	<b>The Johns Hopkins Hospital</b>	<i>Policy Number</i>	IFC001
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	<b>HAND HYGIENE AND SKIN ANTISEPSIS</b>	<i>Supersedes</i>	<b>12/31/03</b>

**KEY WORDS:** Hand washing, Hand hygiene, alcohol based hand sanitizer, lotion, artificial nails, fingernails

**PATIENT CARE OBJECTIVES**


1. Hand hygiene measures are the single most important strategy for preventing nosocomial infections.
2. Hand hygiene applies to either hand washing, antiseptic hand wash, antiseptic hand rub or surgical hand antisepsis.
3. Hand hygiene can be achieved with either soap or alcohol based hand sanitizer. Washing with soap suspends microorganisms and allows them to be mechanically removed by rinsing. Hand cleansing with anti-microbial products kills or inhibits the growth of microorganisms; this process is referred to as antisepsis. Hands should be cared for so they do not become chapped or irritated.
4. The skin of patients and personnel can function as a reservoir of infectious agents.

**RESPONSIBILITIES**

- All JHMI/JHH/JHU Staff**
- All staff must follow the hand hygiene and skin antisepsis policy and will choose an appropriate agent from the approved list. A list of approved products can be found on the HEIC website at [www.hopkins-heic.org](http://www.hopkins-heic.org) or by contacting the HEIC office at (410) 955-8384.
  - HEIC shall be contacted for questions related to this policy.

**INFECTION CONTROL MANAGEMENT**

- I. Hand Hygiene and the Use of Antiseptics
  - A. Hand Hygiene Indications
    1. When coming on duty;
    2. Between all patient contacts;
    3. Before performing invasive procedures;
    4. Before medication preparation;
    5. Before and after eating;
    6. Before donning gloves and after removing gloves;
    7. Before and after using the restroom;
    8. When moving from a contaminated body site to a clean body site;
    9. After touching inanimate objects that are likely to be contaminated with pathogenic microorganisms, such as urine-measuring devices and secretion collection apparatuses; and
    10. When hands are soiled, e.g., after sneezing, coughing or blowing your nose.
  - B. Approved Hand Hygiene Products
    1. The HEIC Committee must approve hand hygiene agents.
      - a. Products brought from the outside are not acceptable for use unless first evaluated and approved by HEIC.
    2. The approved hand hygiene product of choice is the alcohol based hand sanitizer.
    3. In the instance that hands are visibly soiled, they must be washed with approved soap and water.
    4. If unable to use alcohol based hand sanitizer prior to performing an invasive procedure, e.g. central line insertion, urinary catheter insertion, endoscopy, bronchoscopy, etc, then hand hygiene with the hospital approved anti-microbial soap must be done.
    5. Healthcare workers who report allergies to the hospital approved hand hygiene agents shall be evaluated by Occupational Injury Clinic (OIC).

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### C. Routine Hand Hygiene Techniques

1. Hand cleansing with alcohol-based waterless hand sanitizers can be accomplished by applying a thumbnail-sized amount of sanitizer into palm and briskly rubbing over all surfaces and under nails until dry.
2. Handwashing with soap should take at least 15 seconds and can be accomplished in the following manner:
  - a. Wet hands with water.
  - b. Vigorously rub together all surfaces of lathered hands.
  - c. Thoroughly rinse hands under a stream of water.
  - d. Dry hands with a paper towel.
  - e. Use paper towel to turn off faucets to avoid recontamination.
3. While at work, use only hospital approved skin moisturizers. Apply lotion to clean hands.
4. A hospital-approved and provided lotion shall be used to reduce skin irritation.
5. The HEIC Committee must approve lotions.

### D. Artificial Fingernails

Any individual whose responsibilities include direct, hands-on patient contact may only have natural fingernails. The designation of direct, hands-on patient contact is intended to include those whose hands come into direct contact with the patient's skin. No artificial fingernails or nail enhancements including, but not limited to overlays, wraps, tips, or attached decorations, are permitted because of documented outbreaks of infection due to Gram-negative bacteria that have been associated with the use of artificial nails. Gram-negative bacteria are known to adhere to the surfaces of artificial nails, and are known to persist there even after the appropriate use of hand hygiene cleansing/sanitization procedures.

## II. Antiseptic Agents for Preoperative Skin Preparation of Patients

### A. Solutions, Tinctures, and Swabs

1. Chlorhexadine gluconate or Dura-Prep are the preferred agents for preoperative skin preparation, as is Povidone-iodine (iodophor). The antiseptic should be allowed to dry, which can take as long as 5 minutes for an iodophor. 1% iodine tincture is less commonly used due to problems with skin irritation. Residual iodine tincture should be removed with 70% isopropyl alcohol at the completion of the operative procedure.
2. Plain soap or aqueous quaternary ammonium compounds should not be used as single agents for operative site preparation unless the patient is hypersensitive to all other acceptable antiseptic products.

### B. Approved Antiseptics (agents used to kill or inhibit growth of microorganisms on the skin or mucous membranes) are the following:


1. Iodine, 1% or 2% tincture (in 50% or 70% ethyl alcohol)
2. Povidone-iodine, 10% solution, swab, scrub, or iodophor impregnated surgical drapes
3. Povidone-iodine, 10% solution with isopropyl alcohol
4. Alcohol, 70% isopropyl
5. Chlorhexidine gluconate 2% or 4% scrub, swab
6. Hexachlorophene

### C. Iodophor - Impregnated Surgical Drapes

1. Drapes are applied according to manufacturers' directions.

## **SPONSOR**

- Medical Care Evaluation Committee

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**DEVELOPER**

- Department of Hospital Epidemiology and Infection Control

**REFERENCES**

Association of Professionals in Infection Control and Epidemiology (APIC) Guideline for Hand Hygiene, <http://www.apic.org/resc/rr5116.pdf>.

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Toles, A. (2002). Artificial nails: Are they putting patients at risk? A review of the research. *Journal of Pediatric Oncology Nursing*, 19(5).

**SEE ALSO**

***Interdisciplinary Clinical Practice Manual***

- Isolation Precautions, IFC023 <http://www.insidehopkinsmedicine.org/icpm/ifc023isolation.pdf>

**COMMUNICATION & EDUCATION**

1. Physician Advisors, Residency Training coordinators, and Department Chiefs will be responsible for physician education. An update to the policy will be included in the Medical Staff Newsletter.
2. Nursing Education Staff and all department managers will be responsible for education of all employees in their areas.
3. HEIC will provide updates regarding hand hygiene in an ongoing manner.
4. This policy will be placed in the Interdisciplinary Clinical Practice Manual on the JHH Intranet site <http://www.insidehopkinsmedicine.org/icpm>. Paper distributions will be made to the Functional Unit Nursing offices in the event of web access difficulty.
5. Placement of policy on-line at [www.Hopkins-HEIC.org](http://www.Hopkins-HEIC.org).

<b>REVIEW CYCLE</b>	• Three (3) years	<b>MEDICAL BOARD</b>	Approval Date: 4/27/04 Effective Date: 5/31/04
VICE PRESIDENT FOR MEDICAL AFFAIRS			
_____			
Date:			