



Hand Rub Visual Cue Program

Tuen Mun Hospital
Intensive Care Unit
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18.10.2009



Background



- ◆ Hand hygiene (HH) is the most important factor in reducing and preventing healthcare associated infections (HAI)

“WHO Guidelines on Hand Hygiene in Health Care 2009”



Background



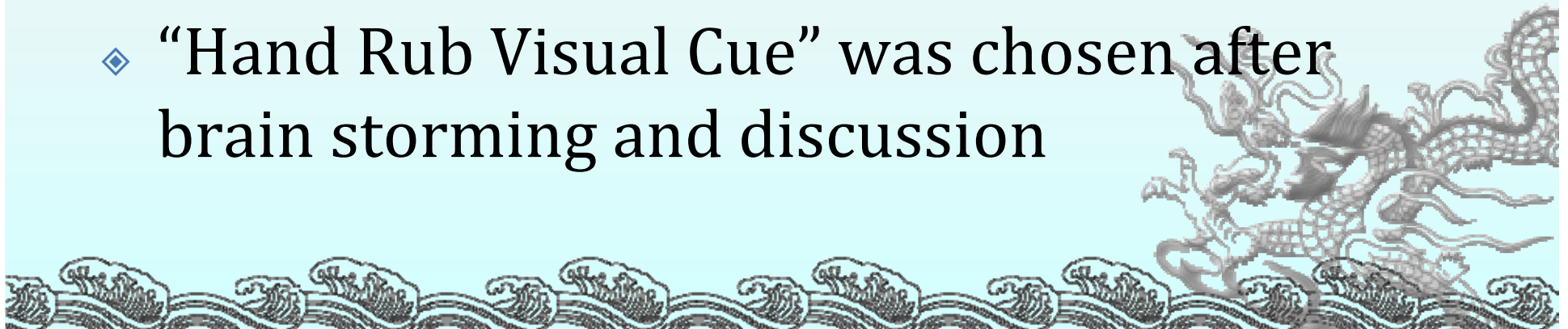
- ◆ Poor compliance and poor sustenance had been reported
- ◆ Numerous barriers were identified:
 - ◆ HH agents cause skin irritation and dryness
 - ◆ Patient's needs higher priority than HH
 - ◆ Facilities locate inconveniently or are not available
 - ◆ Myth for using gloves
 - ◆ Heavy workload
 - ◆ Knowledge deficit
 - ◆ Forgetfulness

“ WHO Guidelines on Hand Hygiene in Health Care 2009”

Hand Hygiene Promotion Program



- ◆ Task force working group was formed in March 2009
- ◆ Aimed at establish a program to promote hand hygiene practice in ICU
- ◆ “Hand Rub Visual Cue” was chosen after brain storming and discussion



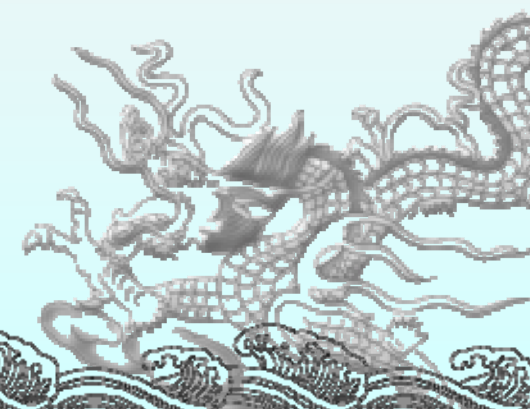


Objectives

- ◆ 1. Improve the hand hygiene compliance



- ◆ 2. Promote using alcoholic handrub



Objectives



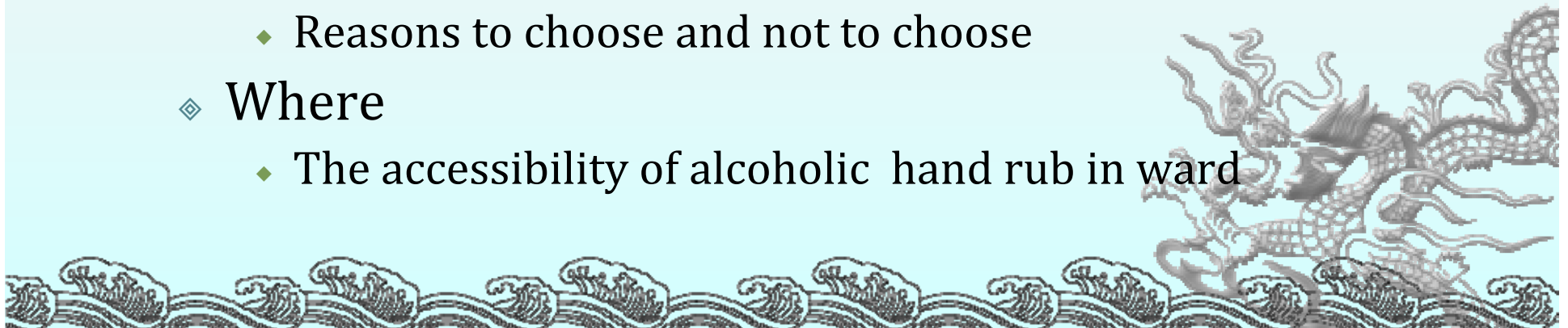
- ◆ 3. Promote 5 moments of hand hygiene esp. before patient contact





Methodology (1)

- ◆ Survey on healthcare professionals on the use of hand rub
 - ◆ What
 - ◆ Staffs' perceptions on using alcoholic hand rub
 - ◆ When
 - ◆ % Time for using alcoholic hand rub
 - ◆ Moments of hand rub (before & after patient contact)
 - ◆ Why
 - ◆ Reasons to choose and not to choose
 - ◆ Where
 - ◆ The accessibility of alcoholic hand rub in ward





Survey on healthcare professionals on the use of alcoholic hand rub

Name: _____

Rank: _____

Year of post graduation experience: _____

Please provide information as related to your daily hand hygiene practices.

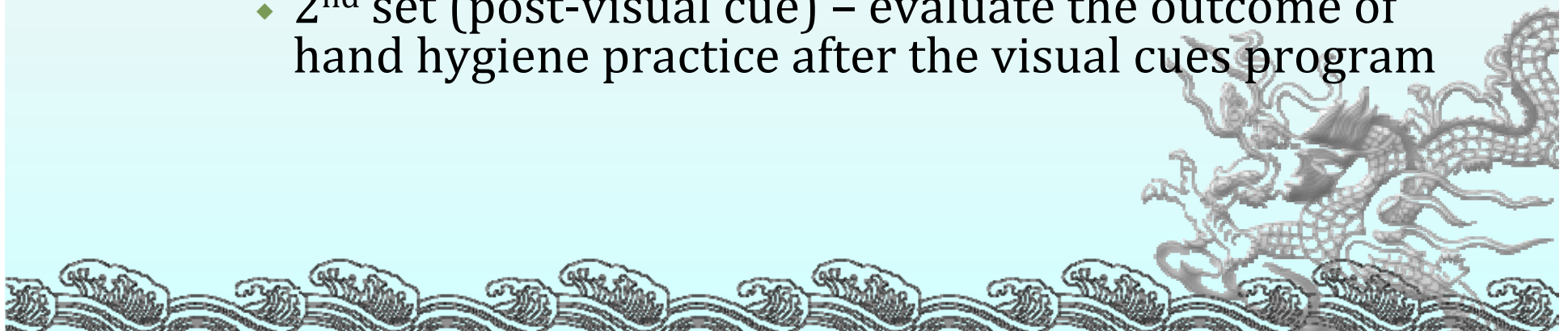
1. In your work setting, what percentage of time do you use alcoholic hand rub
☐ Never ☐ Rarely (<10%) ☐ Sometimes (10-49%)
☐ Often (50-90%) ☐ Always (>90%)
2. Do you think alcoholic hand rub convenient and good to use?
(can click more than one, both NO and YES)
☐ NO because
☐ dry skin ☐ not a/v at bedside
☐ smell bad ☐ painful when chap skin
☐ irritate skin ☐ too much alcohol smell
☐ can't cope with workload
☐ glove powder clump together
☐ evidence of contact dermatitis
☐ inefficient in reducing the no of bacteria
☐ others _____
☐ YES because
☐ less dry ☐ less irritate ☐ use less time
☐ act faster ☐ no need to go to the sink
☐ efficient in reducing the no of bacteria
☐ others _____
3. Are alcoholic hand rub readily accessible in the ward? (can click more than 1)
☐ one at each patient's bedside ☐ at nurses' station
☐ one at each cubicle ☐ one on E-trolley
☐ more then one at each patient's bedside
☐ pocket size small bottle for each staff
☐ other location _____
4. When do you think hand rub is needed? (can click more than one)
☐ NO ☐ before patient's contact ☐ after patient's contact
☐ YES ☐ before patient's contact ☐ after patient's contact

Methodology (2)



◆ Audit

- ◆ Was employed to determine the compliance rate of hand hygiene practice
- ◆ 2 sets of hand hygiene audits were conducted
 - ◆ 1st set (pre-visual cue) – obtain baseline hand hygiene practice in ICU
 - ◆ 2nd set (post-visual cue) – evaluate the outcome of hand hygiene practice after the visual cues program



Audit



- ◆ Auditors
 - ◆ ICU Infection Control team
- ◆ Auditees
 - ◆ All health care workers in ICU
- ◆ Method
 - ◆ Ad hoc observation for hand hygiene practice
- ◆ Duration
 - ◆ 1st audit: 28th April to 3rd May 2009
 - ◆ 2nd audit: 18th August to 21st August 2009





Hand hygiene audit for the healthcare professionals

Date of observation: _____

Time of observation: _____

Name: _____

Rank

☐ Nurse ☐ Doctor ☐ GSA ☐ Other allied health care worker

1. Does the health care worker use alcohol handrub before approaching patient?

☐ Yes ☐ No

If the answer is No to question 2,

2. Does the health care worker wash hands with medicated soap before approaching patient?

☐ Yes ☐ No

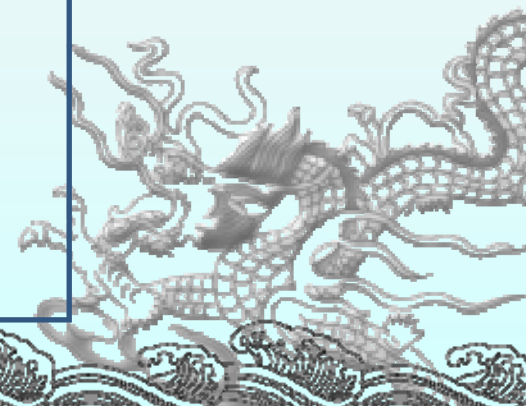
3. Does the health care worker use alcohol handrub after examine patient?

☐ Yes ☐ No

If the answer is No to question 4,

4. Does the health care worker wash hands with medicated soap after examining patient?

☐ Yes ☐ No

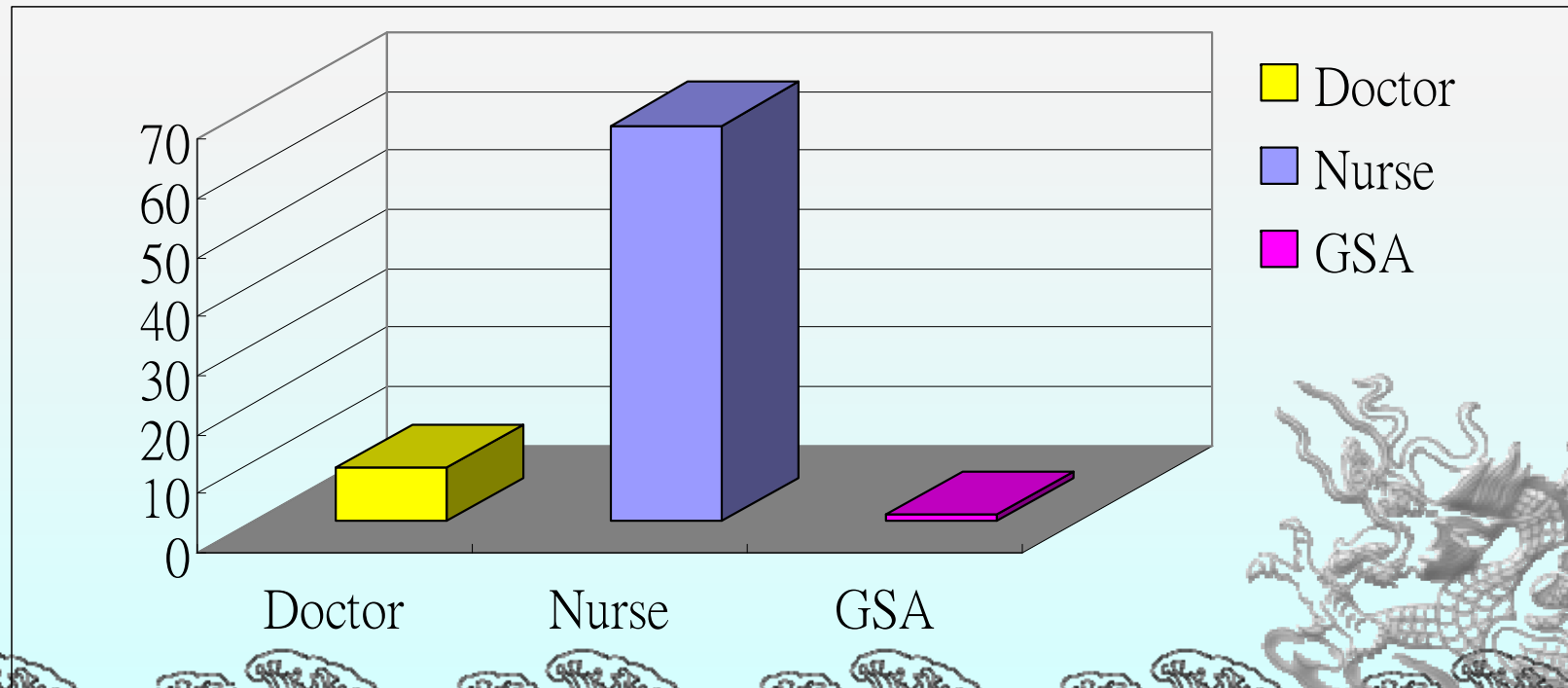


Report of Hand Hygiene Survey



◆ 77 surveys are received

- Doctor 9
- Nurse 67
- GSA 1

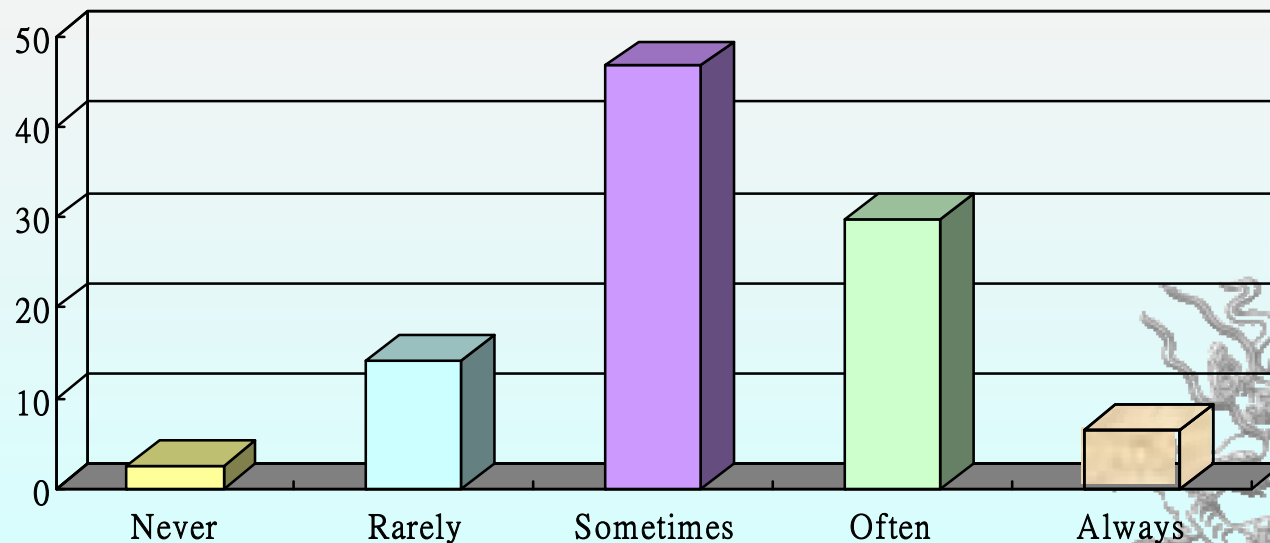


Report of Hand Hygiene Survey



◆ Percentage of time that HCWs use alcoholic hand rub

Never	2.6% (2/77)
Rarely (<10%)	14.3% (11/77)
Sometimes (10-49%)	46.7% (36/77)
Often (50-90%)	29.9% (23/77)
Always (>90%)	6.5% (5/77)



Report of Hand Hygiene Survey

◆ The reasons to not use alcoholic hand rub

*Dry skin 66.7% (22/32)

*Irritate skin 59.4% (19/32)

*Bad smell 34.4% (11/32)

*Too much alcohol smell 31.3% (10/32)

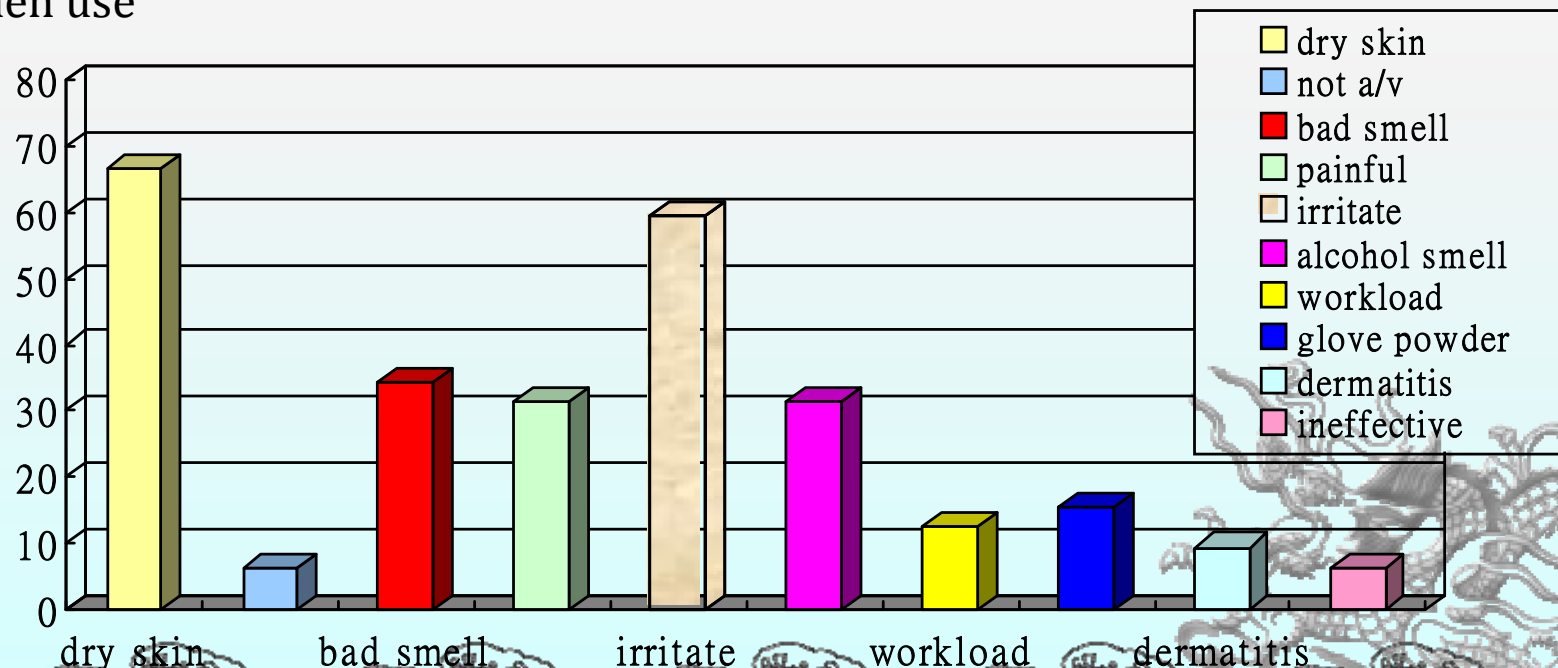
*Painful sensation 31.3% (10/32)
when use

*Glove powder clumps together 15.6% (5/32)

*Can't cope with workload 12.5% (4/32)

*Not a/v at bedside 6.3% (2/32)

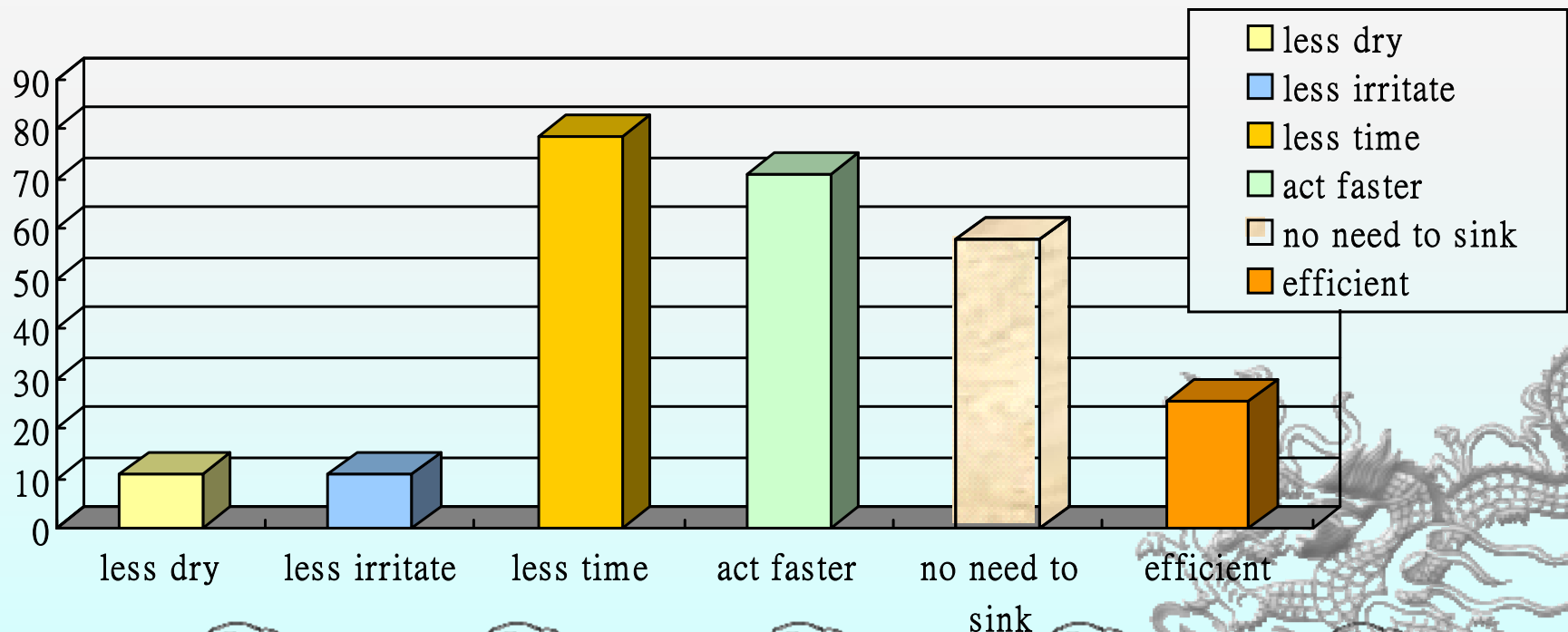
*Contact dermatitis 9.4% (3/32)



Report of Hand Hygiene Survey

◆ The reasons to use alcoholic hand rub

* Use less time	78.2% (43/55)	* Efficient in reducing	25.5% (14/55)
* Act faster	70.9% (39/55)	the no. of bacteria	
* No need to go to sink	58.2% (32/55)	* Less dry	10.9% (6/55)
		* Less irritate	10.9% (6/55)

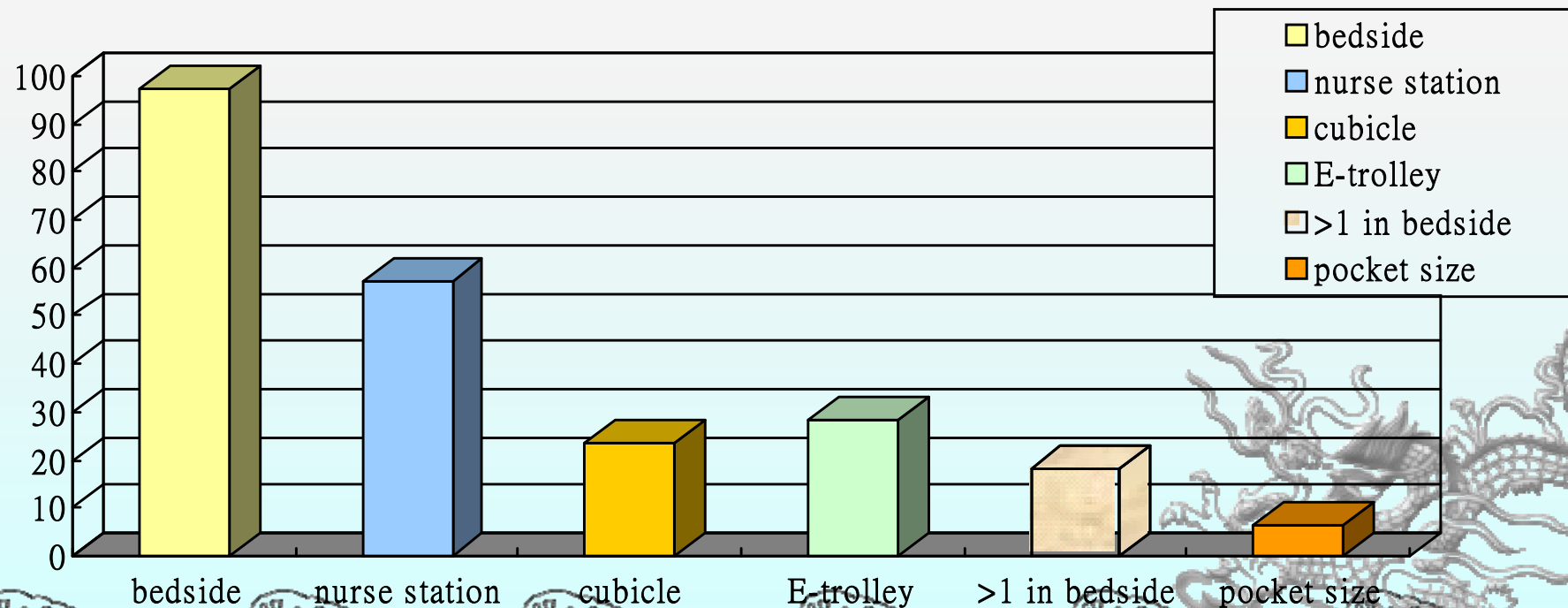


Report of Hand Hygiene Survey



◆ The accessibility of alcoholic handrub in the ward

- * One at each patient's bedside 97.4% (75/77)
- * At nurse station 57.1% (44/77)
- * One at each cubicle 23.4% (18/77)
- * More than one at each patient's bedside 28.6% (22/77)
- * Pocket size small bottle for each staff 10.4% (8/77)



Report of Hand Hygiene Survey



◆ Concept on the need of hand hygiene practice

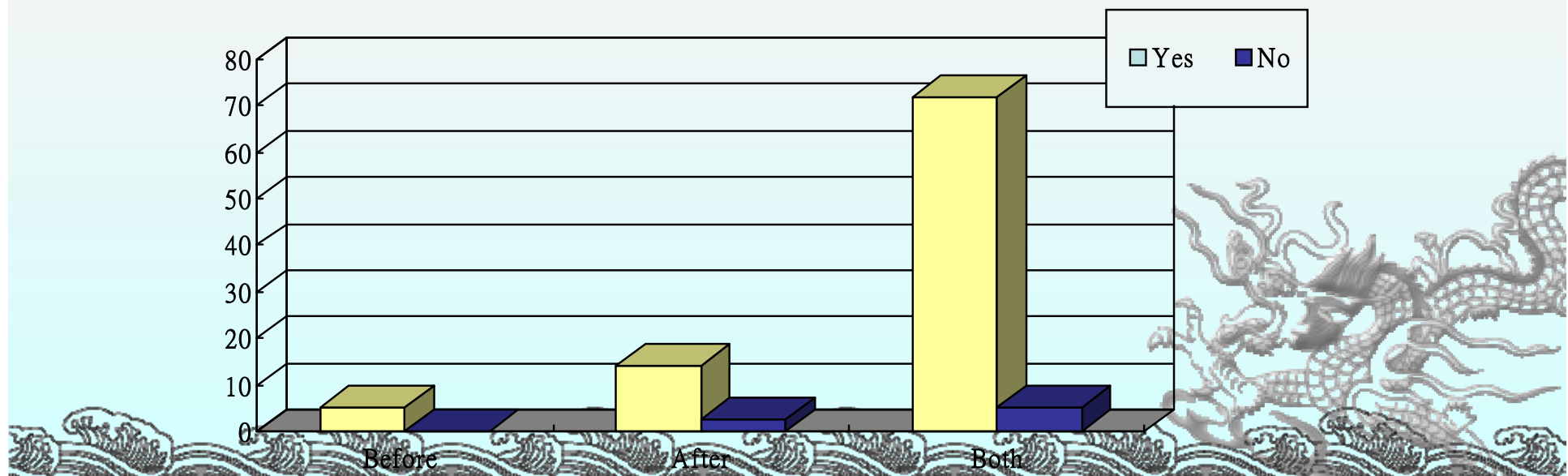
Yes

- * before patient contact only 5.2% (4/77)
- * after patient contact only 14.3% (11/77)
- * both **71.7% (56/77)**

No

- * before patient contact only 0
- * after patient contact only 2.6% (2/77)
- * both 5.2% (4/77)

Conclusion: 71% HCWs agree that hand hygiene practice is needed **before and after patient contact.**

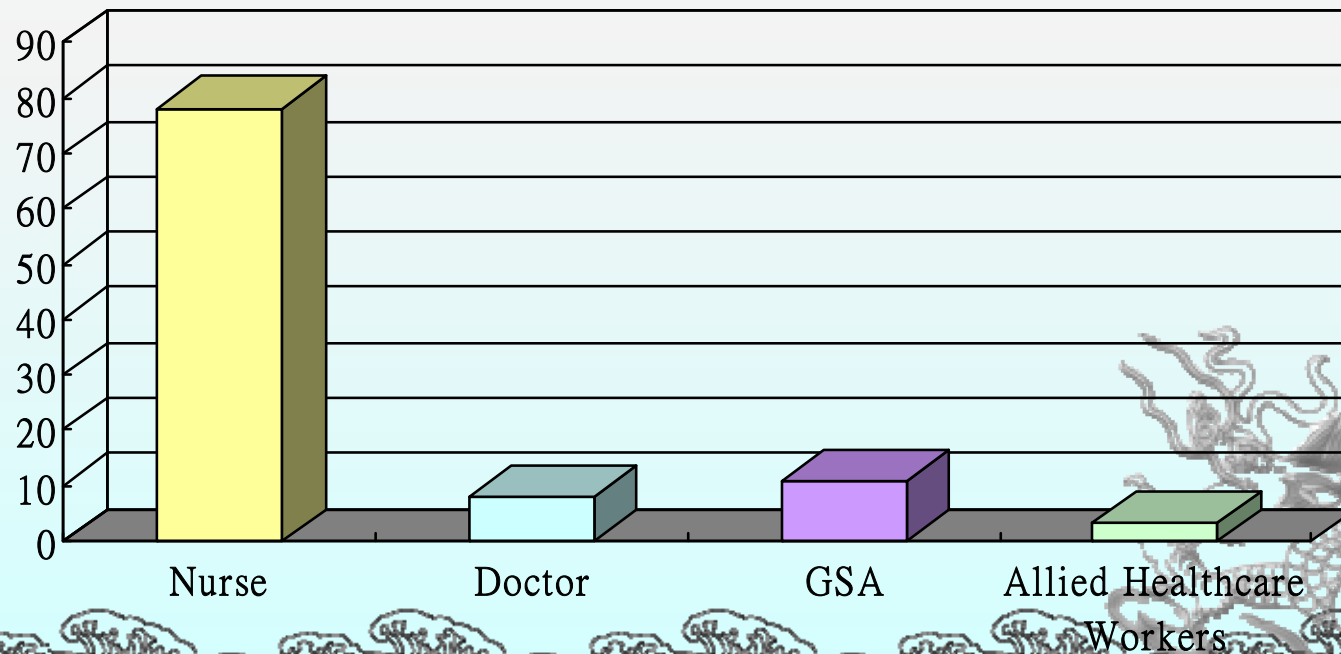


Pre-visual Cue Hand Hygiene Audit



- ◆ 188 samples were done

Nurse	78.2% (147/188)
Doctor	8% (15/188)
GSA	10.6% (20/188)
Allied HCWs	3.2% (6/188)

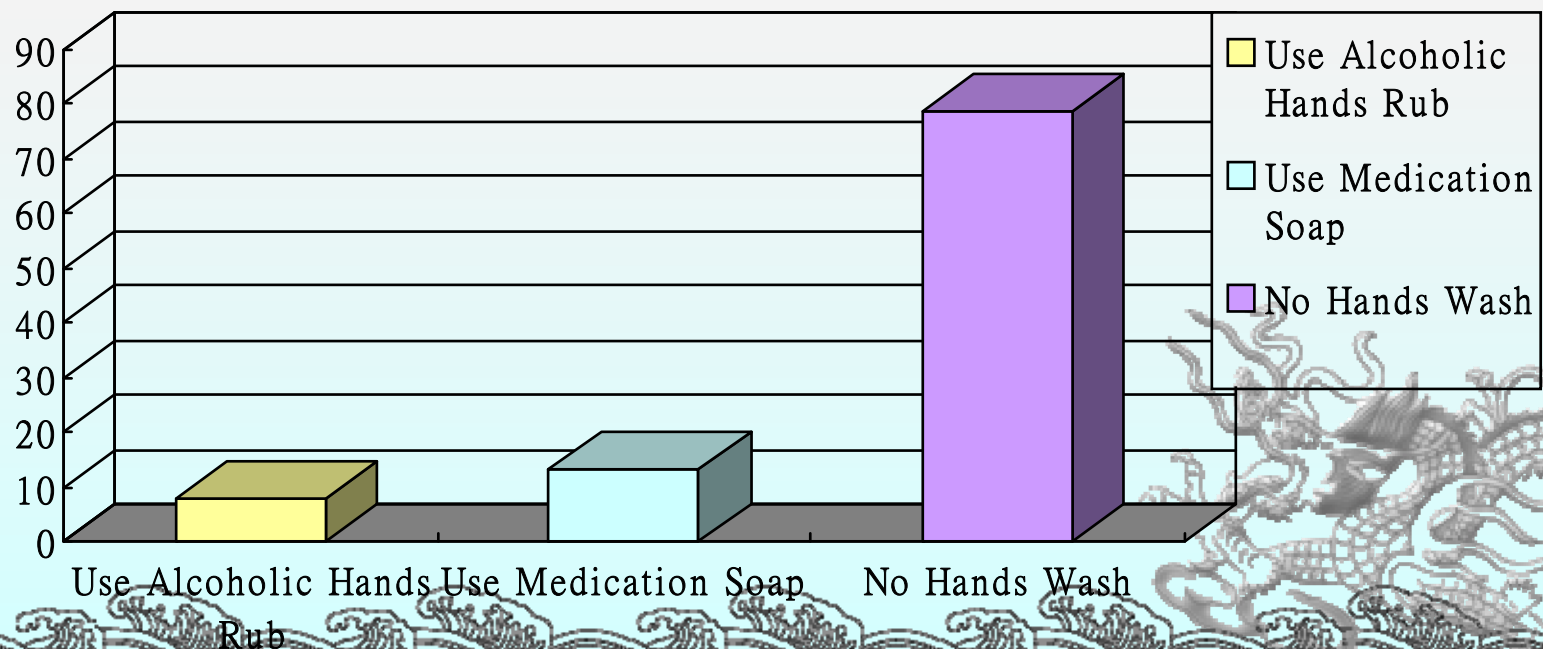


Pre-visual Cue Hand Hygiene Audit

◆ Hand hygiene practice before patient contact

- * Use alcoholic handrub 8% (15/188)
- * Use medicated soap 13.3% (25/188)
- * Use neither alcoholic handrub nor medicated soap 78.7% (148/188)

Conclusion: Only 21.3% of HCWs perform hand hygiene before patient contact

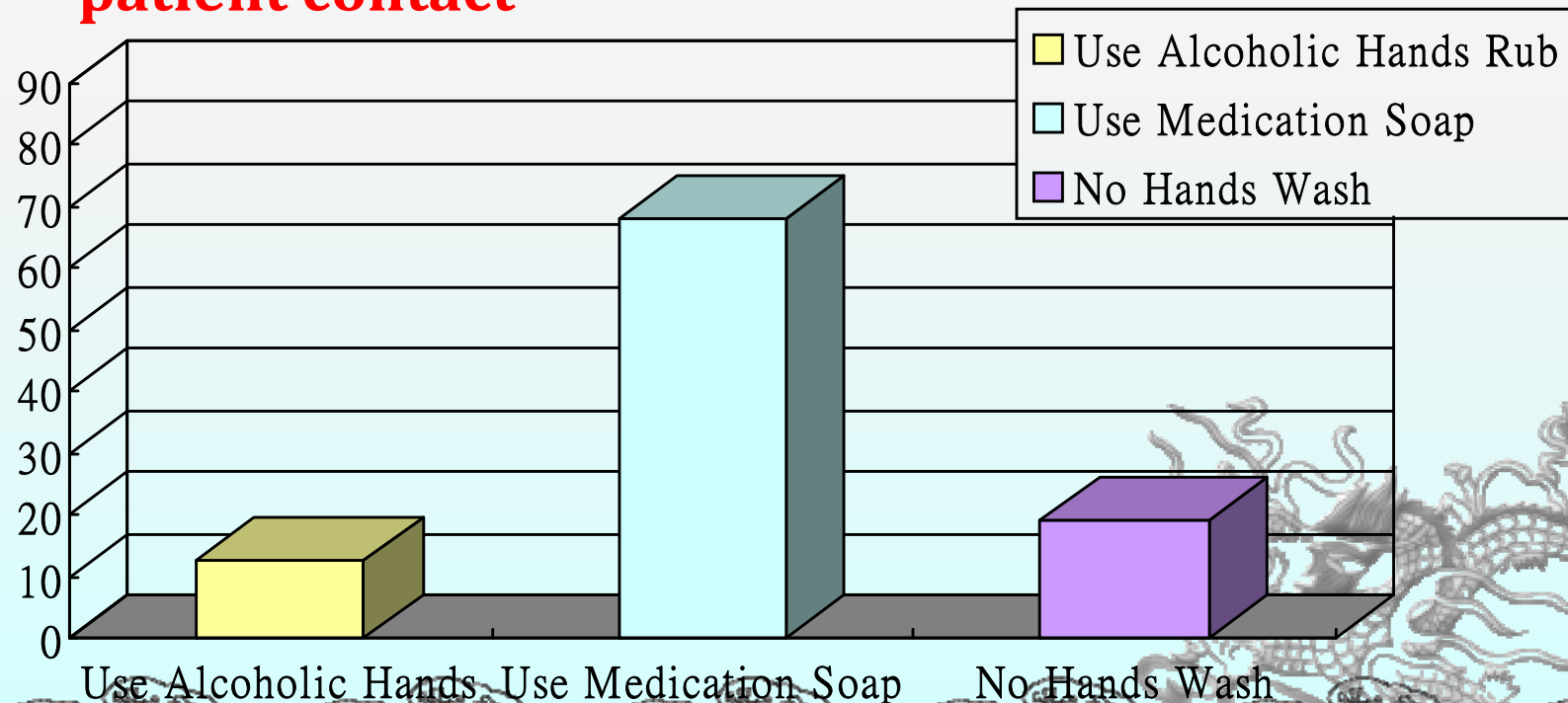


Pre-visual Cue Hand Hygiene Audit



- ◆ Hand hygiene practice after patient contact
 - * **12.8%** HCWs use alcoholic handrub after patient contact
 - * **68.1%** HCWs use medicated soap after patient contact
 - * 19.1% HCWs do not use either alcohol based HR or medicated soap after patient contact

Conclusion: Near 81% of HCWs perform hand hygiene after patient contact



Promotion Activities



- ◆ Education talks and briefings are given to all ICU HCWs in June 09
 - ◆ Report the finding of survey and audit
 - ◆ Reinforce the importance of hand hygiene practice
 - ◆ Educate the 5 moments of hand hygiene
 - ◆ Clarify the mis-concept of using alcoholic handrub
- ◆ Visual cues are posted up at each bed of ICU



Visual Cue Poster in A4 Size



Hand Rub Before & After Patient Contact
接觸病人前/後, 請消毒雙手!



Placement of Visual Cue Poster



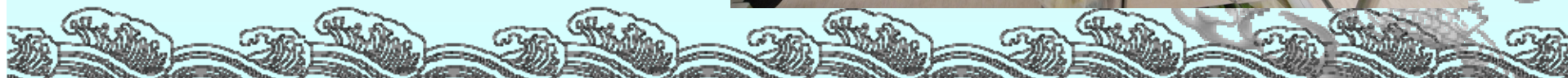
Promotion Activities



- ◆ Renew the hand hygiene posters in ward
- ◆ Ensure the availability & accessibility of alcoholic handrub





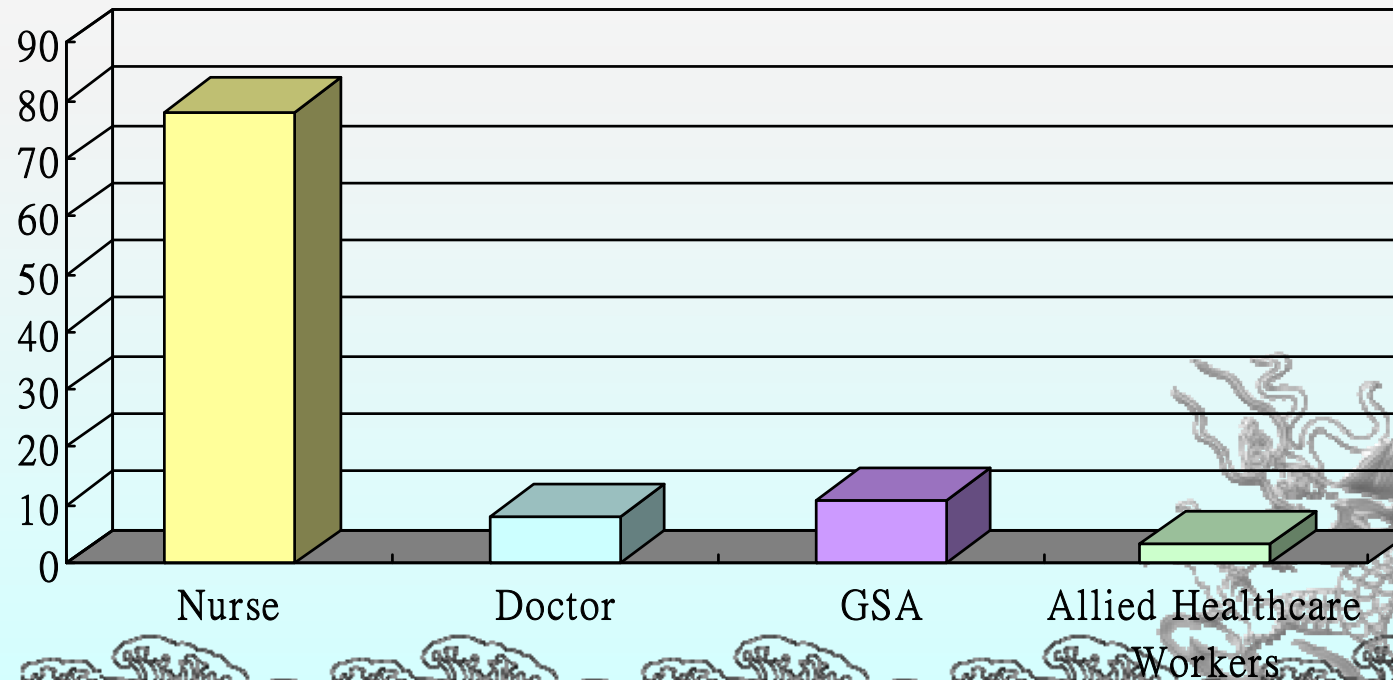


Post-visual Cue Hand Hygiene Audit



◆ 204 samples were done

Nurse	79.4% (162/204)
Doctor	9.3% (19/204)
GSA	10.3% (21/204)
Allied HCWs	1% (2/204)



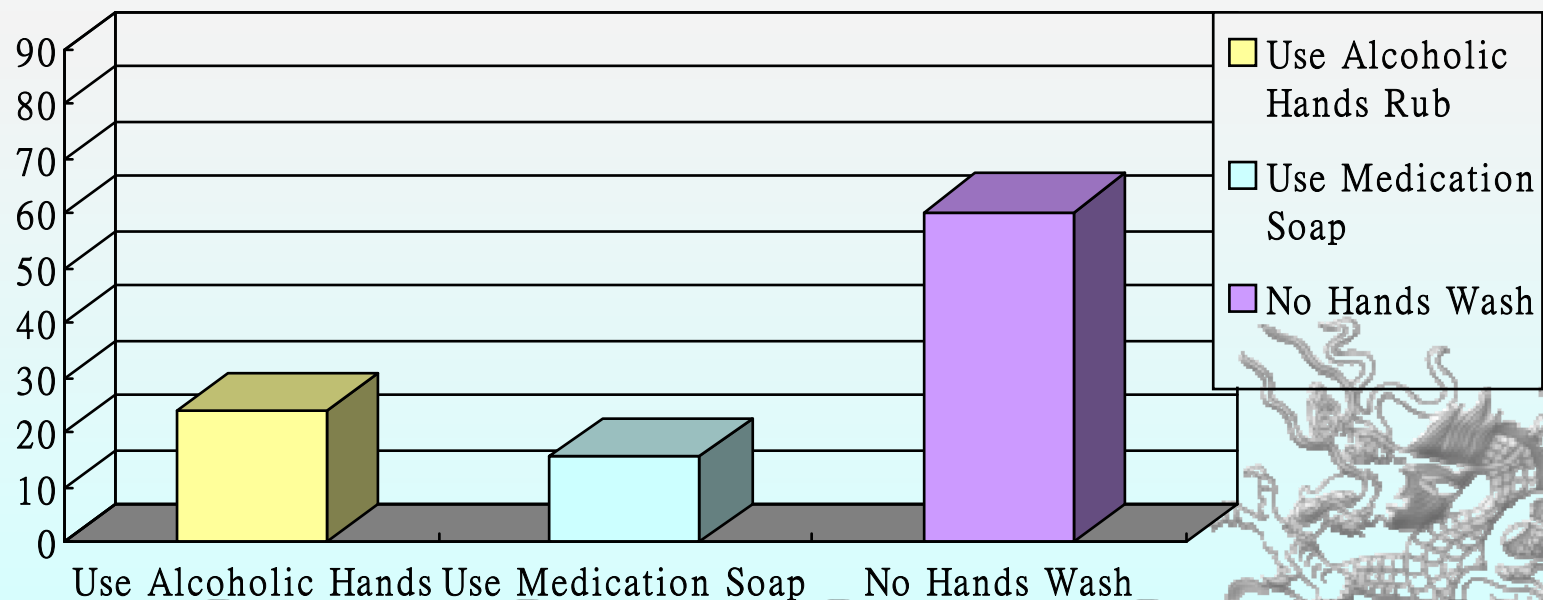
POST-VISUAL Cue Hand Hygiene Audit



◆ Hand hygiene practice before patient contact

- * Use alcoholic handrub **24%** (49/204)
- * Use medicated soap **15.7%** (32/204)
- * Use neither alcoholic handrub
nor medicated soap **60.3%** (123/204)

Conclusion: 39.7% of HCWs perform hand hygiene before patient contact



Post-visual cue hand hygiene audit



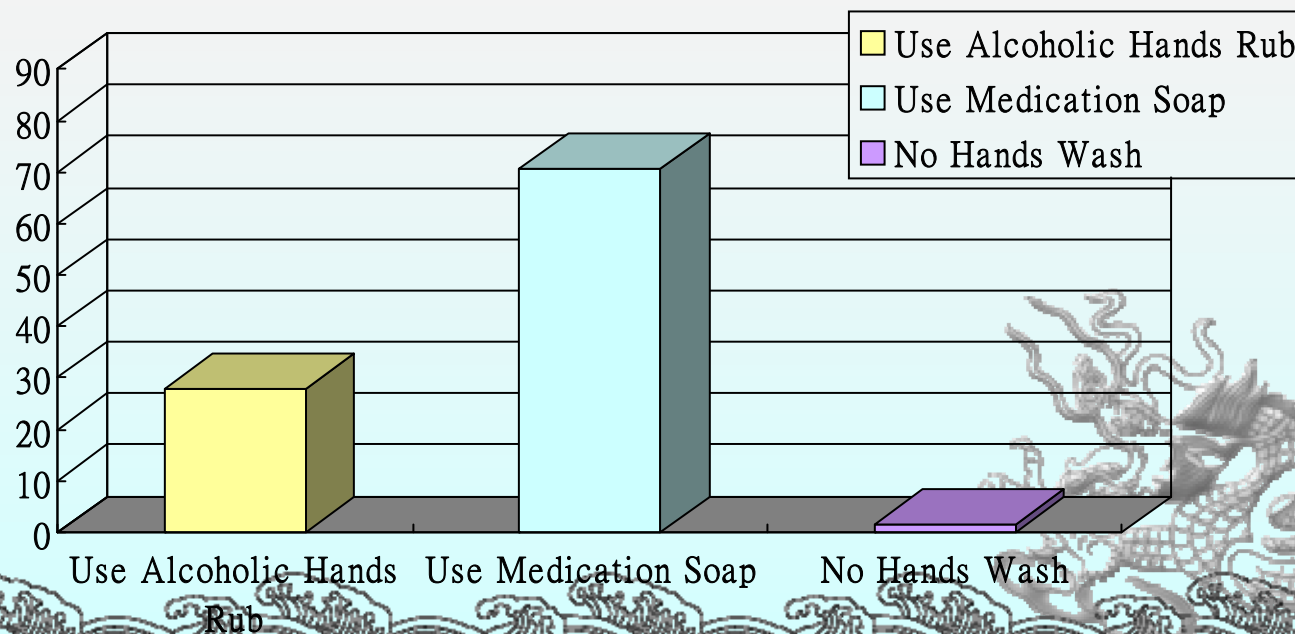
◆ Hand hygiene practice after patient contact.

* Use alcoholic handrub 27.9% (57/204)

* Use medicated soap 70.6% (144/204)

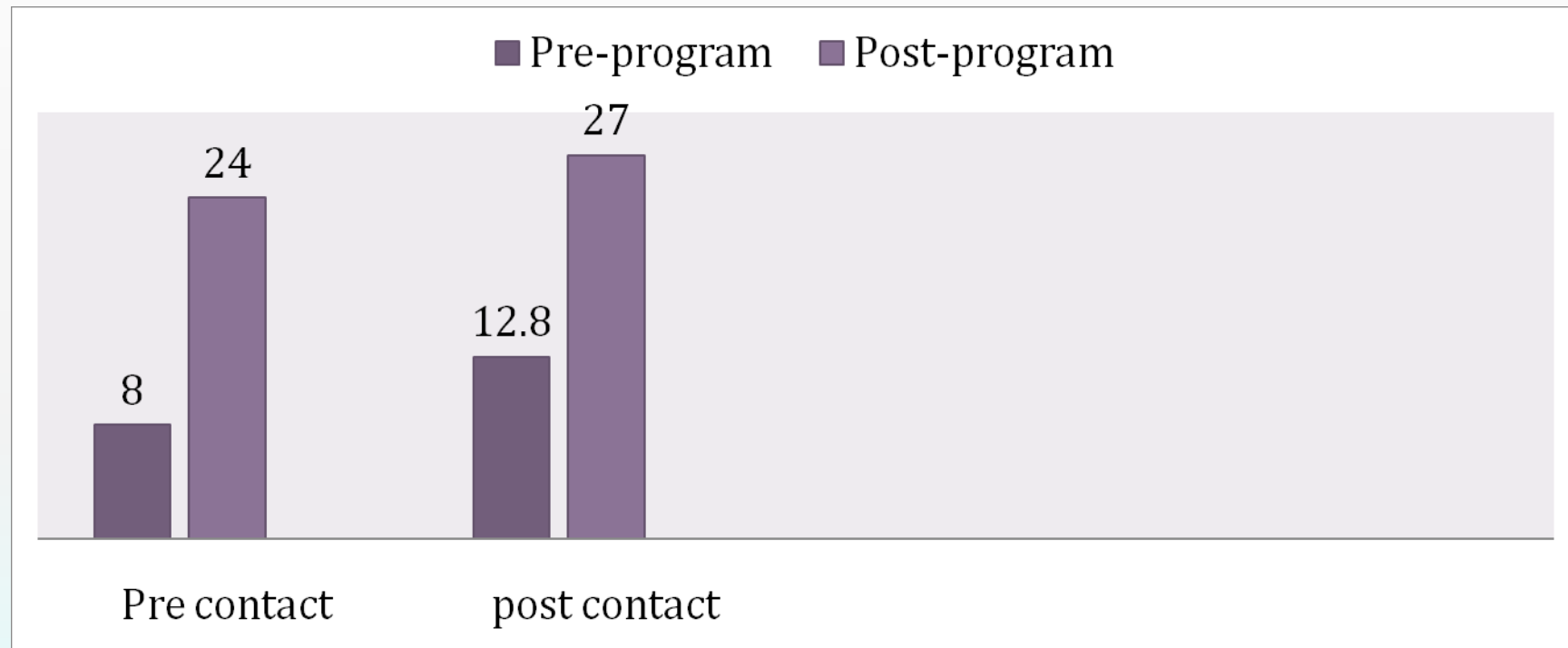
* Use neither alcoholic handrub
nor medicated soap 1.5% (3/204)

Conclusion: 98.5% HCWs perform hand hygiene after patient contact



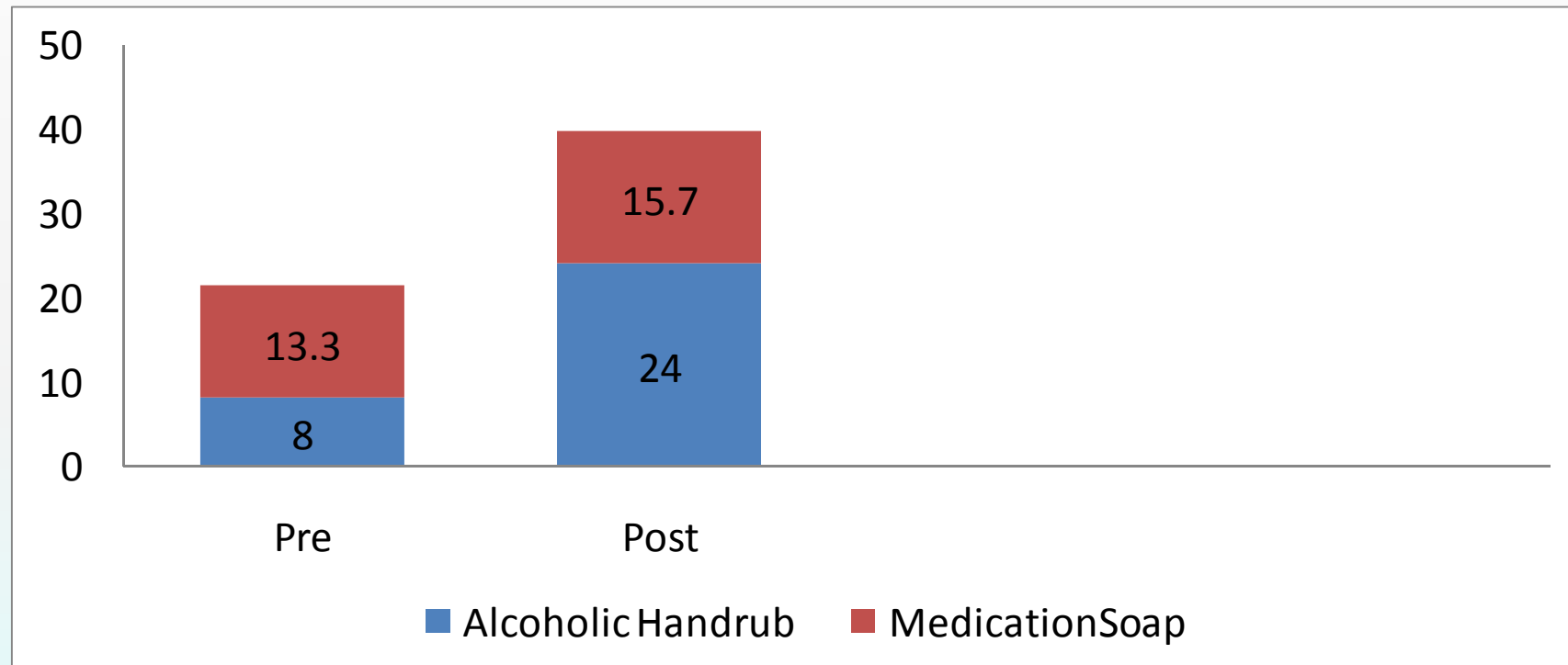


Use of Alcoholic Handrub



There was a rise of 16% before patient contact and a rise of 14% after patient contact in the use of alcoholic handrub as hand hygiene practice.

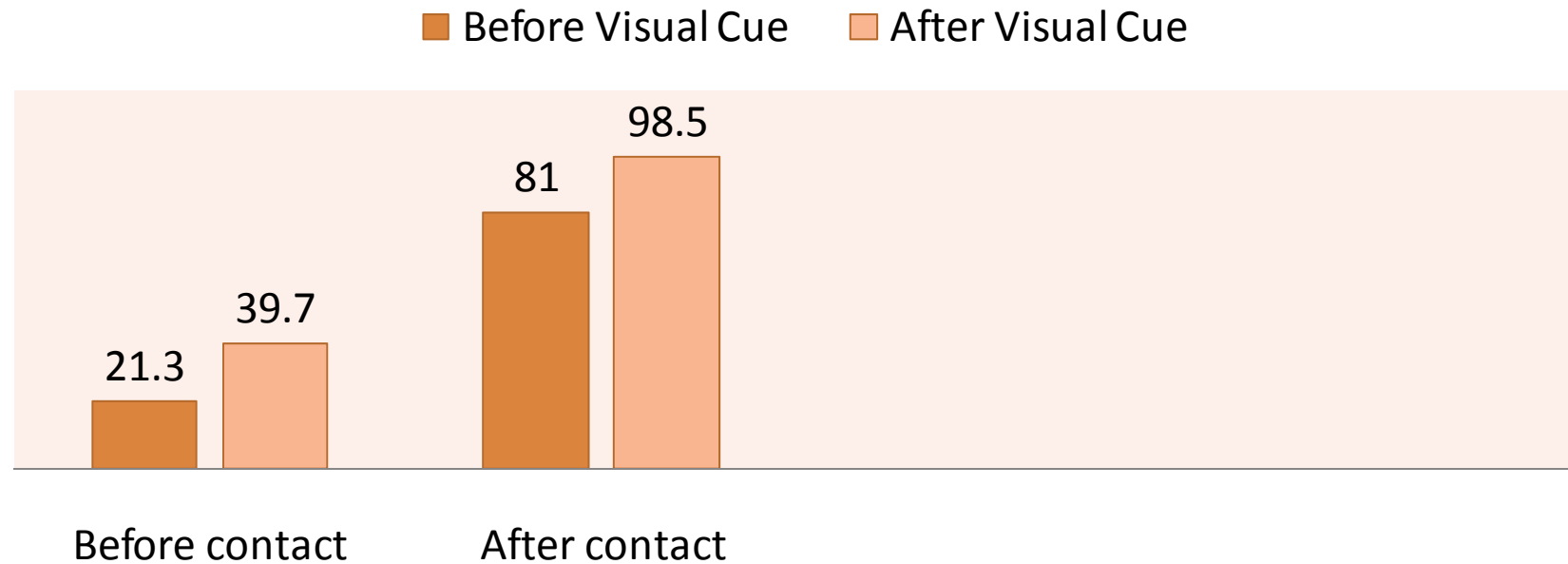
Hand Hygiene Practice Before Patient Contact



The hand hygiene practice BEFORE patient contact was increased from 21.3% to 39.7% .



Hand Hygiene Compliance Rate for Pre & Post Visual Cue Program



The hand hygiene compliance rate were increased both in before patient contact and after patient contact. It proved that the visual cue could increase the staff's awareness of hand hygiene.



Limitation

- ◆ Nosocomial Infection Rate
 - ◆ Co-relationship between hand hygiene compliance and nosocomial infection is not addressed due to time constrain

- ◆ Bias
 - ◆ Auditors do not have proper training for audit technique





Limitation

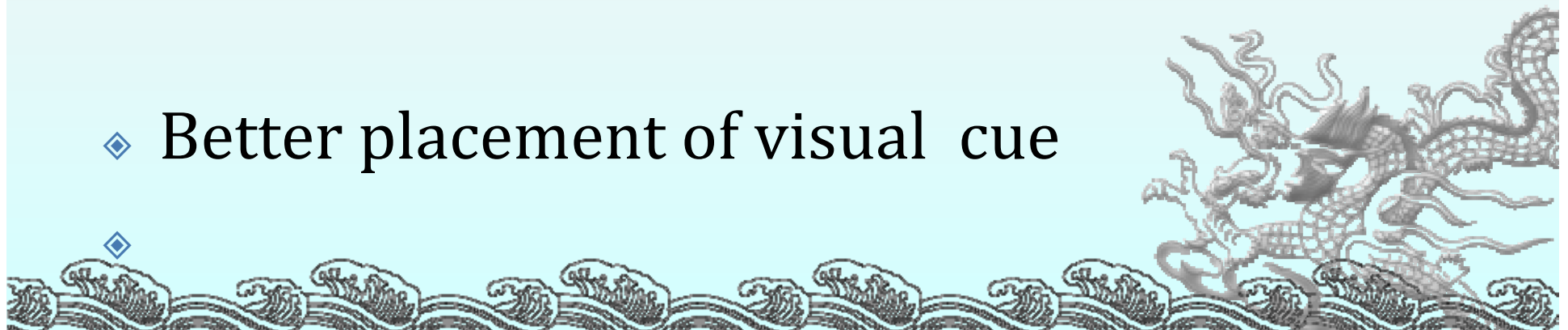
- ◆ False Positive Result
 - ◆ ‘Being observed’ effect
 - ◆ “Human swine influenza” effect
 - ◆ Short term effect after promotion activities



Recommendations

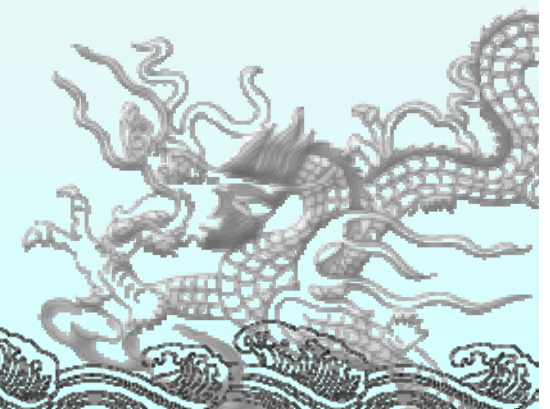


- ◆ Study for correlation between hand hygiene compliance and infection rate to reinforce the importance of hand hygiene
- ◆ On-going periodic audit and feedback to increase staff awareness
- ◆ Better placement of visual cue



Acknowledge

- ◆ Director Dr. C K KOO
- ◆ A/C Dr. K S Tang
- ◆ DOM C M Mak
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- ◆ NS L S Chau
- ◆ APN S C Wong
- ◆ RN Y Y Si
- ◆ RN S W Wong
- ◆ RN C Y Pang
- ◆ RN W Y Mok





Thank You!

