

IMPLEMENTING EFFECTIVE HAND HYGIENE PROGRAMS IN HEALTHCARE

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BACKGROUND:

Hospital-acquired infections are the most common serious complication of hospitalization, and the fourth leading cause of death among Canadians (1). Hand hygiene, defined as the act of washing one's hands with soap and water, or disinfecting them with an antiseptic agent, has been recognized for more than 150 years as the single most effective and cost-effective means of preventing hospital acquired infection, as well as an effective means of preventing illness in the community that may lead to hospitalization (2-5). Despite this, many studies have documented that compliance with hand hygiene recommendations in healthcare settings is consistently less than 50% (2,6-10). Intensive education programs have been associated with modest improvements in hand hygiene and dramatic reductions in rates of hospital-acquired infections (11-18). However, few programs have documented continuing success. The aim of this proposal is to provide guidance to decision makers throughout the health care system in facilitating the development of successful hand hygiene programs, and thus in reducing morbidity and mortality from hospital-acquired infection.

OVERALL OBJECTIVE:

To provide decision-makers in health care with the understanding and tools necessary for the development and successful implementation of hand hygiene improvement programs in health care.

SPECIFIC OBJECTIVES:

1. To understand the barriers (structural, organizational, cognitive and social) to hand hygiene adherence, particularly in healthcare settings.
2. To develop toolkits to assist healthcare agencies and institutions in developing effective and efficient hand hygiene programs.
3. To assist professional organizations and policy makers in understanding what strategies are most effective in facilitating the development of hand hygiene programs.
4. To evaluate whether well-designed hand hygiene programs implemented in Canadian healthcare facilities can be associated with a substantial reduction in hospital-acquired infections, particularly those due to antimicrobial resistant organisms.

HYPOTHESIS:

A better understanding of knowledge and attitudes towards hand hygiene and of barriers and incentives to adherence to practice recommendations will assist in the development of effective and efficient hand hygiene programs for healthcare, and can be used to begin a process of changing social attitudes towards hand hygiene and the prevention of infection.

WHAT EVIDENCE IS THERE THAT THIS ISSUE IS IMPORTANT FROM A MANAGER OR POLICY MAKER PERSPECTIVE?

Hospital-acquired infections are the most common serious complication of hospitalization (1). Eight to 15% of hospitalized patients develop infections as a result of their care. Hospital acquired infections were estimated to be the 11th leading cause of death two

decades ago (19); recent Canadian data suggests that they are now the 4th leading cause of death for Canadians.

Initial evidence for the risk of health care infection associated with transient carriage of bacteria on the hands of health care workers, and the effectiveness of the removal of such bacteria in protecting patients, dates to the mid 1800s. In 1843, Oliver Wendell Holmes concluded that puerperal fever was spread by the hands of health personnel (20). Independently, in 1847, Ignaz Semmelweis demonstrated that the dramatically higher maternal mortality rate associated with physician delivery of babies (as compared to midwives) at the Vienna General Hospital could be reduced by having physicians clean their hands between the autopsy room and visits to clinic patients (21). Many studies have documented that health care workers' hands become contaminated with hospital pathogens in the course of providing care, and *in vitro* studies of hand hygiene demonstrate that handwashing or hand disinfection with alcohol effectively removes these pathogens (2,4,5).

Within healthcare, the recent literature with respect to the efficacy of hand hygiene consists largely of before and after studies, most likely as a result of two issues: first, an ethical concern about the use of control groups in the face of existing evidence and recommendations from expert groups, and second, the expense of conducting randomized controlled trials when the unit of analysis must be at a minimum a hospital ward (and, because of communication between hospital wards, more reasonably a hospital) and where the outcome is hospital-acquired infections. However, controlled trials do exist, as do a substantial number of well-controlled before/after studies (Table 1) demonstrating that improving adherence to hand hygiene is associated with dramatic reductions in hospital-acquired infection, and the transmission of hospital pathogens. More recently, numerous studies have focused on the potential for improved hand hygiene to reduce infections in the community (Table 2). Both randomized controlled trials and observational studies now document that improved hand hygiene in the community is associated with equally dramatic reductions in infection rates.

Table 1: Recent studies of the impact of programs to improve adherence to hand hygiene on nosocomial infections

Author/year/ref	Design	Intervention	Outcome
Larson/2000/11	Quasi-experimental (before/after in case and control institution)	Organizational change	33% decrease in MRSA case hospital vs. 31% increase in control
Pittet/2000/12	Before after	Multimodal	41% decrease NI* (P=.04) 57% decrease MRSA (P<.001)
Marena/2002/13	Prospective, non-randomized crossover	Posters, training course, new product	14.5% decrease in NI (NI) (P=NS)
Brown/2003/14	Before-after	Multimodal	33% decrease in antibiotic use
Swoboda/2004/15	Quasi-experimental	Electronic monitoring	22% decrease in NI 11% decrease in ARO** colonization (P=.01)
Lam/2004/16	Before-after	Multimodal	47% decrease total NI (P=.09)
Won/2004/17	Before-after	Multimodal	Sig decrease total NI (P=.003) 69% decrease resp NI (P=.01)

Mayer/2005/18	Before-after	Multimodal	62% decrease in VRE infection
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Table 2: Recent studies of the impact of hand hygiene improvement in community settings

Setting/design	Author (ref)	Outcome
School based RCTs		Absenteeism due to upper respiratory and gastrointestinal illness
	White (22)	33% reduction
	Dyer (23)	34% reduction
	Hammond (24)	20% reduction
	Guinan (25)	49% reduction
	Morton (26)	significant reduction
	Thompson (27)	28% reduction
Community (Meta-analysis of studies to reduce diarrhea)	Curtis (28)	42% reduction in diarrhea risk
Military recruits	Ryan (29)	45% reduction in out-patient visits for resp illness
University residence	White (30)	43% fewer sick days

For these reasons, hand hygiene, defined as the act of washing one's hands with soap and water, or disinfecting them with an antiseptic agent, before and after all patient contacts is recommended in all published infection control and public health guidelines and is considered the standard of care for all healthcare workers (2-5).

Nonetheless, many observational studies have demonstrated that healthcare workers do not adhere to these guidelines: reported adherence has ranged from 13%-70%, with a median of about 30%; over 20 years of study, there is no evidence that compliance has increased (see Table 8 of ref 2, refs 6,10, Appendix 3). This lack of adherence to guidelines has been a concern for infection control programs for as long as they have existed. Over the last 150 years, many programs to improve hand hygiene have been implemented in hospitals. Such programs are frequently, although not universally, associated with improvements in hand hygiene practice and decreases in nosocomial infection. (2, Table 1, Appendix 3) It is likely that a publication bias exists, such that unsuccessful programs are less likely to be submitted for publication or published, although there is no documentation of this effect. In addition, it is clear that the improvements in practice achieved by these programs have been modest at best, and are very difficult to maintain. Recently, several different approaches have been associated with more sustained increases in adherence to hand hygiene (Table 1). However, only two have been progressed beyond the pilot stage, and in a limited number of settings. Despite relatively modest improvements in hand hygiene, these programs were associated with dramatic and sustained reductions in hospital-acquired infection rates (11,12).

Concern regarding workload, understaffing, insufficient time to follow proper procedures and a generally low safety climate in healthcare have been cited as important issues to explain lack of compliance with infection control procedures (31). Such factors have not received enough attention in handwashing programs. Moreover, there is increasing concern among healthcare workers, and the unions that represent them, that they are putting themselves and

their families at risk if they do not follow proper procedures. Attention to protecting the healthcare workforce from infectious disease is only now receiving adequate attention.

Over the last decade, the role of complications of medical care in increasing patient morbidity and mortality, and on healthcare system costs, has been increasingly recognized. Patient safety, the protection of patients from all types of these complications, is rapidly emerging as an important systems issue within healthcare, and one which has the potential to substantially reduce patient morbidity and increase the efficiency of care delivery. Hospital-acquired infections are a major contributor to preventable patient risk in hospitals: they affect at least 10% of hospitalized patients, and at least 1/3 of these infections are preventable. Thus, a number of decision-maker bodies in healthcare have recently recognized the need for improved hand hygiene.

Health Canada and the US Healthcare Infection Control Practices Advisory Committee have both recently published guidelines regarding hand hygiene in healthcare; the US document contains more specific recommendations regarding the development and monitoring of hand hygiene adherence. Both US and Canadian healthcare accreditation bodies have revised their standards to reflect a need for healthcare organizations to develop and prioritize patient safety programs. Currently, the Canadian standards do not specifically mention hand hygiene programs. However, the standards of the United States Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requires that organizations demonstrate compliance with the US consensus guideline for hand hygiene in health care settings. Other patient safety initiatives in North America also recognize the impact of hospital-acquired infections and the importance of hand hygiene: for instance, the Ontario Hospital Association's Patient Safety Tips campaign has considered tips related to hand hygiene compliance (unpublished information, the Ontario Hospital Association). The US National Patient Safety Foundation and the Veteran's Administration National Center for Patient Safety programs also contain recommendations for hand hygiene programs.

WHAT ARE THE METHODS AND APPROACH TO ANALYSIS?

Qualitative Interviews and Focus Groups:

(I) Focus groups

The objectives of the focus groups will be to explore: (i) perceptions of hand hygiene guidelines; (ii) perceptions of barriers related to hand hygiene; (iii) the value of different resources of information in changing behavior; (iv) other factors that are likely to influence decisions about hand hygiene; and (v) strategies to overcome identified barriers. Separate focus groups will be conducted with each of the following health care worker types at the Mount Sinai Hospital. At Mount Sinai Hospital, two focus groups will be held for front-line nurses, and one for each of the other listed groups. The exception to this will be interns/residents, and nursing students, where one session each will be held. At a second, community hospital (one that participated in the Ontario Ministry of Health Hand Hygiene Pilot), two focus groups will be held for nurses, one for physicians, and three for allied health workers. An amendment will be submitted to the MSH IRB, and a full submission to the IRB at the second hospital when proposed arrangements with this second hospital have been finalized.

Each session will have 8 to 10 participants, to allow each participant the opportunity to give their opinions and respond to those of others. Initial discussion will be open, but facilitators will use a guide to ensure that all relevant areas are explored. See Appendix 1 for a list of questions to be covered during the sessions. Focus groups will be semi-structured and will

occur until theme saturation has been reached. Except as noted, sessions will be held in room 212 or 218 at Mount Sinai Hospital.

The following sessions will be arranged at the Mount Sinai Hospital:

- (i) Registered nurses: Recruitment will be by fliers posted in nursing stations, and left in the hospital mailboxes of nurses working on in-patient units, asking for nurses to participate. (Flier is appendix 2)
 - (ii) Nursing managers, educators, and clinical nurse specialists: a list of all nursing managers, educators, and clinical nurse specialists from MSH will be provided by the Chief Nursing Office (Ms. Leslie Vincent). Personalized emails (text of emails is Appendix 3)
 - (iii) Staff physicians, interns, residents: we will make up a list of 50 influential MSH staff physicians and send out personalized invitations to each, asking them to participate. We will provide them with a few dates and times to choose from, and will select the session which the majority of physicians can attend. Interns and residents will be recruited via the chief residents on different services, and by posters on in-patient units.
 - (iv) Medical students: the Medical Education Office at MSH will be contacted and a list of senior medical students from the Wightman-Berris Academy will be compiled. Personalized invitations to attend a session will be emailed, asking them to RSVP.
 - (v) Nursing students: the study will be explained to the Dean of Ryerson University's and nursing departments. A time and place (at the university, if possible) will be selected for the session. A list of senior nursing students (those who have completed some practical training) will be compiled. Personalized invitations to attend the sessions will be mailed or emailed from the Directors, asking them to RSVP to attend a session.
 - (vi) Infection control practitioners: the study will be described to the president of the Toronto and Area Professionals in Infection Control (TPIC). We will then send out an invitation to all TPIC members, via the membership list serve, to participate in a session. They will be provided with a few dates and times to choose from.
 - (vii) Respiratory therapists/technologists: we will contact the Director of Respiratory Therapy, Linda Hutchens-Richmond, to explain the study, and identify possible times convenient for the focus group. We will then make up a list of all of the hospital's respiratory therapists/technologists and send them personalized invitations asking them to participate.
 - (viii) Social work: We will contact the Director of Social Work, Ms. Diane Savage, explain the study, and identify convenient times. We will then make up a list of all of the hospital's social workers and send them personalized invitations asking them to participate.
 - (ix) Radiology technologists: we will contact site manager of Medical Imaging at MSH, Ms. Kathy Hilario, and explain the study. We will then make up a list of all of the
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- hospital's radiology technologists and send them personalized invitations asking them to participate.
- (x) Physiotherapists and occupational therapists: We will contact and explain the study to Ms. Sharon Currie, the Director of Rehabilitation at MSH. We will then make up a list of all of the hospital's physiotherapists and occupational therapists and send them personalized invitations asking them to participate.
 - (xi) Pharmacists: We will contact and explain the study to Mr. Bill Wilson, the Director of Pharmacy at MSH. We will then make up a list of all of the hospital's pharmacists and pharmacy technicians and send them personalized invitations asking them to participate
 - (xii) Pastoral care: we will contact all four of MSH's pastors, Rabbi B. Schulman, Christina Dashko, Joanne Davies, and Betty Lynch-Powers, asking to arrange a time convenient with them. We will ask each of them if they can identify another hospital pastoral worker who would be willing to participate in the focus group.
 - (xiii) Housekeeping and service assistants: we will contact Blaine McEwan, who is part of the management team for MSH's housekeeping staff, and explain the study. He will describe the study at his next staff meeting where we will hand out invitations asking staff to participate. Staff of the infection control department will approach service assistants on hospital in-patient units to explain the study, and ask for their participation.
 - (xiv) A multidisciplinary group from a single unit: A group of staff who regularly work on 12S will be selected from Mount Sinai Hospital: the goal will be to identify one physician staff member, one resident/intern, two-three nurses, two service assistants, and 3-4 other allied health staff (pharmacists, social workers) to participate in this session. The chief medical resident and the nurse manager of 12S will assist in developing the list of potential participants, who will then be contacted in person or by email about participation

Focus group sessions will be 60 minutes long and scheduled before 9am, after 4pm or between 12 and 2pm. Lunch/snacks and drinks (coffee/tea/juice) will be provided at the sessions to help make the space more comfortable. To ensure that this time commitment does not inhibit some individuals from participating and to help pay for transportation, a \$40 stipend will also be provided to participants. Participants will be asked to sign a consent form (see Appendix 4).

Participants will then watch a brief video with two clips. In the first, a health care worker will tend to two patients in a two-bed room. This clip will be a re-enactment of this situation observed in real life, when hand hygiene opportunities are missed. The second clip will show the same activity, with adequate hand hygiene at every opportunity for transmission. This video is intended to address the issue that healthcare workers often believe that they practice good hand hygiene, but in fact are missing many opportunities for hand hygiene. The video will help ensure that participants have the same understanding of 100% compliance as the investigators do.

All focus groups will be audiotaped. Two study staff will be present for all focus groups. One will facilitate the focus group, and the second will take notes.

(II) Interviews with experts

In the ensuing interviews with experts, we will explore the themes that have emerged from the focus groups. Three types of experts will be included:

(i) those with experience with implementing hand hygiene programs (eg. Drs. Pittet, Larsen, and McGuckin, staff of the UK National Patient Safety campaign, staff of the US Veteran's Administration hand hygiene pilot projects), and others identified by the information retrieval and the snowball technique.

(ii) those with expertise in knowledge translation/guideline adoption in clinical practice (eg. Dr. J. Scrimshaw, Dr. D. Davis),

(iii) those with expertise in introducing effective preventive practice changes (eg. seat belt use, smoking, influenza vaccination).

Interviews will be semi-structured and guided by codes and categories identified by focus groups and modified as necessary as new themes emerge. We estimate that about 10 interviews will be required in each of these groups. In addition, experts in specific areas identified by the focus groups (eg. skin care, academic detailing) as important to particular interventions will be interviewed about issues specific to their expertise.

(iii) Interviews with decision makers

Finally, we will interview policy makers at Canadian and international patient safety organizations, health care professional organizations, and government decision-makers about the themes that have arisen regarding structural and policy changes that may impact on hand hygiene programs. These semi-structured interviews will explore: (i) the options available for policy regarding hand hygiene at various levels of government; (ii) obtain the views of decision makers regarding the relative priority of hand hygiene and other patient safety interventions; and (iii) identify potential areas for integrating hand hygiene recommendations into government/agency programs.

DATA ANALYSIS AND DISTRIBUTION OF FINDINGS:

All interviews/focus groups will be transcribed verbatim with transcriptions assessed for accuracy (overall methods as per refs (42,43). To monitor progress and permit follow-up of emerging issues, interviewing, transcription and analysis will proceed concurrently. Initial focus groups will be coded openly by the study coordinators and an investigator (AM), who will then meet to identify common codes. Word choice and the manner in which words were expressed will be considered in the analysis. Data will then be entered into QSR NUD*IST (NVivo) software, with accuracy of entry verified by a second individual. Periodic assessment of the coding process will be conducted by the investigators through debriefing committee meetings to evaluate adequacy of codes in representing the key issues. The debriefing committee will consist of the co-investigators not involved in interviewing the informants or conducting the focus groups. Findings will be written up in a report that will be made available to participating hospitals and participants. An article will also be submitted to an appropriate journal.

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Appendix 1

Introductory Focus Group Script and Focus Group Questions

Good morning/afternoon everyone, My name is XXXXX, and I am one of the research coordinators for this study.

First of all, thank you very much for attending this session. Through a series of focus groups with a variety of health care workers, we are hoping to explore how health care workers perceive hand hygiene, its barriers, and its enablers. We would also like to understand what factors influence your decisions about hand hygiene. Finally, we hope to discuss strategies to overcome the barriers you perceive. These focus groups are being conducted in order to provide decisions makers with the information necessary to design and implement effective hand hygiene programs.

Please note that all personal information will be kept confidential. Direct quotes from the discussion may be used, but no identifying information will be provided with the quote. In order to maintain confidentiality, we also ask that you not disclose what is said by others during the session.

The full meeting will be tape-recorded so that we make sure that we don't miss any contributions. All names will be removed from the transcripts before facilitators and investigators have access to them for the analysis.

I need to remind you that taking part in this study is completely voluntary. You can leave now, or at any time during the discussion. None of the investigators, or other staff at MSH will know whether you participated, or whether you left the session. The full session should take about 1 hour. We will provide you with a \$40 stipend as a thank you for taking the time to share your ideas.

I have here a consent form for you to sign that reviews what I have just told you. I need you to take a few minutes to read and consent form, and ask any questions you have before you sign it. Please sign two copies – one for us to keep, and one for your own records.

After consent forms are signed.....

Thankyou - let's start. I'm going to hand out a poster from the Ontario Ministry of Health about hand hygiene, and show you two video clips of a simulated patient care scenario, so that we start on the same page about good hand hygiene practices in hospitals.

Now, I would like everyone to think back to the last few times you practiced good hand hygiene.

1. What were your reasons for doing so? And when thinking about your answer, think about what reminds you, allows you, and helps you to practice good hand hygiene? We'll start with you and work our way around.

Possible probes:

- Do you perform hand hygiene to protect yourself or your patients?
 - Are there hand hygiene role models within your unit? Are you a role model?
 - Do you encourage other staff to do hand hygiene? How do they take this?
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2. Do you really believe that hand hygiene protects you or your patients?

Possible probes:

- Are there particular circumstances in which it matters, and others where it doesn't?

3. Do you think hand hygiene needs to be a habit - something that you do without having to think about it – or do you think you need to be focussed on it to do it right?

Possible probes:

- Would you be willing to perform hand hygiene a few extra times, if it ensured that you always cleaned your hands before touching patients?

If we accept that we aren't going to achieve perfection, would it be better to have a set rule – like performing hand hygiene on your way into every room – or a principle based approach – like before you touch a patient/their environment? What are the advantaged and disadvantages of these two approaches?

4. Do you know about MSH's hand hygiene policy? The hand jewellery and artificial nail policy? What do you think of them? (explain policies, or let someone in the group explain them)

Possible probes:

- Do you think hospital policies make a difference to practice? Why or why not?
- Should be policy be changed? How?

5. What barriers hinder either your own ability, or the ability of others, to practice good HH?

Possible probes

- Time as an issue: Are there things like hand hygiene that don't get done because you don't have enough time? What are they? How do you decide that things aren't going to get done? Do you think that you and other staff prioritize the need for hand hygiene appropriately? Could/should the priority be changed?
- Skin damage as an issue: Does the hospital have a program to support skin care? Have you tried it – do you know anyone who has? What did they think of it? What kind of program do you think would work best?
- Availability as an issue: Are there areas of the hospital that are a particular problem? Are there particular patient care activities where this is a problem? In your view, what would be the best solution?

6. How do you feel about the products available to cleanse your hands?

Possible probes:

- How do you feel about the location of these products?
 - What do you think MSH can do to make sure that the right products are available to staff?
 - Knowing that using multiple products on your hands is bad for skin, do you think that the hospital should aim for a single product everywhere even though some staff might not like it or might have to have their own separate product, or do you think that multiple products should be available?
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7. How does glove use influence hand hygiene? Are you more or less likely to clean your hands if you have been wearing gloves?

Possible probes:

- If you had to choose to either wear gloves or wash your hands, which would you choose? Why?

8. Do you feel that the hospital supports your efforts to do hand hygiene?

Possible probes:

- What hand hygiene promotional activities are you aware of at MSH? Do you think that they have been helpful? Are there activities that would work better?
- Is there education or training on hand hygiene at MSH? Do you find this helpful?
- Does it matter what senior management (eg. Joe Mapa, Leslie Vincent) think? Do you feel you know what they are thinking? How does information about what senior management thinks about hospital priorities get to you?
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9. What can Mount Sinai do to help you improve your hand hygiene practice?

That was the final question that we wanted to discuss. Right now I'll just quickly review some of your ideas with you...

Is there anything else that you wanted to add?

Thank you again for participating. If you have any questions regarding this study in the future, please feel free to contact the Research Project Coordinators at (416) 586-4800 ext. 2767/2762.

Appendix 3 **Personalized emails/text of emails**



Date

Dear XXXX,

We are asking for your help in a research project funded by the Canadian Institutes of Health Research and the Canadian Patient Safety Institute. This study is attempting to understand why, when healthcare workers state that they know that hand hygiene is important and that they practice good hand hygiene, observational audits of adherence consistently identify adherence rates of 30-40%. It is hoped that a better understanding of this gap will help to inform healthcare worker education, and hand hygiene promotion programs, and result in reduced rates of healthcare associated infection.

Your help with this project means your participation in a one hour focus group on your experience with hand hygiene, and your perceptions of issues related to hand hygiene in healthcare. We are interested in a frank discussion of what we can do better to ensure the safety of patients and staff, not only at Mount Sinai Hospital, but also throughout the Canadian healthcare system. Each focus group session will have 8-10 participants, usually of a single health provider discipline. Coffee/tea/juice and snacks will be provided, as will a \$40 stipend as compensation for your time and travel expenses.

Tentative times for focus group sessions for your discipline are:

Xxxxxx date, time, location, #1

Xxxxxx date, time, location #2.

Please let Ms. Gomana Youssef, the project coordinator know if you would be willing to help us with this project - she can be reached by email at gyoussef@mtsinai.on.ca or at ext. 2767.

For more information about the project, you can check the description on our website (www.microbiology.mtsinai.on.ca), or call or email Gomana or myself at anytime. We thank you for considering this request, and look forward to your participation.

Sincerely

A handwritten signature in black ink, appearing to be "A. McGeer", written over a thin horizontal line.

Dr. Allison McGeer, M.D., FRCPC
Department of Infection Control and Microbiology
Mount Sinai Hospital

Appendix 4 **Consent form**

HAND HYGIENE FOCUS GROUP: CONSENT FORM

INVESTIGATOR: Dr. Allison McGeer, Department of Infection Control and Microbiology
Room 210; ext. 3118; email: amcgeer@mtsinai.on.ca

TITLE : Implementing Effective Hand Hygiene Programs in Healthcare

STUDY SPONSOR: Canadian Institutes for Health Research/Canadian Patient Safety Institute

You are being asked to take part in a research study. Before agreeing to participate in this study, it is important that you read and understand the following explanation of the proposed study procedures. The following information describes the purpose, procedures, benefits, discomforts, risks and precautions associated with this study. It also describes your right to refuse to participate or withdraw from the study at any time. In order to decide whether you wish to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision. This is known as the informed consent process. Please ask the study doctor or study staff to explain any words you don't understand before signing this consent form. Make sure all your questions have been answered to your satisfaction before signing this document.

Purpose

You have been asked to participate in one of a series of focus groups at the Mount Sinai Hospital on the topic of hand hygiene. These focus groups are designed to provide a better understanding of hand hygiene practices among health care workers. Issues related to knowledge, attitudes and behaviours related to hand hygiene will be discussed. Data collected will be used in developing programs to support hand hygiene practice at Mount Sinai Hospital and other acute care hospitals.

Procedures

You are asked to participate in a 60 minute focus group session. In the session you will be asked to watch some short video clips involving re-enactments of healthcare worker and patient contact. You will also be asked to participate in a group discussion hand hygiene practice – we are interested in what you and others think about current practice, what, if anything, needs to change in practice, and what healthcare workers and the hospital can do to support this change.,

Risks

There are no risks associated with participation in the focus group session.

Benefits

Information gathered from the focus group sessions will provide a better understanding of knowledge and attitudes towards hand hygiene and of barriers and incentives to adherence to practice recommendations as well as provide guidance to healthcare decision makers wishing to facilitate the development of successful hand hygiene programs and thus begin a process of

changing social attitudes towards hand hygiene and the prevention of hospital-acquired infections

Confidentiality

All information obtained during the study will be held in strict confidence. No names or identifying information will be used in any publication or presentations. The focus group session will be audio-taped. Investigators will listen to the audio-tapes. Participants will not be identified by name or occupation on the tapes, and investigators will not have information about who participated in the particular focus group. Direct quotes from the discussion maybe used in reports, but no identifying information will be provided with these quotes or anywhere else in the final report.

Participation

Your participation in this study is voluntary. You can choose not to participate or you may withdraw at any time without risk of penalty.

Compensation

During the focus group session you will be provided with lunch/snacks and beverages (coffee, tea, juice). Upon completion of the focus group session you will also be provided with a \$40 stipend to compensate you in part for your time and expenses. No other compensation will be provided.

Questions

If you have any future questions about the study, please contact Dr. Allison McGeer, the principal investigator (ext. 3118 or amcgeer@mtsinai.on.ca) or Ms. Gomana Youssef, Research Project Coordinator at (416) 586-4800 ext. 2767 or gyoussef@mtsinai.on.ca.

If you have any questions about your rights as a research participant, please call Dr. R. Heslegrave, Chair of the Mount Sinai Hospital Research Ethics Board at (416) 586-4875. Dr. Heslegrave is not involved with the research project in any way and calling him will not affect your participation in the study.

Consent

I acknowledge that I have had the opportunity to discuss this study and my questions have been answered to my satisfaction. I consent to take part in the study with the understanding I may withdraw at any time without risk of penalty. I have received a signed copy of this consent form. I voluntarily consent to participate in this study.

Participant's Name (Please Print)

Participant's Signature

Date

I confirm that I have explained the nature and purpose of the study to the subject named above. I have answered all questions.

Name of Person
Obtaining Consent

Signature

Date
