

Booth Exhibition (photo : 3-10)

The booth exhibition was opened from 10am till 4pm. HKICNA organized one and the theme was “Promoting Hand Hygiene”. This theme was chosen because basically many others have known about the implementation of WHO alcohol hand rub (AHR) in Hospital Authority (HA). The implementation of AHR was officially kicked-off (photo : 1) in January 2008 and almost all of HA hospitals or institutions have implemented already. Therefore, HKICNA would like to take this unprecedented opportunity to promote hand hygiene further and to perform a survey with findings as shown in page 4.

Survey

A. Objectives:

1. To assess the skin moisture level of the respondents (nurse, relatives or patients) after application of the WHO AHR.
2. To explore whether the non-health care workers were able to remind their health care workers to perform hand hygiene before contacting them and the reason why not able to.
3. To collect the opinion of the product and the feedback of the skin integrity of the health care workers after applying the AHR.

B. Methods:

1. Respondents' skin moisture level were assessed before and after application of the AHR (photo : 11-16) with feedback obtained as follows :
 - a. Health care workers (photo : 17-18) :
Provide questionnaire A to obtain their feedbacks on the opinion of the product and their skin integrity
 - b. Non-health care workers:
Provide questionnaire B to explore if they were able to remind health care workers to perform

hand hygiene before contacting them and the reasons why not able to.

2. Volunteers assisted in explaining and filling the questionnaires when needed.
3. On completion of the questionnaire, all respondents were presented with a souvenir pack (AHR 100ml and hand moisturizer) as gratitude of thanks and further promotion of hand hygiene.

Conclusion

Total 254 respondents participated in the survey. Our booth was crowded at times with sweat but not tears, yet there was a lot of fun and enjoyment. Hope to continue this activity and sure to have better arrangement in the future. Indeed this was a good opportunity for us to share and communicate with others.

Acknowledgement

HKICNA would like to thank the following members and ICNs who volunteered to make this event a success (photo : 17, 19-20):

1. CICO (Chief Infection Control Officer) office, HAHO and YCH : LAM Hung Suet, Conita
2. CMC : Annie LEUNG and LAU Kwai Fung, Edna.
3. DKCH : YAU Yu Ching
4. HKSH : CHEN Wai Ling, Queenie;
CHENG Chi Wai & LAM Kwok Yin.
5. KWH : Sony SO
6. QMH : Patricia CHING, Josepha TAI
7. UCH : Yammie YIM

Besides, HKICNA would like to thank Johnson & Johnson, Mekim and Vickman Co Ltd for sponsoring the souvenirs. Without their generous support, this event could never be the same. Lastly, but not the least, HKICNA has to thank all participants and those who helped to co-ordinate this event.



Report on the Survey of Opinion to the WHO Alcohol-based Hand Rub Formula

Josepha TAI, MHSc(N)

Infection Control Unit, Queen Mary Hospital

Hong Kong SAR on 13th October 2005 has pledged with the World Health Organization (WHO) World Alliance for Patient Safety, First “Global Patient Safety Challenge: Clean Care is Safer Care” to become part of a worldwide movement to address health care-associated infection with an initial focus on the prevention of transmission of infection via the contaminated hands of health-care workers (Pittet & Liam, 2005). The core message is the promotion of the use of alcohol-based handrubs (AHR) as the gold standard method for hand hygiene practices rather than handwashing with soap and water as it is easier, faster, better tolerated and can be cost-effective (WHO, 2006). While promoting the use of the AHR for hand hygiene, we encountered skin reactions to the alcohol product with queries and worries.

This survey intended to assess the respondents’ skin moisture content before and after AHR application with nurses’ opinion of the product after application sought.

Methods

Sample and Setting

The survey was conducted by the Hong Kong Infection Control Nurses’ Association (HKICNA) while participating the booth exhibition in the “International Nurses’ Day Health 2008” organized by the Hong Kong Academy of Nursing Preparatory Committee. All presenting at the event were invited to participate.

Procedure and Instruments

Participants have their skin moisture checked before and after applying the WHO formulation AHR. Moisture Checker was used to assess the skin moisture by pushing the Checker onto the skin perpendicular to the area of skin for checking. Hold the Checker steady for a few seconds until a beep sound was heard. Amount of moisture on the surface being checked was indicated on the Checker display.

Nurses group after application of the test product were required to self-assess own dermal tolerance by scoring the skin from 1 being abnormal to 6 being normal in four dimensions of appearance, intactness, moisture content and sensation. They were also asked about their skin overall integrity by scoring 1 from very altered to 6 perfect. Additionally nurses were invited to evaluate the test product on a six point scale (Larson, Friedman, Cohran, Treston-Aurand & Green, 1997; Larson, Girard, Pessoa-Silva et al., 2006; Larson, McGinley, Grove, Leyden & Talbot, 1986) with the higher figure indicating a favorable score: color (1. unpleasant; 6. pleasant), smell (1. unpleasant; 6. pleasant), texture (1. very sticky; 6. not sticky at all), irritation (1. very irritating; 6. not irritating), drying effect (1. very much; 6. not at all), ease of use (1. very difficult; 6. very easy), speed of drying (1. very slow; 6. very fast), application (1. very unpleasant; 6. very pleasant) and an overall evaluation (1. dissatisfied; 6. very satisfied).

Results

A total of 254 volunteers participated in the survey with 249 results analyzed as five has completed the procedure twice. Among the two groups, 113 nurses and 136 non-nurses, their mean difference skin moisture content reading pre and post AHR application were 9.24 and 9.12 respectively ($p=0.289$). As for the nurses' self skin assessment ($n=113$), their average skin integrity score was 4.7 with average score 5.19, 5.21, 5.06, and 5.2 provided accordingly to the dimensions of appearance, intactness, moisture content and sensation (Fig 1).

In respect to the nurses' opinion of the test product after application (Fig 2), the overall evaluation average score was 5.08 with product color averagely scored 5.05, smell 4.54, texture 4.76, irritation 5.05, drying effect 4.54, ease of use 5.45, drying speed 5.07 and application 5.18.

Further analysis revealed that the overall product

evaluation was significantly affected ($p<0.001$) by each and all product features.

Discussion

Health care-associated infection (HCAI) is a world-wide problem, affecting hundreds of millions of people with delivery of patient care complicated, deaths and disability contributed, antibiotics resistance promoted and additional cost generated. The First Global Patient Safety Challenge "Clean Care is Safer Care" aims to create a worldwide focus to reduce HCAs by a wider use of handrubbing with alcohol-based product (Pittet & Liam, 2005). This waterless hand disinfection is fast-acting and can be performed at the bedside so shorten the time required to perform hand hygiene yet compliance with hand hygiene among health care workers (HCWs) is still problematic (Hugonnet, Perneger & Pittet; 2002).

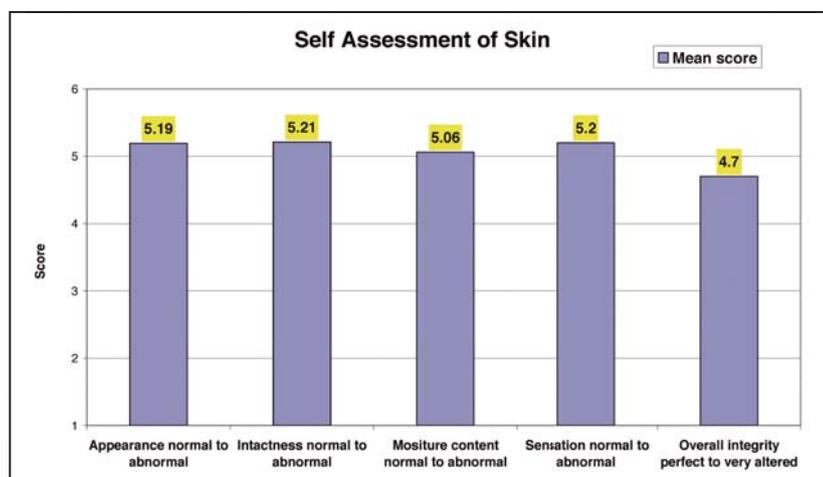


Fig 1. Nurses' self assessment of skin after alcohol product application

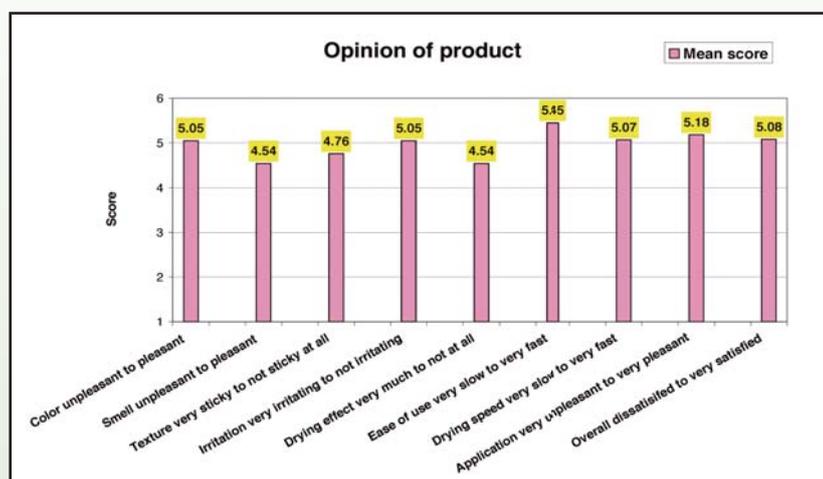


Fig 2. Nurses' perception of the alcohol product assessed by a visual analogical scale.

One major barrier to noncompliance is the skin drying effect of the hand hygiene agents (Gould, 2004; Larson, 1999; Larson, Friedman, Cohran et al., 1997; Larson, Girard, Pessoa-Silva et al., 2006; Larson & Killien, 1982; Larson, McGinley, Grove et al., 1986; Zimakoff, Kjelsberg, Larsen & Holstein, 1992), yet many HCWs have a preexisting prejudice that alcohol products are skin drying based on their previous experience with rubbing alcohol that contains no emollient (Boyce, 2001). As subjective rating such as sensation was difficult to be measured by observer, it would best be illustrated by assessing the skin moisture content with an electrical checker (Langley, 2002). Our survey in

using the Moisture Checker showed no decrease in skin moisture content after AHR application with mean difference 9.24 in the nurses group and 9.12 in the non-nurses. These non-significant positive mean differences illustrated that the nurses' skin moisture content was as good as the non health care providers which further help in assuring HCWs that the available WHO formulation AHR is not skin drying as it contains emollient.

Nevertheless apart from skin drying effect, smell was another major feature described by most users as unacceptable (Barbut et al., 2007). This may be related to the non-alcohol additives such as the small amounts of emollients and other antiseptics (Langley, 2002) which when combined with the AHR product can change the product smell and consistency thereby affecting the HCWs' acceptability (Widmer, 2000). Our results corresponded with the above statements that among all product features, smell and drying effect were being rated low at score 4.54 whilst all others above five. Though no product can meet all the needs in especially to the subjective smell and consistency, one have to be aware that the overall compliances might be affected by the product overall satisfaction and its incidence of potential skin damage.

To avoid skin damage, common mistakes in the use of AHR should be avoided. Firstly, it is crucial to make sure that the skin is healthy when AHR is applied to the skin for the first time, if not, when there is any burning sensation or erythema, HCW might reject the AHR due to the symptoms resulting from preexisting skin disorders. Secondly, AHR should only be applied to dry and clean skin because handwashing before hand disinfection will remove the superficial sebum layer of the skin which in

turn enhances skin irritation and dryness. Thirdly, hands should not be washed immediately after hand disinfection as it not only removes the superficial skin sebum but also the emollients of the hand rub which intended to improve the skin care after use. Fourthly, hands should be washed only with a mild nonalkaline soap and cold water when they are visibly soiled. Finally remember to rinse off residual soap completely and hands should be dry before putting on gloves (Kampfa & Lofflerc, 2003; WHO, 2006).

Conclusion

To encourage health care workers to comply with hand hygiene guidelines, it is important to maintain their skin health with good product design. Additionally there is a need to look into the key factor of user acceptability as smell and skin feeling after application may influence one's acceptance and compliance.

Reference

- Barbut, F., Maury, E., Goldwirt, L., Boeille, P.-Y., Neyme, D., Aman, R., Rossi, B. & Offenstadt, G. (2007). Comparison of the antibacterial efficacy and acceptability of an alcohol-based hand rinse with two alcohol-based hand gels during routine patient care. *Journal of Hospital Infection*, *66*, 167-173.
- Boyce, J.M. (2001). Antiseptic technology: access, affordability, and acceptance. *Emerging Infectious Disease*, *7*, 231-233.
- Gould, D. (2004). Systematic observation of hand decontamination. *Nursing Standard*, *18*, 39-44.
- Hugonnet, S., Perneger, T.V. & Pittet, D. (2002). Alcohol-based handrub improves compliance with hand hygiene in Intensive Care Units. *Archives of Internal Medicine*, *162*, 1037-1043.

Kampfa, G. & Loffler, H. (2003). Dermatological aspects of a successful introduction and continuation of alcohol-based hand rubs for hygienic hand disinfection. Journal of Hospital Infection, 55, 1-7.

Langley, J.M. (2002). Commentary: Waterless hand hygiene: if there's a will, there's a way. Pediatric Infectious Disease Journal, 21 (6), 496-497.

Larson, E. (1999). Skin hygiene and infection prevention: more of the same or different approaches? Clinical Infectious Disease, 29, 1287-1294.

Larson, E. & Killien, M. (1982). Factors influencing handwashing behavior of patient care personnel. American Journal of Infection Control, 10, 93-99.

Larson, E., Friedman, C., Cohran, J., Treston-Aurand, J. & Green, S. (1997). Prevalence and correlates of skin damage on the hands of nurses. Heart and Lung, 16 (5), 404-412.

Larson, E., Girard, R., Pessoa-Silva, C.L., Boyce, J., Donaldson, L. & Pittet, D. (2006). Skin reactions related to hand hygiene and selection of hand hygiene products. American Journal of Infection Control, 34, 627-635.

Larson, E., McGinley, K.J.M., Grove, G.L., Leyden, J.J. & Talbot, G.H. (1986). Physiologic, microbiologic, and seasonal effects of handwashing on the skin of health care personnel. American Journal of Infection Control, 14 (2), 51-59.

Pittet, D. & Liam, D. (2005). Clean Care is Safer Care: The first global challenge of the WHO World alliance for Patient Safety. American Journal of Infection Control, 33 (8), 476-479.

Widmer, A.F. (2000). Replace hand washing with use of a waterless alcohol hand rub? Clinical Infectious Diseases, 31, 136-143.

World Health Organization. (2006). WHO Guidelines for Hand Hygiene in Health Care (Advanced Draft). Geneva: World Health Organization.

Zimakoff, J., Kjelsberg, A.B., Larsen, S.O. & Holstein, B. (1992). A multicenter questionnaire investigation of attitudes toward hand hygiene, assessed by the staff in fifteen hospitals in Denmark and Norway. American Journal of Infection Control, 20, 58-64.

Certificate Course on Infection Control for Nurses – 2008

The annual infection control course is coming up soon and highlighted below. For details of the course or registration, please visit <http://www.hkicna.org>.

Period of the course :

29th September till 1st December 2008 (Monday) at 6pm -8pm.

Deadline for application :

25th August 2008 (first come first served)

Confirmation of successful application :

Not later than **5th September 2008**.

Course Fee :

Member:HK\$1200 ; Non-Member : HK \$1500.

Certificate awarded

1. Certificate of attendance : fulfilling $\geq 80\%$ attendance.
2. Certificate of achievement : fulfilling $\geq 80\%$ attendance **AND** passing the multiple choice question assessment

Course Assessment (Multiple Choice Question) :

8th December, 2008

Scholarship

The top student will be awarded \$ 1000 cash and a certificate of scholarship award.

CNE : 20

Obituary : Professor A.M. Emmerson

Hong Kong Infection Control Nurses' Association (HKICNA) first got Professor Mike Emmerson's support in 2004 when we were organizing the 1st international conference and he was our keynote speaker. Since then, HKICNA benefited greatly from his advices, especially when he became an invaluable member of our research review panel in 2005. When he knew his illness, he recommended the ideal person to help out for our 2nd conference in early 2006. HKICNA lost one great advisor, mentor and dear friend. He will be sorely missed for his momentous support and enthusiasm in infection control for HKICNA.

News and Information

A. Congress / Symposium :

- 1. SHEA's (The Society for Healthcare Epidemiology of America) 19th Annual Scientific Meeting**
19-22 March 2009 San Diego, CA,
USA <http://www.shea-online.org>
- 2. 2009 National Annual Educational Conference by Community and Hospital Infection Control Association (CHICA)**
9-14 May 2009 St. Johns, Newfoundland and Labrador,
Canada http://www.chica.org/conf_registration.html
- 3. APIC (Association for Professionals in Infection Control & epidemiology) 36th Annual Conference**
7-11 June, 2009 Fort Lauderdale, FL,
USA <http://www.apic.org>
- 4. 27th Annual Meeting of the European Society for Paediatric Infectious Diseases (ESPID)**
9-13 June, 2009 Brussels,
Belgium <http://www2.kenes.com/espид/pages/home.aspx>
- 5. 4th International Congress of the Asia Pacific Society of Infection Control (APSIC)**
5-8 July, 2009 Macau SAR,
China <http://www.apsic2009.org>
- 6. The Annual IPS (Infection Prevention Society) Conference 2009**
21-22 September, 2009 Harrogate,
UK <http://www.comtec-presentations.com/ips>
- 7. 10th Congress of the International Federation of Infection Control (IFIC)**
10-13 Oct, 2009 Vilnius,
Lithuania <http://www.ific2007.com>

B. New FACE of our home page : June 2008

A new face of our Home Page has been available since 6th June 2008. To make our web more users-friendly, your suggestions are welcome.

C. Result of Research Grant application 2008-2009

There was no application received.

D. Acknowledgement

Ms HO Yuen Mei, Deborah (ICN, PWH ; associate editor of this newsletter) has retired recently. HKICNA would like to thank her for her dedication and wish her all the best in her future endeavours.