

# HA Convention 2013

**Less is more: A simple chest drain site dressing is good enough**

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HAHO

# Chest Drain Site Dressing

➔ Easy

➔ Basic nursing training

# Lack of Consensus

- Not conform to guidelines
- Based on individual preferences

(Tang, Velissaris, & Weeden, 1999)

- Little clinical evidence

(Avery, 2000)

- Less well-established standards of care
- Experiential recommendations

(Lehwaldt & Timmins, 2007)





# Disadvantages

- Large amounts of tape and padding
- Clumsy & unhandy
- Time consuming to remove
- Obstacle in emergency situations
- Unpleasant & painful experience
- Skin irritation
- ? Prevention of dislodgement
- Restriction of chest wall movement

# Objectives

- Change the CD site dressing safely with minimal discomfort / pain
- Secure the dressing and chest tube appropriately

(The Joanna Briggs Institute, 2002)

- Utilize materials efficiently & effectively

# Suggestions

- A small, dry non-adherent surgical dressing with an adhesive border
- Avoid heavy strapping
- Site checking daily, change dressing every 48-72 hours unless soiled

(Avery, 2000)

- Avoid large amounts of tape and padding
- An omental tag

(BTS Guideline, 2010)



# Taping the Connection

- Controversial
- If necessary → use of transparent, waterproof and secure tapings

(Lit, 2009)



# Simple CD Site Dressing With An Omental Tag Used in CTS QEH



# Methodology

- Direct observation technique → CD chart
- Face-to-face interviews
  1. 10 clients → comfort, mobility, sleeping quality, skin irritability & chest wall movement
  2. 15 nursing staff members → ease of assessment, cost effectiveness, time expenditure & incidence of dislodgement

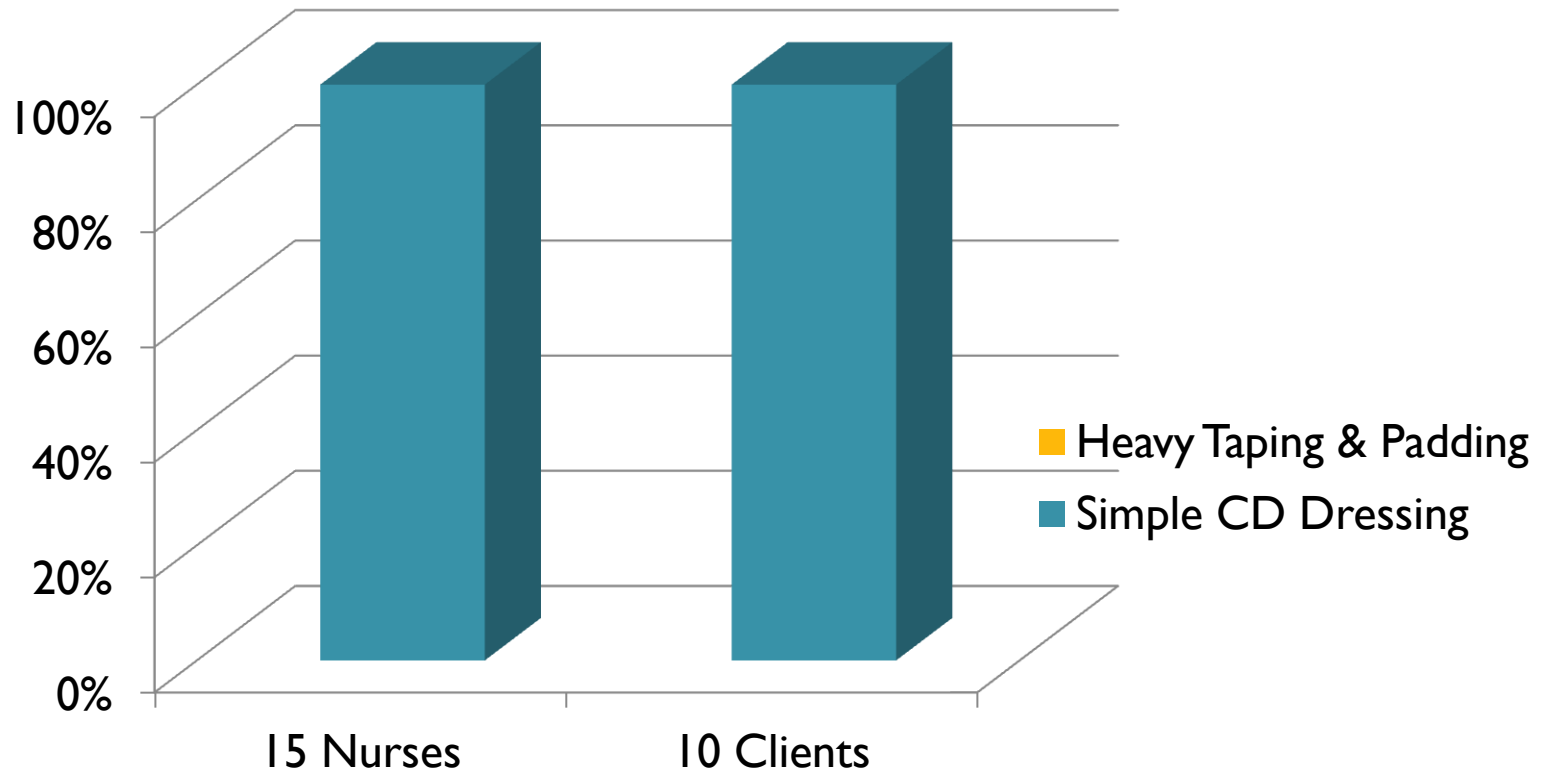
# Chest Drain Observation Chart

Items		Time	Date													
			1/3/12	2	3	4	5	6	7	8	9	10				
Suction Force (kpa / cmH <sub>2</sub> O)	A		2kPa													
	P															
	N															
Connections are secure	A		✓													
	P															
	N															
Tubing & bottle are below chest level and system is water sealed	A		✓													
	P															
	N															
Water level is swinging in tubing	A		✓													
	P															
	N															
Amount & Nature of Drainage:  F.B. (Fresh Blood) O.B. (Old Blood) B.S. (Blood-Stained) S.F. (Serous Fluid)	A	A	Amt	50												
		Nature	BSF													
	B	Amt														
		Nature														
	P	Amt														
		Nature														
	N	Amt														
		Nature														
	Total															
	Presence of Air Leakage (Bubble)	A	A		+ve											
			B													
		P	A													
B																
N		A														
		B														
Position of tubing is free from kinking & pulling	A		✓													
	P															
	N															
No dependent loop is found along the tubing	A		✓													
	P															
	N															
Observation of Subcutaneous Emphysema	A		-ve													
	P															
	N															
Inspection of C/D dressing	A		✓													
	P															
	N															

Key → No air leakage: -ve; Air leakage present: +ve; ✓ = Checked  
 \*\* Manual High Negativity Vent is depressed manually when suction is operating \*\*

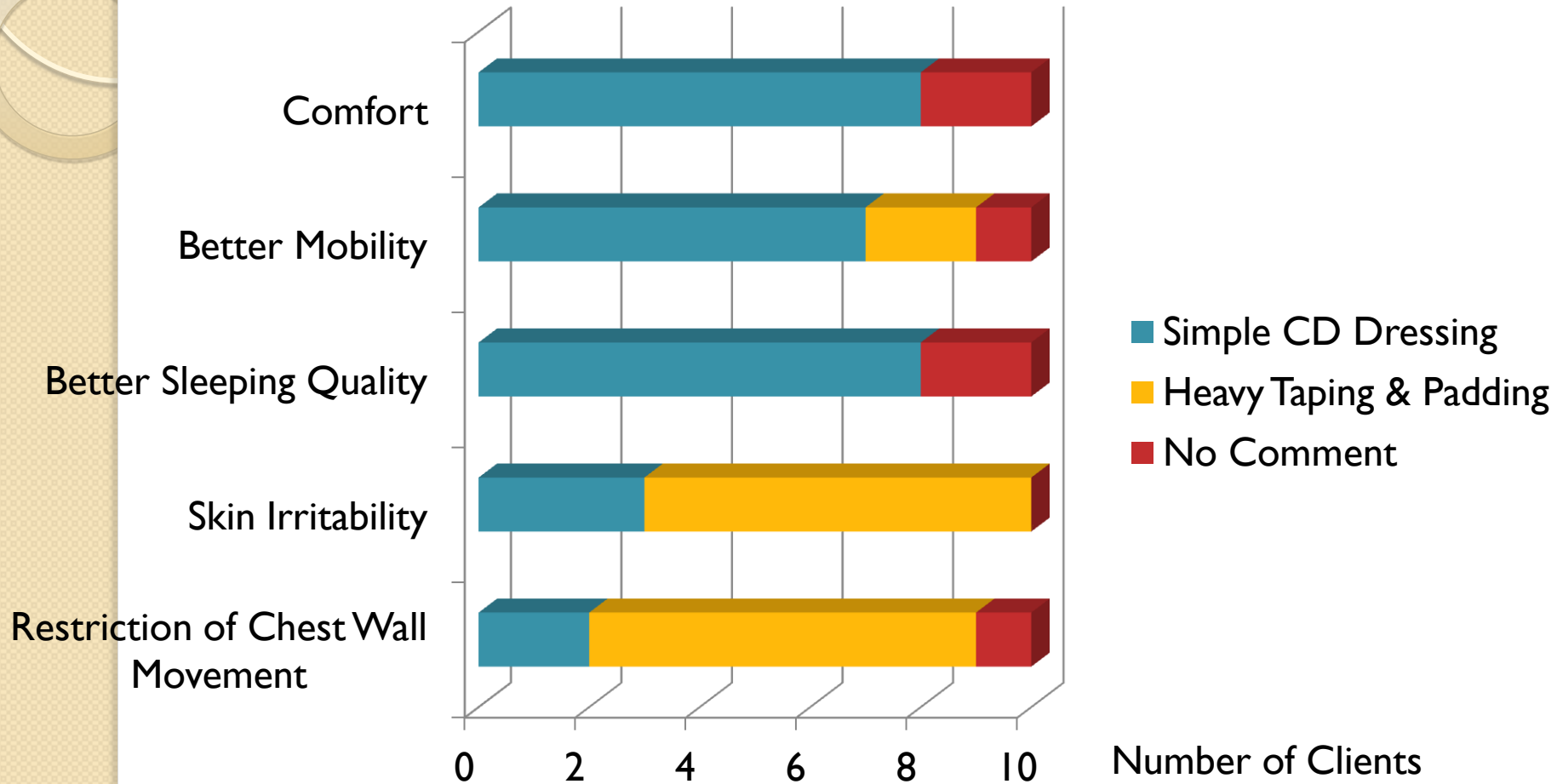
QE/C/SJ Monitoring Sheet 01/Revised April 2010

# Interview Results



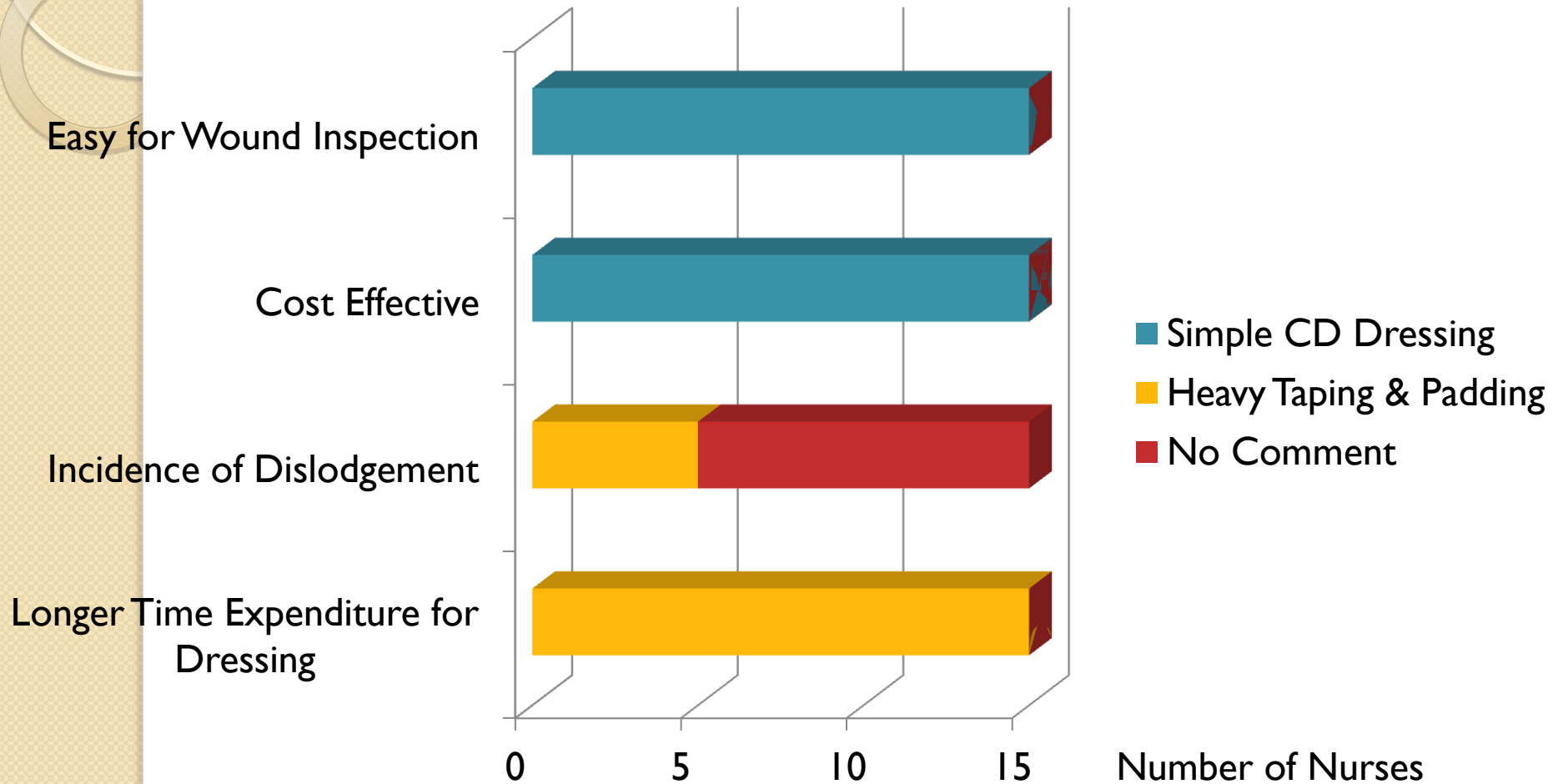
**Choice of CD site dressing by nurses and clients**

# Interview of Clients



**Comparison of different chest drain site dressing by clients**

# Interview of Nurses



**Comparison of different chest drain site dressing by nurses**

# Conclusion

Simple chest drain site dressing can

- Ensure clients' comfort
- Allow better chest wall movement
- Prevent unnecessary sufferings
- Cause fewer skin allergy
- Save time
- Meet cost effectiveness requirement
- Cause no increase in dislodgement



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# References

- Avery, S. (2000). Insertion and management of chest drains. *Nursing Times Net*, 96(37), 3-6. Retrieved March 10, 2012, from <http://www.nursingtimes.net/nursing-practice-clinical-research/insertion-and-management-of-chest-drains/206015.article>
- Fox, V., Gould, D., Davies, N., & Owen, S. (1999). Patient's experiences of having an underwater seal chest drain: A replication study. *Journal of Clinical Nursing*, 8, 684-692.
- Havelock, T., Teoh, R., Laws, D., & Gleeson, F.V. (2010). Pleural procedures and thoracic ultrasound. *British Thoracic Society Pleural Disease Guideline 2010*, 65(2), ii61-ii76. doi:10.1136/thx.2010.137026
- Lehwaldt, D., & Timmins, F. (2005). Nurses' knowledge of chest drain care: An exploratory descriptive survey. *Nursing in Critical Care*, 10(4), 192-200.
- Lehwaldt, D., & Timmins, F. (2007). The need for nurses to have in service education to provide the best care for clients with chest drains. *Journal of Nursing Management*, 15, 142-148.
- Lit, M. (2009). Nursing management of chest drains. Retrieved March 10, 2012, from <http://www.hkresp.com/index.php/administrator/152-pleural-diseases/578-2009-dec-nursing-management-of-chest-drains>
- Tang, A. T. M., Velissaris, T. J., & Weeden, D. F. (2002). An evidence-based approach to drainage of the pleural cavity: Evaluation of best practice. *Journal of Evaluation in Clinical Practice*, 8(3), 333-340.
- The Joanna Briggs Institute. (2002). *Nursing standards for patient care* (2<sup>nd</sup> ed). Hong Kong: Hospital Authority. Retrieved March 10, 2012, from [http://qehweb1/userweb/cnd/intranet/doc/nq/Nursing\\_Standards\\_for\\_Patient\\_Care\\_Part\\_2b.pdf](http://qehweb1/userweb/cnd/intranet/doc/nq/Nursing_Standards_for_Patient_Care_Part_2b.pdf)



# Thank you!