeve water proof gown, apron?. Are they being utilized by staff?		
Can staff state or demonstrate the proper transport, cleaning, soaking, wrapping & labeling of surgical instruments prior to sterilization?		
Can staff state or demonstrate the proper loading and unloading of surgical packages into sterilizer?		
Can staff verbalize the frequency of changing Ultrasonic detergents and enzymatic cleaners? Are bins labeled with disinfectant/enzymatic contained?		
Is there alcohol based hand sanitizer available in "dirty" room?		
Other		
HIGH LEVEL DISINFECTION		
Does person performing high-level disinfection (endoscopes) have evidence of competency training?		
Are endoscopes transported to the disinfection site in a container with biohazard label?		
Is the disinfectant container labeled with date the disinfectant was placed into use as well as date it must be changed?		
Is the log book maintained to include that disinfectant has been tested for efficacy every day of use?		
Are check strips within their expiration date?		
Are scope channels rinsed with sterile water, then 70% isopropyl alcohol and dried after disinfection?		
Are scopes stored to minimize accumulation of moisture, & prevent recontamination (not stored within carrying cases)?>		
Other		
LABORTORY		
Is there functional eye wash station available in laboratory spaces? Has it been checked per SOP (q week, 3minutes)		
Are sharps containers easily accessible at drawing stations?		

Is staff discarding blood tube holders with the needle in place after performing phlebotomy?		
Are blood tubes, cultures tubes and other items within their expiration dates?		
Are specimens and reagents refrigerated/stored at the appropriate temperature? Is refrigerator log up-to-date & within standards?		
Can staff verbalize the actions taken if temperature range is outside range or specimens/reagents have been compromised?		
Other:		

APPENDIX D
RECOMMENDED PRECAUTIONS FOR SELECTED INFECTIONS AND CONDITIONS

*** Refer to the link below:**

http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html

APPENDIX E

APPROVED ANTISEPTICS AND DISINFECTANTS

Product Name	Recommended Purpose.
For Use in Patient Clinical Areas	
Bleach (10:1 solution)	To decontaminate items that requires use of bleach only. (i.e. laboratory equipment)
Dyna-Hex Hibiclens BD E-Z Surgical Scrub Betadine T-Spray Providine Vionex Maxilen Skin Cleanser Alcohol Prep Maxiclens 4% Chloraprep	All can be used for sterile scrub and patient skin preparations prior to sterile and clean procedures.
PUR VAC Evacuation System Cleaner MIDWEST Plus (hand devices)	Dental suction and water line units & hand devices
Steris HB coverage spray Sklar Disinfectant Sanicloth Plus	Environmental Disinfectants
Klenzyme Henry Schein Ultrasonic Cleaning Solution Empower VibraKleen E General Purpose Ultrasonic Cleaner (non-ammoniated)	To be use to soak instruments to remove blood and body fluids. Also to be used in ultrasonic cleaning machines. Authorized for CSR use only. Uused to clean ultrasound equipment.
Cidex OPA Rapicide PA	Sterilization of items not suitable for autoclaving. High level disinfection
Omni Cleaner Plus	Autoclave Cleaners

- Please refer any questions to the NHCNE Infection Control Coordinator, local Infection Prevention Officer, or the Safety Officer.

APPENDIX F
CSR GLOSSARY OF TERMS

Aerobic Bacteria: Microorganisms that require oxygen for survival.

Anaerobic Bacteria: Microorganisms that live and grow in the complete or almost complete absence of molecular oxygen.

Antiseptic: A product used on the skin to decrease microbial flora. (e.g. Hibiclens, Alcohol, Iodine):

Asepsis: The absence of microorganisms that produce disease.

Autoclave: (See Sterilizer)

Automated Endoscopic Reprocessor (AER): A unit that mechanically cleans disinfects and rinses flexible endoscopes.

Bacteria: Microscopic single cell organisms, considered “vegetative” when it is in its growing and multiplying form.

Bioburden: The microbial load or number of microorganisms left on an item prior to sterilization/disinfection. The goal is to decrease bioburden by meticulously cleaning/decontaminating items before processing.

Biofilm: A microbial mass attached to a surface in a liquid that protects embedded microorganisms from disinfection/sterilization processes.

Barrier Materials: Materials that minimize or prevent penetration of liquid, particulates or microorganisms.

Biological Indicator: Also known as "biological monitor" or "ATTEST” is a commercial preparation of highly resistant live microorganisms (spores) that are non-pathogenic to humans. The type of spore utilized depends on the mode of sterilization (gravity, prevac, dry heat, liquid Peracetic acid, etc.) being monitored.

Bowie Dick Test: (See Dynamic Air Removal Test (D.A.R.T)

Cavitation: A process generated by the Ultrasonic machine that creates minute vacuum areas that suck particles of debris off of instruments. Particularly important with items containing crevices.

Chemical Indicator: A sterilization process monitoring device. It monitors one or more process parameters of the sterilization cycle in order to detect failures in packaging, loading, and/or sterilizer function. The chemical indicator usually contains a sensitive chemical or ink dye that

shows a conspicuous color change when that sterilization parameter is met. Examples are tape, paper strips, and package labels.

Chemical Integrator: A class V indicator that parallels a biological indicator without the spores. It monitors critical parameters of the sterilization cycle, providing immediate results at the end of the cycle. NOT A SUBSTITUTE FOR BIOLOGICAL MONITORING!

Cleaning: A physical or mechanical process using friction, detergent, and water to remove soil and/or organic debris such as blood or body fluids. It removes, rather than kills, microorganisms.

Confine and Contain: A principle requiring prompt cleaning of items/surfaces contaminated with blood, tissue and/or body fluids.

Contamination: The presence of an infectious agent.

Cover Gown: A lab coat, gown, or jacket worn over scrub attire or street clothes to prevent contamination.

Critical Item: An item that contacts the vascular system or sterile tissue. It poses the highest risk of transmission of infection. *Requires sterilization in between patient use.

Cycle Time: The total elapsed time of a sterilization cycle from the time the door is closed until the cycle is completed and the door opened. It may include heat up time, pre- and post-vacuum time, and drying time on appropriate equipment.

Decontamination: A chemical or physical process that reduces the number of microorganisms on an item. It is usually accomplished by hand scrubbing or mechanical cleaning.

Decontamination Area: The area designated for the collection or retention and processing of soiled or contaminated items.

Disinfectant: A chemical agent that kills vegetative bacteria, fungi and some viruses, but not spores.

Dust Cover: A device, usually made of plastic 2 to 3 mils thick, that assists in maintaining the sterility of a sterilized item by protecting it from moisture and vermin in the environment. It is placed on the sterile item after the sterilization process is complete and the item is totally cooled.

Dynamic Air Removal Test (D.A.R.T) or Bowie Dick Test: Performed daily in an empty chamber using the pre-vacuum mode of the steam sterilizer. *It is NOT a test for sterility!

Event Related Sterility: A concept whereby the shelf life of a sterilized item is considered indefinite unless events render it unsterile. The quality of the packaging materials, storage conditions, transport conditions, and the amount of handling must be controlled.

Exogenous: From a source other than the patient, to include personnel, equipment, environment, instruments and supplies.

Expiration Date: The maximum duration of time within which a sterile item is considered sterile and safe to use. This is also referred to as the shelf life. This may be a specific date mandated by the manufacturer or an indefinite date indicated by a statement such as sterile unless the integrity of the package is compromised.

Exposure Period: The total elapsed time during which the sterilizer is operating at the pre-selected sterilizing temperature.

Free Rinsing: Ability to be removed easily without leaving a residue.

Germicide: A chemical agent that kills pathogenic organisms.

Hand Hygiene: Hand sanitization using plain or antimicrobial soap and water, or an alcohol based hand rub if hands are not visibly soiled.

High Level Disinfection: A process that uses an FDA/EPA approved agent, in an appropriate concentration, to kill vegetative bacteria, TB, Fungi, lipid and non-lipid viruses (HBV, HCV, HIV) and some spores with appropriate submersion and contact time. Does NOT kill prions, like CJD.

Infectious Microorganisms: Organisms capable of producing disease in an appropriate host; pathogenic (disease producing) in nature.

Intermediate Level Disinfection: A process that uses an agent to kill vegetative bacteria, most viruses and most fungi. NOT spores.

Low Level Disinfection: A process that uses an agent to kill most bacteria, some viruses and some fungi. It does not kill TB or spores.

Mechanical Indicator: Automated devices on sterilizing equipment that monitor sterilization parameters or criteria (pressure, time, temperature) for the sterilization method used (e.g., graph, gauges, printouts).

Minimum Effective Concentration (M.E.C.): Term used to indicate the minimum concentration of a liquid chemical germicide like OPA which achieves the claimed pathogen killing capability.

Microbiology: The study of organisms so minute that they must be observed under a microscope.

Microorganisms: A microscopic life form. Those of medical interest include bacteria, viruses, fungi, prions and protozoa.

Muslin: The cotton cloth used as a double layer wrap for sterile goods; must have a minimum of 140 thread count.

Non-Critical Item: An item that comes in contact with intact skin. Requires low level disinfection if not contaminated with blood or body fluids. Example: Blood Pressure Cuffs, Pulse Oximeters

Packaging Systems: Materials used to wrap items in preparation for sterilization. Includes woven and non-woven wraps, peel pouches, and rigid containers systems.

Pathogen: Any disease producing organism.

Personal Protective Equipment (PPE): Utilized by Health Care Workers to protect themselves from patients' blood, tissue and body fluids when utilizing Standard Precautions and Transmission Based Precautions. Includes intact gloves, liquid resistant gowns, masks, and eye protection (face shields, goggles, glasses with side shields).

Prion: An infectious agent containing NO DNA or RNA. NOT killed by normal disinfection and sterilization methods.

Processing Area: The area designated to receive and process clean materials, instrument, or other medical devices, for subsequent sterilization; commonly referred to as the preparation and packaging area. This area can be in the room that the sterilizer is located.

Process Monitoring Device: Monitors sterilization processes. Can be biological (ATTEST), chemical (indicator strips), or mechanical (printouts).

Restricted Area: ORs and procedure rooms, clean core, and scrub sink areas. Requires scrub attire and head cover and masks if sterile items open.

Reusable: An item intended by the manufacturer to be used more than once. The manufacturer should provide specific instructions for cleaning, reprocessing and maintenance of the item.

Saturated Steam Sterilization: The process that utilizes moist heat, at a temperature related to a water saturated steam pressure, for a sufficient time to remove or destroy all viable forms of microbes.

Scurf: A bran-like desquamation of the epidermis caused by friction. Examples: rubbing necklines and jewelry.

Semi-Critical Item: An item that comes in contact with intact mucous membranes or non intact skin. *Requires high level disinfection.

Semi Restricted Area: Storage areas for supplies, and work areas. Traffic limited to authorized personnel only.

Sepsis: The condition demonstrating the presence in the blood or other tissues of pathogenic microorganisms or their toxins.

Shelf Life: The period that the item is considered to maintain its sterility, usually indicated by its expiration date. This may be a specific date or an indefinite date. Items that have been subjected to mishandling by moisture, penetration, falling on the floor or damage to the outer wrapper must be considered at the end of their shelf life and should be re-sterilized, or in the case of disposables discarded.

Single Use Device: An item labeled for one time use. Must be discarded if used or opened.

Spore: A protective/resting state of some bacteria during the life cycle of the cell making it resistant to environmental changes and disinfection processes.

Standard Precautions: First line of defense for infection control. The precautions used for all patient care regardless of diagnosis or presumed infectious status. Based on the premise that all blood and bodily fluids, with the exception of sweat, are considered infectious.

Sterile/Sterility: Free from all living microorganisms.

Sterilization: Process of destroying all forms of microbial life.

Sterilizer, Dry Heat: A type of sterilizer that kills microorganisms by oxidation or a slow, high temperature heating process. Mostly used in dental for sterilizing burrs.

Sterilizer, Gravity Steam: A type of sterilizer where saturated steam displaces the residual air, by gravity, through a port or drain in or near the bottom of the sterilizer chamber.

Sterilizer, Liquid Paracetic Acid (STERIS): Used for heat sensitive items that can be immersed such as endoscopes. Has limited efficacy on items with lumens. Uses 35% Paracetic Acid, hydrogen and water as the sterilant.

Sterilizer, Pre-vacuum Steam: Type of sterilizer system that produces a rapid removal of air from the chamber by a vacuum pump allowing faster saturated steam penetration of packages and materials, shorter cycle times, shorter exposure times due to the higher temperature and the accelerated drying of loads.

Terminal Cleaning (EOD): Cleaning performed at the end of the day. Includes all furniture, counter tops, push plates/handles of doors and cabinets, and sinks.

Transmission Based Precautions: Used in addition to Standard Precautions when a known or suspected exposure to an epidemiologically transmissible disease occurs. These precautions are Airborne (Microbes 5 microns or smaller), Droplet (Microbes 5 microns or larger) and Contact (Direct or Indirect). These events require additional precautions to prevent spread of the disease.
Ultrasonic Cleaner: A unit that removes soil and organic debris/deposits from items using a cavitation process.

Unrestricted Area: A centralized point that monitors entrance of patients and staff. Street clothes permitted. Traffic not limited.

Washer/Decontaminator: A unit that rinses, hot water washes, rinses and dries instrumentation. Allows safe handling of items at the end of cycle.

Washer/Sterilizer: A unit that cleans by spray force, washes, rinses and sterilizes at the end of the cycle. Allows safe handling of instruments at the end of the cycle.

APPENDIX G
BUMED DENTAL INFECTION CONTROL GUIDE (BUMEDINST 6220.9B, Enclosure 4)

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INTRODUCTION

This Guide provides standard operating procedures (SOPs) related to the implementation of specific dental infection prevention and control (IP/C) practices in the dental setting. The contents of this Guide may not supplant Navy Medicine instructions, only augment them. These practical SOPs are subservient to the basic instruction that must be followed. It represents a compilation of consultative guidelines based on scientific evidence, best current practices, and expert consensus. The Guide offers a menu of options, among which facilities can choose to develop or enhance their setting-specific infection control policies and practices.

The unique nature of many dental procedures, instrumentation, and patient-care settings may require specific strategies directed to preventing the transmission of pathogens among dental health care workers (HCWs) and their patients. Recommended infection control practices are applicable to all settings in which dental treatment is provided. Clinical dentistry is practiced under two basic conditions that require the application of infection control measures to mitigate the risk of cross-contamination. These two conditions are defined by the risk of exposure to blood and other potentially infectious materials (OPIM).

The first of these conditions is typified by settings that involve low risk environments of care and are characterized by minimal opportunities for exposure to blood and OPIM through spatter and aerosols. A visible spray is created during the use of rotary dental and surgical instruments (e.g., hand pieces, ultrasonic scalers) and air-water syringes. This spray contains primarily a large-particle spatter of water, saliva, blood, microorganisms, and other debris. This spatter travels a short distance and settles out quickly, either on the floor, nearby surfaces, the dental health care personnel providing care, or the patient. This spatter can commonly be seen on face shields, protective eyewear, and other surfaces immediately after the dental procedure, but after a short time, it may dry clear and not be easily visible. The spray may also contain some aerosol. Aerosols take considerable energy to generate, consist of particles less than 10 microns in diameter, and are not typically visible to the naked eye. Aerosols can remain airborne for extended periods of time and may be inhaled. Low risk encounters usually include clinical and radiologic examinations, but may also include the use of rotary instruments with rubber dam or high velocity evacuation, as determined by an assessment of the risk involved.

The second condition is typified by settings that significantly increase the potential for exposure to blood and OPIM through spatter and aerosols. These high risk encounters include the use of rotary instruments, scalpels, and other mechanical and non-mechanical instrumentation <u>without</u> high-velocity evacuation or rubber dam isolation.

While the direct patient care setting, known as the dental treatment room (DTR), figures prominently in clinical dentistry, there are other environments of care that must be considered. These areas include the dental laboratory, central sterilization area, and dental radiography. The same litmus test used to determine high and low risk in direct patient care settings pertains to these environments as well.

Processes designed to prevent the spread of infection between patients, through commonly accepted infection control practices of disinfection and sterilization, do not differ between encounters regardless of whether or not the encounter is considered high or low risk. In contrast, the extent and level of personal protective equipment (PPE) donned by staff is determined by a risk assessment of the potential for the spread of blood and OPIM. Application of this principle should be one's guide when evaluating areas of the facility where dental care is delivered and determining the IP/C practices that are appropriate to those areas.

CHAPTER 1
DENTAL TREATMENT ROOM INFECTION CONTROL PROCEDURES AND CONSIDERATIONS

DTR infection control procedures are an essential component of an IP/C program. The following guidance demonstrates an example of a systematic approach to applying basic infection control principles in the DTR. This guidance is not all-inclusive and primarily relates to non-surgical dental specialty areas. Clinics are encouraged to use this document as a template for developing individualized protocols for DTR infection control procedures and motivate local training.

1. Preparation of the DTR

a. General considerations:

(1) No eating, drinking, or manipulating of contact lenses in the DTR.

(2) All items used in patient care should be stored in closed cabinets or drawers. Mobile carts used for patient care should not be cluttered with excess materials. Bulk items should be organized and covered to prevent gross or cross contamination. Use caution when retrieving items from bulk storage areas to ensure other remaining items are not contaminated.

(3) Electric fans are incompatible with infection control principles and should not be in DTRs. Fans distribute dust and particulate matter, contaminating instruments and equipment. Facilities management should be notified immediately when temperature and humidity levels are outside design standards for patient care and manipulation of dental materials.

b. Begin each day with a hand wash of 15 seconds minimum duration, or whatever latest Centers for Disease Control and Prevention (CDC) guidelines advise, from fingertips to the wrist with soap and lukewarm water.

c. Remove, cover, or secure all unnecessary items to prevent cross-contamination. A clutter-free DTR demonstrates to patients that infection control practices are being followed.

d. Use water that meets Environmental Protection Agency (EPA) regulatory standards for drinking water ($\leq$500 colony forming units (CFUs/mL of heterotrophic water bacteria) for routine (i.e., non-surgical) dental treatment output water. If using water bottles, fill dental unit water bottle according to manufacturer's recommendations. Add continuous-use dental unit waterline (DUWL) cleaning product if indicated. Note: Follow dental unit and water bottle manufacturer’s instructions for products and protocols for maintenance and monitoring DUWL quality.

e. Barrier protection: place protective plastic covers on clinical contact surfaces such as headrest, dental unit control switches, air and water line hoses, light handles, chair side microscope maneuvering handles, light curing unit, and other hard-to-clean areas and equipment. If a surface cannot be cleaned adequately, it should be protected with barriers that are changed between patients. Note: Plan this process carefully for efficient use of time, barrier material, gloves, and disinfectant. Only clinical contact surfaces and those areas contaminated by splash and spatter need to be covered during treatment or disinfected between patients.

f. Have appropriate instruments and supplies ready to begin treatment at the scheduled appointment time. This includes all necessary PPE (hair covers, gloves, masks, eye protection, etc.) for the technician and the provider. Note: Do not open packs in advance of the patient's arrival. Do not leave packs open or unattended for extended periods before use.

g. Check all sterilized instrument packs and packages to ensure they are intact and the external chemical indicator has changed to the appropriate color.

h. Ensure solutions are properly labeled per patient safety standards and command policy.

2. Treatment

a. Seat the patient. Use standard precautions and treat all patient blood and body fluids as potentially infectious.
b. Provide the patient with an antiseptic pre-procedural mouth rinse and safety glasses. c. Open sterile instrument trays, pack(s) or cassettes with clean, ungloved hands and without directly touching the contents. Leave wrapping material underneath as a barrier for the work surface. Observe internal indicator strip(s) for color change. d. Perform hand hygiene and don gloves and PPE as required.
e. Connect hand pieces, air and water syringes, saliva ejector, and high-volume evacuation tips. Ensure these devices are functioning properly.

f. Providers must perform hand hygiene before donning and after removal of gloves. Sterile gloves are used for invasive surgical procedures.

g. Use the unit dose concept for dispensing dental materials. Unit dose concept is the quantity of materials or supplies required to treat a single patient. Adhere to unit dose guidelines when dispensing disposable items. Preferably, include expendable items, including cotton products, in instrument packs before sterilization when possible. Sterilized packages of sterilizable supplies should be available for backup. When considering dental restorative materials, single dose unit are preferable and should be used where possible. Extra materials that may be required during treatment should be available in packaged form, or must be retrieved without cross contaminating other materials or equipment. Do not enter drawers or cabinets with contaminated gloves. Use a clean technique to retrieve needed items (e.g., sterile cotton forceps or pliers, an over-glove barrier, or remove gloves and perform hand hygiene).
h. Use pre-sterilized burs and files, or manufacturer’s pre-packaged single-use burs.

i. Use cotton products for patient treatment that have been sterilized (within instrument packs or individual packages, such as paper or plastic peel pouches).

j. Use rubber dental dam, high volume evacuator (HVE) and other protective barriers, engineering and work practice controls wherever possible.

k. Use one handed "scoop" technique or recapping safety device to recap anesthetic needles.

l. Complete charting and computer entries after removing gloves and performing hand hygiene.

m. Remove PPE and perform hand hygiene before leaving the treatment area. Adhere to command policy for appropriate attire outside the DTR to prevent cross contamination. For example, wear a clean lab coat when exiting DTR to conduct business elsewhere in the clinic or admin spaces to prevent cross contamination to the maximum extent possible.

3. <u>DTR turn-around procedures between patients</u>

a. Wear appropriate gloves and PPE while handling contaminated instruments and cleaning contaminated surfaces.

b. Place all disposable sharps in designated sharps container in the DTR.

c. Dispose of all non-sharp, regulated medical waste following local policy.

d. Instruments may be wiped carefully with moist gauze. Enzymatic detergent products to prevent drying of saliva, blood, and debris may also be used. Place instruments in cassette tray (or properly labeled and approved container) for transport to the central sterilization room (CSR). Reminder: Critical and semi-critical items must be heat sterilized after cleaning following local CSR standard operating procedures.

e. Flush water and air for 20-30 seconds after each patient from any device connected to the dental water system that enters the patient’s mouth (e.g., hand pieces, ultrasonic scalers, air and water syringes). This procedure is intended to physically flush out patient material that might have entered the turbine, air, or waterlines. Even with anti-retraction valves, which are commonly found in some dental units, flushing devices for a minimum of 20-30 seconds after each patient is still recommended.

f. Remove dental hand piece(s), including slow speed hand piece motors, and other intraoral instruments that can be removed from air and waterline couplings of dental units. Follow manufacturer’s instructions for cleaning, lubrication, and sterilization of hand pieces and other intraoral instruments and devices removed from dental units. Always discard any SUDs after use on a patient.

g. Disinfect eyewear.

h. Remove and dispose of all disposable barriers, trying not to contaminate surfaces. Clean and disinfect clinical contact surfaces that were not barrier protected with an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., intermediate-level). Follow manufacturer instructions related to concentration, cleaning or disinfection process, PPE, and exposure times for disinfection. For unprotected or exposed equipment, consult with dental product manufacturers for compatibility of cleaners and disinfectants with equipment surfaces.

i. Remove gloves and perform hand hygiene to exposed skin surfaces.

j. Don a fresh pair of gloves. If instrument cassettes are used, rewrap cassette, hand piece(s), bur block, and other instruments used in inner layer of original sterilization wrap. Wrapping cassette trays in inner liner of wrap or cloth minimizes sharps injuries during transport to CSR. Transport to receiving side of CSR or designated holding space. Note: The method of transporting contaminated instruments from the DTR to CSR is based on the result of the clinic's risk assessment and may require more stringent containment and labeling per Occupational Safety and Health Administration (OSHA) standards. Risk assessment factors include walking distance to CSR, amount of traffic encountered, CSR in different building, local and regional laws if transport is across jurisdictional lines, etc.).

k. Remove gloves, perform hand hygiene, and dispose of face mask when exiting wherever instrument drop-off area is located, where possible. When discarding a face mask, handle only by the elastic or cloth tie strings. If a hand hygiene unit is not immediately available, return to the DTR without touching any surfaces while enroute and dispose of gloves and perform hand hygiene in the DTR.

l. Complete disinfection process of DTR as necessary. Continue preparation for next patient as described in paragraph 1.

4. <u>Securing the DTR at the end of the day</u>

a. Wear appropriate gloves, face protection, and eye protection while cleaning contaminated surfaces.

b. Clean and disinfect all contact surfaces, dental unit surfaces, and countertops with an EPA-registered disinfectant per command policy. To facilitate cleaning, treatment rooms should be free of all unnecessary equipment and supplies.

c. Empty and clean amalgam trap container per local policy and dental unit manufacturer's recommendations.

d. Flush and clean the HVE system per manufacturer's recommendations.

e. Flush and clean each water line and suction hoses per local policy. Follow manufacturer's instructions if waterline treatment products are used. Follow manufacturer's instructions for cleaning and maintenance of dental unit water bottles.

f. Dispose of regulated waste per local policy. g. Clean and disinfect sink area.
h. Ensure only DTR cleaning materials and no patient care items are stored under the sink.

i. Inventory consumable unit dose packs, replenish as necessary per local policy.
Note: Routinely check for expiration dates on solutions, materials and dispensable items per command policy.

j. Remove PPE (clean and disinfect reusable PPE) and perform hand hygiene.

5. Additional Information. For sample illustrations of barrier techniques, unit dose concepts, and other DTR IP/C information, go to:
https://wwwa.nko.navy.mil/portal/navymedicine/dentalcorps/home/dentalcorpsinfectioncontrol

CHAPTER 2
INFECTION CONTROL IN THE DENTAL LABORATORY

1. The implementation of infection control practices when using the services of a dental laboratory is an important element of a facility's overall IP/C program. All members of the dental team should follow current standard precautions when handling contaminated items based on the assumption that all patients are capable of transmitting infectious diseases. As described by OSHA, "Standard Precautions" indicates that all blood, saliva, and body fluids in the health care setting should be treated as potentially infectious. Prostheses and oral impressions, the two most common patient care items that rely on dental laboratory support, carry a multitude of oral microorganisms originating from dental plaque, blood, and saliva. Some of these organisms are known to survive for up to 7 days within prosthetic materials. Therefore, items removed from the oral cavity must be disinfected or sterilized before being transported to the dental laboratory. Conversely, prostheses intended for the oral cavity must be properly disinfected before being transported from the dental laboratory to the DTR. Barrier control is another essential element to an effective laboratory infection control program. An effective barrier system will include PPE, environmental and equipment barriers, and creation of a physically separate decontamination area for processing contaminated materials in both the DTR and the dental laboratory. If these precautions are taken, the risk for contamination of clinical staff, dental laboratory personnel and equipment, as well as patients who receive dental laboratory related services, is significantly mitigated.

2. Two functional areas need to be considered when developing dental laboratory infection control procedures: The DTR and the Dental Laboratory. Each of these areas presents unique infection control risks requiring special considerations to ensure a safe health care environment.

a. <u>DTR Procedures</u>

(1) Handling of laboratory-related patient care items and equipment:

(a) After removal from the patient's mouth, thoroughly rinse the item under running tap water to reduce the amount of saliva, blood, and microorganisms.

(b) Prostheses, impressions, orthodontic appliances, and other materials should be further cleaned with running tap water and mechanical debridement, if necessary, if residual bio- burden is visualized.

(c) After cleaning the item, use an EPA-registered intermediate-level hospital disinfectant to reduce the bio-burden. It is important to follow the manufacturer's instructions exactly to achieve the desired antimicrobial effect. To accomplish sub-surface disinfection of acrylic items, place the item in a resealable plastic bag containing the intermediate-level disinfectant and place in an ultrasonic cleaner according to manufacturer's instructions.

(d) Thoroughly rinse the item under running water to remove residual disinfectant. Note: Disinfectant should not be added to the plastic bag or other transport device used to carry prostheses or impressions because excessive exposure time to the disinfectant may damage the item. An important consideration for dental laboratory infection control is to avoid damage and distortion of prosthetic material while preventing transfer of potentially infectious material to other patients and staff.

(e) If blood or other forms of bio-burden become visible, repeat the cleaning and disinfecting process. Always follow impression material manufacturer recommendations when selecting disinfectant to ensure both thorough disinfection and material compatibility.

(f) Disinfect pliers and other special orthodontic instruments that do not come in direct contact with blood and saliva.

(g) General Guide for Selection of Disinfectants

Impression Material	**Agent(s)**
Alginate	Iodophors; Dilute Sodium Hypochlorite Solution
Polysulfide	Iodophors; Dilute Sodium Hypochlorite Solution; Complex Phenolics
Silicone	Iodophors; Dilute Sodium Hypochlorite Solution; Complex Phenolics
Polyether*	Iodophors; Dilute Sodium Hypochlorite Solution; Complex Phenolics
Zinc Oxide and Eugenol (ZOE) Impression Paste	Iodophors
Reversible Hydrocolloid	Iodophors; Dilute Sodium Hypochlorite Solution
Impression Compound	Iodophors; Dilute Sodium Hypochlorite Solution

* Use approved disinfectant with short-term exposure time (<10 Minutes).

(h) Heat tolerant equipment that has been placed in the patient's mouth must be sterilized between each use. Examples include the face-bow bite-fork and reusable metal impression trays.

(i) Place casts and prostheses in resealable plastic bags to prevent contact with adjacent materials, the shipping box, foam insulation, or paperwork. Be sure to include specific method used to clean and disinfect the item on the laboratory request form. If documentation citing method of disinfection is not received from the DTR, the item is considered contaminated and final disinfection of the item should be performed by the dental laboratory.

(2) Unit dose management of bulk supplies helps prevent cross contamination.

(a) Use individual unit-dose packaging whenever possible.

(b) If unit dose packaging is not available, dispense only enough supplies and material to complete the entire procedure when using such items as petroleum jelly, impression materials,

waxes, pressure disclosing or indicator paste, disposable brushes, and orthodontic brackets and wires.

(c) All unused material is discarded after the procedure and not used for other patients.

b. Dental Laboratory Procedures

(1) Communication between the dental treatment facility (DTF) and the laboratory concerning infection prevention procedures is essential. Contaminated items should be disinfected prior to transport from the dental office to the laboratory and vice versa. Materials originating from either the treatment area or dental laboratory that are not decontaminated are subject to OSHA regulations regarding transport and shipping of potentially infectious materials. Disinfected items should be clearly labeled and the method of disinfection indicated on the work request (DD Form 2322, Dental Laboratory Work Authorization); otherwise, the receiving organization should assume the items are contaminated and require disinfection before the item is used.

(2) Whenever possible the dental laboratory should have three separate work areas: a receiving area, a production area for new work, and a production area for repair work. The receiving area is separate from the production areas and creates a physical barrier for handling, cleaning, and disinfecting all incoming and outgoing items.

(3) Some dental laboratories operate as “clean laboratories” and only accept items into the laboratory that have been appropriately disinfected. No special precautions are required in the receiving area of a clean laboratory.

(4) When handling impressions without documentation of disinfection the following precautions are required:

(a) Wear gloves and other appropriate personal protective attire and utilize proper equipment when handling, cleaning, and disinfecting impressions.

(b) Thoroughly rinse and clean dental impressions under running water before pouring. If blood or other forms of bio-burden become visible, repeat the cleaning and disinfecting process. Note: Always follow impression material manufacturer recommendations when selecting disinfectant.

(c) Thoroughly rinse disinfected impressions under running tap water to remove residual disinfectant. Note: Always follow disinfectant recommended exposure time to ensure thorough decontamination of material.

(5) When handling prostheses without documentation of disinfection the following precautions are required:

(a) Wear gloves and other appropriate personal protective attire and equipment when handling, cleaning, and disinfecting prostheses. Laboratory staff must remove PPE before moving into uncontaminated lab areas.

(b) Treat all prostheses that have been worn by a patient as contaminated. These items should be thoroughly cleaned and disinfected before handling, and acrylic devices should be considered contaminated even after disinfection is performed, due to the porous nature of acrylic.

(c) Scrub prostheses and other oral appliances with a brush using anti-bacterial soap or use an ultrasonic cleaning unit. Calculus and other patient deposits must be removed before attempting to disinfect the item. Do not use the same brush for multiple cases.

(d) Clean and disinfect all prostheses before returning them to the dental clinic. (6) Miscellaneous Laboratory Items and Equipment
(a) Sterilization of Lab Items. Use disposable laboratory items whenever possible. Clean and heat sterilize heat tolerant items used in the mouth (e.g., metal impression trays and face-bow forks). Heat sterilize reusable items, such as burs, polishing points, lab knives, and other instruments that are used on contaminated or potentially contaminated patient care items. Note: Heat-sensitive items should be disinfected following manufacturer's recommendations.

(b) Unit Dose System

1. Dispense only enough materials needed to perform a particular project.
2. Discard any excess material after completion of the project. (c) Lathe

1. The machine should be cleaned and disinfected daily.

2. Pumice should be replaced daily.

3. Clean, disinfect, and sterilize pumice brushes at least daily.

4. Always wear protective eyewear, ensure lathe Plexiglas is properly positioned, and activate vacuum ventilation system (at least 200 feet per minute continuous suction) before turning on the lathe.

(d) Pumice Mix

1. Prepare pumice mix using appropriate disinfectant following manufacturer's instructions, or use premixed pumice mix.

2. Use a different pumice and pumice mixing cup for each case.

(e) Ultrasonic Cleaning Unit

1. Keep covered at all times to reduce aerosolization.

2. Change cleaning solution when visibly dirty and daily at a minimum.

3. Disinfect ultrasonic tank with an EPA-registered, intermediate-level, hospital- grade disinfectant at least daily and before adding fresh cleaning solution.

4. Use resealable plastic bags or cups to house the item being cleaned when possible.

5. Perform routine aluminum foil test on ultrasonic cleaning unit and maintain record of results.

(f) Calcium Sulfate Dihydrate Solution (SDS). Prepare any slurry water necessary from fresh set stone, which was not poured against an impression.

(g) Denture Wax-up

1. Never use saliva to polish wax patterns.

2. Immersion in disinfectant may cause distortion of wax patterns. To prevent distortion, use rinse-spray-rinse-spray method with an EPA-registered intermediate-level disinfectant and follow manufacturer instructions for contact time.

(h) Case Pans

1. Line case pans or other holding containers with a disposable plastic barrier.

2. Discard the barrier upon completion of the prosthesis, and clean and disinfect the case pan between cases.

(i) Maintain separate instruments and materials for use on new prostheses and contaminated prostheses.

1. Change rag wheels, brushes, acrylic burs, and pumice after each use when utilized on prostheses that have been placed in the oral cavity.

2. Designate burs and instruments for new prostheses.

3. If available, use separate polishing lathes for new prostheses and prostheses that have been placed in the oral cavity.

4. Change pumice and brushes used on new prostheses daily when used for new or non-contaminated prostheses. At a minimum, clean and disinfect rag wheels daily. Heat sterilization is preferred.

(j) Follow manufacturer instructions for maintenance, cleaning, and disinfection of lab equipment, instruments, and tools.

1. Clean and disinfect environmental surfaces daily or when visibly contaminated or soiled. Use surface barriers where appropriate.

2. Use an EPA-registered hospital disinfectant following manufacturer instructions.

3. Always verify material compatibility with disinfectant.

(k) Do not allow 'rush' cases to jeopardize the separation of contaminated and non- contaminated materials and instruments.

(l) Eating, drinking, smoking, applying cosmetics or lip balm, and handling of contact lenses in laboratory spaces should be prohibited.

(7) PPE

(a) Face masks must be used when there is potential for splash, spatter, spray, or exposure to aerosols created while working with contaminated materials or performing disinfection procedures.

(b) Eye protection

1. Wear shatter-resistant eye protection with side shields for protection against projectiles, splashes, splatter, and spray, especially when operating rotary equipment.

2. OSHA-approved eye protection should always be used while handling hazardous chemicals such as disinfectants.

3. Ensure functional emergency eyewash station is readily available. Daily checks that are documented are required for eyewash stations.

(c) Gloves

1. Wear gloves when working on potentially contaminated items.

2. Replace gloves immediately if they become compromised.

3. Bacteria rapidly multiply under gloves; therefore, wash hands immediately.

4. Chemical resistant utility gloves should be used when cleaning and disinfecting equipment and surfaces.

(d) Gowns, Lab Coats, and Lab Jackets

1. Wear a clean gown or lab coat daily to protect personal clothing and uniforms from contamination. Disposable gowns may be used.

2. When using PPE for decontamination of prosthetics, remove before moving into uncontaminated lab areas.
3. Do not wear protective gown outside the dental laboratory.

(8) Hand Hygiene

(a) Proper hand hygiene is critical to prevent the spread of infection and disease.

(b) Wash hands or use alcohol-based hand rub before and after donning gloves, upon beginning work and throughout the day when needed.

(c) Wash hands with soap and water or use alcohol-based hand rub before leaving the laboratory.

(d) Always use soap and water if your hands are visibly soiled.

(e) Keep fingernails short with smooth, filed edges to allow thorough cleaning and to prevent glove tears.

(f) Artificial fingernails are prohibited when having direct contact with patients at high risk (i.e., immunocompromised patients or those undergoing oral surgery).

(g) Do not wear hand or nail jewelry if it makes donning gloves more difficult or compromises the fit and integrity of the glove.

CHAPTER 3
INFECTION CONTROL IN DENTAL RADIOGRAPHY

Dental personnel must maintain infection control standards in the radiology area identical to those used in the DTR since Standard Precautions apply when processing radiographs to reduce the risk of cross-contamination. Both radiographic equipment and film can become contaminated and may result in the transmission of infectious agents. As with all other clinical areas, staff should follow scrupulous hand hygiene practices and wear gloves when placing intraoral films and handling contaminated film packets.

1. Using Film Positioning Devices. Heat tolerant film-positioning devices must be cleaned and heat sterilized between patients. Use of disposable items eliminates the need for sterilization between patients and is an acceptable option.

2. Using Panoramic Unit Bite Blocks

a. Use a disposable panoramic unit bite block cover for each patient.

b. When disposable covers are not available, bite blocks must be cleaned and heat sterilized between patients.

3. Intraoral Film Packets without Plastic Infection Control Barriers

a. Using gloves, place intraoral film packets removed from a patient's mouth directly into a disposable container such as a paper cup.

b. Transfer the film and disposable container to the darkroom, exercising special care not to contaminate environmental surfaces (doors, doorknobs, etc.).

c. While wearing the gloves used to take the radiograph, open the film packets and drop the film onto a clean paper towel without touching the film.

d. Discard film wrappers and the disposable container directly into a lined refuse container to prevent contamination of the darkroom work surfaces.

e. Remove and dispose of gloves, perform hand hygiene, and then feed the uncontaminated film into the developer.

4. Darkroom. Disinfect all counter surfaces daily.

5. Developing Intraoral Film Packets without a Plastic Infection Control Barrier using an Automatic Film Processor with a Daylight Loader

a. The highest risk in this procedure is contamination of the fabric light shield sleeves. Since there is no practical way to disinfect this material, the following guidance helps prevent contamination:

(1) Place the exposed film in a paper cup previously set aside for this purpose.

(2) Remove soiled gloves, perform hand hygiene, and put on a pair of clean gloves. (3) Place the cup through the top of the processing box and close the lid.
(4) Place gloved hands through the light shield, unwrap the film packet, and drop the film onto the surface inside the loader.

(5) Place the film wrappers into the cup. Remove the gloves, turn them inside out, and place in the paper cup.

(6) Drop the film into the chute for developing.

(7) Remove hands from the loader, lift the lid, and dispose of paper cup and waste. (8) Perform hand hygiene.
b. If the fabric light shield sleeves become contaminated, they must be sterilized or replaced following manufacturer guidance.

6. <u>Developing Intraoral Film Packets with a Plastic Infection Control Barrier using an Automatic Film Processor with a Daylight Loader</u>

a. Using a plastic infection control barrier on film packets minimizes risk of contamination of the fabric light shield sleeves. Since there is no practical way to disinfect this material, the following guidance helps prevent contamination:

(1) Using gloves, take the barrier-covered film packets removed from the patient's mouth. Carefully tear the plastic barriers in half and drop the uncontaminated film packets directly into a disposable container, such as a paper cup.

(2) Dispose of the contaminated plastic barriers directly into a lined refuse container.

(3) Remove soiled gloves and perform hand hygiene.

(4) Transfer the film and disposable container to the darkroom.

(5) Place the cup through the top of the processing box and close the lid.

(6) Place ungloved hands through the light shield, unwrap the film packet, and drop the film into the slot for developing.

(7) Remove hands from the loader, lift the lid, and dispose of paper cup and waste. (8) Perform hand hygiene.
b. If the fabric light shield sleeves become contaminated, they must be sterilized or replaced following manufacturer guidance.

7. X-ray Chair. Using an EPA-registered intermediate-level disinfectant, disinfect at least daily and whenever visibly contaminated.

8. X-ray Tube Head and Controls

a. Use surface barriers to protect clinical contact surfaces, such as x-ray tube head, switches, and control panels. Be careful that these coverings do not interfere with the flow of cooling air to the x-ray tube head.

b. Change surface barriers after each patient.

c. When wiping the tube head and controls with liquid disinfectants, exercise care to prevent disinfectant from leaking into the tube head seams and exposure controls.

9. Digital Radiology Considerations

a. Digital sensors and other high-tech instruments that come into contact with oral mucous membranes are considered semi-critical devices. However, intraoral digital sensors are not currently designed to withstand immersion in a high-level disinfectant or heat sterilization. Consequently, digital sensors should be protected using an FDA-approved barrier or cover to reduce contamination. Approved barriers may not always fully protect the digital sensor from contamination; therefore, always consult instrument manufacturer for proper barrier, disinfection and sterilization procedures.

b. Computer equipment has become commonplace in the DTR as advances in technology become readily available. Follow manufacturer recommendations for cleaning and disinfecting computer equipment. Proper management prevents contamination from occurring. Use impervious barriers or plastic shields for computer keyboard and mouse if gross contamination is likely to occur during patient-care activities. Do not touch unprotected computer equipment with contaminated gloves. Many flat screen displays can be damaged by intermediate-level disinfectants. The computer monitor manufacturer should be consulted for appropriate cleaning procedures.

CHAPTER 4
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