

Hand Hygiene Toolkit

Leader guide

1. Why ACT NOW to improve hand hygiene?
2. How can you improve hand hygiene (HH) compliance?
3. Unit/service leader checklist

HH data reporting tool

1. The Hand Hygiene Data Reporting Tool :
Bring relevant data to your work environment
2. Tool User Guide

Educational resources

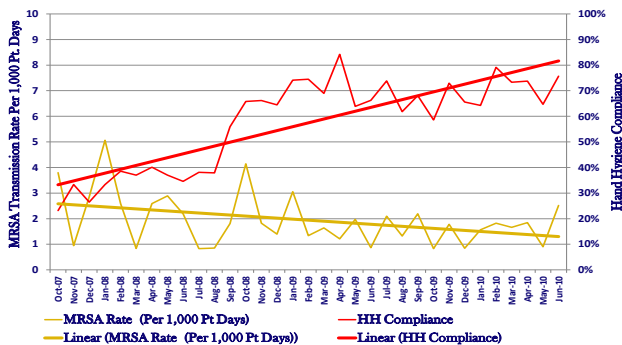
1. Healthcare Associated Infections (HAI) FACT SHEET
2. 'Preventing HAI' online course
3. Hand hygiene observer training
4. FAQ on HH monitoring at JHH
5. More resources at HEIC website

Leader Guide

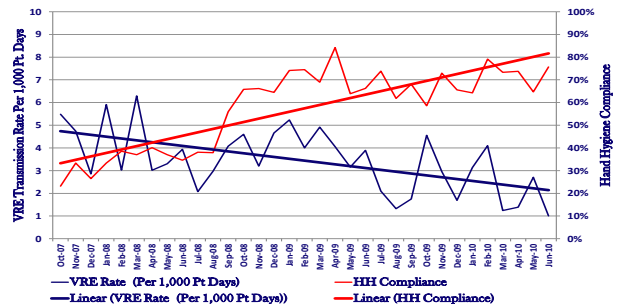
Why act now to improve HH?

- **HH is a patient safety measure and a top institutional priority. The hospital goal is $\geq 90\%$ compliance.**
- The Centers for Disease Control and Prevention and the World Health Organization agree that **hand hygiene is the single most important step to prevent infection and transmission of pathogens in healthcare settings.**
- Studies show that when healthcare providers improve their hand hygiene, healthcare associated infections (HAIs), MRSA, VRE and *C. difficile* transmissions, and respiratory and diarrheal diseases are reduced^{1,2,3}.
- HAIs, VRE, *C. difficile* and MRSA transmission, and respiratory and diarrheal diseases occur regularly at JHH with subsequent mortality and morbidity to our patients.
- See Hopkins specific data showing as HH increased, MRSA and VRE transmissions decreased.

HH vs. MRSA Transmission Rate for JHH Adult ICUs
October 2007 to June 2010



HH vs. VRE Transmission Rate for JHH Adult ICUs
October 2007 to June 2010



- Low performing units must respond with action plans for improving their performance. These will be reviewed with institutional leadership to ensure that groups receive the support and resources they need to improve.

¹ D Pittet, S Hugonnet et al. Effectiveness of a hospital-wide program to improve compliance with hand hygiene. *Lancet* 356 (2000), pp. 1307-1312.

² Doebbeling BN, Stanley GL, Sheetz CT, et al. Comparative efficacy of alternative hand-washing agents in reducing nosocomial infections in intensive care units. *N Engl J Med* 1992;327:88-93.

³ D Pittet, J Boyce. Guideline for hand hygiene in the healthcare setting. *MMWR* 2002 ;Vol. 51 ; No. RR-16

Leader Guide

How to improve your HH compliance

1. Communicate hand hygiene compliance

Check your HH data on the weekly email from HEIC and the monthly HH data reports. Ensure staff know current compliance rates. Check your HH compliance trends on www.handstats.org.

Post your unit's compliance and how your unit compares to other units in a prominent location such as staff conference areas.

Discuss data regularly in staff & faculty meetings, exploring barriers to compliance and reiterate indications for hand hygiene and the hospital goal.

2. Check your environment

Ensure dispensers are in convenient places, properly functioning and filled (See appendix D)

3. Educate all who deliver care on your unit/service

Make sure all staff and visitors know the JHH HH policy requirement to clean hands **upon entry & exit to patient rooms in addition to the other indications (5 “moments”)**. (See appendix A)

Post educational materials on when hand hygiene is required & on appropriate technique for hand washing and the use of hand sanitizer. (See appendix B & C)

Refer staff & faculty to the Preventing HAI online video or view in group meetings on www.hopkinsinteractive.org.

Visit the HEIC website at <http://intranet.insidehopkinsmedicine.org/heic> for additional resources.

4. Encourage, recognize & reward anyone who reminds a colleague to clean hands

Leader Guide

How to improve your HH compliance (continued)

5. Develop a unit based hand hygiene monitoring and feedback program

Observing hand hygiene practices is an eye opening experience for all team members and the process can change personal attitudes on hand hygiene and offers a way to identify team members who demonstrate excellent & poor hand hygiene practices.

Establish a unit-based self monitoring plan

Assemble your 'observing' team (can be a team of select volunteers or a rotating function for all staff)

Observe hand hygiene even if it is as little as 20 mins. Hand hygiene observations should be conducted periodically by team members to improve attitudes and affect hand hygiene behaviors.

Use the online standardized training at www.hopkinsinteractive.org to train observers.

Consider observations for additional hand hygiene opportunities beyond room entry and exit (See appendix A&B)

Provide individualized feedback

- a. Have your unit based monitor provide **immediate feedback** .
- b. Have your unit based monitors report individuals demonstrating excellent and poor hand hygiene practices to unit/service leadership who then provide individualized feedback.
- c. Follow up with staff who are identified as non compliant with hand hygiene from the Direct Feedback Program.

Offer positive feedback for those compliant with hand hygiene and respectful reminders for those who are not compliant.

6. Collaborate with other discipline leaders

Collaborate with nurse, physician, EVS, Respiratory Therapy, Dietary Radiology etc. in your areas to provide feedback to faculty and staff who repeatedly fail to demonstrate good hand hygiene practices on your unit/service.

7. **Participate in the Hand Hygiene Task Force meetings by sending a representative of your unit/service.** Meeting every 4th Tuesday of the month at 11:00 Am in Carnegie Rm# 489. Contact HEIC at ext 5-8384 with any questions about this meeting.

8. **Learn from others who have made progress. Refer to successful unit stories.** (See appendix E)

Leader Guide

How to improve your HH Compliance Unit/Service Leader Checklist

Use this checklist periodically to remind yourself of what you can do to improve hand hygiene on your unit/service

- I provide education pertaining to hand hygiene and healthcare associated infections to all who deliver care on my unit/service.
- I make sure that hand sanitizer dispensers are conveniently located and regularly refilled and in working order on my unit/service.
- I share my unit's hand hygiene data during each staff meeting.
- I post my unit's hand hygiene performance at a strategic location in faculty and staff meeting areas to enhance data visibility & encourage discussions on hand hygiene.
- I support and publicly recognize/reward members who remind other colleagues to clean hands.
- I have developed a hand hygiene self-monitoring plan on my unit, where members of my team perform hand hygiene observations 20 mins a week.
- I recognize/reward team members from all disciplines who demonstrate good hand hygiene practices.
- I inform my nursing director and department chair of healthcare team members that are repeatedly non-compliant with hand hygiene policy.
- I encourage my staff to report in Patient Safety Net any health team members who repeatedly fail to clean their hands and ignore reminders.
- I have a plan for addressing team members from all disciplines who are non-compliant with hand hygiene regularly.
- I provide timely, specific, and respectful feedback to team members who are not adherent to good hand hygiene practices.
- I send representatives from my unit/service to Hand Hygiene Task Force meetings to discuss best practices & learn from others.
- I collaborate with other discipline champions from physician, nursing, environmental services, etc. to provide feedback to faculty and staff who repeatedly fail to follow hand hygiene recommendations.
- I provide rewards/incentives for those healthcare workers or units who improve and sustain improved hand hygiene compliance.

- For service leaders:** I review action plans developed by units with low HH compliance and provide them with support and resources.

Data Reporting Tool

Ensure all staff know the unit's current hand hygiene compliance

- Providing data on hand hygiene adherence is critical to improving hand hygiene compliance. Hand hygiene data are available on the Hand Stats web site. You can find hospital, service, unit and healthcare worker type compliance data.
- The tool can be accessed <http://www.handstats.org>
 - To request access to enter Hand Stats, enter your JHID as your user name and request access
 - You will receive an e mail within 48 hours confirming access
- Hand Stats can also be accessed from the HEIC web site at <http://intranet.insidehopkinsmedicine.org/heic>
- Designate a prominent area in your staff lounge or conference room to display your hand hygiene data. Avoid areas with too many posted notes. You might want to post the FAQ on HH monitoring (section C.4. of this toolkit) next to the data reports to answer any questions your staff may have.
- Print and display relevant graphs for faculty and staff (see images below).

The tool provides three layers of data reports

1. Hospital Compliance

% Compliance for each service for the last month

% Compliance for each unit for the last month

% Compliance by HCW Type for the last month

2. Service Compliance

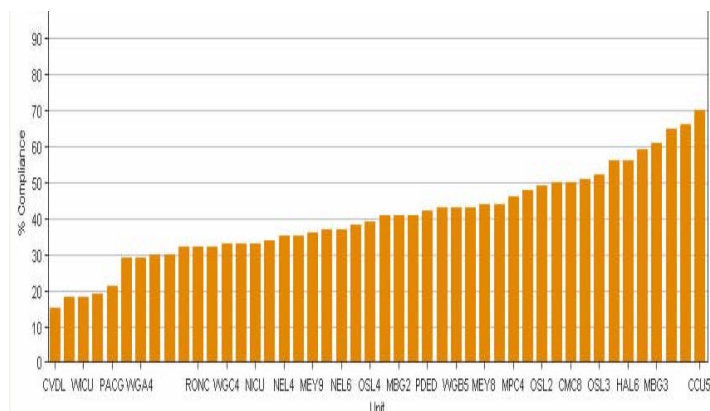
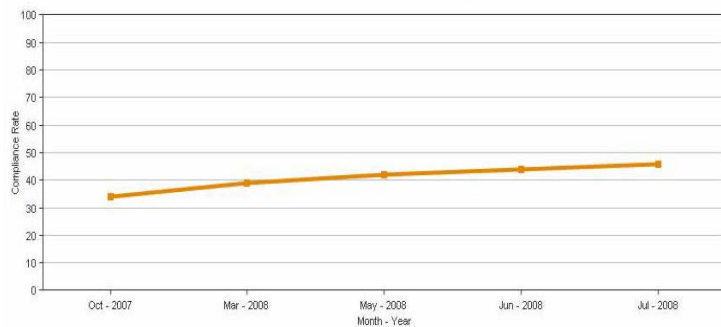
% Compliance for each unit on the service for the last month

% Compliance by HCW Type for the last quarter

3. Unit Compliance

% Compliance by HCW Type for the last quarter

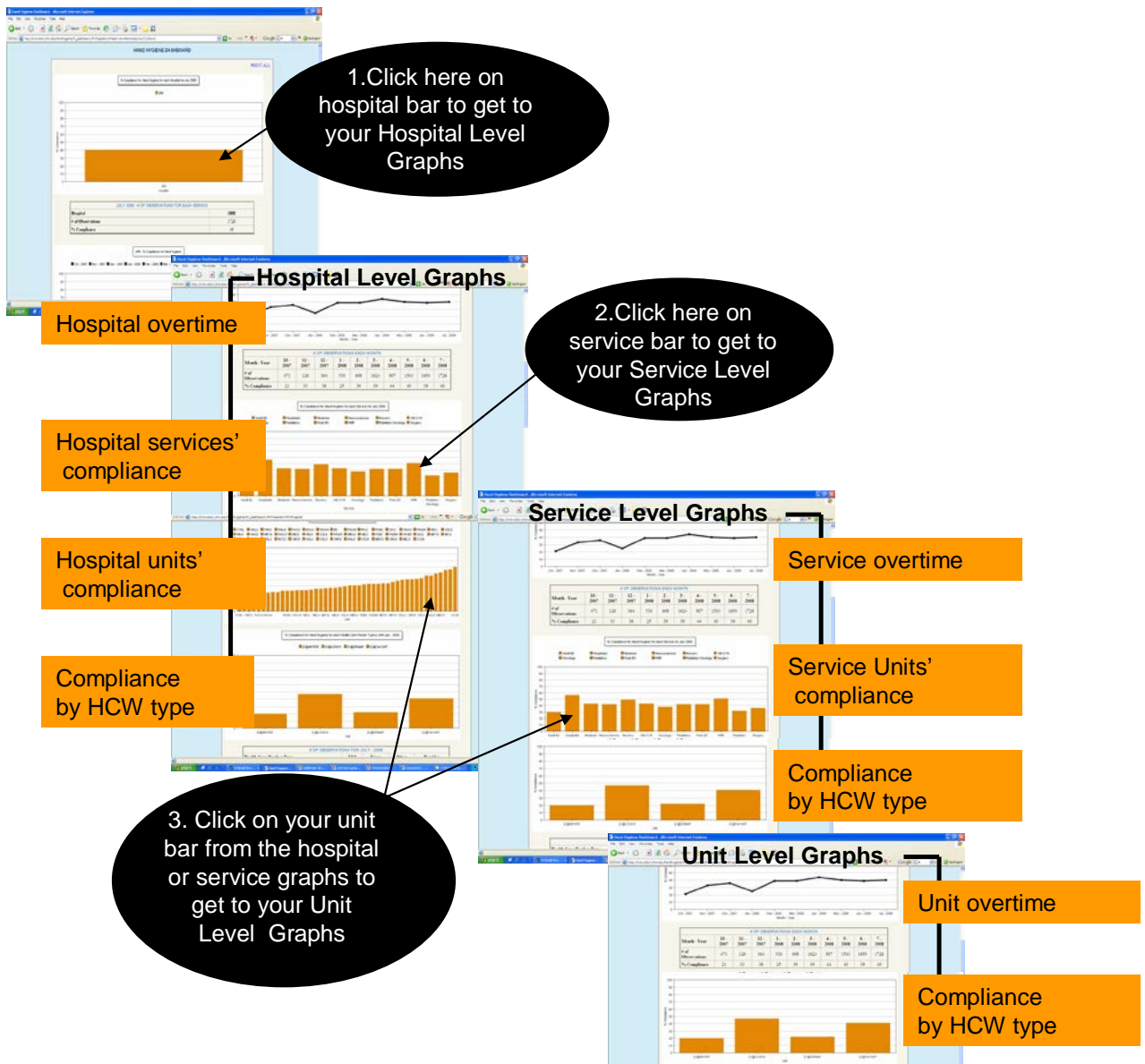
Data tables on # of observations conducted & compliance are displayed for each graph. Click on the radio button below the graph. Compliance is not displayed on the graph when the number of observations is less than 10.



Data Reporting Tool

User guide

- The tool is updated monthly, by the end of the first week of the month.



Educational Resources

Fact Sheet

- Healthcare Associated Infections (HAIs) are a significant cause of patient mortality & morbidity.
- In 2002, at least 1.7 million patients in the US acquired a HAI & up to 99,000 of them died with this infection. (CDC data)
- Up to 70% of all reported HAIs are caused by organisms that are resistant to at least one antibiotic. (CDC data)
- Multidrug resistant organisms (MDROs) are becoming more prevalent worldwide.
- The most problematic MDRO's are Methicillin-resistant *Staphylococcus aureus* (MRSA), multidrug resistant gram negative rods (e.g. *E. coli*, *K. pneumonia*), organisms resistant to flouoroquinolones (e.g. *P. aeruginosa*, *E. coli*, *Enterobacter spp.*) and Vancomycin resistant enterococcus (VRE).
- Other epidemiologically significant organisms causing HAI's include *C. difficile*, influenza, respiratory syncytial virus, rotavirus, and norovirus.
- Patients who are elderly or very young, immunosuppressed, have indwelling catheters/devices, or undergoing invasive procedures are at highest risk for acquiring a HAI.
- Organisms causing HAIs can be transmitted to patients on healthcare workers hands, medical devices or equipment, or via contaminated environments.
- Improved hand hygiene have resulted in reductions in HAIs & MRSA/VRE/C. difficile transmission rates and respiratory and diarrheal disease.
- Pittet et al reported decreased HAI infection rates from 16.9% to 9.9% over a 4 yr period, and reduced MRSA acquisition and infection rates with improved hand hygiene & alcohol based rub use. Doebbeling et al. reported reducing HAIs by 28% with introducing new handwashing agents. Many other studies have shown the impact of improving hand hygiene on decreasing infection and transmission of pathogens.

Educational Resources

Healthcare associated infection prevention online video

- This 20 minute video on healthcare-associated infections, multidrug resistant organisms, *C. difficile*, respiratory syncytial virus, influenza and other problem pathogens answers three questions:
 - 1) Why should we care about this problem?
 - 2) How are infections/organisms transmitted?
 - 3) What can we do to prevent infections/organisms?
- It is recommended for all faculty & staff.
- It includes video clips of JHH leaders talking about HAI prevention and provides a clear message at the video's end for all healthcare workers to remind one another about hand hygiene and other infection prevention principles.
- Access it at <http://hopkinsinteractive.org>. Login with your JHED ID & password. Click Course catalogue, then Clinical Quality & Safety. Select 'Preventing Healthcare Associated Infections' from the courses list.

Educational Resources

Online standardized training for hand hygiene observers

- Have all staff take the online training course for hand hygiene observers at JHH. (40- 60 mins)
 - The course covers the hand hygiene monitoring method and rules.
 - Includes interactive activities, practice videos and opportunity for learner to practice filling out the data collection forms.
 - Includes a post course test. All test takers will be provided with a score & printable certificate of completion of course.
 - Access at <http://hopkinsinteractive.org>. Login with your JHED ID & password. Click Course catalogue, then Clinical Quality & Safety. Select the 'Hand Hygiene Observer Training' from the courses list.
 - Also available on HEIC Intranet

Educational Resources

Frequently asked questions

■ **Who does the monitoring?**

Hospital Epidemiology and Infection Control oversees 2 hospital wide hand hygiene monitoring programs:

“**Secret Shopper**” observations performed by ‘undercover’ observers from various disciplines from inside and outside the Johns Hopkins Hospital. All observers complete standardized online training and pass an online test with a passing grade of 90%. Both the training and test are available for all JHH staff & faculty to review & take at <http://www.hopkinsinteractive.org>. Simply log in with your JHED ID & user name. The course name is Standardized Training for hand hygiene Observers.

“**Direct Feedback**” to individuals on their hand hygiene practices. The observer will provide a copy of the observation form to the HCW and to their supervisor.

■ **What do observers look for?**

There are multiple indications/opportunities for hand hygiene (see appendix A and B). In compliance with the JHH hand hygiene policy (available on HPO and at <http://intranet.insidehopkinsmedicine.org/heic>), two measures are tracked on ongoing basis:

ENTRY to a patient environment

EXIT from a patient environment

All other HH opportunities listed in the policy are the subject of audits by undercover observers.

The rationale for picking the ENTRY and EXIT measures is explained in the ‘Preventing HAI’ online module at <http://www.hopkinsinteractive.org>. The module is accessible for all JHH staff & faculty and takes 20 minutes to view.

■ **How is a ‘patient environment’ defined?**

In a private room, a patient environment is defined by its walls. In a semi-private room or a multi-patient room the boundaries are defined by the adjacent walls and the ‘curtain line’. Additional details and case scenario demonstrations are available in the online Hand Hygiene Observers Standardized Training course.

■ **What happens when an observer sees a provider walking into a room without cleaning his/her hands?**

The observer watches to see whether the provider cleaned hands before entering the room or used the dispenser inside room. If the provider did not clean hands at either dispenser, the observer will enter “no HH “ for that observation. If, however, the view was not clear and the observer cannot say for sure whether provider used dispenser inside room (e.g. provider closed room door after entering), the observer will enter for that observation a ‘Blocked view/unsure’ designation and that observation is cancelled.

■ **What hand cleaning method should be used?**

Both alcohol based hand rubs (Purell) or soap and water are appropriate hand cleaning agents.

■ **What data collection tool is used to collect HH observations?**

The HH observer training course shows the tool and explains it.



Hand Hygiene Toolkit Educational Resources

Frequently asked questions

- **What if a provider used the Purell dispenser inside a patient's room and not the one at the room door?**

A provider may use the dispenser installed inside the room or the one just outside the room door to clean hands upon ENTRY & EXIT from the area.
- **What if the area around dispenser is crowded?**

Upon entry or exit, if it is crowded at the dispenser just outside room, or if the dispenser is empty, then the provider may walk to another close dispenser as long as s/he doesn't touch anything in the interim.
- **What if a provider just left one room to enter another? Does s/he need to clean hands again?**

No. As long as the provider's hands are still wet with alcohol gel and s/he has not touched anything on their way to the next room, s/he does not need to clean hands again.
- **What is reported on the HH data graphs?**

HH data are reported as % compliance.
 $\% \text{ Compliance} = (\text{Number of HH episodes} / \text{Total \# of observations}) \text{ multiplied by } 100$
- **What constitutes a HH episode?**

A HH compliant episode is defined as anytime a provider uses Purell or washes hands with soap and water upon entry or exit from a patient environment.
The observers do not make judgments on how well a provider cleaned his/her hands; they simply take note if the provider attempted to clean hands. Periodic audits outside this HH monitoring plan, however, do take note of hand cleaning adequacy, all hand hygiene opportunities, and compliance with wearing isolation garb when entering isolation rooms.
- **What is considered a hand hygiene observation?**

When an observer sees a provider 'ENTER' or 'EXIT' a patient's environment, s/he enters that on the data collection form as a hand hygiene observation. If s/he, however, marked 'unsure/ blocked view' on the form for HH behavior, then that observation is excluded from all HH compliance calculations (i.e., it is excluded from both numerator and denominator).
- **What if a provider donned gloves upon entry or exit to a room or between patients?**

Glove use does not substitute for HH. Hand hygiene must occur prior to donning and after removing gloves. If provider plans to don gloves before entering the room, s/he must still clean hands first; otherwise, it is counted as failure to perform HH.
- **What is the process if my hands are full as I am entering or leaving the room?**

Since your hands are full it is acceptable to enter the room without cleaning your hands but as soon as you put the items down, you must clean your hands.

Appendix A: JHH hand hygiene policy

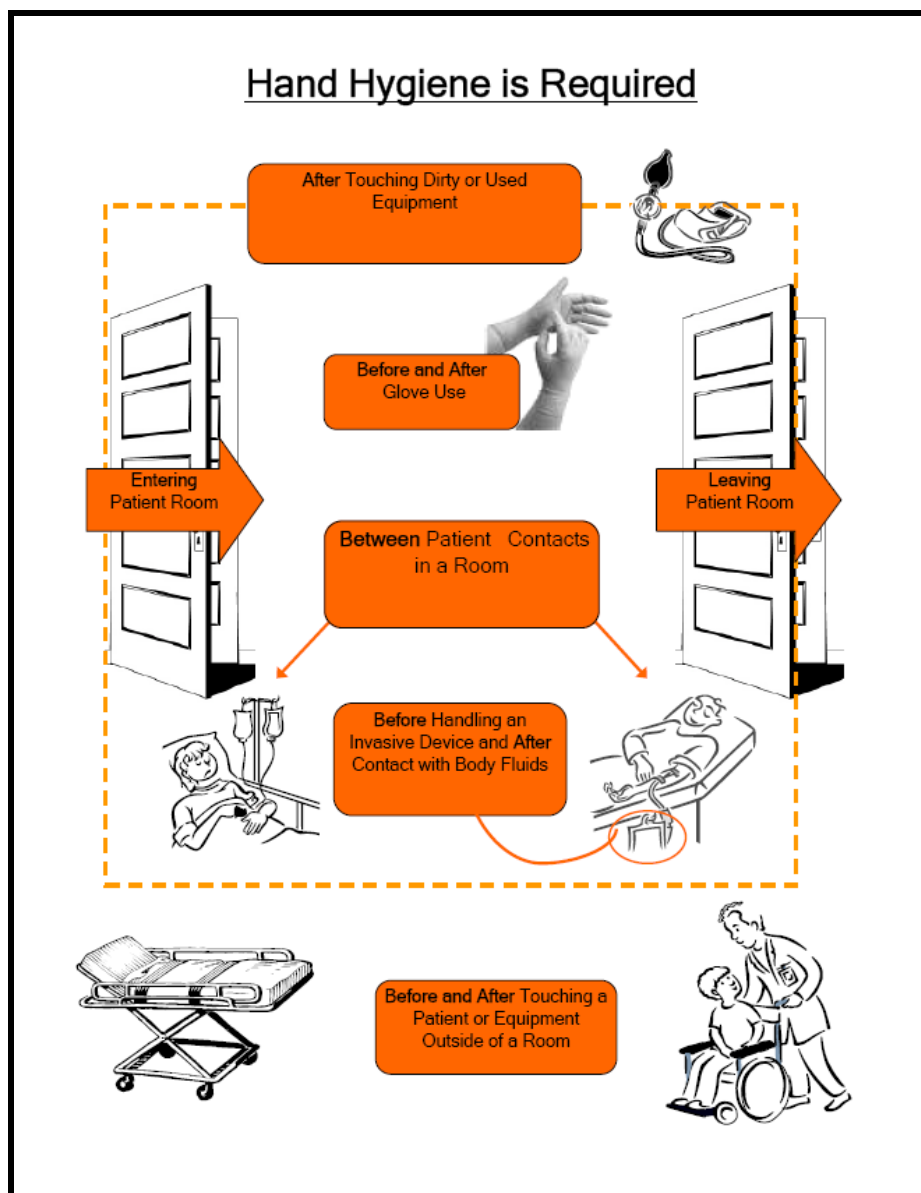
The JHH hand hygiene policy promotes the use of waterless hand disinfectant or soap and water in the following situations:

- Upon entering and leaving a patient room.
- Between patient contacts if more than one patient is in a room.
- Before and after touching a patient who is not in a room, for example, on a stretcher or wheelchair.
- Before donning and after removing gloves.
- Before handling an invasive device (regardless of whether or not gloves are used).
- After contact with body fluids or excretions, mucous membranes, non-intact skin or wound dressings.
- And any time as needed (such as after sneezing or coughing, and before handling food or oral medications).
- Soap and water must be used when hands are visibly soiled , before eating, after using the rest room and after caring for a patient on precautions for C. difficile.

The full policy is available in the interdisciplinary practice manual and on the HEIC website at <http://intranet.insidehopkinsmedicine.org/heic>

Appendix B: Educational Materials (additional materials at HEIC website)

The poster below identifies when hand hygiene should be performed during patient care. It is available from HEIC (5-8384).



Appendix C: Educational Materials (additional materials at HEIC website)

The two posters below explain when & how to clean hands. You can request an 11x17 laminated poster of each by calling ext 58384.

When to clean hands ?



Johns Hopkins Policy requires hand cleaning upon entry and exit from a patient's room, between patients, AND during the following situations:



Before invasive procedures



After contact with mucous membranes, bodily fluids, contaminated equipment or



After glove removal



When moving from a contaminated to non-contaminated site on

How to Clean Hands?

Alcohol-based Hand Rubs (Purell)

Primary method for cleaning hands:

- Easier to use
- Take less time
- More effective in killing bacteria than soap and water



Pump gel around the size of a quarter into palm of hand



Rub hands, covering all surfaces until dry

Soap and Water

Use when:

- Hands are visibly soiled
- After using alcohol-based hand rubs several times
- After using restroom
- Contamination with spore-forming bacteria is likely (such as C. diff)



Appendix D: Hand sanitizer placement & refill strategy

Recommended dispenser locations:

- Outside every patient room
- Inside each patient room
- In semi-private rooms, between patient beds.
- In multipatient rooms, at each patient pod
- Entrances to all units
- In clean & soiled utility rooms
- In medicine rooms and equipment rooms
- At nursing stations
- Next to pneumatic tube systems
- In clerical associate areas
- In waiting areas
- At registration areas
- By elevators and entrances to cafeteria and restaurants
- In conference rooms
- At hospital entrances and metro entrance
- Place hand sanitizer bottles in additional strategic locations (e.g. nursing stations, over bed table as needed)
- For recommended areas where dispenser use is difficult, table top Purell bottles with Pump can be ordered using SAP #: 34485. This is available in the MDC and the JHH Central Storeroom.

Refill Strategy:

- Dispensers in clinical areas need to be checked twice a day at change of shift and refilled as necessary. Units must designate staff to check the dispensers.
- EVS is responsible for checking the dispensers in non-clinical areas.

Batteries:

When the light on the dispenser is red, the battery is low. Batteries can be ordered from Central Supply. SAP # 3246

BATTERY ALKALINE SZ C. MFR# PC1400

