Hand Hygiene Research Project Advisory Board Meeting

Date: Monday, December 11, 2006
Time: 8:00 a.m. – 2:30 p.m.

Board Members Attending:
Richard Wray- *The Hospital for Sick Children*
Chantal Backman- *Canadian Patient Safety Institute*
Karen Sequeira- *Ontario Hospital Association*
Gabrielle Teague- *National Patient Safety Agency*
John Wellner- *Ontario Medical Association*
Liane MacDonald- *Professional Association of Interns and Residents of Ontario*
Liz McCreight- *Ontario Ministry of Health and Long Term Care*
Clare Barry- *Ontario Ministry of Health and Long Term Care*
Paula Greco- *Canadian Council on Health Services Accreditation*
Jessica Peters- *Canadian Council on Health Services Accreditation*
Didier Pittet- *University of Geneva Hospitals*
Gilad Shohan- *Medonyx Inc.*
Shirley Paton (via teleconference)- *Public Health Agency of Canada*
Kelly Podgorny (via teleconference)- *Joint Commission on Accreditation of Healthcare Organizations*
Karen Hope (via teleconference)- *Community and Hospital Infection Control Association*
Joanne Laalo (via teleconference)- *Central South Infection Control Network*

Regrets:
Julia Cho - *Ontario Ministry of Health and Long Term Care*
Danielle Carriere – *Southlake Regional Care Centre*
Heather McConnell – *Registered Nurses' Association of Ontario*
Maureen Dobbins – *McMaster University, School of Nursing*
David Streiner – *Baycrest Centre for Geriatric Care*
Ian Graham – *Canadian Institutes for Health Research*
Gary Liss – *Ontario Ministry of Labour*
Susan Brien – *Canadian Patient Safety Institute*
Robert Wise – *Joint Commission on Accreditation of Healthcare Organizations*
Sudha Kutty - *Ontario Hospital Association*

MSH Research Team: Allison McGeer, Karen Green, Gomana Youssef, Heather Hanson, Agnes Tong, Meg Kenney, Hiroshi Ikai, Stephanie Smith

1. Decisions:

(i) Work will continue with systematic reviews as described.
- In revisions of the theoretical framework review
  - Maslow's hierarchy of need, the potential application of feminist theory, and the theory of health promotion will be considered
  - a discussion of any information about hierarchy, temporal effect or cultural context will be considered for the ecologic model (e.g. how does time and context alter whether personal or social influences are most important or more easily affected)

- For the effectiveness/barriers review;
    - Method of auditing adherence will be abstracted, described and summarized
    - The terms alcohol and handrub will be added to the literature searches
    - The advisory committee will be polled by email for additional and unpublished studies.
    - Reference lists (excel and refman) will be shared with advisory board members, and with Laurie O'Neill (working on review to support revision of PHAC guideline)

(ii) A second advisory committee meeting will be booked for June to:

- Review finalized systematic reviews and discuss dissemination of findings
- Discuss preliminary results of surveys/focus groups
- Plan for phase 3 (see below)
- Review draft of core messages

(iii) Research team will provide by June meeting, a revised proposal for phase III

- Possibilities discussed
    - Data on cost-effectiveness of hand hygiene programs to build business case for programs (eg. impact on LOS, wait times)
    - Work on status of hand hygiene and needs in long term care (and/or other non-acute settings)
    - Study of work/design in an intensive care unit setting to minimized frequency of need for hand hygiene

(iv) Proposed surveys will be coordinated with CPSI and JCAHO

- Research team will book meeting with Chantal Backman from CPSI to coordinate survey of CHICA and other Canadian organizations to serve both CPSI and this team's needs
- Research team will contact JCAHO re their call for comments/survey about hand hygiene auditing tools and processes to make sure that this survey does not duplicate

(v) Meeting with nursing advisors

- Because a number of nursing advisors were not able to be present, and meeting with this group will be booked in late January or February

(vi) Other

- Research team will investigate status of provincial hand hygiene programs outside of Ontario
- Contacts for staff from York Trust, Mitch Clarke from Nottingham Trust, and Margo Tannaher from Scotland will be sought from Gabrielle Teague for interviews

2. <u>Summary of Progress for CIHR/MSH Hand Hygiene Project:</u>

Phase 1: Systematic review in three major topic areas:

- Quantitative measurement of outcomes associated with hand hygiene
    - Nosocomial infection, - 2935 articles pared down to 320 for review to date. Most publications are before-after studies, most showing effectiveness in preventing nosocomial infection (effect size ranged 14%-94%). Currently adding secondary citations

    - Absenteeism – in progress (244 down to 4 and adding)
    - Length of stay – in progress (311 down to 29 and adding)
    - Health economics – in progress (166 down to 10 and adding)
- Systematic review to assess effectiveness of strategies designed to improve hand hygiene and to assess the barriers to hand hygiene adherence
    - Abstraction tools developed. 419 articles screened and 84 retained
    - Barriers can be institutional, individual
    - Multiple interventions identified
- Behavioral change models
    - A range of "interpersonal", "intrapersonal" and "community and social level" theoretical models were reviewed for applicability to hand hygiene programs
    - Strengths and weaknesses of each model are reviewed

* First phase of literature searching and screening are complete. Review process has started and we are in the process of establishing the 'grey' literature for review.

Phase 2: Interviews and surveys will be developed based on the initial reviews to determine the "current" hand hygiene programs both locally, nationally and internationally and to identify perceived barriers and enablers experienced by others. Information from these interviews and surveys will be supplemented with focus group interviews where indicated (e.g. to determine additional information on specific care environments, or specific care groups)

Phase 3: The initial plan to develop and evaluate a specific set of tools will be deferred since a number of other initiatives are covering this aspect. We will determine at the end of phase one what would be most useful to the stakeholders at that stage.

3. <u>Discussion summary</u>:

(i) Review of behavioral change models are useful as it is outside the area of expertise of most people involved in hand hygiene programs
(ii) We need to know if these theoretical models will be useful in providing a framework for those involved and who it will benefit
(iii) 80% of situations requiring handwashing in acute care belong to nurses
(iv) there is a need to know Canadian circumstances with respect to hand hygiene practices, initiatives, and barriers
(v) We need to consider taking this project beyond the hospital setting i.e. family practice, non-acute (problem with access to hand hygiene products), long term care
(vi) It would be very useful for Canadian initiatives to a consensus set of core messages – multiple campaigns different campaigns and multiple different slogans/straplines are probably good, but consistent core messages across campaigns would be very helpful
(vii) We need to know how non-compliance is defined across studies – a review of audit procedures and tools would be useful (currently under assessment by JCAHO groups)

4. <u>Tools that might be helpful for programs</u>:

(i) Screensavers

(ii) Profiling role models at a local level
(iii) Finding local voices of authority
(iv) Developing job descriptions that allow ICPs to lead, manage and set agenda for hand hygiene initiatives, but allowing others to collect data
(v) Designating hand hygiene resource specifically in each institution
(vi) Setting targets for alcohol hand rub use and monitoring monthly (eg. France)
(vii) Embedding hand hygiene in everything in the hospital (policies, procedures, job descriptions, performance evaluations, education programs)
(viii) Emphasizing the ability of HCWs to control their environment and improve patient care with hand hygiene (HCWs like autonomy in their decisions and environment; self-efficacy may improve morale)
(ix) Root Cause Analysis of bacteremias, other severe nosocomial infections.
(x) Obtain local data on infections (talk to hospitals with established surveillance and ARO screening programs)
(xi) Determine which list of indications for Hand Hygiene should we be using and can we standardize across programs and initiatives.

5. Current Initiatives in Hand Hygiene shared by advisory board members

Hospital for Sick Kids

- "Bug Buggy" Program
    - mobile cart of materials and activities related to hand hygiene designed to engage patients and parents
    - provides visitor empowerment/patient education and awareness
    - provides positive feedback to staff
    - currently in pilot phase, but has received very positive responses
- provides unit-based compliance reports
- in addition, the hospital has ongoing surveillance, so far providing more than a year of data

Canadian Patient Safety Institute

- committee in place for hand hygiene (Francois Legarde-social strategist, involved)
- working on an national hand hygiene campaign
- developed survey for CHICA members to see what is currently being done in hand hygiene (NOTE: HH Survey will be combined with CPSI for CHICA members)
- PhD project underway to determine hand hygiene and relationship to infections

Ontario Hospital Association

- focus groups of patients (NOTE: demonstrated patients were reluctant to be involved in asking HCWs to wash their hands)
- IC practice competency programs are being developed

National Patient Safety Agency in the UK

- national intervention strategy, developed in 2002, implemented 2004
- 5 phases- voluntary but 100% participation; 4 year intervention
- possible to save £450 million with 7% improvement
- national target of 50% MRSA reduction by 2008
- externally evaluated (Patient Safety Research Program)
- concentrating now on sustainability tools

- focus on the power of the individual contribution
- "cultural" influences extremely important (e.g. hospital culture, institutional culture, geographic culture, ethnic culture, etc) and need to be considered when designing and implementing program

Ontario Medical Association
- relatively new in hand hygiene; working with Ministry and CPSI
- endeavor to include physicians who have private practices (i.e. are not hospital based)

Professional Association of Interns & Residents of Ontario
- important group to be targeted because often represents the doctors on call or covering emergency medicine, and can petition superiors to follow programs implemented elsewhere
- no policy specific to hand hygiene in place
- 2-way communication with entire membership

Ministry of Health and Long Term Care
- adapted UK model
- multi-faceted approach
- developed framework and logic model
- 10 pilot sites in acute care about to introduce program
- conducted focus groups to determine messaging (will go out in February)
- incorporates many forms of evaluation
  - 3rd party observer/evaluator
  - developing a tool for hand hygiene audits with training module (with Hugo Sax)

Canadian Council on Health Services Accreditation
- education/communication focus
- partnership with Patient Safety Advisory Committee
- research support
- 21 Required Organizational Practices (ROPS) divided into 5 main areas
  - patient safety culture
  - communication
  - work life
  - medication
  - infection control
- infection control has two divisions focusing on hand hygiene – adherence to guidelines, and education of staff

University of Geneva Hospitals
- 12 years post campaign
- hand hygiene campaign based on six different parameters
- "world alliance for patient safety"- promoting hand hygiene, motivates Ministry of Health to make hand hygiene a priority
- compliance increased from 40-70% (3 years post initial launch)
- recently determined the 5 key indications for hand hygiene in patient care situations. Education materials and adherence monitoring focus on these 5 indications.

Steps:

1) Switch from soap to alcohol based hand rubs (supported by numerous studies)
- alcohol hand wash needs to be made available bedside (within 2 meters)- mandatory in UK

2) Education
- moved from simple teaching to mandatory classes on hand hygiene
- questionnaires being tested for different cultures
- education program included indications for hand hygiene, standard precautions, and data on nosocomial infections
- 1 hour training sessions were designed to "recognize" the indications for handwashing

3) Monitoring and Feedback
- observe, teach and then observe again
- adherence monitored around the 5 indications for hand hygiene
- HCWs need to know about their own practices.

4) Reminders
- use posters as part of the strategy
- should be aimed at the level of the institution (institutional adaptation)
- posters alone will not be effective (need to be implemented with the other steps)
- could also use letters sent with paychecks, lectures, or bed-side reminders (for example)

5) Institutional Safety Climate
- make hand hygiene a priority for the institution
- put on agenda of the hospital and make sure that doctors and nurses are aware
- 116 initial participants in SZ (80%)
- CEOs must be convinced of the importance and be willing to push it forward (requires data)

6) Patient Empowerment
- the most difficult

<u>PHAC</u>

- working on hand hygiene in several different areas
- produces infection control guidelines series
    - one of which focuses on hand hygiene and disinfection
    - the focus of the guideline is for infection control people
- currently performing HH literature review in order to update guideline

<u>Joint Commission on Accreditation for Healthcare Organizations</u>

- work with HICPAC and APIC
- conducting education research into measurement methods for hand hygiene adherence and effectiveness (call for methods out to APIC and SHEA)
    - Performing an on-line survey to determine best practices for measuring adherence with hand hygiene.
    - Goal is to develop educational monograph via this project (18 month timeline for monograph)

<u>CHICA</u>

- partnering with Patient Safety Institute to help advise on upcoming hand hygiene campaign and infection control standards
- working on needs, identification of successful programs

Medonyx Inc.

- produces an alcohol hand gel dispensing device that is immediate and wearable making it easy for HCWs to disinfect their hands

Southlake Regional Health Centre

- electronic billboard display with hand hygiene message, outside hospital, and hand hygiene message on external telephone on hold message
- Signs and alcohol hand rinse at entrance, hand rinse also in halway holders in all areas of the hospital and counter tops in clinics. Hand washing sinks in patient's rooms.
- Written policy on hand hygiene on line; hand hygiene instruction on top of all transmission based precautions signs.
- IPAC staff is very involved in educating new staff and physicians with emphasis on hand hygiene as the cornerstone of infection prevention.
- Signs in all washrooms in 3 languages on on correct handwashing procedures. The signs are courtesy of York Region's public health department.
- Hand hygiene is key message in a new school aged program that is being offered by our Volunteer Program. The *Traveling Road Show* allows hospital volunteers to visit local schools and teach kindergarten and grade one students about the hospital and what to expect should they need to visit in the future
- Southlake is in the midst of finalizing an patient educational brochure on the importance of handwashing, to be made available in waiting rooms.