RNAO
Registered Nurses' Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario

NURSING BEST PRACTICE GUIDELINES PROGRAM

Hand Hygiene Review Panel Report

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1. Introduction

1.1. Background

The Registered Nurses' Association of Ontario (RNAO), with funding from the Government of Ontario, has embarked on a multi-year program to develop, implement, evaluate, disseminate and support the uptake of Nursing Best Practice Guidelines NBPG (BPGs) across the province of Ontario. See Appendix E for a complete list of best practice guidelines developed to date. The overall goals and objectives for the Nursing Best Practice Guidelines (NBPG) program are:

1. Improve consistency and quality of nursing care across the province.
2. Ameliorate suffering and increase access to quality nursing services.
3. Spread the resources as broadly as possible so that maximum benefit is achieved for patients/clients, nurses and the health system.

The program to date has achieved the publication of twenty-nine (29) Nursing Best Practice Guidelines NBPG (see Appendix E for complete list), currently at the point of dissemination. Several of these guidelines are currently in the planning stage for a regularly scheduled three-year review. In addition, a "Toolkit" for implementing clinical practice guidelines and an Educator's Resource have been developed and are available through RNAO to support the implementation of guidelines in practice and the integration of guidelines into nursing curriculum.

The guiding principles for the Best Practice Guideline program include:

1. An evidence base;
2. Consensus process;
3. Pragmatic/realistic approaches;
4. Expert partnerships within nursing community; and
5. A view to learn and engage other relevant disciplines.

1.2. Guideline Review

Through a topic selection process, hand hygiene was identified as a priority by RNAO for guideline development. A website search was conducted to identify guidelines that have been developed in this area. The *World Health Organization (WHO) Guidelines on Hand Hygiene in Health Care (Advanced Draft)* was one of the guidelines that was found in the area of infection control that focused on hand hygiene. In an effort to prevent duplication of efforts in developing a guideline on hand hygiene, a review panel was established to review the WHO guideline utilizing an AGREE tool review and questionnaire document.

1.3. Review Purpose

The purpose of the *Hand Hygiene Review Panel* was to review the recently released *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)*. The *Review Panel* in collaboration with RNAO provided formal, written feedback to the WHO from a Canadian perspective and made recommendations on how the WHO guideline might be used in the Canadian context.

The recommendations generated by the *Review Panel* assisted RNAO to provide feedback to the World Health Organization on the hand hygiene guideline, and to develop necessary resources that will promote the uptake of current best practices on hand hygiene by nurses and other health care providers. The *Review Panel* recommendations assisted in bridging the identified gap between current and evidence-based practice. These recommendations will be targeted to be inclusive of all practice settings.

2. Review Panel

2.1. Panel Composition

The composition of the *Review Panel* was primarily of nurses with the addition of two interdisciplinary members (see page 2 for the Panel Acknowledgment). As RNAO is a nursing organization the intent of this review was to review the guidelines from a nursing perspective with interdisciplinary collaboration. Members of the panel were selected on the basis of: recognized expertise in infection control as a clinician, researcher or policy maker, and/or expertise in implementation and/or evaluation strategies from within Canada, predominantly from within Ontario.

2.2. Approach

The *Review Panel* work was conducted as follows:

- Review of the *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft). This review included two areas of focus:*
    1. Quality appraisal of the methodology utilized to develop the guideline using the internationally recognized and validated Appraisal of Guidelines for Research and Evaluation (AGREE) Instrument (See Appendix 1,2 &3 for results). The AGREE Instrument is available at www.agreecollaboration.org.

2. Appraisal of the content of the guideline in relation to the recommendations, evidence and applicability to practice within the Canadian context. A questionnaire was developed to elicit this feedback, which is included in Appendix 4 (see Appendix 4 for results).

- Development of recommendations for the RNAO BPG Program in regards to:
  1. Preparation of feedback to the WHO regarding the quality appraisal of the methodology used in development of the guideline and content appraisal as mentioned above.
  2. Next steps in development of a new BPG guideline, or an implementation tool, and/or the development of other resources such as health education fact sheets.

3. Recommendations

3.1. Review Panel Content Recommendations to the World Health Organization

The following is a list of recommendations developed from the panel content review of the *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft):*

Evidence:

1a) The evidence should be integrated with the recommendations as a summary or discussion of evidence after each corresponding recommendation.

The evidence discussed in the WHO guideline is extensive but lacks the integration with each recommendation. In order to aid in the ease of use it would help healthcare practitioner's effort to implement each recommendation.

b) Due to the extensive list of references, it would be helpful to list the references and the recommendations according to a grading system such as that of the CDC/HICPAC.

An extensive list of references has been provided for the reader, however, it would be helpful to see a grading system that would help the reader to note the research design, strength of the evidence. In this way the reader would be able to view the strength of the evidence and strength of the corresponding recommendation.

More information regarding the CDC/HICPAC grading system can be found at www.cdc.gov. See the CVC/HICPAC grading system example below:

Strength of Evidence	Strength of Recommendations
Level I: Strong evidence from at least one systematic review of multiple well-designed randomized controlled trials. **Level II:** Strong evidence from at least one randomized controlled trial of appropriate size. **Level III:** Evidence from well-designed trials without randomization; single group pre-post studies; and cohort, time series, matched case-control studies. **Level IV:** Well-designed non-experimental studies from more than one center for research group. **Level V:** Opinions of authorities, based on clinical evidence; reports of expert committees; and descriptive studies.	**Category 1A:** Strongly recommended, supported by well-designed studies. **Category 1B:** Strongly recommended, supported by some studies and theoretical rationale. **Category 1C:** Required by regulation. **Category II:** Supported by suggestive studies or theoretical rationale. **No recommendation:** unresolved issue.

2) Systematic reviews with a focus on educational modalities should be included in the guideline in regards to the implementation and promotion sections of the guideline.

There are a number of systematic reviews of the effectiveness of educational modalities in the Cochrane database and elsewhere in the literature that have been omitted from the references. Although not specifically applicable to the hand hygiene promotion context, these systematic reviews based on randomized controlled trials focus on the effectiveness of educational interventions such as opinion leaders, feedback, lectures, etc. Some of these articles may be viewed as "negative" studies, indicating that traditional approaches to behaviour change exhibit poor results (Mah & Meyers, 2006).

Also, the recent study by Mortel, & Murgo (2006) raises concerns about the validity of hand hygiene audit tools because of the potential for random and systematic measurement errors. Issues of adequate sample size and representative "recruiting" should be addressed in the sections that mention behavior audits.

Background Information:

> *3) Further clarification is needed regarding Clostridium difficile and alcohol-based hand rubs. On page 84, the first paragraph may erroneously suggest that alcohol rub is effective against Clostridium difficile.*

Information regarding the effect of alcohol rubs needs to be explicit to ensure there is no room for discrepancy. Boyce, Ligi, Kohan, Dumigan, & Havill (2006), stated that they saw no evidence that alcohol-based hand rubs caused the increase in a resistant strain of *Clostridium difficile* but noted that it was not effective in reducing the incidence of infection. Explicit statements regarding the use/non-use of hand rubs in relation to non-enveloped viruses such as Norovirus should also be made.

> *4) Information regarding environmental cleaning should be addressed in the background information.*

Addressing environmental cleaning in the background information would help healthcare sectors to understand the importance of a patient's environment on infection control practices. Hayden, Bonten, Blom, Lyle, van de Vijver, & Weinstein (2006), studied the effect environmental cleaning and hand hygiene had on vancomycin-resistant enterococcus. Their study highlighted the fact that environmental cleaning had a greater impact than hand hygiene in lowering infection rates. The effectiveness of hand hygiene promotion is potentially limited by suboptimal environmental cleaning. .

> *5) Information is required relating to recommendations for renovation of existing healthcare facilities and building of new facilities pertaining to hand hygiene stations/sinks and the placement of hand hygiene rubs.*

It is important for the organizers of new facility construction or renovations to keep in mind the importance of creating an efficient design incorporating sinks for hand hygiene that are accessible and to place hand sanitizers where they can be utilized effectively. Creating recommendations in this regard could have an impact on cost-benefit in the long run instead of expensive alternatives for misplaced sinks and hand rub stations. Accessible sinks and hand rub will assist in reinforcing positive hand hygiene behaviour.

Scope:

> *6) The guideline has a focus on the acute care sector and should incorporate other sectors of healthcare including long-term care, home care, community care and remote rural and outpost areas in regards to promotion and implementation.*

The guideline focuses primarily on acute care and needs to incorporate some of the unique issues related to hand hygiene in other care settings such as long term care, home care, community care and remote nursing stations and care centres. Considerations for these settings should include: contaminated (biological, chemical or other) or non-potable water and impact on hand hygiene, prohibition of alcohol-based hand rubs due to issues around alcohol abuse and potential for lack of both water source (non-potable or clean) and lack of access to alcohol based products (due to supply chain issues and distance from suppliers).

> *7) There needs to be more detail and information regarding the integration of hand hygiene into the curriculum for nursing students and other healthcare professionals.*

Incorporating hand hygiene into the basic education curriculum for nurses and all healthcare professionals will further augment the education being provided to practicing professionals and the general public. In this way hand hygiene will be adopted as a standard of care that is learned through education and followed into practice settings of new graduates.

> 8) *There should be greater focus within the guideline on creating partnerships and collaborations.*

Effective, multidisciplinary promotion of hand hygiene implies the need for extensive partnerships and collaboration so that efforts are not duplicated and logistic constraints are overcome. Information should be provided regarding potential partners and collaborators (communications experts, occupational health nurses, nurse educators,etc.) as well as logistic and resource challenges that should be anticipated (e.g., the housekeeping department will need to increase its human resources to fill many more hand hygiene product dispensers).

(See Appendix D for the Review Panel Theme Summary Table).

3.2. Review Panel Methodology Recommendations to the World Health Organization

The following are a list of recommendations developed from the panel AGREE review of the *WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft):*

Stakeholder Involvement:

1) *The document should include an acknowledgment of the international consultations and experts that took part in guideline development.*

The PDF document that was available for this review did not have an acknowledgement page stating the names, professional roles and backgrounds of the experts involved in the development. Including this acknowledgement in the guideline is important to ensure that adequate representation of expertise was involved in the creation of this document.

2) *Consumer involvement should be sought in the review of this guideline.*

There is currently no evidence of patient views or consumer involvement in the draft version of this guideline. There needs to be representation from patient populations to ensure that consumer issues and concerns have been addressed. Consumer involvement would also enhance the awareness within communities of the importance of hand hygiene.

Rigour of Development:

3) *Greater transparency regarding the development methodology of this quideline is required.*

Currently there is little mentioned of the development methodology of this guideline. The process for development needs to be transparent in the mention of literature search strategies, search terms and electronic search mechanisms. Inclusion/exclusion criteria for evidence should also be documented in the guideline to ensure that important “negative” studies are not omitted due to bias. The method for formulating recommendations should be clearly stated to show how they were created from the evidence. It is important for the reader and ultimately for the implementer, to understand how the evidence was found, why the evidence that was used was included in the references, why articles were excluded from the document andd how the recommendations were drawn from the evidence.

4) A clearer linking of evidence to the recommendation in the discussion of evidence portion of the guideline is required.

There is an extensive amount of information included in this draft guideline, in the background information as well as in the discussion of evidence pages. It is important for the implementer to be able to link the recommendations directly with the evidence in a clear and simple way. It would be most helpful for the reader to have a summary of evidence presented after each recommendation to ensure appropriate understanding and ensure the ease of translation of this evidence into practice.

5) The WHO should establish a process for updating and revising this guideline. It is suggested that this take place every two years.

It is important when creating a practice guideline that there is an established process for updating and revision of the document. This assures the reader/implementer that the document will be reviewed regularly to ensure its accuracy and emphasizes the inclusion of new evidence on an on-going basis.

6) Providing case studies of successful implementation of hand hygiene programs would assist in implementation of this guideline.

An example of successful implementation from one of the pilot sites would further enhance the uptake of this guideline and allow for the transfer of knowledge into practice in the development of programs and initiatives.

Editorial Independence:

7) This guideline should include some documentation regarding editorial independence and a conflict of interest statement in this guideline.

It is important for the reader/implementer to be able clearly see that this guideline has been developed without bias or conflict of interest. Clear mention of funding sources and involvement of organizations should be documented in this guideline.

(See Appendix C for AGREE Review comments).

3.3. Review Panel Recommendations to RNAO

The following recommendations for action have been developed from the *Hand Hygiene Review Panel to RNAO.*

1) Endorsement of key recommendations and evidence from the WHO Hand Hygiene guideline that are relevant to nurses, other health care professionals and unregulated health care workers within a Canadian context.

The recommendations within this guideline are sound and backed by strong evidence. There are key recommendations that are specific to nurses and other healthcare professional within the Canadian context that should be emphasized in the creation of resource material.

2) Development of a supplemental implementation guide with a scope that incorporates areas such as:

- *social marketing strategies;*
- *human factors;*
- *organizational factors;*
- *assessment of facilitators and barriers (to uptake of a hand hygiene program);*
- *staff education and empowerment;*
- *communication – forming teams;*
- *influences and partnerships; and patient education and,*
- *empowerment.*

A supplemental guide or tool needs to be developed to assist in the adaptation of this guideline focusing on the importance of hand hygiene with patient safety and personal safety of the practitioner in mind. It is important to emphasize the need for hand hygiene beyond a standard of practice or an infection control procedure but to also highlight the important impact hand hygiene has on patient/nurse health and safety.

3) Development of an implementation tool that is multifaceted, multimodal, with a multidisciplinary panel.

The development of an implementation tool should incorporate the knowledge and learnings in regards to: education modalities; health promotion strategies; effective communication strategies; social marketing strategies; and creating partnerships and collaborations. Utilizing the expertise of a multidisciplinary panel would enhance the sharing of knowledge and encourage a collaborative environment of both the guideline and the implementation tool.

4) Reference should be made to Canadian infection control guidelines and initiatives.

The newly developed implementation tool should incorporate references to Canadian infection control guidelines and initiatives to further assist the implementer in acquiring resources and information.

5) Develop monitoring tools and compliance audit tools.

Monitoring and compliance tools should be developed to assist in evaluating outcomes following implementation of the WHO guideline on Hand Hygiene. These tools would emphasize key indicators of uptake of the guideline and enhanced patient outcomes.

Reference List

Boyce, J., Ligi, c., Kohan, C., Dumigan, D., & Havill, N. (2006). Lack of Association Between the Increased Incidence of *Clostridium difficile*–Associated Disease and the Increasing Use of Alcohol-Based Hand Rubs. *Infection Control and Hospital Epidemiology, 27(5).*

Hayden, M.,Bonten, M., Blom, D., Lyle, E., van de Vijver, D., &Weinstein, R. (2006). Reduction in Acquisition of Vancomycin-Resistant Enterococcus after Enforcement of Routine Environmental Cleaning Measures. *Clinical Infectious Diseases, 42*, 1552-1560.

Mah, M., & Meyers, G. (2006). Toward a socioethical approach to behavior change. *American Journal of Infection Control, 34, 73-79.*

Van de Mortel, T., & Murgo, M. (2006). An examination of covert observation and solution audit as tools to measure the success of hand hygiene interventions. *American Journal of Infection Control, 34(3), 95-99.*

Appendix

Appendix A- AGREE Review Table

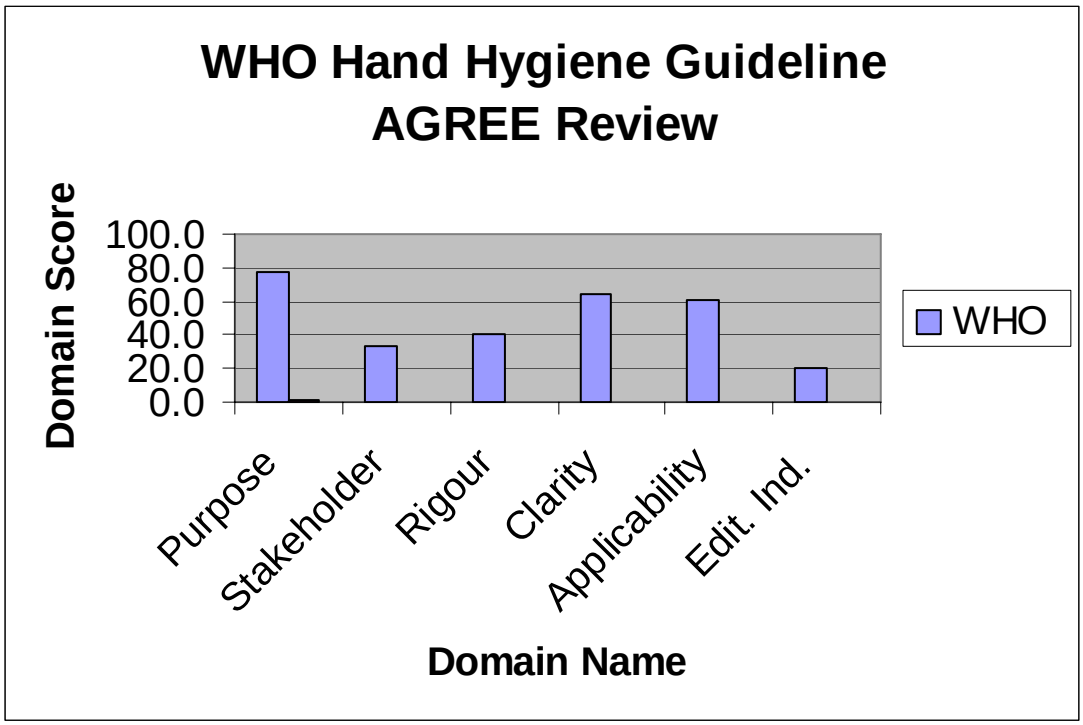
Name of Guideline: WHO

WHO Hand Hygiene: Group 1

Criteria	**Reviewer 1**	**Reviewer 2**	**Reviewer 3**	**Reviewer 4**	**Reviewer 12**	**Total**		
Scope and Purpose								
Item 1	4	4	4	4	4	20	Max Score	60
Item 2	3	2	1	3	2	11	Min Score	15
Item 3	4	4	4	4	3	19	**Domain 1 Score**	**77.8**
Total	11	10	9	11	9	**50**		
Stakeholder Involvement								
Item 4	1	N/A	1	2	N/A	4	Max Score	80
Item 5	3	1	1	1	2	8	Min Score	20
Item 6	4	3	4	3	2	16	**Domain 2 Score**	**33.3**
Item 7	1	4	3	4	N/A	12		
Total	9	8	9	10	4	**40**		
Rigour of Development								
Item 8	3	2	2	4	1	12	Max Score	140
Item 9	1	2	1	4	1	9	Min Score	35
Item 10	4	1	1	3	1	10	**Domain 3 Score**	**41.0**
Item 11	4	3.5	4	1	2	14.5		
Item 12	4	4	3	4	3	18		
Item 13	N/A	3.5	1	4	N/A	8.5		
Item 14	1	1	1	1	2	6		
Total	17	17	13	21	10	**78**		
Clarity and Presentation								
Item 15	3	4	4	3	2	16	Max Score	80
Item 16	4	4	4	4	2	18	Min Score	20
Item 17	3	4	2	4	2	15	**Domain 4 Score**	**64.2**
Item 18	2	2	2.5	1	2	9.5		
Total	12	14	12.5	12	8	**58.5**		
Applicability								
Item 19	3	4	3	2	2	14	Max Score	60
Item 20	2	4	4	2	2	14	Min Score	15
Item 21	2	4	4	2	2	14	**Domain 5 Score**	**60.0**
Total	7	12	11	6	6	**42**		
Editorial Independence								
Item 22	4	1	2	4	2	13	Max Score	40
Item 23	N/A	1	1	1	N/A	3	Min Score	10
Total	4	2	3	5	2	**16**	**Domain 6 Score**	**20.0**

Overall Recommendation	Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 12
Strongly Recommend 4		4			
Recommend 3	3		3		
Would not recommend 2					
Unsure				N/A	N/A
Total					

Appendix B – AGREE Review Chart



Appendix C – AGREE Review Comments

Item 1	**SCOPE AND PURPOSE** **Overall objective of the guideline is specifically described.**	Score
Reviewer 1	1st paragraph in Introduction outlines guideline as a "review of evidence" and specific recommendations to improve practice and reduce transmission of pathogenic microorganisms to pts & HCWs.	4
Reviewer 2	"provide HCWs, hospital administrators and health authorities with a thorough review of the evidence on hand hygiene in health care and specific recommendations to improve practices and reduce transmission of pathogenic microorganisms to patients and HCWs"	4
Reviewer 3	provide 1)HCW, 2) hospital admin, 3) health authorities, with review of evidence on HH. Specific recommendations to: improve practice and reduce transmission	4
Reviewer 4	Identified in introduction	4
Reviewer 5	The guidelines are meant to improve hand hygiene practices and reduce transmission of micro-organisms to patients and health care workers	4
Item 2	**Clinical question(s) covered by the guideline is(are) specifically described.**	
Reviewer 1	Not sure it is specifically outlined but common thread throughout document outlines "reduction of spread of infections". Don't believe that a clinical question is directly applicable to a topic of "Hand Hygiene".	3
Reviewer 2	clinical questions are implied, but not specifically described/stated	2
Reviewer 3	clinical questions are not specifically described	1
Reviewer 4	The clinical questions are not stated as "clinical questions" but as statement of facts or recommendations. - The length of the document is great for "evidence-based" decisions. An adaptation of this guideline could address this. Adaptation of Recommendations section suggested.	3
Reviewer 5	The clinical questions are specific and cover a broad range of situations in which hand hygiene should be practical. However, the range of situations covered in this extensive document is not practical for health care workers and specific descriptions by specialty and situation may be more appropriate.	2
Item 3	**Patients to whom the guideline is meant to apply are specifically described.**	
Reviewer 1	Pertains to all points and in all HC settings worldwide.	4
Reviewer 2	".. Implemented in any situations in which health care is delivered either to a patient or to a specific group in a population… applies to specific health care facilities to community settings and to other settings where health care is occasionally performed, such as home care by birth attendants"	4
Reviewer 3	patients in any situation with healthcare delivery. Specific groups with healthcare delivery. Across practice settings	4
Reviewer 4	Addressed different levels who need to participate in order for application to be done - again in recommendations section.	4
Reviewer 5	The target population is broad and delivery of guidelines is recommended to “any situation in which health care is delivered”. These guidelines, however, are not clearly stated in concrete terms. The guidelines are meant to cover all patients and are not specific to any one set of patients, except with reference to a number of opportunities for handwashing and risk of infection. (e.g. ICU patients, cancer patients etc.). This will create difficulty for health care workers who need instructions for specific populations. It is recommended that subsets of the guidelines for specific patient populations be created.	4
Item 4	**STAKEHOLDER INVOLVEMENT** The guideline development group includes individuals from all the relevant professional groups.	
Reviewer 1	Included in "Intro" - states info from WHO international consultations and experts in field however there is no acknowledgement of professional groups or specific experts involved - Page 170 of WHO guideline is blank.	1
Reviewer 2	unable to complete - cover page indicates that authors are listed on last page of document - pg. 170, last page in package is blank	N/A
Reviewer 3	no list of names or organizations etc. have been provided. Mentions a list of names - not with this draft	1

Reviewer 4	Although not specifically stated it is likely that the development group did include these relevant professional groups.	2
Reviewer 5	Currently, there is inadequate information to assess whether all relevant professional groups have been involved. It does, seem however, that the pressure for health care workers to adhere to the guidelines is very administrative in nature and does not capture the extent of the multi-disciplinary team that exists in health facilities today. More information on the professional status/roles of the guideline development team would have been helpful.	N/A
ITEM 5	**The patients' views and preferences have been sought.**	
Reviewer 1	Evidence throughout guideline provides patient's perspective and also outlines potential problems related to culture, beliefs and religion. Pg 45-57	3
Reviewer 2	no documentation/discussion of consumer (patient) involvement in guideline development	1
Reviewer 3	no evidence of patient views being sought in development of this guideline	1
Reviewer 4	Literature reviews of patient empowerment and education were not included.	1
Reviewer 5	The guidelines document does not provide information on whether patient views and preferences have been sought. This document focuses on the health care worker rather than the patient. If adapted to Canada, these guidelines should be modified by an advisory board with a variety of citizens who reflect the patient population which may in reality vary from region to region, province to province etc. This panel/advisory board should also include patients.	2
Item 6	**The target users of the guideline are clearly defined.**	
Reviewer 1	For all HCWers. I believe that a stronger statement should be made - Applies to all HCWers including physicians, volunteers and anyone working in a HC setting.	4
Reviewer 2	health care workers, hospital administrators, and health authorities	3
Reviewer 3	HCW, Hospital admin., Health authorities	4
Reviewer 4	Although not broken down into target audiences it is stated and assumed the document is meant to be used by health care professionals.	3
Reviewer 5	The users of the guidelines are defined as health care workers providing care to patients without reference to other professional on a health care team who may also have patients contact. This includes, but is not limited to, physicians, physiotherapists, psychologists, psychiatrists, social workers etc.. There should also be emphasis on physician compliance as well as health care worker compliance, which in many instances in the current guidelines refer to nurses and other health professional who care for patients . Other clinical guideline evaluations show poor compliance with physician's use of clinical practice guidelines. The health care worker is more than just the individual who provides procedural and therapeutic care. It encompasses the entire multi disciplinary team who is responsible for patient care. This concept of team care is not evident in the current draft guidelines.	2
Item 7	**The guideline has been piloted among target users.**	
Reviewer 1	Not yet.	1
Reviewer 2	pilot tests currently underway in each of the six WHO regions (pg. 6)	4
Reviewer 3	currently being pilot tested in each of the six WHO regions. Does not mention specific sites, cities and/or the target populations	3
Reviewer 4	I think this exercise (review of the draft) is partially a pilot however strongly feel that those doing direct patient contact would not use this document for anything other than a resource to justify adapted, more "practice-oriented" guidelines adapted for workplaces.	4
Reviewer 5	No criteria for including/excluding evidence were provided. It is critical that both inclusion and exclusion criteria be clearly stated as part of the search methodology and the appraisal of evidence. This is necessary for establishing credible evidence and demonstrating the context in which the guidelines are based.	1
Item 8	**RIGOUR OF DEVELOPMENT** **Systematic methods were used to search for evidence.**	
Reviewer 1	Only states more than 100 international experts contributed to document. - Task forces used - Dates of literature outlined. However doesn't outline specific detail about where obtained - types of searches	3
Reviewer 2	not clearly documented re. process: "numerous experts conducted multiple search strategies of available published information by July 31/05". ?? Database parameters	2
Reviewer 3	2 international consultations with experts. Multiple search strategies, details not mentioned ? Search years? - July 31 2005. Care group of experts review evidence/development - development process not	2

	clearly documented.	
Reviewer 4	The HICPAC/CDC system was used to categorize the evidence for each recommendation.	4
Reviewer 5	No details/documentation of what strategy/ methods were used to search for evidence was made. In fact, there was no section on methods and procedures used for gathering guideline evidence typically found to be part of generating new evidence-based guidelines. The search strategy including search terms, sources and electronic search mechanisms needs to be clearly documented in order to reflect sound, evidence-based guideline development. Since this information is lacking, no attestation to the rigour of guideline development can be made.	1
Item 9	**The criteria for selecting the evidence are clearly described.**	
Reviewer 1	That is not outlined in study although each paper is provided in reference and one would have to review paper to determine if study was epidemiologically sounds. Good summary of info. (papers) available.	1
Reviewer 2	not clearly described "a core group of experts coordinated the work of reviewing the available evidence." However, evidence summaries are provided in appendices	2
Reviewer 3	core group of experts reviewed evidence. No process mention for selecting evidence (inclusion criteria, clinical questions). Evidence summaries provided in appendix.	1
Reviewer 4	as on page 74	4
Reviewer 5	No criteria for including/excluding evidence were provided. It is critical that both inclusion and exclusion criteria be clearly stated as part of the search methodology and the appraisal of evidence. This is necessary for establishing credible evidence and demonstrating the context in which the guidelines are based.	1
Item 10	**The methods used for formulating the recommendations are clearly described.**	
Reviewer 1	Ranking system used by Centre Disease Control used - this may work well for North America, not sure how it may relate to countries in Africa or other underdeveloped countries.	4
Reviewer 2	no discussion re: process used for developing the recommendations.	1
Reviewer 3	no mention of process for formulating recommendations.	1
Reviewer 4	Not described well enough. Terms in the ranking system may need definitions.	3
Reviewer 5	As stated in #8 and 9, no systematic methods or criteria for formulating the guidelines based on reliable and credible evidence were documented. This includes the methods used for formulating the recommendations. The reader is left with a set of recommendations and an abundance of evidence with no basis for how the recommendations were chosen. A system for categorizing the recommendations was discussed briefly and this was used to rank the evidence, but as stated , there was no clearly defined/described methods(s) for formulating each specific recommendation. In order to proceed with a logical system, it is recommended that each section on evidence should be organized in a systematic way, discussing evidence for a particular practice and why specific recommendations were in order to reflect the evidence presented.	1
Item 11	**The health benefits, side effects and risks have been considered in formulating the recommendations.**	
Reviewer 1	This is included as part of recommendations and very important aspect of hand hygiene.	4
Reviewer 2	Discussion of evidence does address some benefits/side-effects/risks in some specific contexts.	3.5
Reviewer 3	there is discussion throughout guideline regarding benefits, side effects and risks, as to recommendations.	4
Reviewer 4	This was not addressed.	1
Reviewer 5	Consideration of health benefits, side effects and risks were made, but these considerations were not organized in a clear and coherent way. Each health benefit should have been linked to each recommendation made for ease of comprehension and clarity. There was an extensive amount of evidence presented, but this evidence was poorly organized and lacked direction.	2
Item 12	**There is an explicit link between the recommendations and the supporting evidence.**	
Reviewer 1	Yes, each recommendation is rated and references are provided to support decision.	4
Reviewer 2	recommendations are linked to evidence - extensive list of references (742 references). Recommendations have reference numbers - discussion of evidence not linked to ind'l recommendations but extensive discussion - Part 1: Review of scientific data related to hand hygiene.	4
Reviewer 3	references noted with recommendation. Discussion of evidence. Prior to recommendation list - not integrated. Difficult to explicitly see the summary of evidence with each recommendation.	3

Reviewer 4	All items are ranked by level of supported evidence and relevant references.	4
Reviewer 5	Each recommendation was linked numerically to a set/list of references for the reader to refer to, however, it would have been better to state reasons why each recommendation was made within the rating system and to draw a clear link between the evidence and the recommendation rating.	3
Item 13	**The guideline has been externally reviewed by experts prior to its publication.**	
Reviewer 1	This is a draft document and I am unable to determine that, however RNAO review would meet criteria of an external review.	N/A
Reviewer 2	not clear re. external review - pg 6 - "two international consultations" - these seem to be separate from "core group of experts who coordinated the work". - 100 international experts contributed to the preparation of the document	3.5
Reviewer 3	no clear indication of external reviewers	1
Reviewer 4	I think that is what this is.	4
Reviewer 5	Unable to determine - It was stated that more than 100 experts contributed to preparing the document, but there was no documentation available of the actual external review. No information as to the clinical or methodological affiliation/expertise of the experts was provided. This includes assuring patient representatives. There was no description of the methodology used to conduct the external review.	N/A
Item 14	**A procedure for updating the guideline is provided.**	
Reviewer 1	In Introduction Section - states the group will continue until issues have been completely analyzed and practical solutions identified - however does not state how this updating will occur and/or when.	1
Reviewer 2	unable to identify any discussion related to guideline updating.	1
Reviewer 3	no mention of guideline updating as to year. Only mentions "…task force of experts established to foster ongoing discussion on some crucial topics included in the guidelines - candidates for further development and practical solutions."	1
Reviewer 4	No procedure is discussed.	1
Reviewer 5	No clear statement about the procedure for updating the guidelines was included. It was stated that the recommendations are undergoing a pilot test to examine resources to carry out recommendations and gather information on feasibility, validity, reliability and cost effectiveness. No procedure was outlined for updating the guidelines on a regular basis.	2
Item 15	**CLARITY AND PRESENTATION** **The recommendations are specific and unambiguous.**	
Reviewer 1	Recommendations are generally good however I believe they have neglected to mention some very major issues: 1) Type of soap, when to use bar soap. 2) Anti-microbial vs. lotion soap.	3
Reviewer 2	Recommendations are specific and provide appropriate direction for management specific to the situation	4
Reviewer 3	recommendations are very specific and detailed. Quite extensive	4
Reviewer 4	The recommendations are not specific enough and need to be explicit, especially for the users eg. What is an efficacious hand hygiene product, etc.?	3
Reviewer 5	Specific recommendations are made, but they are too extensive and detailed for HCW to incorporate in systematic way in their everyday practice based on opportunities for hygiene adherence. Recommendations made are categorized, but the body of evidence presented in most of the document are not well-organized and need some fine tuning in terms of opportunities for hand hygiene as well as with what specific patient population that they apply to. There are a variety of patients, all of whom may require basic/general hygiene and other patient situations where specific procedures and care are needed. The evidence and recommendations needs to be organized in such as way as to ease use of guidelines in a particular patient case and situation. At the present time, the is far too much information and a lack of organization.	2
Item 16	**The different options for management of the condition are clearly presented.**	
Reviewer 1	Offers recommendations and evidence that may contribute to compliance or lack of compliance i.e. - glove use, etc. Lots of evidence used.	4
Reviewer 2	options in various contexts/situations are provided/described	4
Reviewer 3	different options are provided within specific topic areas	4
Reviewer 4	The different options for appropriate HH is different circumstances or situations is discussed.	4

Reviewer 5	Different patents scenarios are presented, but as stated before there is a lack organization and clarity for the health care worker to follow these guidelines with ease and in a timely manner.	2
Item 17	**Key recommendations are easily identifiable.**	
Reviewer 1	Recommendations are easily identifiable however this guideline neglects to identify key methods/recommendations to achieve compliance of Hand Hygiene. Should give recommendations on how to improve compliance - needs to be stronger.	3
Reviewer 2	recommendations are grouped by category: indications; technique; surgical hand preparation; selection of agents; skin care; gloves; other aspects; education/motivational programs; government/institutional responsibilities; hospital admin; national governments	4
Reviewer 3	recommendations found on page 74-77. No key recommendations stand out.	2
Reviewer 4	The recommendations section and information within it are easily identifiable and well written.	4
Reviewer 5	Recommendations are ranked, but are not organized to reflect key recommendations. Instead, they are organized by topic such as hand hygiene technique, surgical hand preparation, hygiene agents and government and institutional responsibilities. This organization of recommendations does not consider different patient scenarios and the strength of community-based support. They also do not consider patient characteristics and severity of condition which may influence adherence to hand hygiene. Patient advocacy was discussed as a helpful tool in increasing adherence to hand hygiene, but no attempt was made to consider patient role in recommendations made for hand hygiene. Patient role needs to be recognized as a influential and possibly pivotal factor in hand hygiene. A two way interaction of patient and care giver also needs to be considered.	2
Item 18	**The guideline is supported with tools for application.**	
Reviewer 1	No tools included - just some examples.	2
Reviewer 2	pg 78/79 - "handouts" for use of alcohol-based formulation and hand-washing - very basic implementation supports	2
Reviewer 3	Mention implementation process page 58-62. Pictures of hand hygiene included. No other implementation tools mentioned.	2.5
Reviewer 4	This is needed for practical adaptation.	1
Reviewer 5	Recommendations are made as to how to support the hand hygiene guidelines, but no actual tools for application accompanied this set of guidelines. It should be mentioned, however, that various tables were included in the document and a careful review of these information sources should be undertaken. The summary of research on types of hand hygiene products, national campaigns and open questions for research and field testing are valuable sources and require consideration for inclusion into main body of document.	2
Item 19	**APPLICABILITY** **The potential organization barriers in applying the recommendations have been discussed.**	
Reviewer 1	Barriers are discussed but relate more to developed countries but if this was used worldwide many other barriers would apply. - This area is weak, needs more teeth, stronger statements needed for institutional responsibilities as finance drives products and ability to implement recommendations.	3
Reviewer 2	pg 86, "promoting hand hygiene on a large scale". Discussion focuses on national implementation rather than organization specific. Benefits and barriers to national programs	4
Reviewer 3	Inaccessible hand hygiene supplies; workload and staffing; failure to educate staff; measuring improvements are time-consuming * not mentioned specifically as organizational barriers. * major focus on barriers in national programs.	3
Reviewer 4	Barriers were not discussed but what was needed at all levels was.	2
Reviewer 5	Very little discussion on organizational barriers were discussed except with reference to research and successful implementation strategies. Providing examples of different modes of care and settings and how the guidelines could be successfully implemented would have been helpful. The delivery of the guidelines seems to be rather administrative and a “top down” type of process without reference to team responsibility and successful approaches. The health care worker seemed to be the recipient of the guideline document but no actual process and procedure for implementation is outlined in great detail.	2
Item 20	**The potential cost implications of applying the recommendations have been considered.**	
Reviewer 1	This area is weak. Literature review looks at many implications related to cost but it is next to impossible to prove benefit when you "prevent" an infection and hand hygiene costs a great deal in	2.5

	both 1) good quality paper towels, soap and 2) resources to do multimodal education programs and ensure compliance.	
Reviewer 2	acknowledgment that no prospective studies have been conducted to establish cost-effectiveness of hand hygiene. Discussion re: cost of promotion programs, cost of product, direct/indirect cost. Financial strategies to support national programs (p84).	4
Reviewer 3	a section on "cost-effectiveness of hand hygiene" on page 83-85. Ex 1) cost of HH products, 2) cost of education and promotional material, 3) HH program costs.	4
Reviewer 4	Cost-effectiveness discussed but not cost implications.	2
Reviewer 5	Although cost effectiveness of hand hygiene was discussed with respect to a review of the literature, no actual attempt to quantify the current guideline cost were made. Specific examples of practices and scenarios were outlined and were valuable in illustrating different cost examples including potential impact on resources. Financial benefits in the long-term were also considered more generally than specifically with the currently formulated guidelines, but other costs to consider are indirect costs associated with the health care worker, the setting, patient advocacy etc. These types of cost were not discussed and need to be considered when implementing a program of this magnitude.	2
Item 21	**The guideline presents key review criteria for monitoring and/or audit purposes.**	
Reviewer 1	Weak - little criteria offered for monitoring or audit purposes. Very difficult to provide explicit criteria as evidence is not available on best method yet.	2
Reviewer 2	Entire section on outcome measurements. - monitoring hand hygiene compliance - patient safety indicators - cost-effectiveness	4
Reviewer 3	Outcome measurements listed from - monitoring compliance, direct, indirect, electronic. Hand hygiene as a quality indicator for patient safety. Cost effectiveness of HH	4
Reviewer 4	Although evaluations techniques discussed no recommendation of preferred or best methods of evaluation were given.	2
Reviewer 5	Adherence to guidelines in general were discussed by presenting research data, but no clearly defined review criteria specific to the current guidelines were presented. Note was made of critical factors for success, but these would need to be discussed in greater detail than what was currently presented. Key review criteria would need to be defined by patient status, health care worker service, institutional barriers etc , the approach according to a given situation, skill of the health care worker etc. General review criteria could be applied, but other review criteria would have to encompass specific and well-defined situations and patients.	2
Item 22	**EDITORIAL INDEPENDENCE** **The guideline is editorially independent from the funding body.**	
Reviewer 1	Yes - WHO pulled together experts, no underlying funding issue here.	4
Reviewer 2	no documentation re: funding/editorial independence, assume funding via WHO	1
Reviewer 3	no mention of funding from other sources other than WHO	2
Reviewer 4		4
Reviewer 5	The guidelines were a WHO effort and the authors included WHO advisors and members of the WHO Consultations and Task Forces on Hand Hygiene, so the document was an internal piece of work. There was no statement that expressed the independent views of the task force.	
Item 23	Conflicts of Interest of guideline development members have been recorded.	
Reviewer 1		N/A
Reviewer 2	not documented	1
Reviewer 3	no documentation regarding conflicts of interest statement	1
Reviewer 4	Not explicitly stated.	1
Reviewer 5	Unable to determine - The current guidelines did not include a list of task force members, so it is not known is members of the development group had conflict of interest. No statement in the guidelines was made that all group members have declared whether they had any conflict of interest.	N/A
Recommend	**Would you recommend theses guidelines for use in practice?**	
Reviewer 1	Recommend - Canada needs stronger recommendations to make hospitals and HC providers responsible to support hand hygiene. Cost effectiveness is difficult to prove when infections are prevents (see suggestions below) This suggestion is well supported by all enclosed literature.	
Reviewer 2	Strongly Recommend Very comprehensive evidence review and recommendations for practice. Very	

	dense - applicability for individual practitioners? Re. format	
Reviewer 3	Recommend	
Reviewer 4	Recommend The science/evidence/research is very good in this document and would highly recommend an adaptation of this document (more user-friendly) or create supplimentary document that could be used by the different stakeholders and for those at different levels of application of the document.	
Reviewer 5		
Comments		
Reviewer 1	Suggest that part of recommendations include hand hygiene teams that strictly focus on compliance/observation and education on hand hygiene. This team would provide education both formal and informal, poster contests, public education, pt information/tips - creating a "culture of handwashing". Only focus would be on hand hygiene and support (both financial, resource and verbal) be provided by hospital senior management. Cost of 1-3 people per hospital performing these multimodal programs and consistent follow up would increase handwashing and reduce spread of infections. This cost would pay for itself with improved patient care, reduced length of stay, but this guideline needs to outline this in recommendation in order to get hospitals to comply.	
Reviewer 2		
Reviewer 3	Recommend that the document be adapted for nurses or a companion toolkit be developed for nurses.	
Reviewer 4		
Reviewer 5		

Appendix D – Review Panel Theme Summary Table

Question 1	**Are there any areas of your practice that are not completely addressed in the recommendations?**
Benefits	• Comprehensive [2] • Addresses all areas in hospital setting
Limitations	• Limited information regarding integrating of hand hygiene into nursing education programs • Scope needs to incorporate more contextual background (i.e., why hand hygiene is of importance to patient care/health and personal safety • Needs to integrate evidence with the recommendations (not just with references but with a summary of the evidence) • Too lengthy • Key pieces relevant to nursing need to be highlighted • No explicit mention whether hand hygiene after patient care would be considered the before patient hand hygiene for the next patient. (i.e., nurse returning to nursing station to retrieve specimen label) • Need to know how to get administration buy-in [2] • Need monitoring tools and compliance audit tools • Grading of references (which references more important) • Need more information relating to environmental cleaning • Acute care focused, need more info for long-term-care sector (adapting resources from acute care to long-term care does not always provide a good fit
Question 2	**What do you see as the strengths in the evidence reviewed?**
Benefits	• Based on evidence • Use of clarifying terms and definitions • Highlights potential biases and limitations • Provides holistic view of hand hygiene practices • Uses picture of hand hygiene as accompanying information • Considers how organizational programs are best developed • Some recommendations are creative suggesting cartoons, pictures etc • Consideration given to how organizations might choose and install hand hygiene stations • Comprehensive [3] in scope (review of basic science, epidemiology, behavioural science, cultural and religious factors, technology, and promotion programs. • Numerous references [2] • Makes connection with North American safety initiatives • Addresses quality of evidence as it is cited • Comprehensive summary of evidence provided in tables and appendices • Concludes overall that promotion must be multidisciplinary, multifaceted, multimodal • World-wide application • Use of a hand assessment tool • Inclusion of surgical hand hygiene as separate but still relevant • Inclusion of religious issues • Ranking of recommendations
Question 3	**Is there additional evidence/references that you feel would strengthen this document?**
Benefits	• Great review of evidence[4]
Limitations	• Evidence to support the need for HH following coughing, sneezing and bathroom • Include basic info re organism through definitions • Transmissible organisms handled differently • Need for more references regarding the pathophysiology of healthy skin • Reference the Infection Control Guidelines by the College of Nurses of Ontario • Consideration of workspaces where sinks are limited and recommendations for renovations and new

	buildings. • HH in home care and community settings needs more emphasis [2] • Some focus on educating nursing students re integration in curriculum • Weakness of document- tendency to over generalize evidence about behaviour science on the published experience of one study at one centre • Extensive reviews of the effectiveness of educational modalities in Cochrane database and elsewhere in the literature. • Omission of potentially negative studies relating to educational interventions such as opinion leaders, feedback, lectures etc. • Need more information regarding contamination from environments outside the patient room
Question 4	**How relevant and applicable is this document for health care practitioners in Canada? Are there recommendations that you believe address current gaps in practice? Please expand on the relevance and application within your practice setting.**
Benefits	• Extremely relevant and applicable to health care in Canada [5] • Addresses issues of enablement and convenience that are relevant to the hectic, understaffed context of health care in Canada • Coverage of how to build a business case to administrators for installing hand rubs in a facility is very helpful: evidence for effectiveness of hand hygiene in preventing infection and cost effectiveness analysis • Coverage of skin problems caused by HH and their management is very relevant to the Canadian context • Religious and cultural discussion is also relevant for promotion given Canada's multicultural context, both in the community and health care sectors [2] • Gaps addressed: - training and education - the need for measuring behaviour and outcomes and providing feedback (auditing) [2] - gold standard for HH being hand rub - recommend that artificial nails shouldn't be allowed in patient care [2] - Use of brushes in surgical HH - Use of lotion and hand care [2] - Use of soap and water during C. diff outbreaks - HH as being a safety issue [2] • Provides information regarding enabling or facilitating hand hygiene campaigns
Limitations	• Info on 3rd world countries not relevant • Needs to consider HH practices in rural remote areas of Northern outpost areas • Standardized recommendations as to when and how educational training should occur • Promotional recommendations are somewhat thin in regard to specifics. Generic statements such as "educate", "monitor" and "address local needs" will not give practitioners and change leaders much help • Promotion must be tailored to local context • More focus on creating partnerships and collaborations • Most promotional infrastructures in Canada are in public health sector with the general public being the target. There is little health promotion infrastructure in other sectors for targeting healthcare professionals- however education itself will fail to change Canadian behaviour. • Need to emphasize that antiseptic hand rubs have no activity against Clostridium difficile spores and may have limited effect against some non-lipid-enveloped viruses such as Noroviruses. **Erroneously implied that alcohol hand rub is effective against C. difficile.** • Very large document that can be Canadian-ized • Need access to WHO guideline information as the topic is diverse across cultures
Question 5	**What are the specific recommendations that have relevance within your specific practice setting?**
Benefits	Acute Care and Long Term Care: • Indications for hand washing and hand antisepsis • Surgical hand washing (N/A for Long-term care) • Types of hand wash to be used [3] • Use of gloves [2]

	• Hand hygiene technique • Hand hygiene and the "negative effects" –skin care [4] • Use of artificial nails, trimmed nails and nail polish • Educational programs [2] • Locations of sinks and hand hygiene pumps[2] • Safety issues in hand hygiene • Multidisciplinary, multifaceted, multimodal promotional campaign among health care professionals [2] • Monitor outcomes and how to measure hand hygiene compliance [2] • Explore feasibility of patient empowerment • Governmental and institutional responsibility • Guideline corresponds with the information from the Public Health Agency of Canada Educational settings • Indications for hand washing • Types of hand wash to be used • Use of gloves • Hand Hygiene technique • Hand hygiene and skin care [4] • Use of artificial nails • Educational programs [2]
Question 6	**What adaptations, if any, do you think would be necessary to implementing the guideline recommendations?**
Benefits	• Emphasis placed on the fact that hand hygiene is considered the most effective and important measure for preventing the spread of pathogens in the health care setting • Offer background info as to why hand hygiene is an issue of importance to self protection and patient safety should be included. • Evidence to support rational for hand hygiene should be included (how microorganisms are transferred from the hands to the environment/patient should be provided. • Definitions on page 7 should be included • Basic information on normal flora should be integrated • Use of gloves and organism transmission • How hands should be washed • Acknowledgement of some of the barriers to deal with and the focus needs to be on protection of the patient **** should be core of whole document
Limitations	• Recommendations at the end of the document are a good start but are brief in length and limited in detail • Document is too lengthy [3] • Many definitions are the same and redundant • Need more detail as to the promotional component • Need Canadian specific information [2] • Remove reuse of gloves comments[2] • Must be adapted to each healthcare setting • Need to promote public awareness of the guidelines • Remove home made hand rubs • Too much scientific jargon • Supplemental information may be required • Need to install hand hygiene products in accessible locations and incorporate into plans of new construction of healthcare facilities
Question 7	**What do you anticipate to be potential barriers to the uptake of the guideline recommendations?**
Limitations	• Limitations in terms of resources and time to provide ongoing education (set-up of basic programs and refresher) [3] • A need for accessible hand hygiene products • Limited resources for advertising strategies[3]

	• The development of standardized programs and policies • Attitudes about hand hygiene – change behaviour [4] • Practices engrained as children • Cultural considerations in light of diverse populations • Staff often do not understand the power they posses in making/affecting change and embracing positive activities/practices [3] • Canadian health professionals may be suspicious about claims that antiseptic hand rubs are as effective as hand washing given that the former are easier to use • Need for significant educational efforts [2] • Hand rub should not be accompanied by hand washing • Lack of resources to conduct long-term, widespread promotion/education of hand hygiene in facilities[3] • Administrators may be reluctant to pay for higher up-front cost of hand rubs (buy-in) [2] • Document too large [3] • Some recommendations are only suggestions • Create an environment where the patients can participate in the process or monitoring [2] • Too much scientific jargon • Too diverse- interesting but not necessary • Difficulty in simplifying to put in practice • Some organizations have already implemented hand hygiene programs
Question 8	**What do you anticipate to be potential facilitators to the uptake of the guideline recommendations: Please describe existing resources and initiatives that could assist and support the uptake of this guideline.**
Benefits	• College of Nurses has already developed Standards for Infection Control which as been disseminated. • National hand hygiene guideline or campaign would support local efforts to obtain resources to promote hand hygiene and install new products • Need more detail and guidance on how to monitor the impact of a promotion • Development of a best practice guideline with other professional organizations [3] • Champions from professional organizations promoting BPG's [3] • Commitment from Administration to make HH a priority • Make the BPG user friendly for institutions with few resources who will want to take the document and implement instead of having to figure out how the document applies to them • Go thru patient safety groups to implement recommendations • Use of infection control and risk management departments for implementation resources needed [2] • Public Health officers • CHICA Canada • AIPI (CHICA) in Quebec • Free web training • Use of other organizations such as ONA, CCHSE, OHA, OMA, CCHSA • Social marketing campaigns • Consistency in marketing strategies • Staff empowerment • Enhancing and sustaining new knowledge from educational training, present info on success in engaging HH practices should be collected and shared with staff • Focus on training for individuals to enhance their skills around infection control should be offered- staff development [2] • Further research

* Numbers within the [ ] signify the number of similar responses

Appendix E - Best Practice Guidelines and resources developed to date in the BPG Program

PUBLISHED (select documents are also available in French)

- Promoting Continence using Prompted Voiding **- *REVISED***
- Prevention of Constipation in the Older Adult Population - ***REVISED***
- Prevention of Falls and Fall Injuries in the Older Adult - ***REVISED***
- Risk Assessment and Prevention of Pressure Ulcers - ***REVISED***
    - Évaluation du risque et prévention des lésions de pression
- Toolkit: Implementation of Clinical Practice Guidelines
    - Trousse sur la marche à suivre: mise en place des lignes directrices pour la pratique clinique
- Client Centred Care
- Client Centred Care - **Supplement - 2006**
    - Soins axés sur les besoins du client
- Establishing Therapeutic Relationships
- Establishing Therapeutic Relationships **Supplement - 200**6
    - Établissement de la relation thérapeutique
- Crisis Intervention
- Crisis Intervention **Supplement - 2006**
- Strengthening/Supporting Families through Expected and Unexpected Life Events
- Strengthening/Supporting Families through Expected and Unexpected Life Events **Supplement - 2006**
- Enhancing Healthy Adolescent Development
- Assessment and Management of Pain
    - Évaluation et prise en charge de la douleur
- Assessment and Management of Stage I to Stage IV Pressure Ulcers
    - Évaluation et traitement des lésions de pression de stades 1 à 4
- Integrating Smoking Cessation into Daily Nursing Practice
    - La cessation du tabagisme: integration dans la pratique quotidienne des soins infirmiers
- Breastfeeding Best Practice Guidelines for Nurses
- Screening for Delirium, Dementia and Depression in Older Adults
- Adult Asthma Care Guidelines for Nurses: Promoting Control of Asthma
- Reducing Foot Complications for People with Diabetes
    - Réduction des complications des plaies du pied chez les diabétiques
- Assessment and Management of Venous Leg Ulcers
- Caregiving Strategies for Older Adults with Delirium, Dementia and Depression
- Promoting Asthma Control in Children
- Assess & Device Selection for Vascular Access
- Best Practice Guideline for the Subcutaneous Administration of Insulin in Adults with Type 2 Diabetes
- Women Abuse: Screening, Identification and Initial Response
- Nursing Care of Dyspnea: The 6th Vital Sign in Individuals with Chronic Obstructive Pulmonary Disease (COPD)
- Assessment and Management of Foot Ulcers for People with Diabetes

- Évaluation et traitement des plaies du pied chez les personnes atteintes de diabète *(Not available in hard copy – free download on website)*
- Primary Prevention Strategies for Childhood Obesity
- Care and Maintenance to Reduce Vascular Access Complications
- Interventions for Postpartum Depression
- Educator's Resource: Integration of Best Practice Guidelines
- Stroke Assessment Across the Continuum Care
- Nursing Management of Hypertension
- CD: Best Practice Guidelines Program/Programme des Lignes directrices sur les pratiques exemplaires en soins infirmiers, Volume II
- CD: ***Making It Happen :*** the Nursing Best Practice Guidelines Project : Shaping the future of nursing
- DVD: ***Making It Happen*** - the Nursing Best Practice Guidelines Project : Shaping the future of nursing

HEALTH EDUCATION FACT SHEETS

- Gaining Control of Your Pain
  - Mâitriser sa douleur
- Incontinence: Breaking the Silence
  - L'incontinence: Rompre le silence
- Constipation: Prevention is the Key
  - La Constipation: La prévention est mâitre
- Putting Patients First
  - Placer les patients à l'avant-plan
- Reduce Your Risk for Falls
  - Réduire les risques de chute
- Taking the Pressure Off: Preventing Pressure Ulcers
  - Soulager la pression: Prévention des lésions de pression
- Understanding Crisis
  - Pour comprende les crises
- Deciding to Quit Smoking
  - Prendre la décision de cesser de fumer
- The Goal in Asthma Control
  - Objectif: Le contrôle de l'asthme
- Recognizing Delirium, Dementia and Depression
  - Comment reconnaître de délire, la démence et la dépression
- Taking Care of your Legs
  - Prendre soin de vos jambs
- Breastfeeding – The Best Start
  - L'allaitement maternal: Pour le meilleur départ possible
- Chronic Obstructive Disease (COPD) – Helping You Breath Easier
- Diabetes & You
- Caring For Persons with Delirium, Dementia and Depression