營造病人安全之正向文化

財團法人為恭紀念醫院

院長 陳進堂

2010.10.29

內　容

1. 病人安全
2. 洗手文化
3. 管理系統
4. 堅　　持

1.1、病人安全－首重倫理原則

- 公元前300餘年：
  Hippocratic(希伯克拉底)誓詞
  - ✓ **Benefit of my patient**(病人利益)
  - ✓ **Do no harm**(不傷害)
  - ✓ No deadly medicine(不助自殺)
- 1979醫學倫理四大原則
  - ✓ 尊重自主(respect of autonomy)原則
  - ✓ 不傷害(non-maleficence)原則
  - ✓ 利益病患(benefitcence)原則
  - ✓ 公平正義(justice)原則

1.2、病人安全－醫師本來面目

- 身為醫師，更應心存敬意
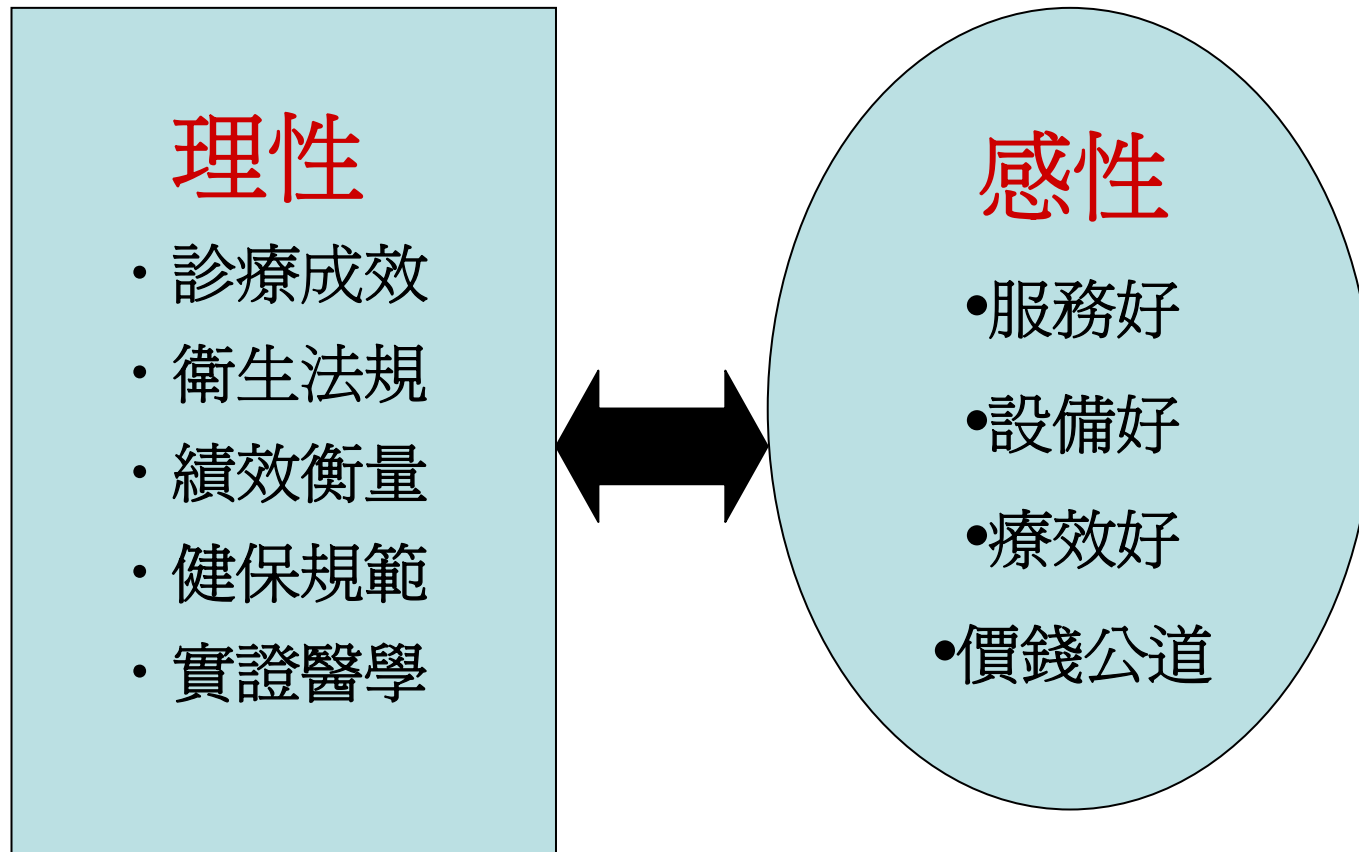- 簡單明瞭說明醫學用語
- 誠實回答患者的問題
- 禮儀也是醫療的一部份
- 教師的再教育
- 醫療疏失的防範
- 毫不隱瞞

1.3、病人安全－如果我生病了，我要有

- 高明的醫生
- 先進的設備
- 正確的診療
- 親切的服務
- 合理的價格

1.4、病人安全－兼顧理性與感性

理性
- 診療成效
- 衛生法規
- 績效衡量
- 健保規範
- 實證醫學

感性
- 服務好
- 設備好
- 療效好
- 價錢公道

1.5、 AHRQ給民眾的20項病人安全建議(一)

1. 預防醫療疏失最重要的，就是加入醫療團隊並積極參與醫療

2. 確認醫師知道您目前接受治療所使用的任何藥物，包括注射、口服及非處方用藥(OTC)、營養品、維他命、草藥

3. 告訴醫師您曾經對任何藥物有過敏反應

4. 確認您能看懂醫師為您開立的處方箋(字體太潦草時，請醫師重寫)

5. 服用藥物時的注意事項請問清楚 (關於用法、副作用、要吃多久、與其他藥物併用是否安全、有無禁忌)

6. 在領藥處領取的藥物務必確認是給自己的

7. 對於藥物的用法(藥袋上的記載內容)如有疑問務必問清楚

8. 詢問藥師如何使用量杯以便服用藥水

9. 索取關於副作用的書面資料

10. 如果您有機會做選擇，務必選擇一家有豐富經驗治療與您相同疾病的醫院

1.6、AHRQ給民眾的20項病人安全建議(二)

11.您在住院中，確認和您有直接身體接觸的醫護人員沒有忘記洗手

12.當您要出院時，詢問醫師關於您的居家治療計劃

13.如果您需接受手術，於術前應確認醫療團隊與您都已達成協議並注意手術部位的正確

14.當您有疑問時，勿忘您有權利詢問 醫療團隊的任何成員

15.確認照顧您的醫療團隊當中誰是專責醫師

16.確認照顧您的醫療團隊所有成員均已掌握您的醫療資訊包括治療方針，用藥及檢查結果

17.請親友陪同您就醫，必要時(如術後)，請他替您執行您無法完成的事並替您發言

18.「多」不一定是好，與醫療團隊一齊逐一檢討各項治療與檢查的必要性，有的醫療行為是不做較好的情形也有

19.當您已做完檢查，醫師尚未提及結果並不代表沒事，一定要去詢問檢驗報告

20.詢問醫師或護士關於您的最新且有科學依據的療法，也可自己經由上網搜尋或從書籍中學習

1.6.1、*The Inanimate Environment Can Facilitate Transmission*

X represents VRE culture positive sites

~ Contaminated surfaces increase cross-transmission ~

Abstract: The Risk of Hand and Glove Contamination after Contact with a VRE (+) Patient Environment. Hayden M, ICAAC, 2001, Chicago, IL.

1.7、病人安全－是人就會犯錯

◆紐約州:住院病人3.7%：58%可預防、27.6%明顯過失、13.6%死亡

◆猶他柯州:住院病人2.9%：53%可預防、29.2%明顯過失、8.8%死亡◆

推計:全美醫療事故死亡者:44,000~98,000人，高於交通事故

死亡(43,000人)、乳癌(42,000人)、AIDS(16,500人)

◆澳州:住院病人16.6%事故：4.9%死亡、50%可預防

◆英國:住院病人10%發生事故

◆紐西蘭:住院病人12.9%發生事故

1.7.1、 The Intervention — Hand scrub with chlorinated lime solution

Hand hygiene basin at the Lying-In Women's Hospital in Vienna, 1847.
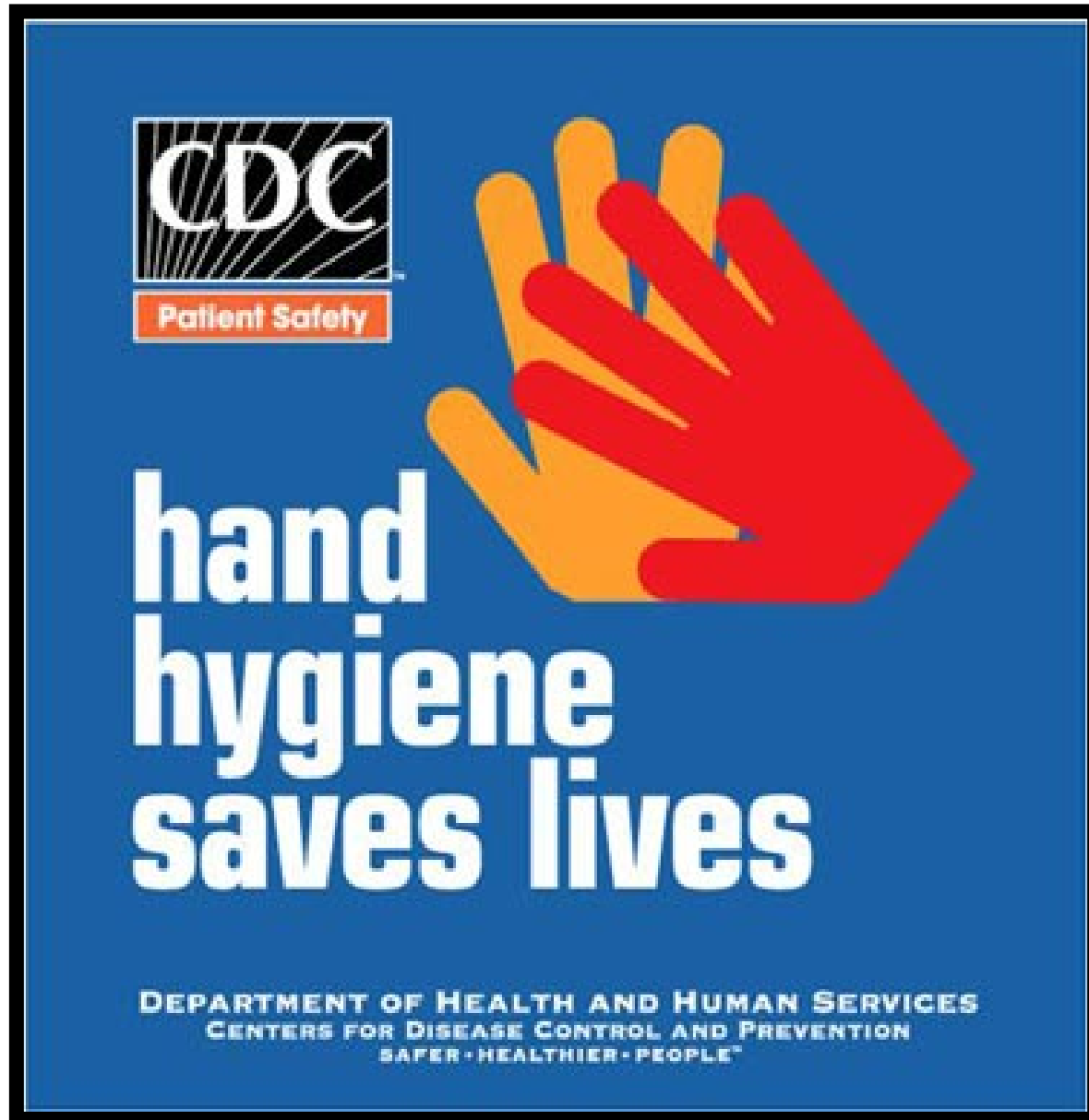
1.7.2、Hand Hygiene — Not a New Concept

Maternal Mortality due to Postpartum Infection
General Hospital, Vienna, Austria, 1841-1850
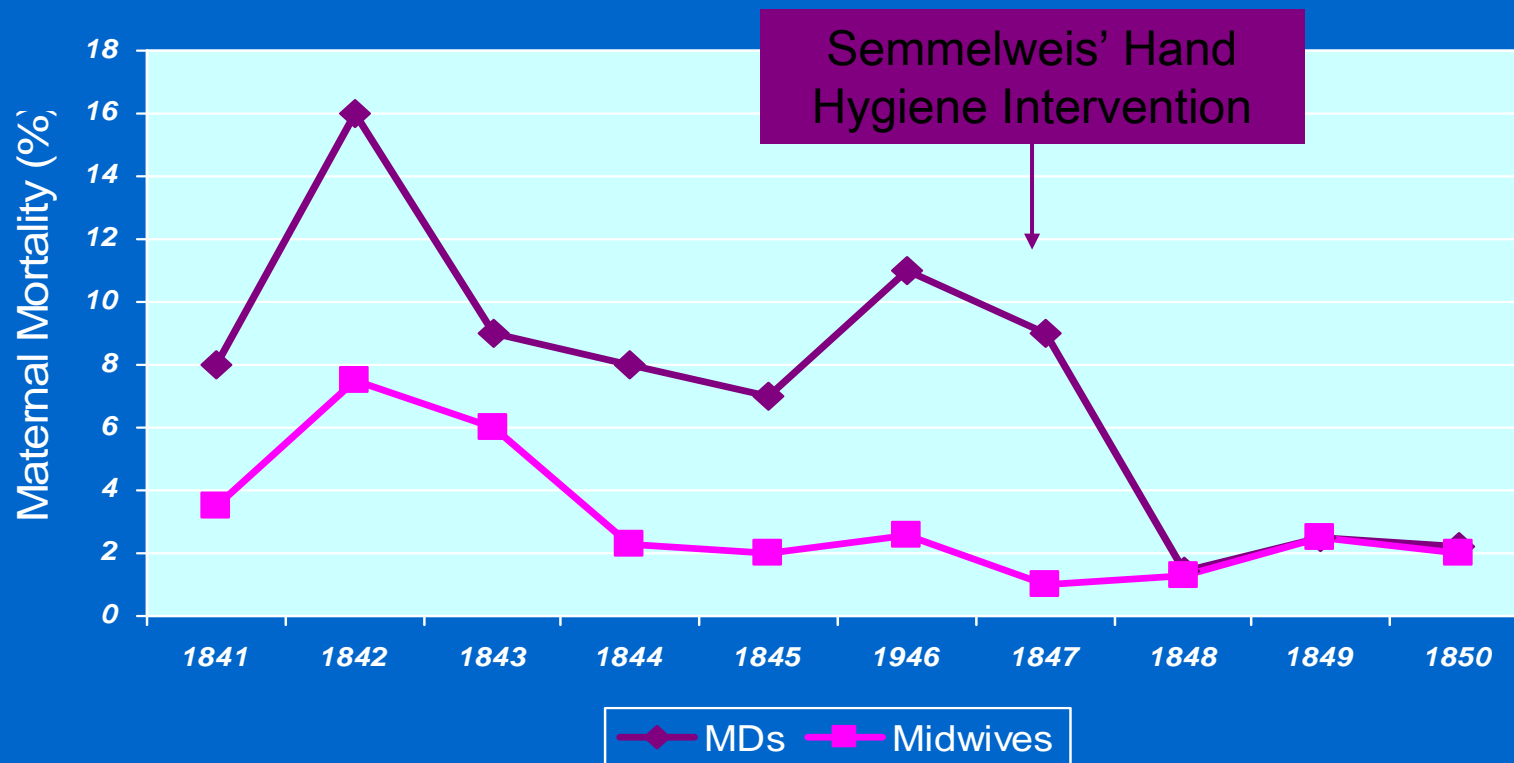
~ **Hand antisepsis reduces the frequency of patient infections** ~

Adapted from: *Hosp Epidemiol Infect Control,* 2nd Edition, 1999.

1.8、病人安全－從手做起

2.1、洗手文化—不能不接觸

Hand Hygiene:
An Important Element
In Controlling MRSA

John M. Boyce, MD
Chief, Infectious Diseases Section
Hospital of Saint Raphael
and
Clinical Professor of Medicine
Yale University School of Medicine
New Haven, CT

Frequency of MRSA Colonization at Various Patient Body Sites
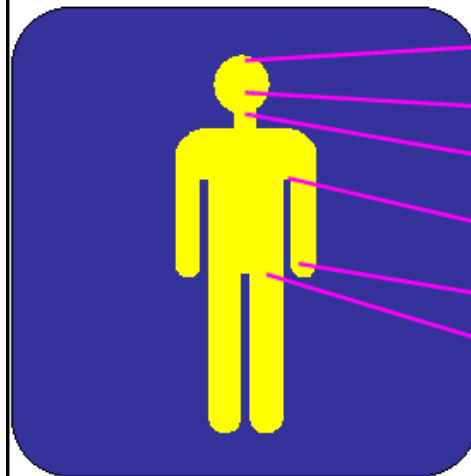
Site	Frequency
Forehead	51%
Nose	54% - 93%
Neck	35%
Axilla	13% - 28%
Hands	40%
Groin	30% - 39%

- 68% of positive patients were colonized at more than one extranasal site
- 95% of nasal carriers had MRSA at extranasal sites

Rohr et al.

Hill RLR et al. JAC 1988;22:377
Sanford MD et al. CID 1994
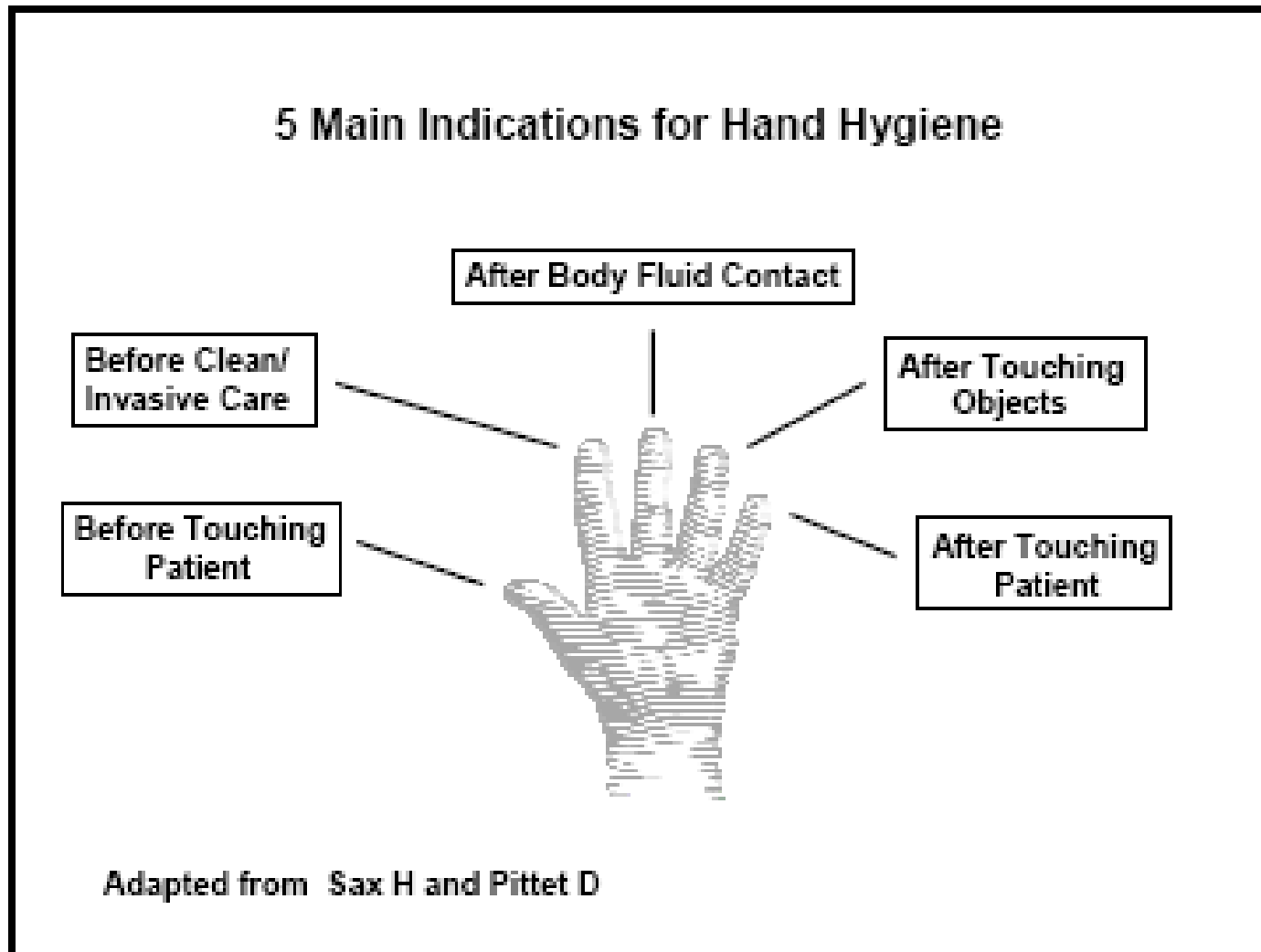Rohr U et al. Int J Hyg Environ Health 2004;207;51

2.2、洗手文化─手連手菌連菌

Transmission of
Healthcare-Associated MRSA (HA-MRSA)

- Patients colonized or infected with MRSA are the major reservoir from which transmission occurs

- HA-MRSA is most often transmitted from patient to patient via the hands of healthcare workers (HCWs) who have transiently contaminated their hands

- Persistently colonized or infected HCWs can also be a source of transmission

- Contaminated environmental surfaces may also serve as source of MRSA transmission

2.3、洗手文化—多洗手沒事,沒事多洗手

5 Main Indications for Hand Hygiene

After Body Fluid Contact

Before Clean/ Invasive Care

After Touching Objects

Before Touching Patient

After Touching Patient

Adapted from Sax H and Pittet D

2.3.1、洗手文化— Which of the following hand hygiene agents is *LEAST* drying to your skin?

1. Plain soap and water

2. Antimicrobial soap and water

3. Alcohol-based handrub

2.3.2、洗手文化— Efficacy of Hand Hygiene Preparations in Killing Bacteria

Good   **Better**   **Best**

Plain Soap   **Antimicrobial soap**   **Alcohol-based handrub**

2.4、洗手文化—醫師的自白

Majority of doctors not washing their hands

🏷 Majority , washing , doctors , hands , not

Majority of doctors not washing their hands
It's less than 40 per cent region-wide
Tamara Slobogean Oct 04, 2010 08:25:11 AM
Be the first to Comment 0 Recommendation(s) VANCOUVER (NEWS1130) - Any doctor will tell you good hand hygiene is the best way to prevent the spread of viruses and bacteria. However, as we edge toward flu season, News1130 has learned that doctors don't always lead by example.

Anna Marie D'Angelo with Vancouver Coastal Health says it audits staff habits before and after doctors meet with their patients.

She adds 61 per cent of employees within Coastal Health are complying with hand hygiene, but adds doctors are bringing down the stat. "Our physicians are historically the lowest, as far as compliance goes. In the last results, it's less than 40 per cent region-wide."

D'Angelo says they don't officially measure the habits of patients and visitors but she says hand sanitizers at the entrance of hospitals are well used.

2.5、洗手文化—"Wash Your Hands"

- Universally believed to reduce infection risk
- Numerous guidelines & recommendations support the practice
  - CDC "Guideline for Hand Hygiene in Health Care Settings" '02
  - WHO "Guidelines on Hand Hygiene in Health Care" '07
  - Joint Commission standards focus on preventing the transmission of infections "Patient Safety Goal 7A"
  - Institute for Healthcare Improvement "Improving Hand Hygiene: A Guide for Improving Practices among Health Care Workers (HCW)" '05
- Individual HCW believe their compliance rate is high
- Failure to identify hand hygiene non-compliance with infection outcome

Pat Kulich, RN, CIC
The Ohio State University Medical Center Department Of Clinical Epidemiology

2.6、洗手文化— Healthcare Associated Infections

- HAIs cause significant morbidity, mortality & cost
  - Affects nearly 2 million individuals
  - 100,000 deaths annually
  - $4.5 to 5.7 billion patient care cost
- Transmission of pathogens occurs most often via the contaminated hands of HCW
- Estimated 1/3 of infections can be prevented through hand hygiene
- Hand hygiene compliance generally below 50%

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The Ohio State University Medical Center Department Of Clinical Epidemiology

2.7、洗手文化— Factors influencing poor compliance

- **Lack of knowledge**
  - Importance of hand hygiene
  - How hands become contaminated
- **Lack of understanding**
  - Hand hygiene technique
  - Glove wearing practices
- **Insufficient time/too busy/overworked**
- **Poor access to hand washing facilities**
- **Contact dermatitis**
  - Frequent hand washing
  - Poor quality hand washing agents
- **Lack of institutional commitment to good hand hygiene**

Pat Kulich, RN, CIC
The Ohio State University Medical Center Department Of Clinical Epidemiology

2.8、洗手文化—系統性管理

2.9、洗手文化－紙上標竿學習

2.10、洗手文化－紙上標竿學習

2.11、洗手文化－紙上標竿學習

Hand Hygiene Compliance by HCW type
Baseline (Sep 2004) vs. Post HH campaign (Mar-May 2005)

"The Bad"
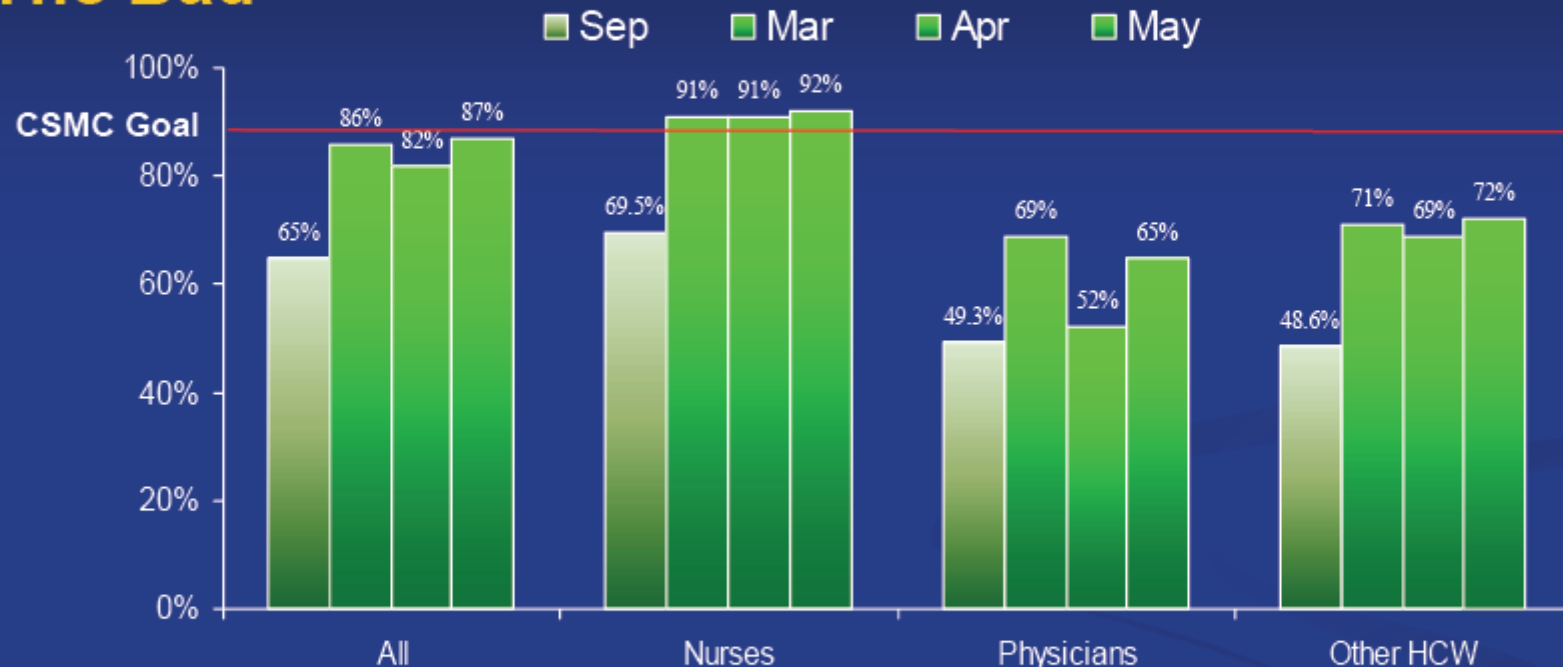
- HHC among RN staff improved (p<.001) and sustained at target over 3 months
- HHC among physicians and other HCWs improved modestly but was below target
- Focused campaigns were initiated for these groups

2.12、洗手文化－紙上標竿學習

**Physician Accountability:
Medical Staff Peer Review Process**

- Accountability via peer review process reinforced
- Medical Staff Rules and Regulations amended to reflect consequences of noncompliance with hand hygiene and isolation precautions
    - up to suspension of privileges
- One physician was summarily suspended after repeated violations of isolation precautions including hand hygiene
    - Suspension lifted after peer review, counseling, education
- Unintended consequences – RN remorse for having reported noncompliant MD
    - Debriefing with reinforcement patient safety responsibility

2.13、洗手文化－紙上標竿學習
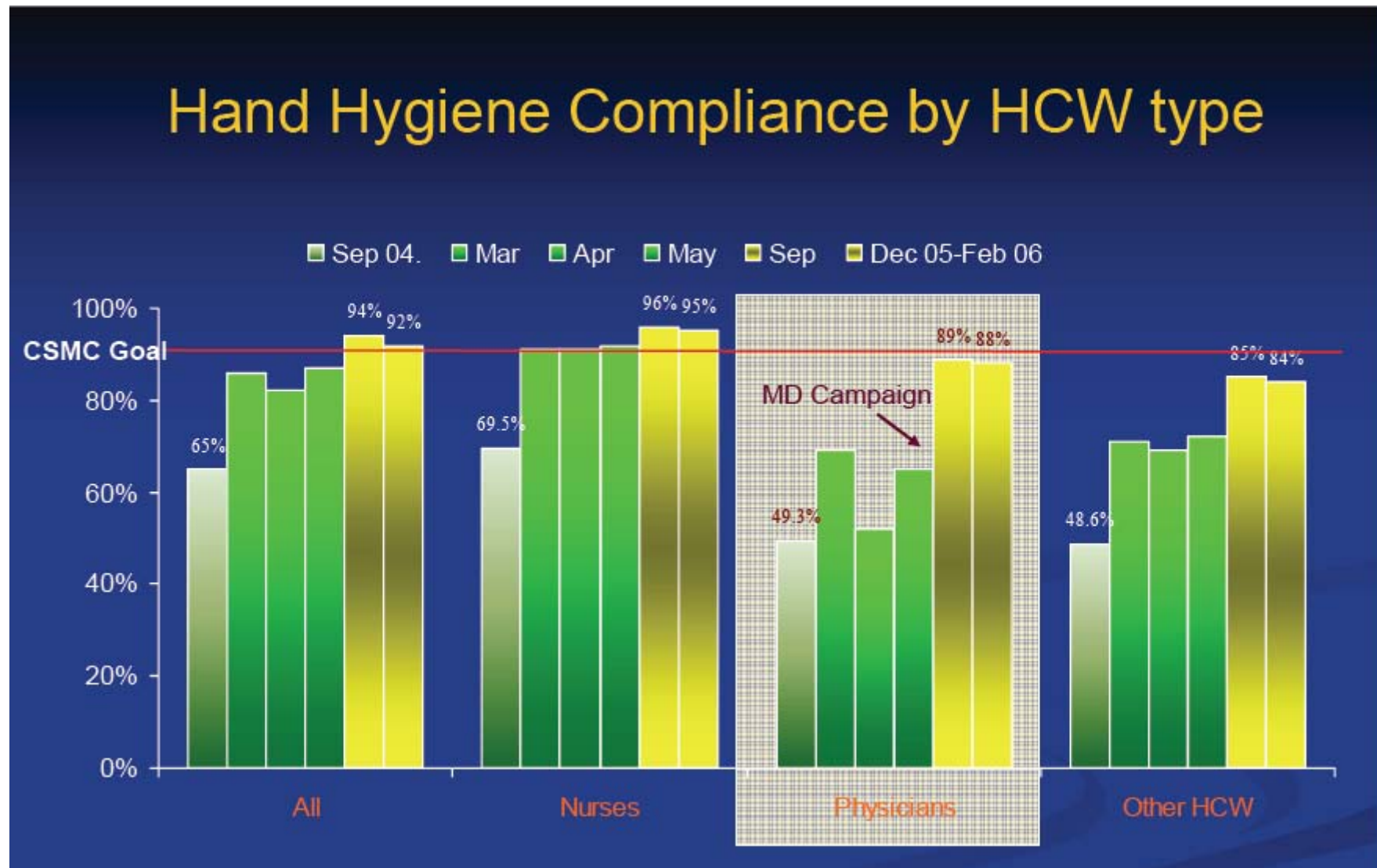
2.14、洗手文化－紙上標竿學習

Summary

- Sustained improvement in MD hand hygiene compliance was achieved with a targeted campaign
- Physician leader involvement was critical for success
- With physicians as key role models, commitment to patient safety was visible to all healthcare workers
- Accountability through the peer review process emphasized patient safety over individual autonomy
- Sustained hand hygiene compliance required a large-scale and ongoing organizational effort

2.15、洗手文化－結論也要標竿
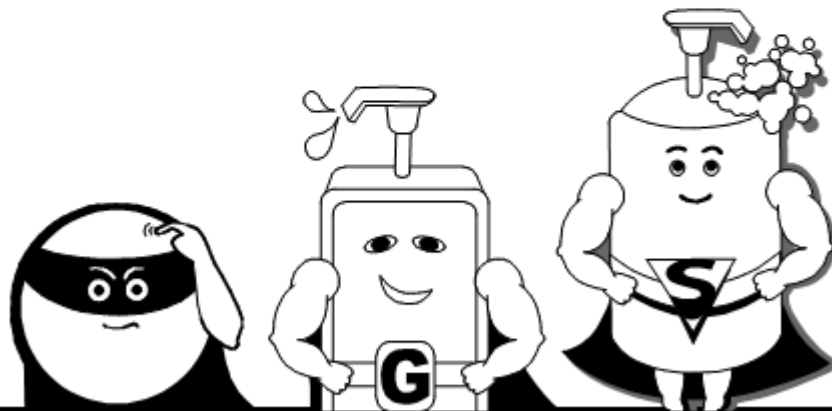
2.16、病人安全文化塑造

- 員工必需採取的新態度和新行為
- 文化是一種共識是員工共同持有的習慣

2.17、文化塑造－病人安全文化推動原素

- 領導者的全力支持
- 專責單位、專責的人
- 安全系統的建構
- 健全的通報文化
- 務實稽核、落實改善
- 推擺標準化作業
- 推動健康促進醫院

2.18、文化塑造－組織文化的衡量

- Organizational Culture Profile (OCP)
- Charles O,Reilly 1991 提出
- 一個組織文化可以用八個獨立因素標示出來：
1. 創新與冒險
2. 注意細節
3. 重視成果
4. 進取心和競爭力
5. 支持
6. 成長與報酬
7. 合作與團隊意識
8. 果斷

2.19、文化塑造 –AHRQ

(Agency for Healthcare Research and Quality)

2.20、病人安全文化調查

病人安全文化調查初報——以某醫學中心為例

鄭嘉惠[1]　張嘉晃[2]　王拔群[3,*]

背景和目的：藉由問卷測量，瞭解醫院工作人員對病人安全的態度，並進一步探討影響病安態度相關因子。**方法：**本橫斷性問卷調查研究採用安全態度量表 (Safety Attitudes Questionnaire, SAQ)，評量某醫學中心醫療及行政人員的病安態度。SAQ 量表涵蓋六個構面，包括：「單位安全的風氣」、「團隊合作」、「對壓力的認知」、「對管理的感受」、「工作狀況」、及「對工作的滿意」，研究比較工作人員在不同單位或不同人口學特徵的構面分數；並使用斯皮曼相關係數與複回歸分析，研究構面分數的影響因子。**結果：**共有 755 位受訪者，問卷回收率為 79.6%，SAQ 問卷內部一致性 Cronbach's alpha 為 0.25~0.90。參與者在回答「團隊合作」上得到最高的分數 (73.8±14.2)。男性、擔任主管、年齡大於 40 歲者在六個構面均得到較高的分數。複回歸模式顯示，工作單位及工作類別分別對「工作狀況」及「對工作的滿意」有顯著的影響 (p <0.05)。**結論：**應用 SAQ 問卷進行病人安全文化調查，可瞭解醫院工作人員對安全文化的認知，並在未來縱貫追蹤文化提昇與病人安全促進的連動性。
(輔仁醫學期刊 2008；6 (1)：19-30)

2.21、洗手文化−洗手口號

1公克肥皂勝過1百萬抗生素
Clean Hands are Healing Hands

2.22、洗手文化－創意活動

•洗手報知器

•洗手電腦桌布

我是語音報知器，我的聲音很溫柔喔~~

•洗手徽章

•洗手創意海報

2.23、洗手文化－創意活動-從醫院到社區

醫生多洗手，細菌不亂走 ■康健雜誌 NO.111專訪

打造洗手標竿醫院

文·林芝安 攝影·陳德信

為了提高醫護人員洗手遵從率，衛生署疾病管制局委託醫策會舉辦全台各醫院洗手運動的品管圈比賽，2007年底結果揭曉，署立豐原醫院獲得特優。

疾管局副局長林頂觀察，這次得獎的醫院有個特色，「院長非常重視。」高階主管帶頭要求醫院各部門參與，除了醫師、護士，其他像藥師、社服室、總務、清潔班等人員也必須在平時就把洗手內化到工作中。

《康健》採訪團隊走訪幾家得獎醫院，挑出重點特色報導，看他們是如何做到的。

揮揮手不握手，醫師去社區
教洗手─專訪署立豐原醫院
院長陳進堂

這次榮獲洗手運動全國特優獎的署立豐原醫院有項特色，院長陳進堂透過各種方式讓院內員工將洗手落實內化到平時工作中。譬如，在參賽之前，全院舉辦創意比賽，28個科室團隊自行發
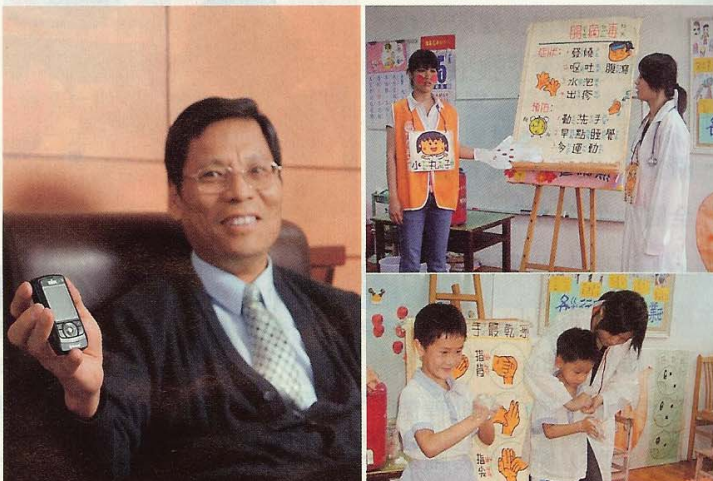
洗手宣導扇子

舉辦洗手安全之旅

3.1、病人安全管理系統－ 引進策略管理

吸引人才

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┌──────────┐        ┌────────────────────┐        ┌──────────────────┐        ┌──────────────┐
│          │  趨動力 │       管理系統       │  執行力 │      營運績效      │  競爭力 │    病人價值    │
│  領導與   │ ──────→│  人力資源、知識管理   │ ──────→│   學習成長績效     │ ──────→│    服務效率    │
│  經營理念 │        │  資訊應用、網路管理   │        │   流程改善績效     │        │    醫療結果    │
│          │        │  研發創新、流程管理   │        │   顧客管理績效     │        │              │
│          │        │  市場發展、顧客管理   │        │   財務管理績效     │        │              │
│          │        │  效益評估、財務管理   │        │                  │        │              │
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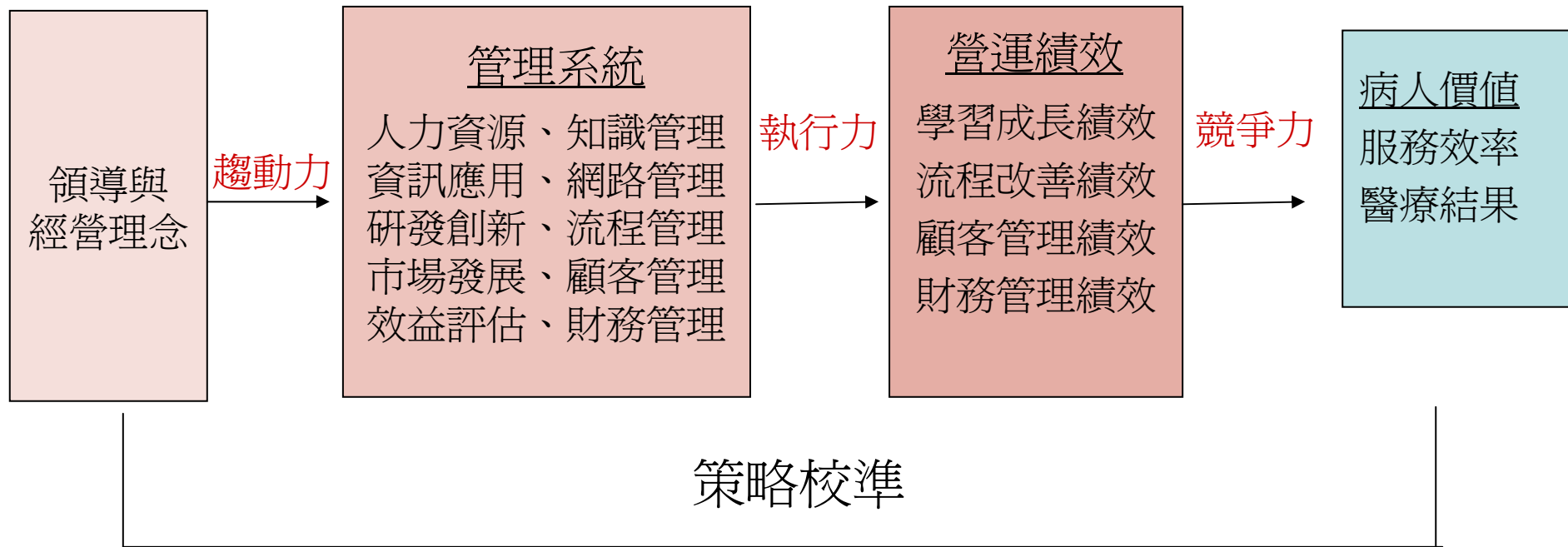
策略校準

策略管理

3.2、管理系統— 兼顧醫療品質與服務績效

醫療品質

- 安全文化
- 顧客滿意

醫院管理

BSC

營運績效

- 顧客滿意
- 合理利潤

- •洗手遵從率
- •院內感染率
- •藥品調劑錯誤率
- •異常事件通報率
- •手術部位辨識率

- •顧客抱怨率
- •健保14日再入院率
- •等候時間改善率
- •醫師即時訪視率
- •醫師例假日巡診率

- •資訊穫得通路
- •流程順暢度
- •感動服務件數
- •創意服務件數
- •醫療專科團隊數

- •毛利率
- •醫師生產力
- •自費比例
- •勞務生產力
- •門急住市佔率
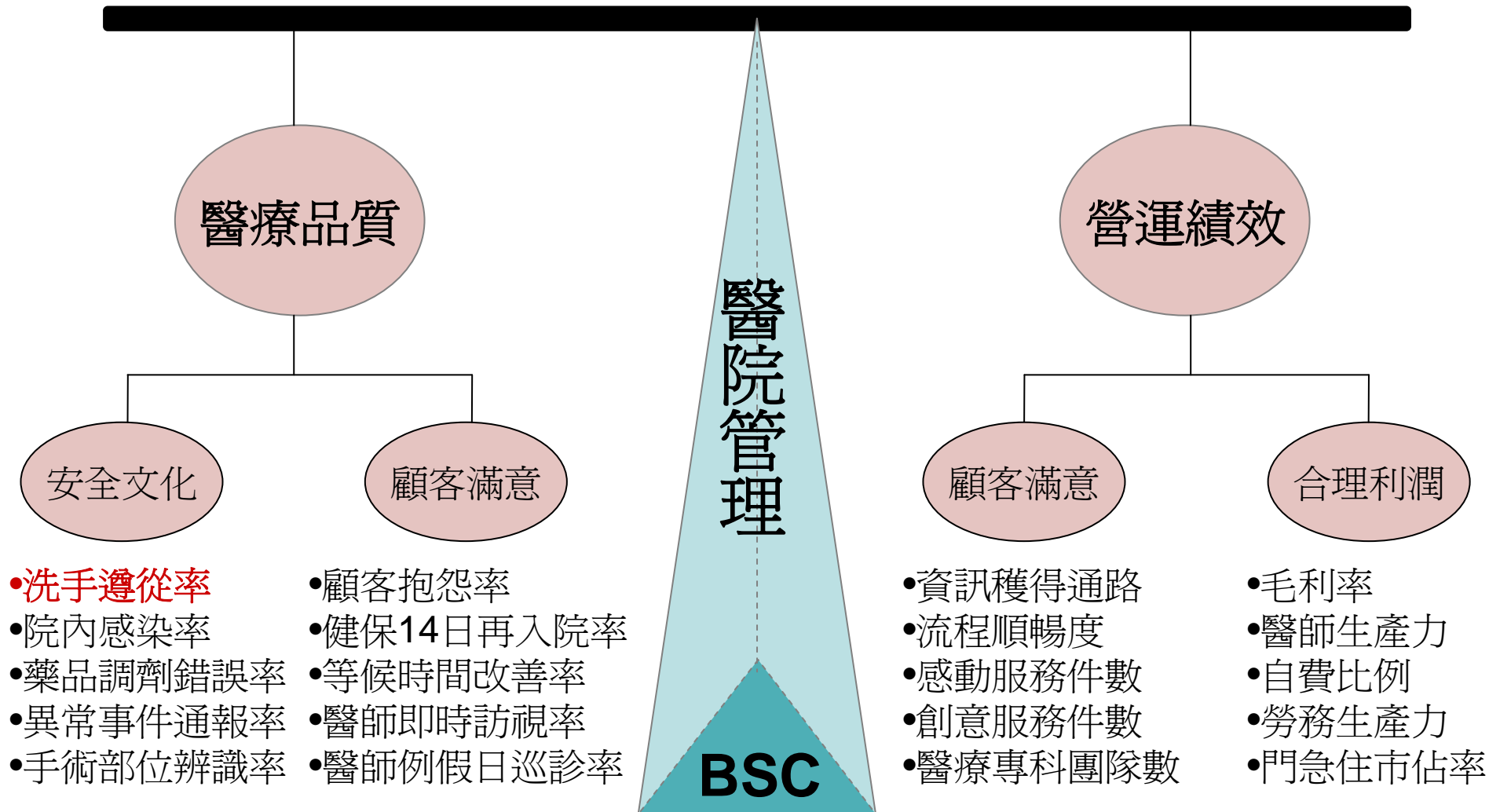
3.3、管理系統－醫療品質管理模式

- 領導
  - 品質承諾必須來自高階領導人,這是品質成功的重要因素。
- 策略
  - 有策略規劃才會有長期重點,組織才會以理性合宜的態度,適當的資源處理組織問題。
  - 由日常品質管理,重新檢視組織所建構之品質活動與顧客等關係。
- 系統
  - 以系統性思考使組織得以有系統地機制運作、收集資料、分析問題、提出解決方案,並加以實行所推動的品質專案。

3.4、管理系統－醫療品質管理模式

- ## 品質手法（品質工具）
  - 確認問題→分析原因→設定目標→方案決定、方案執行→追蹤與控制
- ## 評估
  - 確保品質管理活動能按計劃實施，必須要有稽核程序，包括活動前中後皆有完整的控制流程。
- ## 員工激勵
  - 激勵是促進品質團隊向前邁進的誘因
  - 品質文化習慣養成上，激勵是使其不斷成長最大的誘因
- ## 品質團隊
  - 團隊是品質改進的動力，沒有團隊就沒有品質的落實。

3.5、管理系統－稽核作業

- **稽核**：其目的在於確認品質系統內之要求是否有助於達成品質目標，並藉由稽核作業協調各部門完成品質目標之達成及提供被稽核者改進品質系統的機會，以追求持續改善加強自我水準給予顧客更完美的服務。
- **品質稽核**：有系統、而獨立的查驗，以判別品質活動及其相關結果是否符合預定的計畫，以及這些計畫事項是否有效的被執行，且適切的達成目標。

3.6、管理系統－ Hand Hygiene Monitoring Tool

- **Observation monitoring**
  - Develop standardized monitoring tool (examples available at <u>www.Handhygiene.org</u>)
    - Keep tool simple
    - Random audits: "deck of cards" each with hand hygiene question
    - Hand held devices expedite turnaround time
  - Educate observers to ensure reliability & consistency
  - Select non-peer reviewers
  - Random, in a way staff unaware of the observation
  - Hawthorne effect: statistically significant increase

Eckmanns, T et al. Infect Control Hosp Epidemiol2006;931-934

3.7、管理系統－ Hand Hygiene Monitoring Tool

- Measure and compare volume of soap and alcohol product used per patient care unit/area

  "vol/bed days/vol per use = # hand hygiene events per bed day"

- Provide staff regular feedback on compliance
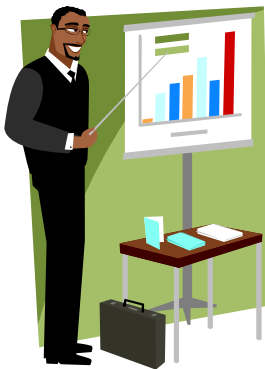
3.8、管理系統－ AHRQ為醫院訂定的病人安全10大要訣

1. **預防經由中心靜脈發生的血流感染(CLABSI)**
2. Re-engineer(再造/改善)出院計劃，減少可以避免的再住院(Re-admission)
3. 指派專人與家屬合作並重視處方的連續性及出院後的追蹤治療(Follow-up)
4. 有效預防靜脈血栓栓塞症(DVT/PE)或VTE(Venous ThromboEmbolism)
5. 教導病人如何安全使用抗凝血劑(例如Coumadin或Warfarin)
6. 合理限制住院醫師及其他醫院Staff的工作時數
7. 考慮與病人安全機構(PSO)密切合作 ：Patient Safety Organizations 是近一年多來才有的認定制度，通報(Report)給他們並要求與他分享(Share)
8. 使用優良且有助於病安的醫院設計原則：尤其用心在預防跌倒，規劃單人床的病房及改善藥師的工作環境等等
9. 量化醫院的病人安全文化
10. 導入團隊與溝通訓練並建立能迅速應對病人全身狀況突變(惡化)的機制確保插胸管(Chest tube)時的安全(建議使用UWET原則)
    U:Universal Precaution；W:Wider skin excision；E:Extensive draping；
    T:Tray positioning

3.9、管理系統－異常事件可以預防
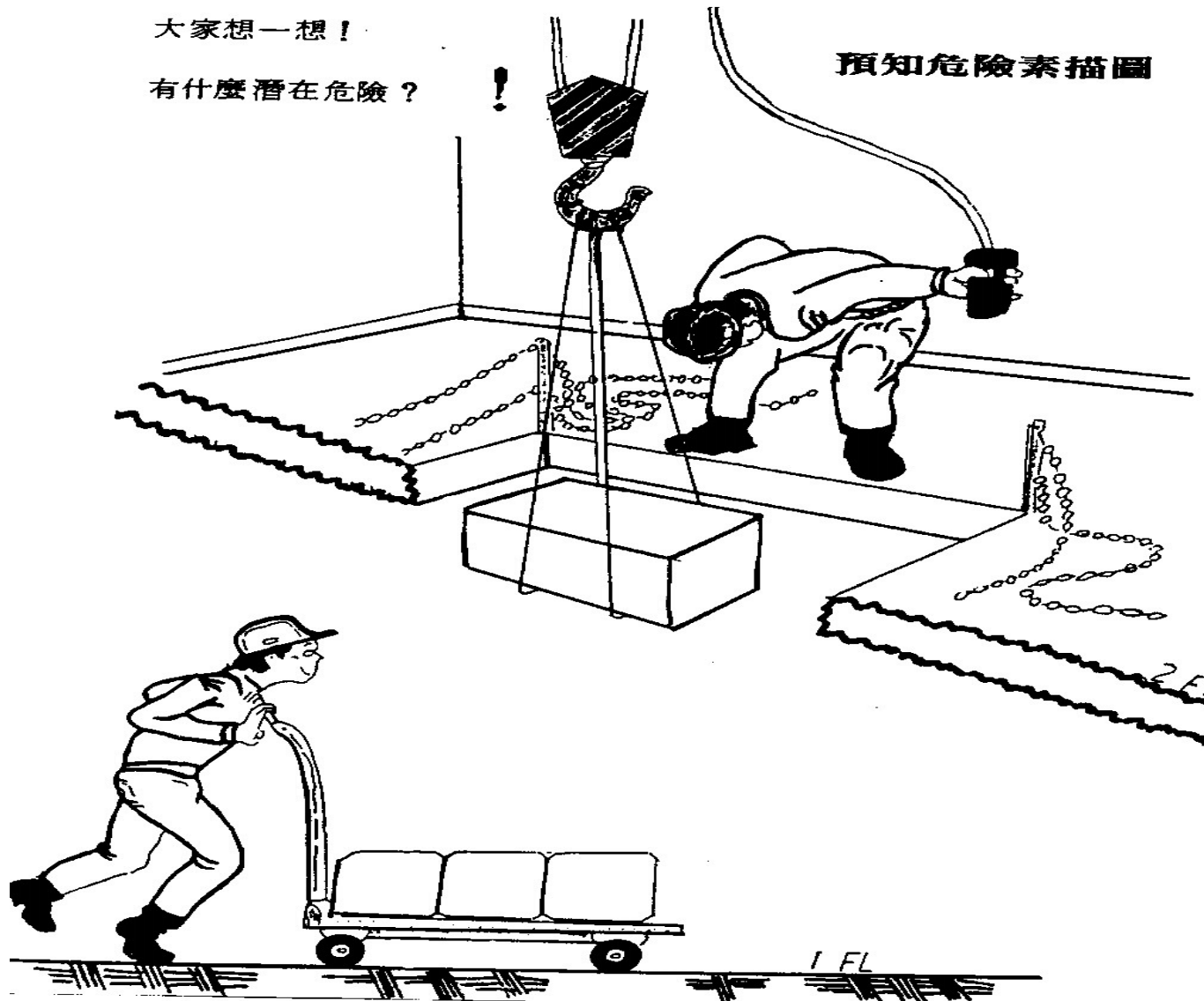
3.10、管理系統－建構病人安全防線

- 平時有效危害預防(prevention)
- 即時通醫療錯誤(Reporting)
- 第一時間攔截錯誤(Detection)
- 最短時間消滅危害(Mitigation)
- 有效的內外部稽核(Audit)
- 即時改善缺失能力(Improvement)

3.11、管理系統－善用改善工具

1. RCA －Root Cause Analysis
2. HFMEA － Health Failure Mode and Effect Analysis
3. TRM－ Team Resource Management

   3.1、航空界稱為Crew Resource Management
   （CRM）強調有效運用所有人員、設備、資源等可用資源，以達成最高水準的安全與效率

   3.2、醫療界稱Medical team training
4. SAQ － Safety Attitudes Questionnaire 德州大學Dr. Sexton
5. What-if －萬一沒洗手造成OOO MRSA 該怎辦？

3.11.1、What-if －萬一我的手造成OOO MRSA 感染該怎辦？

N Engl J Med 360;3 2009

The Hands Give It Away
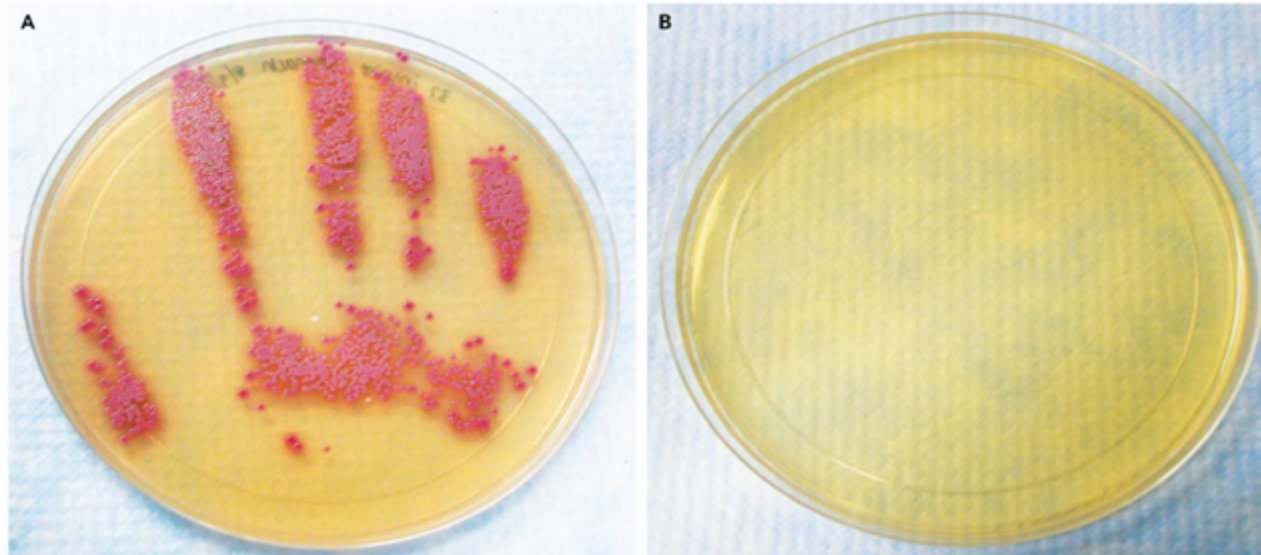
3.12、管理系統－Surgical Safety Checklist

Surgical Safety Checklist

World Health Organization | **Patient Safety**
A World Alliance for Safer Health Care

Before induction of anaesthesia	→	Before skin incision	→	Before patient leaves operating room
(with at least nurse and anaesthetist)		(with nurse, anaesthetist and surgeon)		(with nurse, anaesthetist and surgeon)

Before induction of anaesthesia
(with at least nurse and anaesthetist)

Has the patient confirmed his/her identity, site, procedure, and consent?
☐ Yes

Is the site marked?
☐ Yes
☐ Not applicable

Is the anaesthesia machine and medication check complete?
☐ Yes

Is the pulse oximeter on the patient and functioning?
☐ Yes

Does the patient have a:

Known allergy?
☐ No
☐ Yes

Difficult airway or aspiration risk?
☐ No
☐ Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?
☐ No
☐ Yes, and two IVs/central access and fluids planned

Before skin incision
(with nurse, anaesthetist and surgeon)

☐ **Confirm all team members have introduced themselves by name and role.**

☐ **Confirm the patient's name, procedure, and where the incision will be made.**

Has antibiotic prophylaxis been given within the last 60 minutes?
☐ Yes
☐ Not applicable

Anticipated Critical Events

To Surgeon:
☐ What are the critical or non-routine steps?
☐ How long will the case take?
☐ What is the anticipated blood loss?

To Anaesthetist:
☐ Are there any patient-specific concerns?

To Nursing Team:
☐ Has sterility (including indicator results) been confirmed?
☐ Are there equipment issues or any concerns?

Is essential imaging displayed?
☐ Yes
☐ Not applicable

Before patient leaves operating room
(with nurse, anaesthetist and surgeon)

Nurse Verbally Confirms:
☐ The name of the procedure
☐ Completion of instrument, sponge and needle counts
☐ Specimen labelling (read specimen labels aloud, including patient name)
☐ Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:
☐ What are the key concerns for recovery and management of this patient?

3.13、管理系統－效不更方

The NEW ENGLAND
JOURNAL of MEDICINE

HOME   ARTICLES ⌄   ISSUES ⌄   SPECIALTIES & TOPICS ⌄   FOR AUTHORS ⌄   Keyword, Tit

SPECIAL ARTICLE

A Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population

Alex B. Haynes, M.D., M.P.H., Thomas G. Weiser, M.D., M.P.H., William R. Berry, M.D., M.P.H., Stuart R. Lipsitz, Sc.D., Abdel-Hadi S. Breizat, M.D., Ph.D., E. Patchen Dellinger, M.D., Teodoro Herbosa, M.D., Sudhir Joseph, M.S., Pascience L. Kibatala, M.D., Marie Carmela M. Lapitan, M.D., Alan F. Merry, M.B., Ch.B., F.A.N.Z.C.A., F.R.C.A., Krishna Moorthy, M.D., F.R.C.S., Richard K. Reznick, M.D., M.Ed., Bryce Taylor, M.D., and Atul A. Gawande, M.D., M.P.H. for the Safe Surgery Saves Lives Study Group

Abstract   Article   References   Citing Articles (110)   Letters

Results
The rate of death was **1.5%** before the checklist was introduced and declined to **0.8%** afterward (P=0.003). Inpatient complications occurred in **11.0%** of patients at baseline and in **7.0%** after introduction of the checklist (P<0.001).

4.1、堅持－勇於跨越門檻

- 領　導　者　理　　念
- 人　員　素　質　高　低
- 醫　院　規　模　大　小
- 健　保　支　付　制　度
- 醫　師　參　與　程　度
- 系　統　整　合　能　力

4.2、堅持－向VOLVO學習

- 成立於1927年

"Cars are driven by people. The guiding principle behind everything we make at Volvo, therefore, is and must remain – safety."

Assar Gabrielsson and Gustaf Larson

1936年由拉森提出的核心價值成為Volvo產品理念的基礎。

4.2.1、VOLVO價值觀
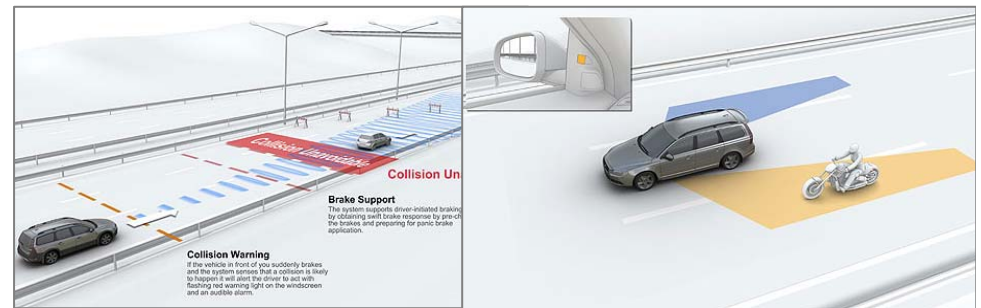
4.2.2、VOLVO在安全上持續的重大發明

1927首款jakob轎車

▲ **1944**年，Volvo首款面向大眾的
轎車Pv444型，首次配備了安全車
廂和來層擋風玻璃。這兩種安全技
術一直到今天還在所有的汽車品牌
上繼續使用。

▲**1959**年，發明三點式安全帶,為各車廠所使用

▲ **2007**「City Safety」系統,，包含駕駛視
覺盲點資訊系統和碰撞警示裝置及預警煞車
系統進一步減少車輛追撞的機會

4.3、堅持－向US Airways學習

■ US Airways飛機迫降紐約哈德森河 (2009/01/15)

4.3.1、 US Airways

■ US Airways飛機迫降紐約哈德森河 (2009/01/15)
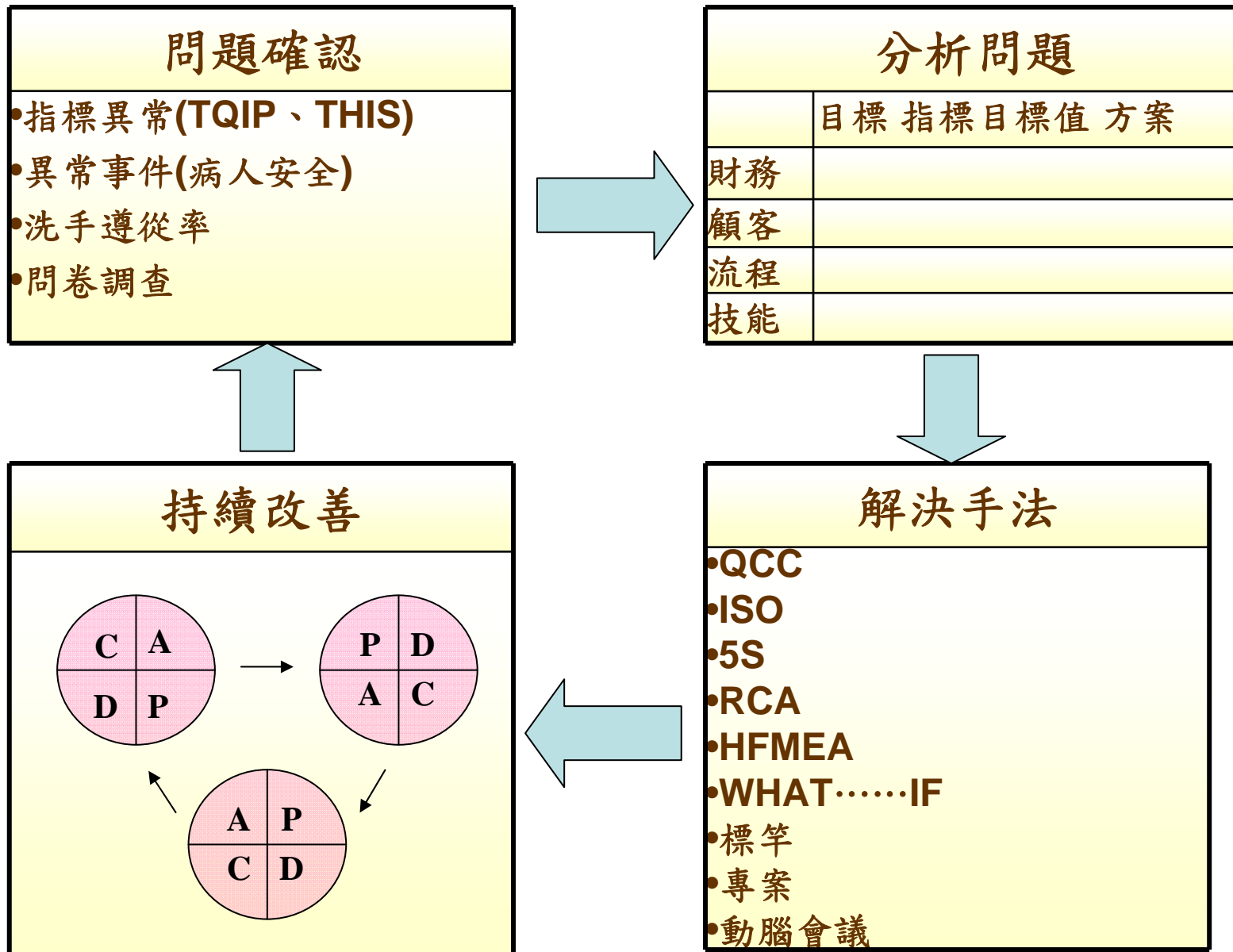
4.3.2、 US Airways

■ US Airways飛機迫降紐約哈德森河 (2009/01/15)

兩個引擎遭鳥擊失去動力的全美航空公司（US Airways）班機能化險為夷，平穩迫降在紐約哈德遜河（Hudson River）上，全仰賴機長蘇倫柏格（Chesley B. Sullenberger III）個人飛行經驗和沉著應變，以機尾式降落，避免機身解體造成更大傷亡，成功帶領154人死裡逃生。美國媒體立即將他捧成「哈德遜英雄」。
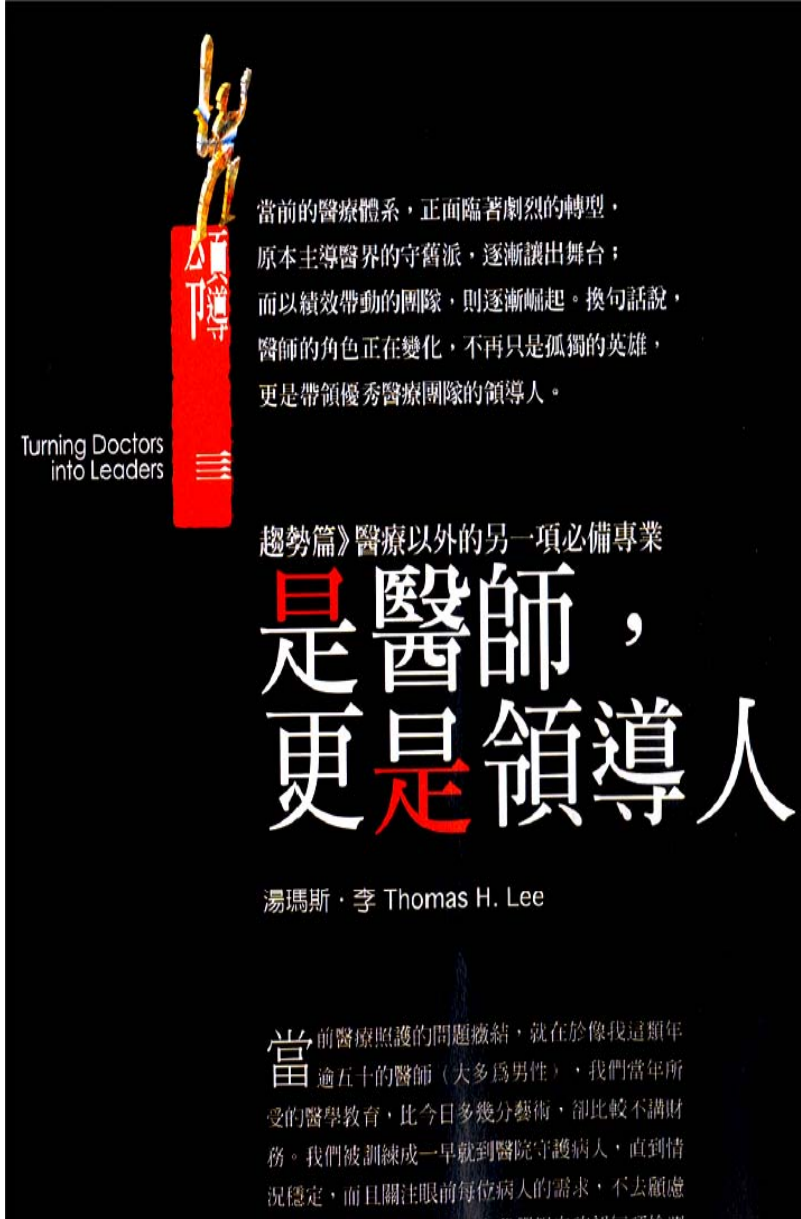
Sully Sullenberger 機長:
安全迫降歸功於機組員的團隊合作以及標準作業流程的實踐, 因為SOP是過去許多成功與失敗經驗凝聚的智慧, 加上機組員日常養成的紀律, 才能臨危不亂, 脫離險境.

4.4、堅持－持續改善

問題確認
- 指標異常(TQIP、THIS)
- 異常事件(病人安全)
- 洗手遵從率
- 問卷調查

分析問題

	目標 指標目標值 方案
財務	
顧客	
流程	
技能	

持續改善

解決手法
- QCC
- ISO
- 5S
- RCA
- HFMEA
- WHAT……IF
- 標竿
- 專案
- 動腦會議

4.5、堅持—讓醫師變領導人

當前的醫療體系，正面臨著劇烈的轉型，
原本主導醫界的守舊派，逐漸讓出舞台；
而以績效帶動的團隊，則逐漸崛起。換句話說，
醫師的角色正在變化，不再只是孤獨的英雄，
更是帶領優秀醫療團隊的領導人。
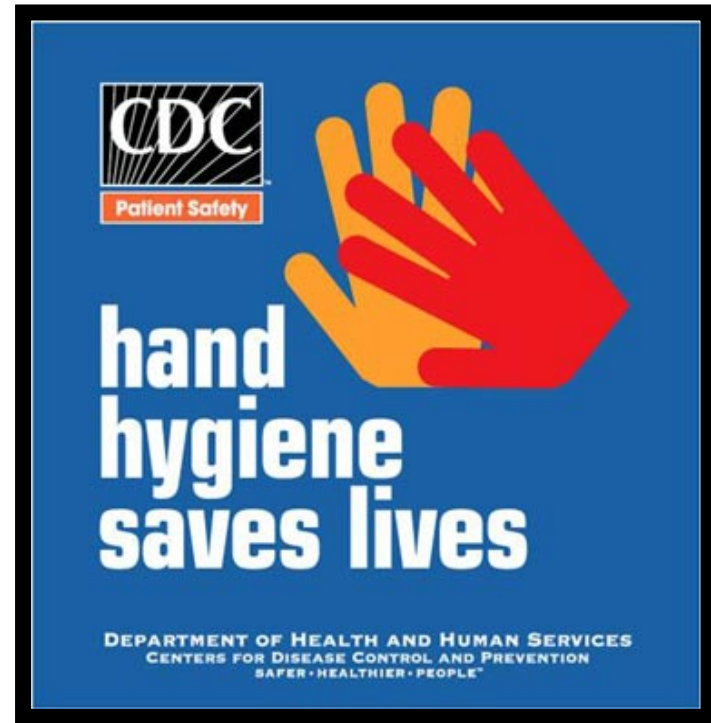
Turning Doctors
into Leaders

趨勢篇》醫療以外的另一項必備專業

是醫師，更是領導人

湯瑪斯・李 Thomas H. Lee

當前醫療照護的問題癥結，就在於像我這類年
逾五十的醫師（大多為男性），我們當年所
受的醫學教育，比今日多幾分藝術，卻比較不講財
務。我們被訓練成一早就到醫院守護病人，直到情
況穩定，而且關注眼前每位病人的需求，不去顧慮

4.6、堅持－舉手之勞,從我做起

- ✓ Teamwork
- ✓ Communication
- ✓ Respect
- ✓ Honesty

4.7、堅持有理－讓習慣變文化

The way we do things around here,
when no one is looking

THANK YOU
FOR YOUR
ATTENTION