

4 機材供与フォーム

Prof. He Huiyu
President, Japan-China Friendship Hospital

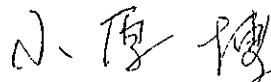
Handing over of Equipments of the Japan Disaster Relief Team

The Government of Japan, through the Japan International Cooperation Agency (JICA), has deployed the Japan Disaster Relief Expert Team to the People's Republic of China from 11 May to provide technical and material support to protect the health staffs and to contain the spread of SARS (Severe Acute Respiratory Syndrome).

On the occasion of the request by Prof. He Huiyu, president of the Japan-China Friendship Hospital, the Japan Disaster Relief Expert Team will hand over equipment as listed on Annex (about JPY 19,000,000) to support efforts of the Hospital to fight the outbreak of SARS.

The Japan Disaster Relief Expert Team hopes that the ventilators contribute positively to the measures taken by the Hospital.

15 May 2003



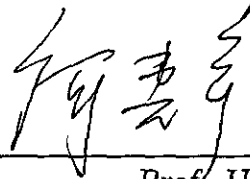
Dr. Hiroshi OHARA, M.D., Ph.D.
Leader, Japan Disaster Relief Expert Team

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Receipt of Equipments of the Japan Disaster Relief Expert Team

The Japan-China Friendship Hospital has received equipment as listed on Annex (about JPY 19,000,000) handed over on 15 May by the Japan Disaster Relief Expert Team.

15 May 2003



Prof. He Huiyu

President, Japan-China Friendship Hospital



Witnessed by

Li Mingzhu

Deputy Division Director of Bilateral Relations
Department of International Cooperation, Ministry of Health

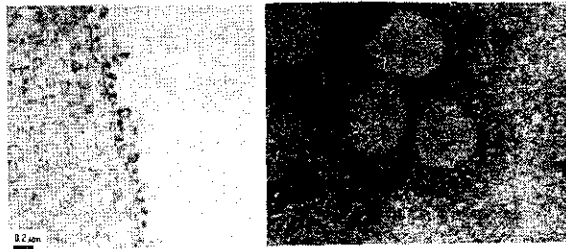
Annex

	Name of equipment	Quantity
1	Medical Latex Gloves (Size:6.5)	4,080
2	Medical Latex Gloves (Size:7.0)	3,960
3	Medical Latex Gloves (Size:7.5)	4,080
4	Medical Latex Gloves (Size:8.0)	4,080
5	Modex N-95 Mask	3,100
6	Medical Cap Total	2,400
7	Medical Goggle	1,020
8	Shoes Cover	14,830
9	Medical Gown (Size:M)	2,500
10	Medical Gown (Size:L)	2,490
11	Medical Ware Top (M)	2,448
12	Medical Ware Top (L)	2,438
13	Medical Ware Pants (M)	2,448
14	Medical Ware Pants (L)	2,438
15	Medical Ware Set M	72
16	Medical Ware Set L	72
17	Artificial Revevival Tool Respiroteck Basic Model	216
18	Artificial Revevival Tool Respiroteck M	360
19	EdithFlex Disposable	600
20	Protective Suite (Bp Kit I)	30
21	Antiseptic (500ml spray type)	490

5 セミナー配付資料

严重急性呼吸综合症

医院感染控制指导原则

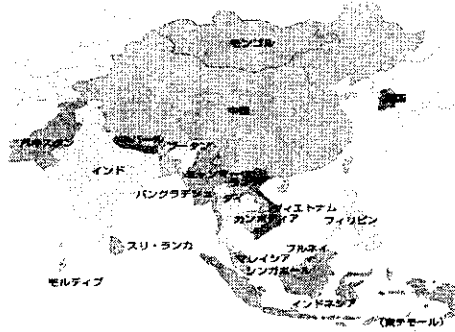


目 的

- 了解SARS的基本概况
- 了解潜在的SARS
- 实施切实的控制措施以防止疾病传播，保护病人、医务人员、家庭及社区
- 在医院内建立有效的监督、监控和医疗资源分配系统以战胜SARS

背景

- 世界范围内总计
- 7183个病例
(截止至5月9日)
- 死亡514例
- 第一份病例发现在2002年11月 (待证实)
- 存在医院和家庭集中感染的趋势
- 中国大陆4805例, 香港1667例,
澳门1例, 台湾149例



病原学

- SARS病毒
(冠状病毒亚型变种)
- 与发病者密切接触的人员极易被感染
- 传播途径
 - 密切接触人员之间的传染
 - 接触发病者使用过的衣物、物品等
 - 存在经空气传染的可能性 (吸入传染) ?



已发现之特征

- 潜伏期2-10天 (1-14天)
- 发病期存在感染性
 - 未确定，但有证据显示潜伏期存在感染性
- 细菌存活期
 - 可能存活数天
- 医院感染率高
- 家庭集体感染率高

一例典型的SARS

- 一名35岁健康女士，5日前与SARS患者密切接触
- 起病急，发热伴随肌肉酸痛、打冷战、感觉疲劳 (体温38.2-39.5度)
- 第3天的胸片显示正常，白细胞记数正常
- 治疗无明显效果
- 持续发热，胸片显示肺炎症状，第6天出现咳嗽伴随少量血丝痰。第7天出现气短症状，第13天出现呼吸衰竭，25天后可完全恢复

重症SARS病例

- X线检查显示多叶病变范围超过50%
（阴影）（肺炎症状明显）
- 呼吸困难，呼吸频率>30次/分
- 低氧血症
 - 吸氧3-5升/分
 - 脉搏容积血氧饱和度<93%
 - 氧合指数<300mmHg
- 休克或急性呼吸窘迫综合征（ARDS）



病例定义（疑似病例）

- 发热>38度
- 和 一项或多项下列症状
 - 咳嗽、呼吸急促、呼吸困难
- 和 10日内出现下列一项或多项症状
 - 10日内曾与SARS患者密切接触
 - 曾到过出现继发感染疫情的区域

病例定义（可能病例）

- 疑似病例条件加上：
- 胸片出现肺炎症状或ARDS
- 或 患不明原因的呼吸系统疾病致死（尸检无结果）
- 或 检测出病毒

SARS感染控制目标

- 发现新病例
- 实施有效隔离措施
- 保护病人及医务工作者
- 保护家庭及社区居民

发现SARS新发病患者

- 出现如下表现可考虑SARS患病可能性
 - 发热、呼吸系统疾病症状
 - 与SARS患者有接触史
- 分诊地区
 - 在入口处戴口罩
 - 给出现呼吸道症状的病人戴口罩
 - 与其他病人分离
- 建议人员穿防护衣
- 疑似病例应转送至SARS定点医院

SARS患者住院

原则上隔离房间有单独出口、独立卫生间、负压通风等条件，医护人员经过院内感染培训

病房之间应有隔断

疑似病例应单独隔离

可能病例不需单独隔离

SARS隔离要点

- 硬件符合两线三区
- 管理控制
- 隔离区统一布局
- 防护衣
- 洗手
- 清洁、消毒
- 垃圾处理
- 其他

硬件设施条件

- 建筑所处位置相对独立
- 通风良好
 - 空气流动：走廊—房间—室外
- 流动水
- 符合条件的卫生间
- 便于处理医用垃圾及被服
- 病人密度不宜过大
- 医疗设备配置齐全

管理控制手段

- 病房楼出入控制
 - 开设一个出口
 - 出口处设值班人员
 - 进出人员登记
- 病区相对隔离
 - 减少探视者至最少
 - 限制病人走动
 - 控制周边地区
- 入口处提供
 - 口罩，隔离衣，洗手液（消毒）
 - 污物箱



管理控制手段

- 责任划分
 - 确定病人安置位置
 - 强化院内感染控制管理
 - 严格进入污染区程序
 - 配备充足防护物资
 - 监督（以防止感染）17

有必要建立院内感染控制部门，指派专人负责

监 督

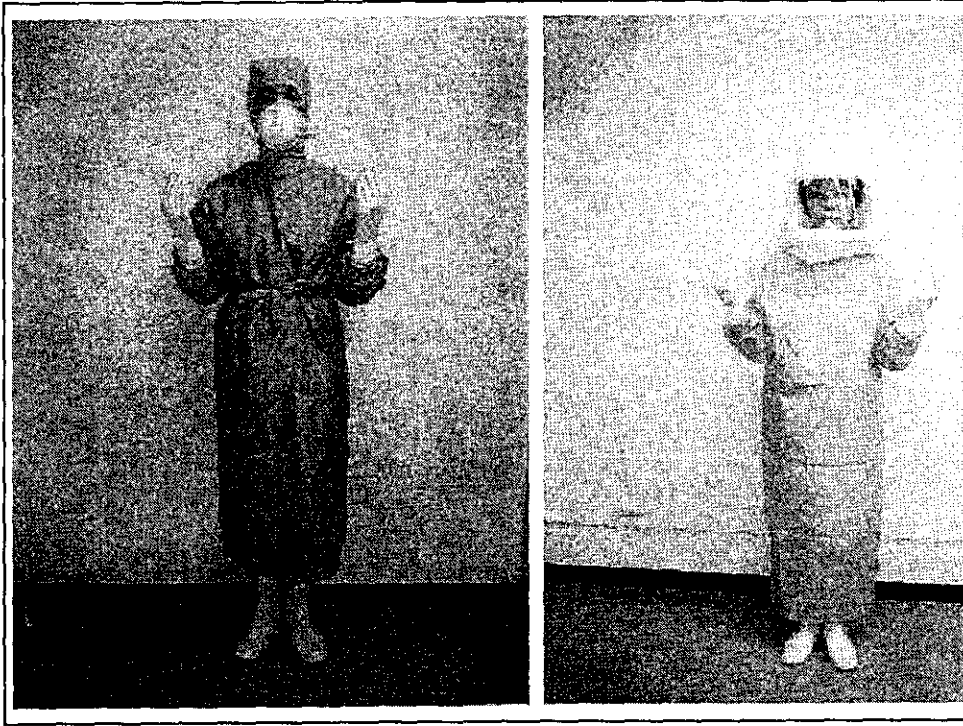
- 列出一线工作人员名单
 - 监测所有出现的疑似症状
- 筛选有关症状
- 建立接触信息记录

隔离区域的规范

- 标示隔离区域
 - 明示使用防护设备操作指导
- 分离清洁和污染物品
- 指定清洁区域
 - 开放
 - 保证防护用品数量充足
- 指定污染区及污物流程
 - 使用专门颜色的垃圾袋或容器，运送垃圾和被服

防护设备

- N95口罩
- 防护眼镜/防护面罩
- 一次性/重复使用防护衣
- 一次性手套
- 帽子、鞋套等



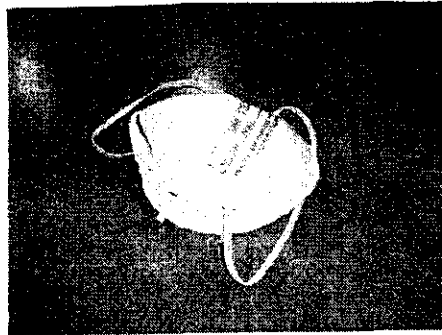
要 点

- 接触病人需要穿防护衣，戴手套、眼罩
- 洗手
- 离开污染区后洗手



N95口罩

- 具有高滤过率
- 佩戴时紧密贴在面部，没有空隙
- 在保持干燥的情况下可6小时使用
 - 可在口罩上写名字
- 作为医用垃圾处理



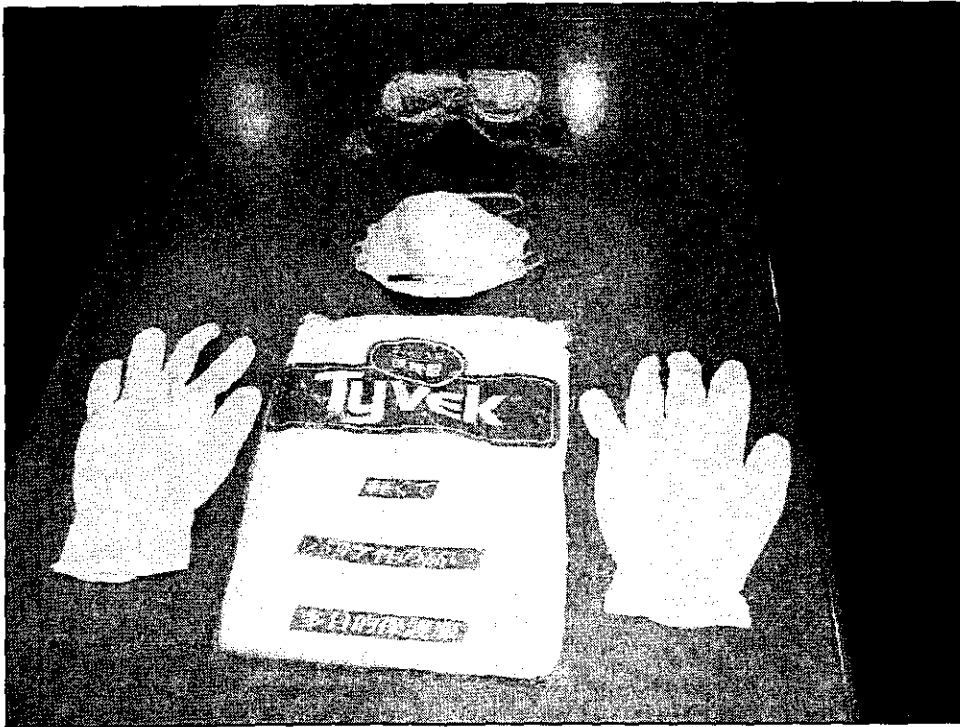
正确使用N95口罩

- 避免接触口罩内部
- 不需戴多个，一个即可
- 污染区外可不用佩戴



眼镜及防护面罩

- 进入污染区前，每人应配备
- 在可能接触病人的呼出分泌物等情况下必须佩戴
 - 如插管时、病人打喷嚏或咳嗽时等
- 使用后遗弃在污染区做回收处理
 - 消毒



防 护 衣

- 直接接触病人必须穿着防护衣
 - 接触少量病人
- 建议勤换防护衣
 - 如有明显污染应立即更换
 - 防护衣应挂置
 - 出污染区前废弃

手 套

- 直接接触病人或进入病区需戴手套
- 手套一次性使用
- 摘去手套后洗手

洗手

- 使用香皂或含酒精的消毒液洗手
- 手部清洁
 - 接触病人呼出分泌物后
 - 摘去手套后
 - 离开污染区前

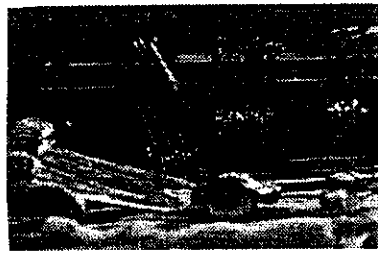


医院院区及设备消毒

- 对院区各部位进行定期消毒
- 使用患者护理设备
- 用1:100漂白剂消毒

医院院区及设备消毒

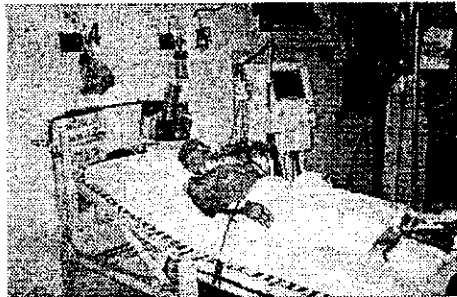
- 所有病人使用过的可重复使用物品应：
 - 消毒
 - 指定专门供应室进行消毒
 - 物品消毒操作人员应具备防护条件



院区消毒

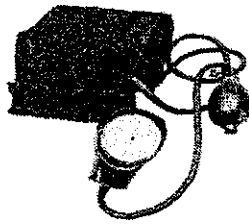
- 病人呆过的地方为污染区
- 病床应每日消毒
- 对其他表面消毒

推荐使用漂白剂



院区感染管理

- 污染物品用专门容器运送
 - 污物箱应靠近病人或出口
- 给病人使用过的护理设备要消毒



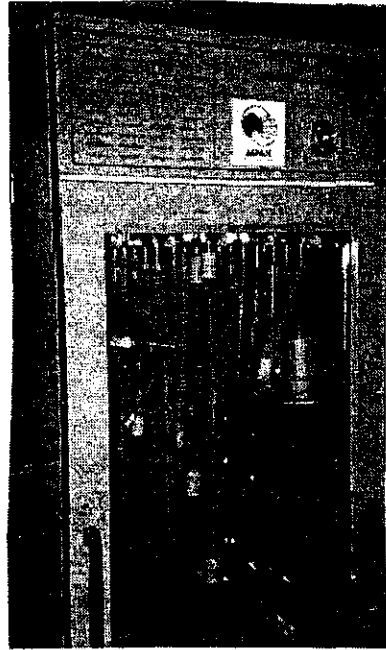
医疗设备消毒

- 自动分开
- 干蒸
- 氧化乙烯气
- 戊二醛



例：试管清洗

- 细毛刷，超声波清洁
- 戊二醛浸泡45分钟
- 过滤水
- 烘干



污 物

- 医用垃圾：污染区产生的垃圾
 - 使用过的衣物
 - 棉签等
 - 面罩
 - 防护衣
 - 其他
- 使用专门颜色的塑料袋

洗 衣

- 被服
 - 使用专门颜色的袋子装运
 - 不要分类
 - 标准程序
 - 洗衣房工作人员应穿着防护衣
 - 标准洗涤
 - 可加漂白剂



出院标准-例子

- 参考卫生部颁布的SARS患者出院参考标准
- 体温正常5天以上
- 身体、精神状态良好
- 血象检查正常
- 胸片正常
- 脉搏容积血氧饱和度 $>95\%$ ，动脉血氧分压 $>60\text{mmHg}$

其 他

- 每个病区应配备便携/床旁X光机
- 及时查房
- 转运病人时，病人应戴口罩，穿隔离衣
- 医护人员随时携带
 - 手套
 - 防护衣
 - N95口罩

指导病人及家属

- 强化病人“源头控制”重要性
 - 咳嗽时应捂住嘴
 - 吐痰、排便时应使用相应容器
 - 戴口罩
 - 不可连续使用同一个口罩
- 指导探视者穿着防护用品

其 他

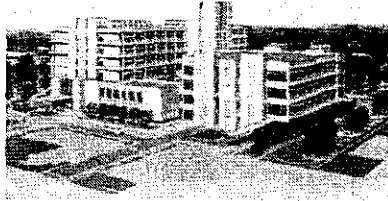
- 转运-救护车
 - 对救护车类型无特别要求
 - 病人戴口罩
 - 司机等工作人员要穿防护衣
- 转运后对救护车消毒
 - 标准程序消毒或使用1: 100漂白剂
 - 然后用清水冲洗车辆

对医护人员的影响

- 担心被感染
- 担心感染扩散
 - 给家庭/社区
 - 其他病人
 - 同事
- 具体保护措施仍未确定
- 实施严格的感染控制手段是有效的

**The Bach Mai Hospital Project
for Functional Enhancement**

Hanoi, Vietnam, 2003-2004

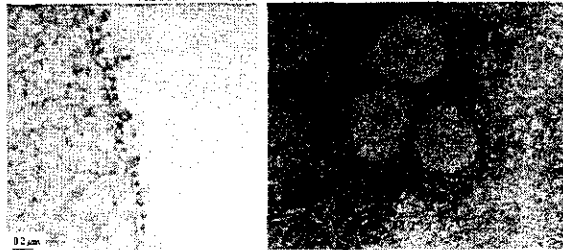


SARS

Severe Acute Respiratory Syndrome

非典型肺炎

Infection Control Measures to Prevent
Hospital Transmission

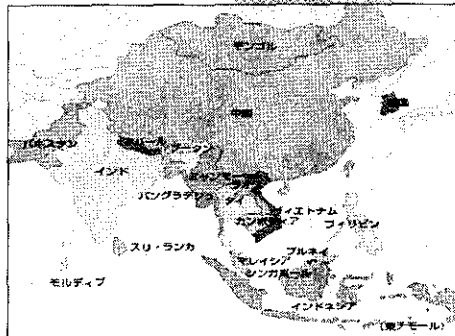


Objectives

- Understand outline of SARS
- Recognize potential SARS
- Implement appropriate control measures to prevent transmission and to protect patients, health care workers, families, and the community
- Setting up appropriate system for supervising, monitoring and resource allocation in hospitals against SARS

Background

- 7,183 cases worldwide (As of 9 May 2003)
- 514 deaths
- First case occurred in November 2002?
- Tendency of hospital and family cluster



China	4,805 Cases
Hong Kong	1,667
Macau	1
Taiwan	149

(As of 9 May 2003)

Etiology



- **SARS virus**
New species of Corona virus
- **Highly infectious to people nearby by close contact with respiratory droplets**
- **Means of transmission**
 - Person to person transmission
 - Contaminated hands, clothes, equipment may also be important
- - Possibly airborne transmission (inhalation of aerosols) ?

Characteristic findings

- Incubation period
 - 2-10 days (1-14 days)
- Onset and duration of infectivity
 - Unknown, but evidence of infectivity in incubation period
- Organism survival in environment
 - might survive for a few days.
- High frequency of nosocomial infection (hospital infection)
- High frequency of infection in family

A typical case of SARS

- 1 A 35yrs healthy lady; History of taking care of SARS patients 5 days ago.
- 2 Acute onset of fever with myalgia, chill and fatigue T: 38.2 C to 39.5 CT
- 3 in day 3, Chest X ray is normal, WBC is normal
- 4 no response to therapy.
- 5 Fever progressed with time, pneumonia was shown in chest X ray in day 5, cough begun in day 6 with a few bloody sputum. Short of breath begun in day 7, progressed to respiratory failure in day 13. Recovered quite well after 25 days in the hospital.

Severe SARS case

- X ray shows Multi – lobular shadows - >50% rapid progress of pneumonia
- Tachypnea > 30/min
- Hypoxemia
 - Nasal O₂ supply 3-5L/min
 - SaO₂ < 93%
 - Oxygenation index < 300 mmHg
- Shock, ARDS



Case definition

Suspect Case

- Fever $>38^{\circ}\text{C}$
- **AND** one or more respiratory symptoms
 - Cough, shortness of breath, difficulty breathing
- **AND** one or more of the following within 10 days of symptom onset:
 - Close contact with person diagnosed as SARS (particularly within 10 days of onset)
 - History of travel to areas with reported transmission of SARS

Case definition

Probable Case

- Suspect case PLUS
- **Chest X-ray findings of pneumonia** or Adult Respiratory Distress Syndrome (ARDS)
- **OR** unexplained respiratory illness resulting in death, with autopsy pathology of respiratory distress syndrome without an identifiable cause
- **OR** virus detection

SARS Infection Control Goals

- Detect new cases
- Implement appropriate isolation measures
- Protect patients and healthcare personnel
- Protect family and community members

Detect New SARS cases

- Think of SARS in patients with
 - Fever and respiratory symptoms
 - History of contact with SARS patient
- Triage area
 - Signs and preparation of surgical masks at entrance
 - Masks for patients with respiratory symptoms
 - Segregate from other patients
- Personnel should do the recommended protective attire
- If SARS is suspected, the patient should be transferred to SARS hospital (isolation)

SARS Admissions

Ideally, an appropriate isolation facility with its own entrance, individual cubicles, negative pressure ventilation, and a team trained in infection control procedures should be available

- Separate wards/areas for each of the following categories
- Cases who are under examination & SARS case status is yet undetermined
 - Single patient per room
- Probable cases
 - May share room with other probable cases

Components of SARS Isolation

- Facility Characteristics
- Administrative Controls
- Organization of Isolation Area
- Protective Attire
- Hand Hygiene
- Cleaning and Disinfection
- Waste and Linen Handling
- Other Issues

Facility Characteristics

- Removed from main hospital traffic
- Good ventilation
 - Air movement: corridor to room to outdoors
- Sinks and running water
- Adequate lavatory facilities
- Capacity to handle waste and laundry
- Sufficient rooms for expected patients
- Equipment to meet patient care needs

Administrative Controls

- Limit and control points of entry to infected wards
 - One entrance
 - “Guard” to control entrance
 - Log of personnel and visitors
- Limit access to infected area
 - Minimize visitors
 - Limit patient travel/transport outside unit
- Ensure equipment at entrance
 - Mask, gown, hand disinfectant
 - Waste container



Administrative Controls

- **Assignment of responsibility**
 - Determining patient placement
 - Overseeing implementation and enforcement of infection control measures
 - Enforcing access restrictions
 - Supply acquisition and distribution
 - Surveillance for transmission

It is necessary to set up nosocomial infection control committee and appoint staff who is in charge of nosocomial infection control

Surveillance

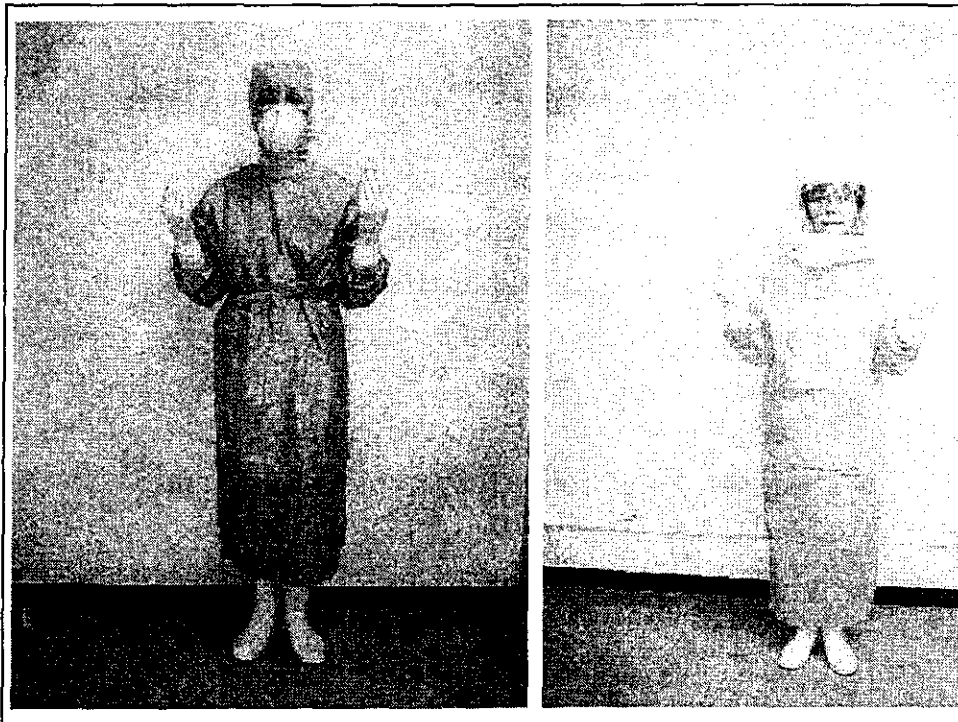
- **Maintain list of all staff who worked with SARS patients or on the SARS ward**
 - Systematically monitor for SARS-like illness
- **Screen for symptoms of SARS-like illness among staff reporting for duty**
- **Create a list of and contact information for persons visiting or caring for SARS patients**

Organization of Isolation Area

- Sign designating isolation area
 - Instructions for using protective attire
- Separation of clean and dirty supplies
- Designated area for clean protective attire
 - Accessible to personnel
 - Sufficient inventory to meet daily needs
- Designated area for containment of waste and soiled linen
 - Color-coded bags and containers for contaminated waste and laundry

Protective Attire

- N-95 Masks
 - If not available, a surgical mask should be worn
- Goggles (protective glasses)/face shields
- Disposable or Reusable Gowns
- Disposable Gloves
- Head and/or shoe covers not required but may be used according to local preference



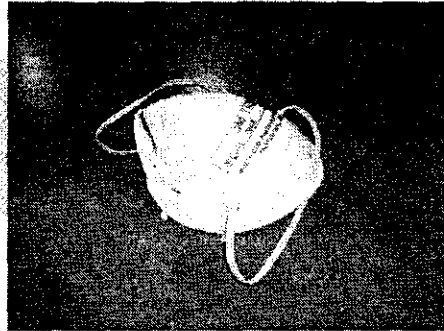
Key Points

- Wear disposable gowns, gloves and goggles for close patient contact
- Wash hands or perform hand hygiene between patients
- Perform hand hygiene when leaving unit



N-95 Masks for Respiratory Protection

- N95 offers higher filtration than surgical mask
- Fit mask securely over BOTH nose and mouth
- Use for single shift unless excess moisture necessitates replacement
 - Label with name
- Dispose with medical waste



Proper use of N-95 Mask

- Avoid touching front of mask
- Wear only one mask – no need for additional protection
- No need to wear mask outside of ward housing infected or suspect patients



Goggles and Face Shields

- Assign to each worker at beginning of shift
- Wear when anticipate spray or splatter of respiratory secretions
 - eg, suctioning, intubation, coughing, sneezing
- Returned to dirty area at end of shift
 - » To be cleaned and disinfected



Gowns

- Gowns should be worn for direct patient contact
 - Intended for one patient contact
 - If necessary, may be reused during one shift
- Designate one or more gowns for each patient per day
 - Discard immediately if visibly contaminated
 - Hang gown with outside facing in when not in use
 - Discard at end of shift

Gloves

- Wear disposable gloves for contact with patients and their environment
- Dispose gloves after use
- Wash hands or perform hand hygiene after glove removal

Hand Hygiene

- Wash hands with soap and or use an alcohol-based hand hygiene product
- Perform hand hygiene
 - After contacting respiratory secretions
 - After removing gloves
 - Before leaving the isolation area



Disinfecting the Hospital Environment and Equipment

- Standard procedures and agents for cleaning and disinfection of environmental surfaces and patient care equipment should be used
- Use 1:100 Bleach solution to clean contaminated areas and inanimate objects

Disinfecting the Hospital Environment and Equipment

- All reusable patient items (eg, basins and bedpan) should be
 - Cleaned and disinfected before use on another patient
 - Take to dirty utility room for reprocessing
 - Personnel should at a minimum wear gloves when handling contaminated equipment

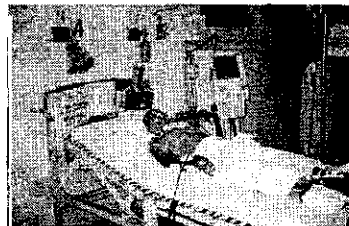


Disinfecting the Hospital Environment

- Immediate area around patients should be considered heavily contaminated
- Bedside table, bed stand, and accessible areas of bed and floors should be cleaned with a disinfectant daily
- Disinfect other surfaces if visibly soiled

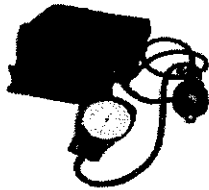
Bleach is recommended as a disinfectant

-Disinfectant fogging ?



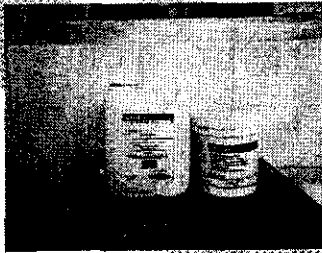
Protect the hospital environment

- Contain and dispose of infectious materials in waste containers
 - Put waste containers near entrance/exit to patient room
- Dedicate patient equipment when possible
- Clean and disinfect patient care equipment



Sterilization of medical equipment

- Autoclave
- Dry heat
- Ethylene oxide gas
- Glutaraldehyde



Example – Ventilator tubing

Scrub with brushes, ultrasonic cleaning

Soak in glutaraldehyde x 45 minutes

Filtered water

Tube dryer; drying oven



Waste

- Clinical waste: all items from treatment areas
 - Soiled surgical dressings
 - Swabs
 - Face masks
 - Gowns
 - Other contaminated waste
- Collect waste in designated color-coded plastic bags for incineration

Laundry



- **Laundry and Linens**
 - Placed in color-coded bags for transport
 - Do not sort laundry
 - As per standard procedures
 - » Staff placing linens and laundry in machine should wear protective attire
 - Standard detergents
 - » Bleach may be added if desired and compatible

Discharge Criteria Example

- Refer to Ministry of Health guidelines for current discharge criteria and instructions
- + No fever for at least 5 days without using antipyretic
- + Living function returns to normal, in good situation, normal eating and sleeping
- + Blood formula test proves normal
- + Chest X-ray proves normal
- + SpO₂ is over 95%, PaO₂ is over 60mmHg

Other Issues

- Patient visits to other departments
 - Unit should have portable x-ray machine
 - When necessary, visit with no delay—call ahead
 - Patients
 - » Surgical mask and isolation gown for transport
 - Accompanying staff
 - » Gloves
 - » Gown
 - » N-95 mask

Instruct patients and their families

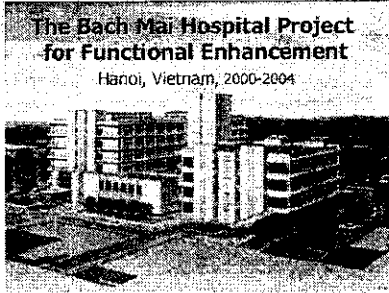
- Teach patients “source control”
 - Cover mouth when coughing
 - Expectorate into tissue, dispose in waste container
 - Wear mask when leaving unit
 - » Continuous use of mask may affect air exchange
- Teach visiting family members in use of mask, gown and hand hygiene

Other Issues

- **Transport – Ambulance**
 - No dedicated ambulance needed
 - Mask patient
 - Transporters wear protective attire
 - » N-95 mask, disposable gown, goggles or face shield, gloves
- **Disinfect ambulance after transport**
 - Standard disinfectant or 1:100 dilution of bleach and water
 - After 30 minute contact time, rinse with clean water

Impact of Information on Healthcare Personnel

- **Fear of becoming infected**
- **Fear of spreading infection**
 - Family/community
 - Other patients
 - Co-workers
- **Uncertainty of how to protect self and others**
- **Strict and appropriate infection control precautions can protect all**



General consideration of management for hospital- and community-acquired infection

Japan Disaster Relief Expert Team
Matsushita Takeji, M.D.

Chairman and Chief
Department of Pediatrics,
International Medical Center of Japan

14th May 2003

Emergent Infection

SARS
West Nile Fever

Re-emergent Infection

Measles
Influenza
Tuberculosis

Route of transmission

1. Contact transmission (most important)
2. Droplet transmission (particles contain microorganism more than 5µm in diameter)
3. Airborne transmission (droplet nuclei contain microorganism less than 5µm in diameter)
4. Common vehicle transmission (food, water, drug, device, etc)
5. Vector-borne transmission (mosquito, fly, rat, etc)

Droplet and droplet nuclei

Droplet ≥ 5 µm

10-80cm/sec
around 1 m
Droplet transmission

Droplet nuclei < 5 µm

evaporated
Sometimes more than 50 m
0.06-1.5cm/sec
Airborne transmission

Classification of microorganism based on transmission route

Contact	Droplet	Airborne
Adenovirus	Adenovirus	Tuberculus bacillus
RS virus	Influenza virus	Measles
Clostridium difficile	Haemophilus influenzae	Chicken pox (Aspergillus)
Rotavirus	Neisseria meningitidis	(Yersinia enterocolitica)
Shigella	Mycoplasma	
Ebola	Parvovirus B19	
Yersinia enterocolitica	Rubella	
others	Whooping cough	
	Group A streptococcus	
	Pest	

Host defense mechanisms

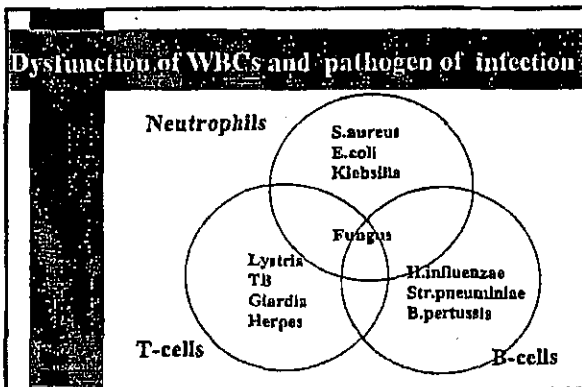
1. Structural, anatomical barriers
2. Physico-chemical barriers of the skin and mucous membranes
3. Normal flora formation in the skin, respiratory tract, and intestinal canal
4. Non-immune host defense system
5. Immune system

Development of B-cell Functions

s-IgM Ly in liver	16wks GA
s-IgM Ly in bone marrow	22wks GA
IgM secretion from B-cells	fetus - newborn
Ab production to Ag (protein)	fetus - newborn
Serum IgG reaches 60% of adult level	1 yr
Ab production to Ag (polysaccharide)	2 - 3 yrs
Serum IgG ₂ , IgG ₄ reach 60% of adult level	3 - 7yrs
Serum IgA reaches 60% of adult level	6 - 8 yrs

CD4+ cell counts and opportunistic infections

CD4+ cell	Infectious diseases
500-800	Lymphadenopathy, thrombocytopenia
500>	Skin infections, HSV, VZV, fungi
400>	Kaposi's sarcoma
300>	Tuberculosis, leukoplacia
200>	Pneumocystis carini, toxoplasma, cryptococcus
100>	Lymphoma, CMV, MAC

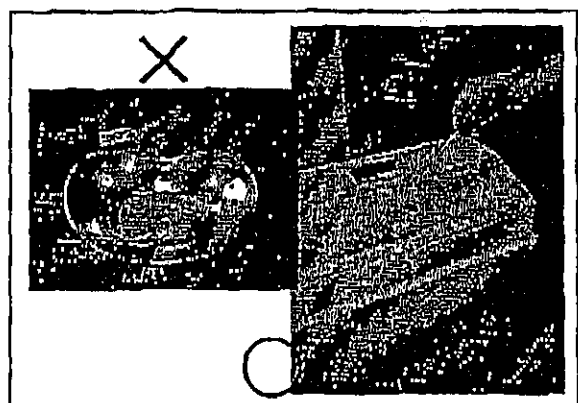
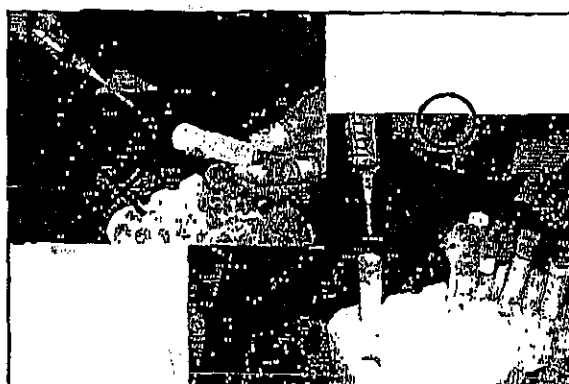
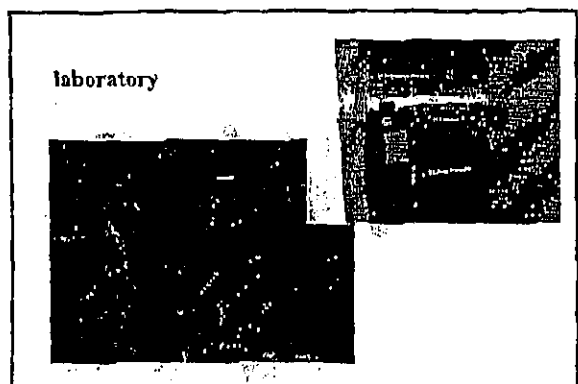
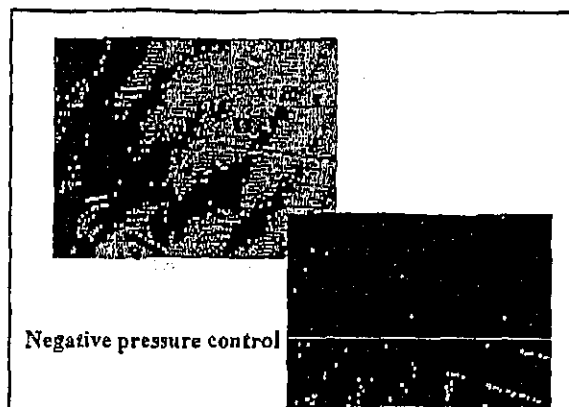
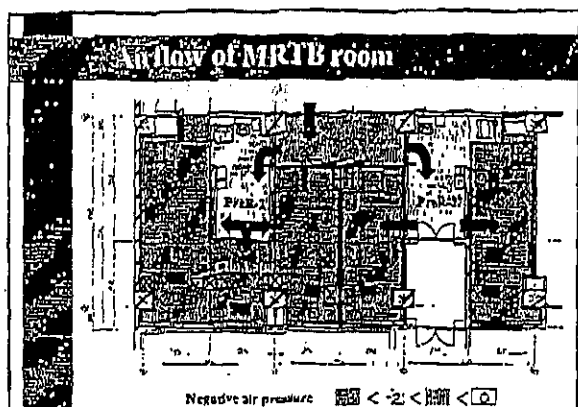


- ### Standard precaution
1. Hand washing
 2. Gloves
 3. Mask
 4. Unidirectional treatment from clean to dirty area

Rate of aerosolization of virus particles by manipulation

manipulation (10 ¹⁰ /ml)	virus aerosol
centrifuge	2x10 ⁴
destruction of ampoules which contain dried virus	10 ⁴
treatment by ultrasound (capped cup)	10 ⁴
gentle pipetting	10 ³
smash by blender (capped cup)	10 ³
divide in bio-safety cabinet	0

- ### Control system in infectious disease ward
1. Room-in-room system
 2. Safety-access system
(staff position is upper air-flow than patient)
 3. Air-conditioning with HEPA filter
 4. Negative/positive control of air pressure
(Pre-room)
 5. Pass box system



Infection Control Team:

Chair Person: Infection Control Doctor

Members:

- Infection Control Nurse
- Staff Nurse, Link Nurse
- Physician
- Surgeon
- Pharmacist
- Microbiologist
- Clinical Labo Technician
- Administrator
- Accountant
- Epidemiologist

Infection Control Team

1. Surveillance for outbreak of nosocomial infection
2. Surveillance for dosage of antibiotics utilization
3. Information of drug sensitivity of bacteria
4. Consultation for infectious diseases
5. Education and training for link nurses and other health care providers
6. Information and education for patients and their families
7. Collaboration with other health institutions
8. Guidelines and manuals on infection control

Management of Infected patients

- Team approach
- Education to patients and their family members
- Care manual :
 - reduced rate of contact and self care
 - psychological issues and patient's privacy

Modern Medicine

- Information sharing
- Reviewing each other

Post-modern Medicine

- Information technology
- Informed consent / assent
- Less invasive treatment
- Kindly to medical personnel
- Minimum accidents
- Minimum hospital acquired infection

