

醫療風險管理近年發展趨勢

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大同小異

- ◆ *Medical Risk Management (MRM)*
- ◆ *Medical Safety Management*
- ◆ *Medical Quality Assurance*
- ◆ *Patient Safety*
- ◆ *Science of Hospital Safety*

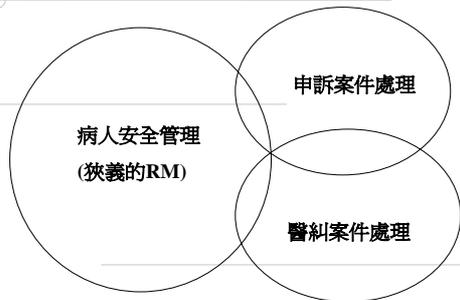
Medical Errorology

- ◆ *Anatomy of a Mistake*
- ◆ *Pathophysiology of an Error*
- ◆ *Diagnosis*
(*Incident Reporting*)
(*Root Cause Analysis*)
- ◆ *Treatment(Preventive Countermeasures)*

MRM的目標

1. **Medical QA**
2. **Patient Safety**
3. **Loss prevention + Mitigation**
4. **Litigation prevention**

廣義的醫療風險管理 (MRM)



- ◆醫療事故逐年增加
- ◆醫糾案例逐年增加
- ◆訴訟案例逐年增加
- ◆賠償金額逐年增加

Whose fault ?

威脅醫院安全的原因

1. 自然災害
2. 人禍(含犯罪)
3. 社會環境
(法規政策·景氣·戰爭·公害)
4. 傳染病
5. 狹義的醫療事故(medical errors)

Categories of Risk

- ◆ *Patient care-related risks*
- ◆ *Medical staff-related risks*
- ◆ *Employee-related risks*
- ◆ *Property-related risks*
- ◆ *Financial risks*
- ◆ *Other risks*

Safety Programs in a Healthcare Facility

1. Infection control
2. Disaster readiness
3. Hazardous materials management
4. Utility systems management
5. Security
6. Customer service
7. Radiation safety

Examples of Medical Risks

1. *Physical injury*
2. *Failure of machine or equipment*
3. *Breach of security*
4. *Fraud*
5. *Litigation*
6. *Customer dissatisfaction*
7. *Unfavorable publicity*
8. *Others*

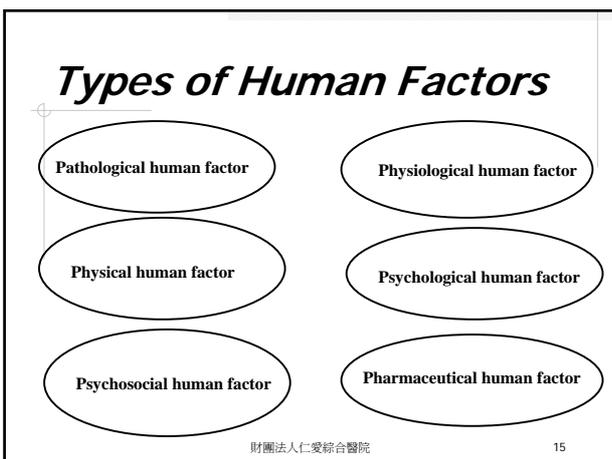
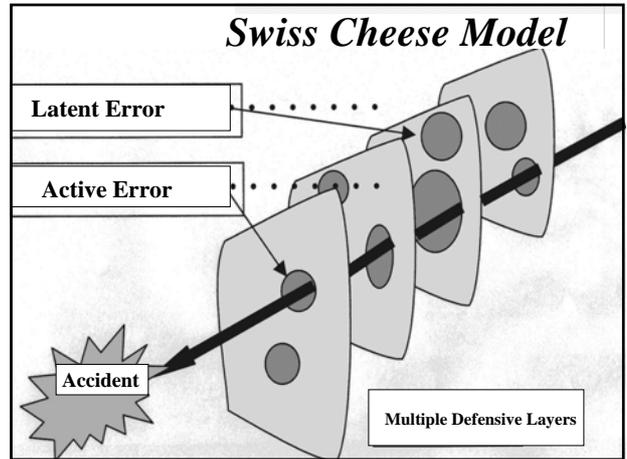
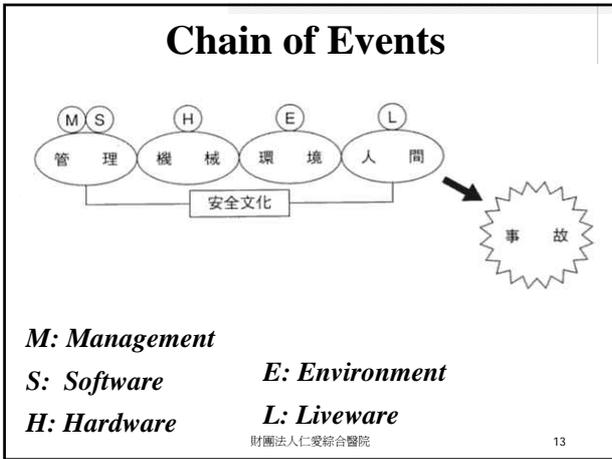
5 Types of Medical Errors

1. *Non-compliance (違規)*
2. *Procedural (程序·手法錯誤)*
3. *Communication (溝通不良)*
4. *Proficiency (技術不純熟)*
5. *Decision (決策錯誤)*

醫療疏失的原因

安全文化不存在或有缺陷

1. 管理／標準作業流程
(Management)／(Software)
2. 機器／器械 (Hardware)
3. 環境 (Environment)
4. 人→當事者·操作者 (Liveware)



- ### Risk Factors and Situations
1. **Fatigue**
 2. **Alcohol and / or CNS depressants**
 3. **Inattention**
 4. **Illness**
 5. **Fear, anxiety and anger**
 6. **Inexperience**
 7. **Unsafe working conditions**
 8. **Communication problems**
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Factors and Situations (continued)

9. *Bad habit*
10. *Pressure to hurry*
11. *Hard-to-read handwriting*
12. *Very young and very old age*
13. *Poor facility*
14. *Equipment failure*
15. *Language barrier and/or limited literacy*

Environmental Factors

1. *poor lighting*
2. *noise*
3. *interruptions*
4. *too much workload*
5. *heat*
6. *confined space*

促進“病人安全”意識改革的催化劑

- ◆ 美國
IOM Report, Betsy Lehman / Dana Farber
化療死亡事件
- ◆ 日本
橫濱市大醫院錯誤手術病人事件
- ◆ 台灣
北城與崇愛醫院給錯藥事件
和平醫院SARS封院事件

病人安全對策先進國家

- ◆ 美國
- ◆ 英國
- ◆ 澳洲
- ◆ 日本
- ◆ 加拿大

Iatrogenic Cause of Death

| Released by | Year | Rank |
|-------------|------|------|
| IOM | 1999 | 5 |
| JAMA | 2000 | 3 |
| NIA | 2003 | 1 |

7,841,360 (7.8 million)

| Condition | 10-Year Deaths | Author |
|------------------------|----------------|-----------|
| Adverse Drug Reaction | 1.06 million | (1) |
| Medical error | 0.98 million | (6) |
| Bedsore | 1.15 million | (7,8) |
| Nosocomial Infection | 0.88 million | (9,10) |
| Malnutrition | 1.09 million | (11) |
| Outpatients | 1.99 million | (12, 112) |
| Unnecessary Procedures | 371,360 | (3,13) |
| Surgery-related | 320,000 | (85) |
| TOTAL | | |

Death by Medicine

The Nutrition Institute of America

October 28, 2003

Deadly Medical Mistakes Exposed

New York, New York - New information has been presented showing the degree to which Americans have been subjected to injury and death by medical errors. The results of seven years of research reviewing thousands of studies conducted by the NIA now show that **medical errors are the number one cause of death and injury in the United States.**

According to the NIA's report, **over 784,000 people die annually due to medical mistakes.** Comparatively, the 2001 annual death rate for heart disease was 699,697 and the annual death rate for cancer was 553,251.

Over 2.2 million people are injured every year by prescription drugs alone and over 20 million unnecessary prescriptions for antibiotics are prescribed annually for viral infections. The report also shows that 7.5 million unnecessary medical and surgical procedures are performed every year and 8.9 million people are needlessly hospitalized annually. Based on the results of NIA's report, it is evident that there is a pressing need for an overhaul of the entire American medical system.

日本醫療事故與死亡數推估

◆250~300 萬件／年 (森)

◆120萬件／年 (長谷川)

◆死亡數 60 ~ 70人／日 (朝日新聞)

日本醫院的RM體制

1. 成立RM委員會／醫療安全對策室
2. 各自建立事故通報系統,唯有255家自2004年10月被指定需向政府通報重大事故
3. 必需編印院內事故防止手冊
4. 不追究個人責任的通報系統

所謂“Sentinel Events”的國際比較

所謂的 *Sentinel Events*

(JCAHO)例

1. 住院病人的自殺
2. 錯認病人的手術
3. 開錯部位的手術
4. 輸錯血
5. 因劑量過高的化療而死亡
6. Rape
7. 病人從推床摔下
8. 其他

在澳洲被規定需要通報的9種SE

1. 弄錯病人身份或身體部位的醫療處置
2. 住院病人的自殺行為
3. 體內遺留器械或其他物品導致再次手術
4. 血管內空氣栓塞導致死亡或後遺症
5. 溶血性輸血反應
6. 給藥錯誤導致死亡
7. 分娩時母體死亡或嚴重併發症
8. 嬰兒誘拐事件或將嬰兒錯交給他人(非家屬)
9. 其他導致病人嚴重傷害或死亡的事態

日本醫院評鑑機構(2002)列舉的15種SE包括：

1. 手術中或周術期發生的死亡或重大傷害
2. 侵襲性檢查或處置引起的死亡或重大傷害
3. 誤認病人
4. 手術部位錯誤
5. 因手術而遺留體內的紗布或器械
6. 醫療儀器操作錯誤
7. 危醉事故導致死亡或意識不清
8. 周產期的母體死亡或重大傷害
9. 無預期的新生兒死亡或重大傷害
10. 出院後24小時以內的死亡
11. 輸血錯誤
12. 給藥後無預期的死亡或重大傷害
13. 嚴重的院內感染
14. 照護過程中發生的死亡或重傷害
15. 其他的警訊事件

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日本媒體重視的病人安全的條件

- ◆有無醫療事故防範手冊
- ◆有無醫療事故對應手冊
- ◆有無配置客服申訴窗口(專人)
- ◆有無建置異常事件通報系統
- ◆有無公開異常事件於院內刊物或醫院網站上
- ◆醫院如何執行醫療事故防範措施
- ◆有無院內感染管制委員會
- ◆全麻是否由麻醉專科醫師執行

TRENDY雜誌 2004年11月刊
財團法人仁愛綜合醫院

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媒體報導的 真實性與可信度

財團法人仁愛綜合醫院

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Incident Reporting 理想(目標)值

Total 件數 = 病床數 x 2

給藥錯誤 < 50 %

醫師通報率 > 10 %

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***The HealthGrades Distinguished
Hospital Award for Patient Safety***

***The 13 Patient Safety Indicators
used for rating are published on
www.healthgrades.com***

Evidence-based Patient Safety Practices

of 97 practices reviewed by:

◆ **AHRQ**

◆ **UCSF**

◆ **Stanford Univ.**

11 good practices are most highly rated

www.ahrq.gov/clinic/ptsafety/summary.htm

Patient Safety Issues Focused on ICU

◆ **IOM**

◆ **JCAHO**

◆ **The Leapfrog Group**

◆ **IHI (Institute for Healthcare Improvement)**

◆ **NQF (National Quality Forum)**

病人安全實施重點

◆ **JCAHO公佈的年度目標
(2003, 2004, 2005)**

◆ **ICU care**

美國病患安全目標 (JCAHO 2004)

- ◆精進病患識別之準確性
- ◆強化醫療成員有效溝通
- ◆提高危險藥物用藥安全
- ◆消除手術部位術式錯誤
- ◆增進輸液幫浦使用安全
- ◆改善臨床警示系統效能
- ◆降低各類院內感染風險

Patient Safety Initiatives

Aim for :

1. Professional competency
2. Team performance
3. Error reduction
4. Safer products (drugs)

Tools for Medical Risk Management

1. *Check list*
2. *FMEA*
3. *RCA*
4. *Patient safety rounds*

Main Strategies for Preventing Errors Using IT

- ◆To improve communication
- ◆To assist with calculations
- ◆To assist with monitoring
- ◆To provide decision support
- ◆To perform checks in real time

醫療事故原因分析

- ◆ RCA
- ◆ FMEA
- ◆ SHELL (devised by KLM)
- ◆ 4M-4E Matrix(used by NASA)

IT infrastructure for Patient Safety (Ubiquitous Computing Era)

- ◆ Electronic Medical Record (EMR)
- ◆ Computerized Physician Order Entry (CPOE)
- ◆ Clinical Decision Support System (CDSS) and Reminder System
- ◆ Bar Code Technology
- ◆ Robotics

Benefits of Bar Code Technology

- *Positive Patient Identification and 4 Rights(drug, route, dose, time)*
- *Reduction of medication error rate by 65-85%*
- *Evidence-based and cost-effective*
- *Can prevent transfusion and lab specimen-collection errors*
- *Also helps eliminate billing mistakes*

Benefits of CPOE

- ※ **No misinterpretation of handwriting, decimal points or abbreviations**
- ※ **provides all kinds of information about potential drug complications: automatic checks on patient drug allergies, dosage and drug interaction**
- ※ **Paperless**

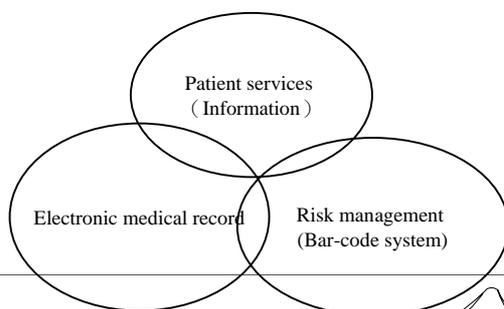
Epoch-making Ubiquitous Computing

1. 電腦終端的超小型化
2. 利用沒有死角的無線網路即時掌握最新data
3. 可取代bar code 的超小型IC tag 可用來自動辨識藥品·醫材及醫療儀器
4. 數千職員·病人·醫藥品·儀器等的集中監視系統

IT-based Medication Error Reduction Systems

1. Medication bar code technology at bedside
2. Computerized Physician Order Entry(CPOE) system
3. Automated dispensing
4. Pharmacy robotics

Bedside Terminal has 3 functions



Patient Safety Culture Revolution

It takes time ! (3 ~ 5 years)

(Brown-Spath & Associates)

8 Steps to Implement a Culture of Safety

1. *Conduct a cultural survey to assess baseline attitudes*
2. *Educate staff on the science of safety*
3. *Identify staff's safety concerns through a survey*
4. *Analyze events*
5. *Implement improvements*
6. *Document results*
7. *Share stories and disseminate results*
8. *Resurvey staff*

20 Tips to Help Prevent Medical Errors

www.ahrq.gov/consumer/20tips.htm

Some Useful Slogans for Patient Safety

- ◆ Speak up for patient safety
- ◆ Stand up for patient safety
- ◆ Ask, listen & learn
- ◆ Inform before you perform
- ◆ Educate before you medicate
- ◆ Safety first
- ◆ Better late than never
- ◆ Safe & Save

The Price of Safety

醫療安全與安心要花多少錢

◆ 人事費用的

1.4 % → 醫療安全

3.5 % → 風險管理

(ASTD 2001)

風險管理的 3大原則

1. 負擔不起的損失, 寧可投保(加保)
2. 不要因小失大
3. 客觀的分析大局與風險確率

RESOURCES FOR MEDICATION SAFETY PRACTICES

- *American Society of Health-System Pharmacists* (www.ashp.org)
- *American Society for Healthcare Risk Management* (www.ashrm.org)
- *Institute for Healthcare Improvement* (www.ihl.org)
- *Institute for Safe Medication Practices* (www.ismp.org)
- *U. S. Pharmacopeia* (www.usp.org)
- *National Patient Safety Foundation* (www.npsf.org)
- *National Coordinating Council on Medication Error Reporting and Prevention* (www.nccmerp.org)
- *Massachusetts Coalition for Prevention of Medical Errors* (www.mhalink.org/mcpme)
- *Med-E.R.R.S.* (www.med-errs.com)
- *Joint Commission on Accreditation of Healthcare Organizations* (www.jcaho.org)

Conclusions

- ◆ Generate a hospital-wide safety culture
- ◆ Emphasize human factors training
- ◆ Educate employees
- ◆ Encourage incident reporting
- ◆ RCA → CQI
- ◆ INFORMED CONSENT and BETTER COMMUNICATION
- ◆ Invest IT infrastructure
- ◆ RM must be rational, systematic and integrated