



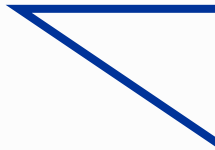
MINISTRY OF HEALTH
SINGAPORE

The Roles of the ICP in Long Term Care Facilities

Surveillance



Quality Assurance



Education



Infection Control Practitioners

**Infection
Control
Committee**



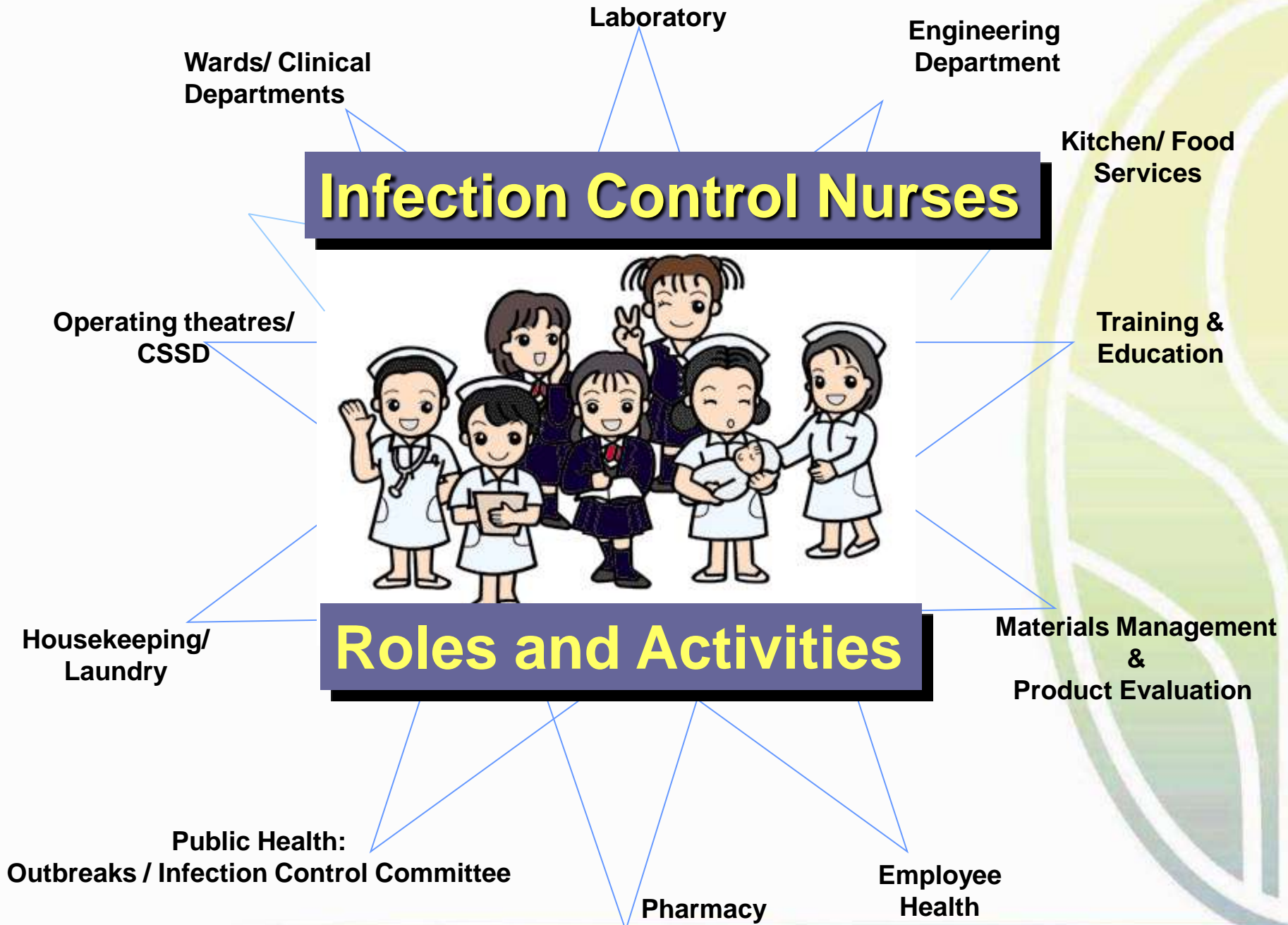
Policies & Procedures



Infection Control Nurses



Roles and Activities



Long-Term-Care Facility Infection Control Elements

- Surveillance
- Outbreak control
- Isolation and precautions
- Policies and procedures
- Education
- Resident health program
- Employee health program
- Antibiotic review
- Disease reporting
- Other functions

The oversight committee directs the ICP, who directs the infection control functions.
SHEA/APIC Guideline, 2008

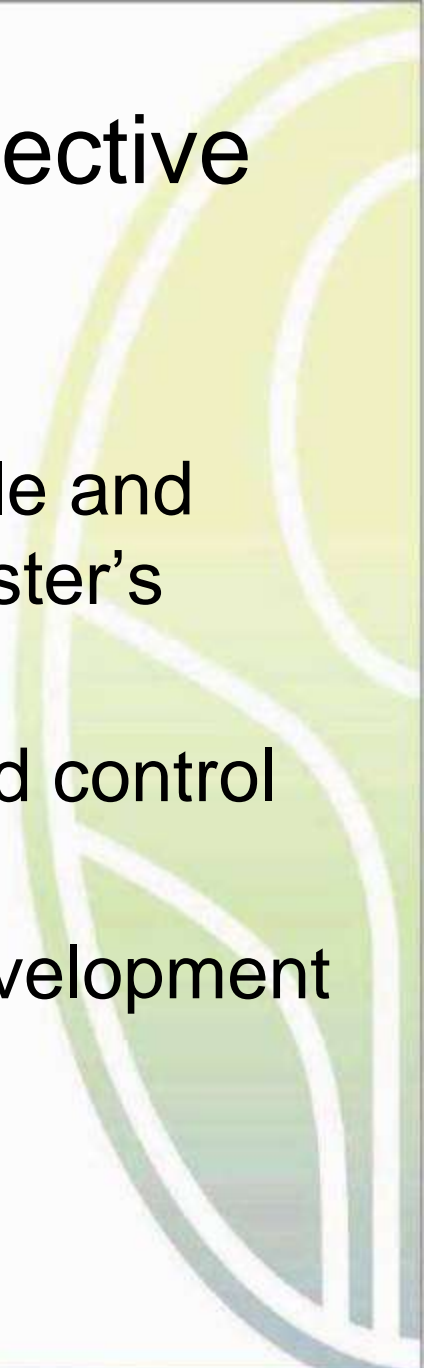

Characteristics of the LTCF ICP:

- Designated by the facility to oversee and be responsible for the infection and control program.
- Nursing background: helpful for resident assessment and chart review
- Essential leader for an effective IPC program
- May have other duties: employee health, nursing, education

Basic ICP Qualifications Include:

- Resident care practices and assessment skills
- Infectious diseases of the elderly
- Microbiology and epidemiology
- Aseptic technique
- Cleaning / disinfection / sterilization
- Surveillance expertise, data analysis and presentation
- Outbreak investigation
- Adult education
- Communication skills and methods
- IPC program management

Basic ICP Qualifications for Effective Performance

- Level of education commensurate with role and responsibilities, e.g, baccalaureate or master's degree
 - Special training in infection prevention and control principles and best practices
 - Continued professional education and development
- 
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Infection control professionals are also:



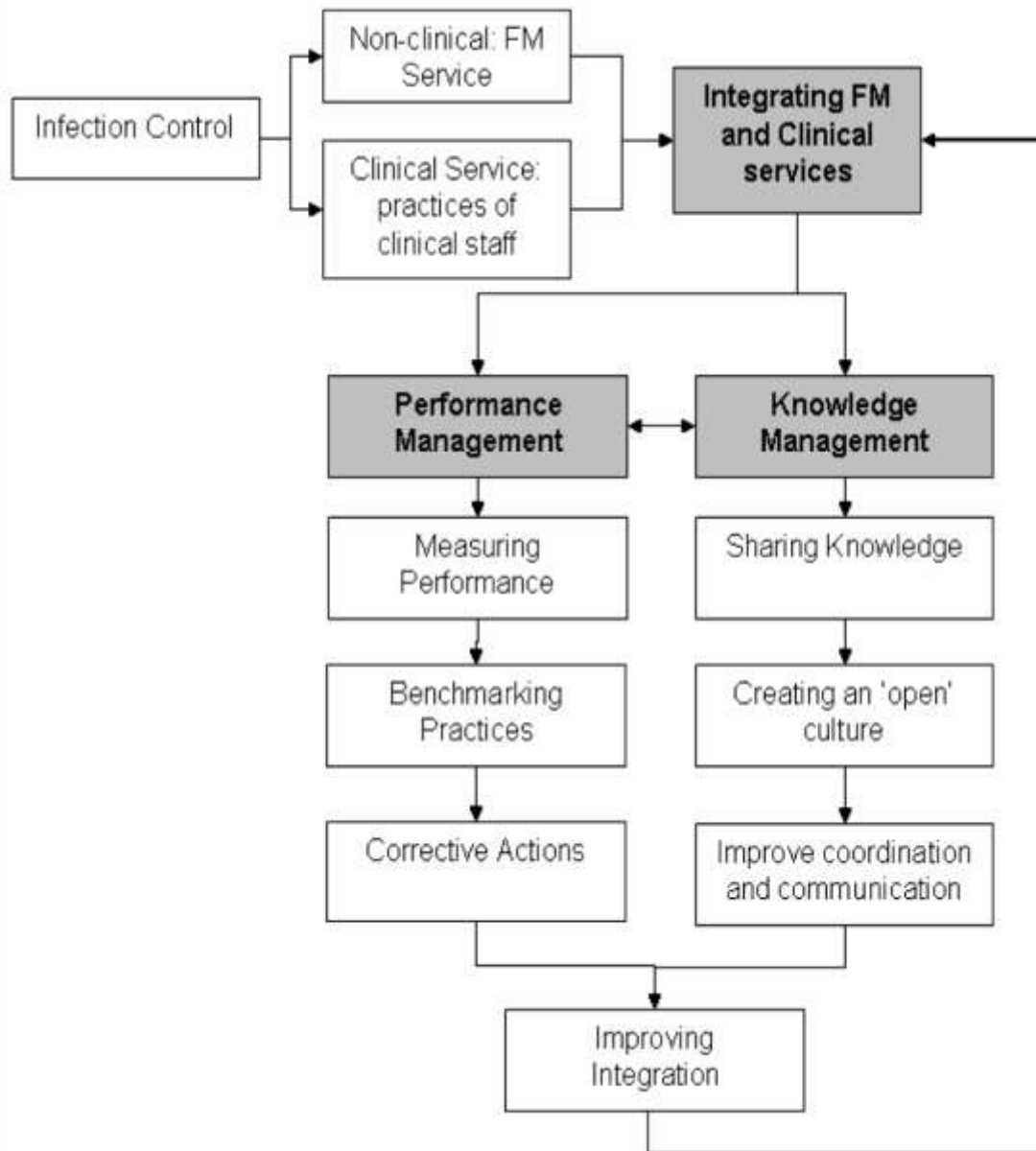
- Patient Safety Consultant
- Performance Improvement Facilitator
- Risk Management Partner
- Sentinel Event Investigator
- Emergency Preparedness Expert



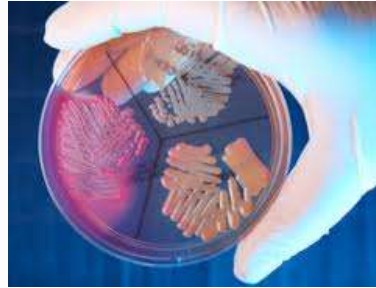
Wear Many Hats!



Elements of Infection Control Nurse



Evidence-based infection control practice



Evidence-based infection control is the **explicit, judicious and conscientious** use of current best evidence from infection control research in **making decisions** about the **prevention and control of infection** of individuals and populations.

Infection Control Science



Infection Control Science

From

To

**Opinions of leaders
Limited scientific basis
Questionable efficacy
Unreliable infection data
Rule-based
Focus - environment**

1970

1980

1990

2000



Infection Control Science

From

To

Consensus of experts
Science-based practice
Demonstrated efficacy
Improved outcomes
Cost analysis
Focus - persons

1970

1980

1990

2000



IC Practitioner (ICP) Activities



Long-Term-Care Facility Infection Control Elements

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How Do You Prioritise your activities

Risk Assessment Methods



Assumptions of Risk and Vulnerability

- Risk is inherent to people and processes
- Not all risk is equal
 - High incidence – low risk (urinary tract infection)
 - Low incidence – high risk (influenza pandemic)
- Can't manage everything – must choose
- Balance data and experience to determine risk and priorities

Infection Control Program/Activities

Risk Assessment

- Identifying Risks for Acquisition and Transmission of Infectious Agents – Select Targets or Groups for Assessment
 - External
 - Community-related
 - Disaster-related
 - Regulatory and Accreditation Requirements
 - Internal
 - Resident-related
 - Employee-related
 - Procedure-related
 - Equipment/device-related
 - Environment-related
 - Treatment-related

What are the challenges you will encounter when performing the risk assessment?

- Coordinating an organization wide risk assessment with participation from key stakeholders; for example, physicians, nurses, technicians, laboratory, special support services, administration
- Involving local community
- Knowing the broader issues, e.g., emerging diseases, emergency preparedness
- Gaining access to needed information for risk assessment, e.g., services provided and volumes, characteristics of populations served, special environmental and community issues.

What can make this task difficult?

- Getting access to data in organization or community
- Lack of interest or time from others
 - Perceived as “Your” job
- Lack of skill to perform risk assessment



Strategies for Success

- Get leadership's support and endorsement for assessment
 - Educate Leadership, ICC, Others
- Develop Methods to Obtain Organizational and Community Data
 - Access to key reports
 - Past surveillance data
 - Tap into organizational data (medical records, lab records, admission and discharge numbers)
 - Community resources for data and information

Strategies for Success

Create a Risk Assessment Team or Advisory Council

- Form partnerships with those who have information you need
- Find some opinion leaders in organization to work with you
- 3-5 key staff to work as a team or advisory group
- Involve patient safety and performance improvement staff or committees to assist

Strategies for Success

- Take time to develop systematic methods, templates, and timelines
 - Determine what will be assessed using quantitative methods vs. qualitative methods
 - When is a SWOT needed?
 - Conduct risk assessment based on:
 - Populations served
 - High-volume, high-risk procedures
 - Information re: community risks, e.g., local health department, others

Risk Assessment Tools



Details in the next topic



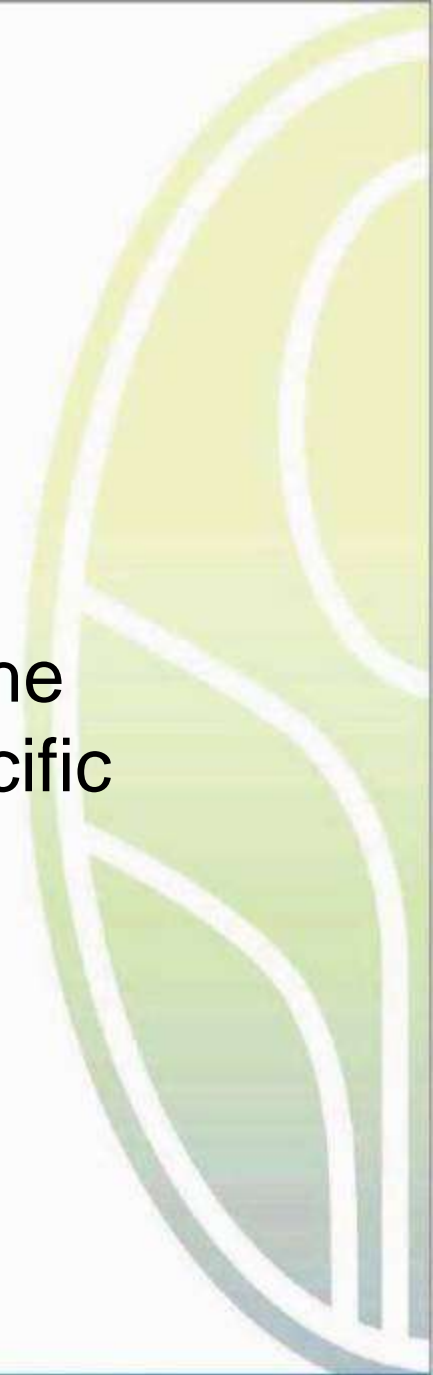
Surveillance and Data Management



Surveillance

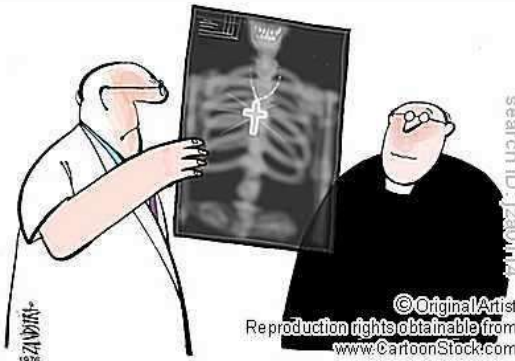
To watch

implies systematic observation of the occurrence and distribution of a specific disease process



Nursing Home Infection Control Program -Residents

- Preadmission physical exam
- Preadmission history - emphasize infectious diseases
- Chest x-ray
- Preadmission and periodic PPD skin test
- Vaccinations
 - Tetanus/diphtheria
 - Influenza
 - Pneumovax



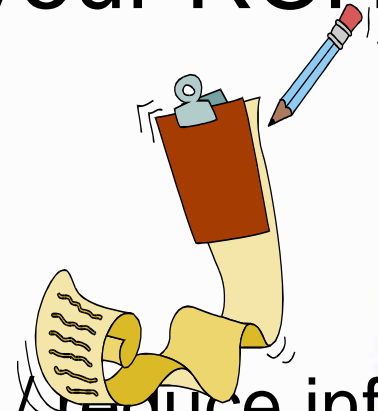
Nursing Home Infection Control Program - Employees

- Baseline health assessment
- Brief annual history
- Baseline and periodic TB skin test
- Vaccinations
 - Tetanus/diphtheria
 - Influenza
- Education



Surveillance helps at your RCHE to:

- Direct your daily work
- Drive interventions to prevent / reduce infections
- Give valuable feedback to clinicians and others
 - i.e. Home Manager, Nurses, VMO, DOH, others



SURVEILLANCE

METHODS

1. Total "house" surveillance
2. Targeted surveillance
3. Prevalence survey

Process

DESIGN

HOW?

WHO?



Your Infection Control Plan for 2011

Priority	Org Goals	Goal(s)	Measurable Objective	Method(s)	Evaluation	Responsibility
CAUTIs	Provide safe, excellent quality of care for all patients	Reduce CAUTIs in xx NH	Achieve 30% Reduction CAUTI from 4.6 to 2.0/1000 device days	Use evidence based bundle for CAUTIs IC Team	Monitor monthly - report quarterly to Staff and ICC	Xx NH RT Med Staff ICP Other
Sharps Injuries	Provide Safe Work Environ. for Employees	Reduce Sharps injuries	Reduction from 16 to 2 / yr sharps injuries	PI Team	Monitor monthly - report weekly to IC staff	Employee Health NMs/ NCs Inf Control
Influx of Patients With Comm Disease	Prepare Organization for Emergency Situations	Develop and test plan for influx of infectious patients	Triage and care for up to 30 pts per day for 3 days with resp. illness	Develop triage and surge plan	Test X3 by December 20, 2008 with successful results	xxNH Staff Physicians Administration Admitting Infection Control Other

Using Surveillance Data to Add Value

Positive approaches

- Involve others
- Staff “own” the data
- Data are used to improve outcomes
 - Avoid infections, Quality improvement

Less effective

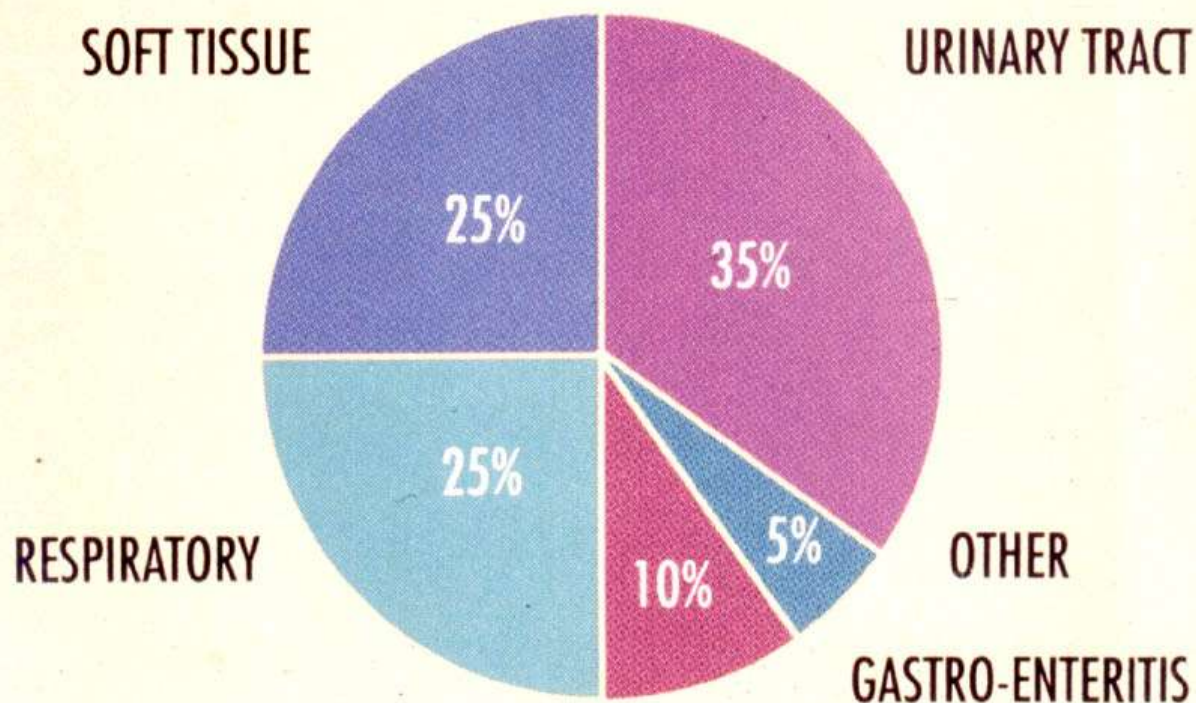
- No sharing of data
- Little interest in data
 - ICC, staff, leaders
- Not used for improvement and infection risk reduction



QUALITY

Common types of infections in LTCFs

EXHIBIT A LTCF-ACQUIRED INFECTIONS*



*PERCENTAGES BY SITE OF INFECTION

Other Infections in Long Term Care Patients

- Conjunctivitis
- Methicillin-resistant *Staphylococcus aureus* infections.
- Vancomycin – resistant enterococci
- Antibiotic resistant gram-negative bacteria
- Herpes simplex
- Herpes zoster
- Group A streptococcal infection
- Other

Peaceful Valley Elderly Care Home Facility Infections Data, April 2011



The ICP role in assessing resident health

Assess and Report:

Signs and symptoms of infectious disease in residents and staff, e.g., fevers, URI, gastrointestinal



Elements of Resident Health related to infection risk

- Immunization status
 - Tetanus, pneumococcal, influenza
 - Receive while still immunologically responsive
- TB skin test on admission with follow up chest radiograph if TST positive or if symptomatic
- ICP Role: Standing orders improve compliance

Elements of Resident Health

- Hand hygiene
- Oral hygiene
- Preventing aspiration
- Skin care
- Preventing UTIs
- Good nutrition
- Attention to co-morbidities

- ICP Role: Policies and procedures; monitoring compliance; documenting and reporting



ICP Review of Resident Admission Findings Affecting Risk for Infection

- Patient impairments that may affect infection risk
 - Recent surgery, surgical stomas
 - Impaired respiratory function
 - Incontinent- involuntary
 - Neurogenic bowel or bladder
 - Stressed immune system
 - Aging, malnutrition, trauma

Admission Assessment

- Skin Integrity
 - Non-intact, open wounds, draining wounds, skin ulcers – stasis, decubiti
- Devices
 - Indwelling urinary catheters
 - Intravenous catheters
 - Tracheostomy
 - Other

Admission Assessment

- Secretions and Excretions
 - Urinary incontinence
 - Involuntary of stool
 - Loose stools or diarrhea
 - Wound drainage
 - Other non-contained excretions or secretions



Admission Assessment

- Potential for MDRO
 - Past history of an MDRO, e.g, MRSA,
 - Recent stay in and ICU prior to transfer
 - Recent surgery
 - Possible colonization
 - Active infection with an MDRO



Admission Assessment

- Cognitive abilities
 - Intact?
 - Impaired?
 - Able to cooperate or not cooperative or combative?
 - Lack of understanding?



Role of the ICP in Initial Resident Assessment

- Review admission notes to determine infection risks
- Discuss with care team
 - Nurses and physicians, therapists, family, counselors, orthotics, physiatry
- Identify proactive interventions to reduce risk
- Determine responsibility for interventions and oversight
- Monitor to assure compliance

Patient Care Risks at the LTCF

- Many procedures may pose infection risk to residents, including:
 - enteral feedings
 - parenteral medications
 - ventilators
 - tracheal suctioning
 - wound or burn care
 - hemodialysis or peritoneal dialysis
 - personal care, nutrition, activities of daily living
- ICP Role: Policies and procedures, education, intervention strategies, monitoring compliance, documenting, and reporting

Environmental and equipment Patient Care Risks at the LTCF

- Equipment used to provide patient care may pose infection risks directly to residents or cross infection to other residents
- Patient goes to point of service
- Special equipment cleaning and disinfection needs
- Physical therapy equipment
 - Canes, wheelchairs, lifts, transfers devices
- Occupational therapy
 - Aquatic: pools, tubs
- Ventilators or other breathing devices
- Catheters – intravenous, urinary

Role of ICP in Reducing Environmental Risks

- Written guidelines for cleaning surfaces and equipment
- All staff educated
- Monitoring process and effectiveness
- Selecting effective disinfectant – least toxic
- Appropriate cleaning procedures



Maintaining Clean and Safe Equipment, e.g. Water Therapy Modalities

- Proper type and dilution of disinfectant for cleaning surfaces, pools, tubs, tanks other
- Educate caregivers and patients who cannot contain feces, wound drainage
 - Determine appropriate treatment modality
- Disinfect agitator jets with solution and circulate
- Separate clean from dirty
- Clean versus sterile procedures

Preventing Skin Breakdown – ICP Role

Work with clinical staff to:

- Maintain mobility when possible or positioning and turning
- Assess and maintain nutritional status
- Prevent skin contact with secretions for draining wounds
- Careful use of adaptive devices
- Gentle skin care; maintain natural barriers



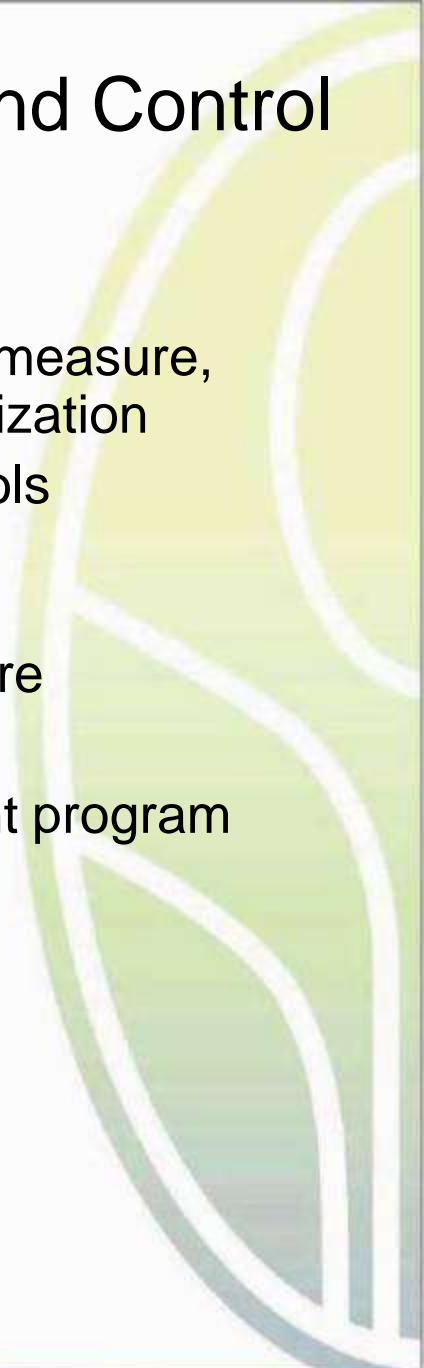
Role of the ICP in Managing Bladder and Bowel Issues

Educate staff regarding:

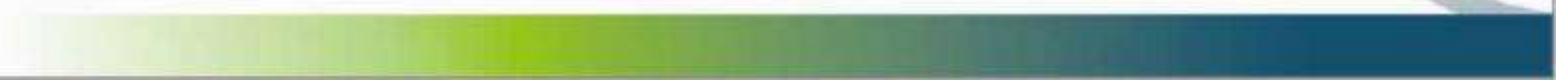
- Good cleansing and perineal care when incontinent
- Devices to contain secretions – diapers
- Bladder training programs
 - Patient participation?, Intermittent catheterization? Device to empty own bladder?

Monitor and report compliance and associated infection rates

Examples of LTCF Infection Prevention and Control Measures

- Pneumonia
 - Infected Pressure Ulcers
 - UTI
 - Influenza
 - Antibiotic Resistance bacterial infections
 - Tuberculosis
 - All infections
 - Aspiration prevention measure, pneumococcal immunization
 - Pressure relief protocols
 - Hydration, catheter care
 - Annual immunization
 - Antibiotic Management program
 - Isolation precautions
 - TB screening
 - Hand hygiene
- 

Environment of Care



Facility Infection Environmental Challenges

- **Care in the patient room**
 - Personal care, ventilatory management
- **Patient mobility and social interaction encouraged**
 - Communal meals, outings, pets



Maintaining a safe environment in the LTCF

- Therapy equipment
 - Canes, Wheelchairs, Lifts, Transfer devices
 - Clean and disinfect between patient use
- Aquatic : pools, tubs
 - Discard water, clean, attend to drains, disinfectant (chlorine, other),
- Patient room, procedure, counseling rooms
 - Immediate patient area is contaminated



Respiratory and Sleep Therapy

The ICP also realized that as a leader she must work tirelessly with others to decrease all possible infections in patients and staff

She and the staff should become intolerant of anything less than perfection

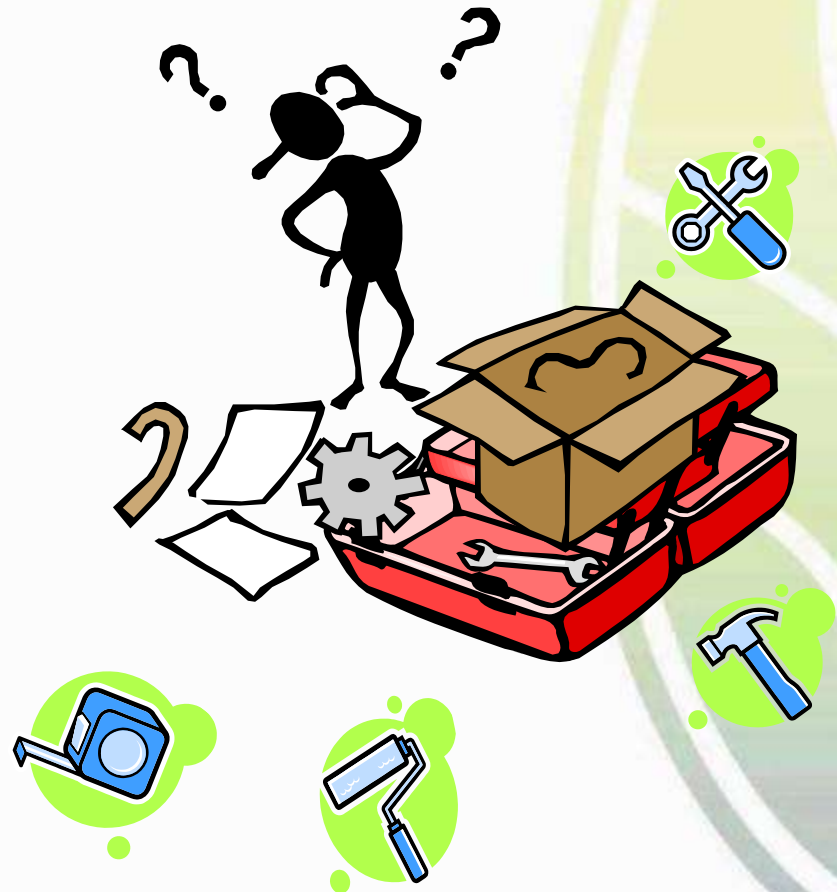
How would she assure that the program would be of great benefit?

- Show results in reducing infections
 - Tell everyone about it !
- Save money or prevent costs !
 - Tell everyone about it



And finally, the ICP realized that to be positioned as a leader she would have to continually improve her personal competency

- Develop own skills
- Get out of the box
- Learn new skills



Education and Training of Staff, Patients, Families, Visitors'

Adult Learning Principles



Objectives of educational activities for infection prevention and control are to influence behavior to:

- reduce risk
- improve care practices and patient outcomes
- create safer workplace for staff

Educational strategies are “Effective” when:

- the educational experience results in learning and the learning translates into improved outcomes for patients or staff

Challenges for ICPs as Educators

- Adult Learners
 - Special needs
- Varying Backgrounds, Perceptions, Values
- Competition
 - Time and Attention
- Resources and Support
 - Adequate Education for All



Problem-Based Learning

- Case Studies
- Scenarios
- Active Learning
- Small Group Tutorials



Some Tools for To Consider for Enhanced Adult Learning

- Case Studies
- Scenario Planning
- Role Play
- Storytelling
- Brainstorming / Six Hats Thinking
- Art
- Mind mapping
- Programmed Instruction
- Web based programs
- Fishbowl exercise

ICP Education of Staff

- Basic infection control principles
- Routinely assess the educational needs of staff, residents and families
- Develop educational objectives and strategies to meet those needs

Employee Health

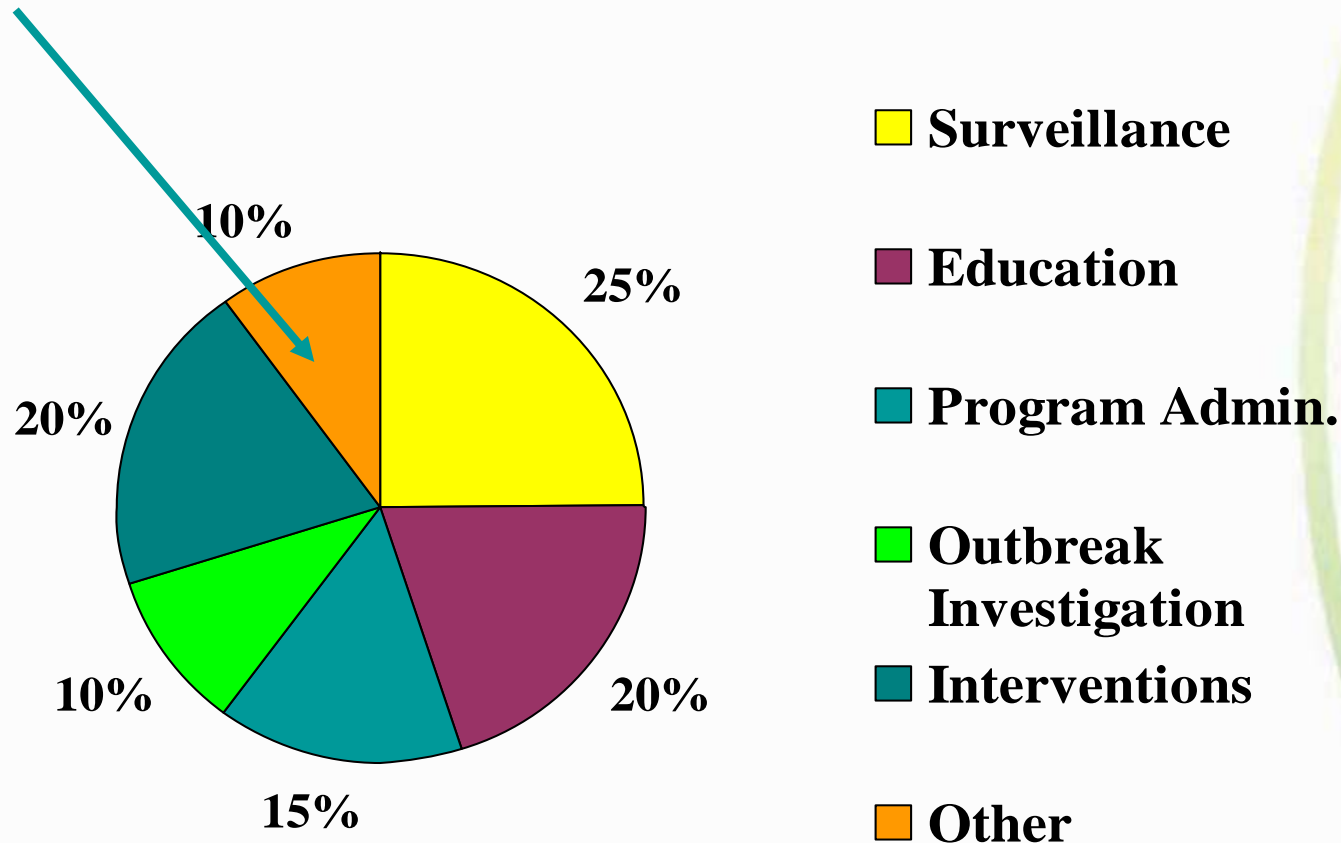
- Adult LTCF: Increased exposure to of HCW to residents with herpes zoster, scabies, conjunctivitis, influenza, TB and viral gastroenteritis
- Pediatric LTCF: Childhood diseases e.g. ,g Varicella, measles, mumps, and rubella.
- Bloodborne pathogen exposure to HIV, hepatitis B or C
- TB exposure
- Scabies

ICP Role with Employee Health

- Assessment on hire and annually
 - TB, Immunization status, skin lesions
- Education about infection risks and prevention strategies
- Immunizations:
 - Hepatitis B, possibly hepatitis A
 - Varicella vaccine



ICP Activities – Increase Time for Interventions



Construction



Construction

- Assess risks during construction to patients
- Develop plan to protect patients and staff
- Implement plan
 - Walls
 - Water
 - Dust



Emerging Pathogens



SARS, Monkeypox



West Preparing for Return of West Nile

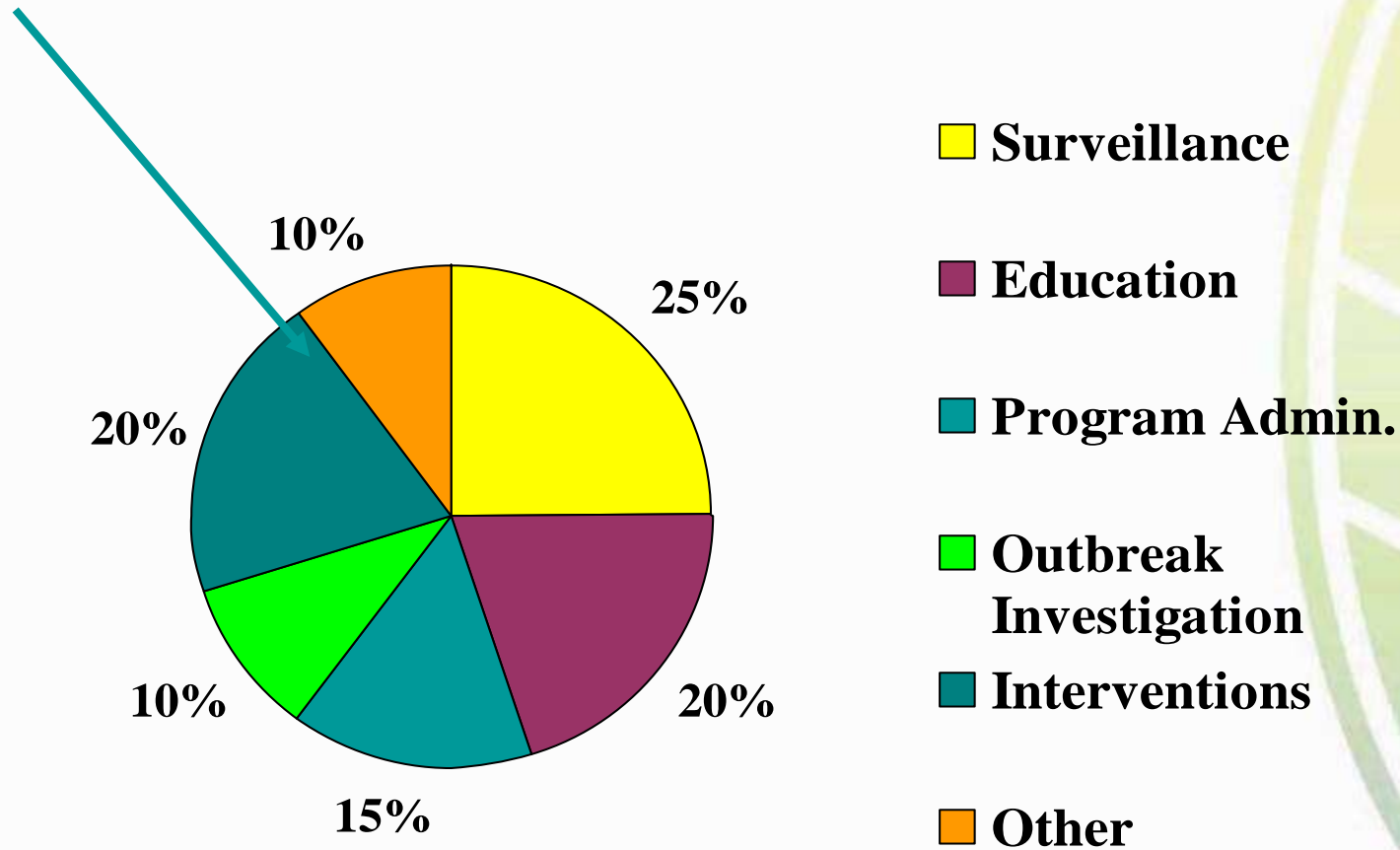


Evaluation

- What activities are having an influence on patient care?
- What specific elements improved the program?
- What activities need improvement?
- What objectives/strategies have lowered the infection rate?



ICP Activities – Increase Time for Interventions



Acknowledgement and thanks for sharing her materials for this presentation:

Ms Barbara M. Soule, RN, MPA, CIC

Practice Leader, Infection Prevention and Control Professional
Joint Commission International



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Thank You