

Patient Hand Washing: Attitudes and Performance

A Patient Centered Approach to Quality Improvement

Gregory A. Doyle, MD
Holli Neiman-Hart, MD
Michael Maroon, DO
Elham Arghami, MD
Hina Durani, MD
Hari Salana MD
Venugopal Komakula, MD

Roundtable Presentation at Society of Teachers of Family Medicine
Quality Improvement Conference November 23, 2013

Research Question: Will patients endorse and perform hand washing in a patient centered approach to quality improvement.

Hypothesis: Patients will endorse and perform hand washing.

BACKGROUND:

Hand hygiene has been identified as being critical to prevent spread of hospital acquired infections. 1, 2 (Pittet et al, 2004, Barbut et al 2007). Although the emphasis has been on healthcare workers; when patient were encouraged to wash their hands a dramatic decrease in hospital acquired Methicillin Resistant Staph Aureus was noted 3 (Gagne et al, 2010). Patient performance of hand washing has been advocated by the WHO Alliance for Patient Safety, the Joint Commission and the CDC. 4-6

Why this is QI: Hand washing by health care providers is a standard component of patient safety. An emerging focus has become patient hand washing. Logically patient hand washing will further decrease the spread of health care associated antibiotic resistant infections. Included is a description of a QI program developed in the Department of Family Medicine (Gregory A. Doyle, MD) to promote a “patient centered approach” to hand washing.

METHODS:

Overview: Patients will be asked to express their attitude towards hand washing and to note their performance of hand washing in the Family Medicine Clinic at Health Sciences Center of the West Virginia University.

The patient will be given a questionnaire (included below) that asks them to anonymously note the hand washing of Health Care Providers as well as their own hand washing. Patients will be prompted by the health care providers to do hand washing either with alcohol containing hand wash products or hand washing in the sink with soap and water.

Beginning in October, 2013, Family Medicine health care providers will participate in the distribution of these questionnaires in their clinics. We will collect 75 total questionnaires per provider. The clinic personnel at the “sign in” and “sign out” desks will distribute and collect these questionnaires.

The baseline assessment will be 25 questionnaires per provider with no signs or encouragement from the nursing staff (the present situation).

Phase 2 will be to institute the flyers in the clinic encouraging hand washing by patients, and reminders from nursing staff. Then 25 more questionnaires per provider will be distributed to patients.

The QI team will meet again after Phase 2, assess the outcome of the QI program, and institute further adjustments or interventions as needed. Then Phase 3, 25 more questionnaires will be distributed to patients. The team will meet for final assessment of the project's impact.

In total, three cycles of 250 questionnaires will be distributed. After each cycle, an attempt will be made to determine adherence to the distribution and completion of the questionnaires; so as to obtain sufficient numbers of completed surveys, and plan further QI programs to encourage hand-washing.

Consent: Written consent will be waived. Patients in family medicine offered the opportunity to do hand washing will do so by assent. The observation and performance of hand washing is a standard part of every health care interaction. This is a quality improvement study. Patient hand washing poses no threat and will be optional. The completion of the "Patient Observation Form" (questionnaire) below will also be optional and anonymous. The forms will be distributed and collected by clinic personnel at the "Check In" and "Check Out" desk and not part of the clinical team of physician, nurse, medical student or resident. The QI activity will not be documented in the medical record.

The clinic and investigation group will post flyers in the clinic waiting room after Phase 1 (see attached) encouraging the patient to instruct the physicians and staff to wash their hands and also to have the patients wash their hands. This would be a part of the quality improvement program to decrease antibiotic resistant infections and the spread of infections in general.

Data analysis: The impact of the QI program will be assessed by analyzing the questionnaires using descriptive statistics. The percentage of completion of the questionnaires compared the number distributed, as well as the responses on the forms, will be recorded.

Below are the results from October and early November 2013

RESULTS:

Patients do endorse hand washing 97% of the time. There was only one patient who did not feel it was important in the first 100 questionnaires.

The incidence of physician and nurse hand washing exceeded the typical numbers seen in our clinic at 84% for nursing staff and 91% for physicians before at the beginning of the office visit.

Slightly lower incidences of hand washing after touching the patient was noted at 84 % for nursing staff and 69% for physicians.

Patients washed their hands 80% of the time.

Descriptive analyses for binary variables						
The FREQ Procedure						
Gender of the patient			Frequency	Percent	Cumulative Frequency	Cumulative Percent
Sex						
female			59	59.60	59	59.60
male			40	40.4	99	100.00
Frequency Missing = 1						
Did the doctor (nurse) wash hands before touching you?						
q1						
no			5	5.21	5	5.21
yes			91	94.79	96	100.00
Frequency Missing = 4						
Did the nurse or others wash hands after touching you?						
q2						
no			8	8.7	8	8.7
yes			84	91.30	92	100.0
Frequency Missing = 8						
Did the doctor wash hands before examining you?						
q3						
no			2	2.13	2	2.13
yes			92	97.87	94	100.00
Frequency Missing = 6						
Did the doctor wash hands after examining you?						
q4						
no			4	5.48	4	5.48
yes			69	97.87	73	100.00
Frequency Missing = 27						
Do you feel patient hand washing is important?						
q5						
no			1	1.02	1	1.02
yes			97	98.98	98	100.00
Frequency Missing = 2						
Did the nurse or doctor encourage you to wash your hands?						
q6						
no			30	31.91	30	31.91
yes			64	68.09	94	100.00
Frequency Missing = 6						

Descriptive analyses for binary variables					
The FREQ Procedure					
Did you wash your hands?		Frequency	Percent	Cumulative Frequency	Cumulative Percent
q7					
no		15	15.79	15	15.79
yes		80	84.21	95	100.00
Frequency Missing = 5					
Descriptive analysis for continuous variable					
The MEANS Procedure					
Analysis Variable: age of the patient					
N Miss	Mean	Std Dev	Maximum	Minimum	
1	53.3333333	16.1857836	89.0000000	18.0000000	

CONCLUSION:

Patients endorse their own hand washing in a near universal fashion. Of note, physician and nursing hand washing appeared to be much higher than prior clinic assessments. It is probable the emphasizing patient hand washing also enhances physician and nursing hand washing.

REFERENCES:

1. Pittet D, Simon A, Hugonnet S, Pessoa-Silva C L, Sauvan V, Perneger TV. (2004) Hand Hygiene among physicians: performance, beliefs and perceptions. *Annals of Internal Medicine* 141(1): 1-8.
2. Barbut F, Maury E, Goldwirt L, Boelle PY, Neyme D, Aman R, Rossi B, Offenstadt G. (2007) Comparison of the antibacterial efficacy and acceptability of alcohol-based hand rinse with alcohol-based gels during routine patient care. *Journal of Hospital Infection* 66(1): 1-7.
3. Gagne D, Bedard G, Maziade PJ. Systematic patient hand disinfection: impact on methicillin-resistant *Staphylococcus aureus* infection rates in a community hospital. *J. Hosp. Infect* 2010;75:287-93.
4. McGuckin M, Waterman R, Shubin A Consumer attitudes about health care-acquired infections and hand hygiene. *Am J Med Qual* 2006; 21: 342-6.
5. Longtin Y, Sax H, Allegranzi B, Hugonnet S, Pittet D. Patients' beliefs and perceptions of their participation to increase healthcare worker compliance with hand hygiene. *Infect Control Hosp. Epidemiol* 2009; 30: 830-9.
6. Duncan C. An exploratory study of patient's feelings about asking healthcare professionals to wash their hands. *J Ren Care* 2007; 33:30-4.

Patient Observation Form

your age_____ your sex_____

1. Did the nurse or other staff working with Dr. _____wash his/her hands or use a hand sanitizer immediately before touching you (or your family member if you are not the patient?)

Yes_____ No_____

2. Did the nurse or other staff working with Dr. _____ wash his/her hands or use a hand sanitizer immediately after touching you (or your family member if you are not the patient)?

Yes_____ No_____

3. Did Dr. _____ wash his/her hands or use a hand sanitizer immediately before examining you (or your family member if you are not the patient)?

Yes_____ No_____

4. Did Dr. _____wash his/her hands or use a hand sanitizer immediately after examining you (or your family member if you are not the patient)

5. Do you feel patient hand washing is important?

Yes _____ No_____

6. Did the nurse or Dr. _____ encourage you to wash your hands?

Yes_____ No_____

7. Did you wash your hands. (optional)

Yes_____ No_____

Sample flyers to encourage hand washing:

- (picture of physician and patient using an alcohol hand washing product together)
- Caption: "Join us in hand washing to prevent infections"

- (picture of physician and patient using an alcohol hand washing product together)
- Caption: "We can prevent infections if we work together to wash our hands"

- (picture of physician and patient using an alcohol hand washing product together)
- Caption: "Give us a hand in preventing infections"