

Engineering Infection Control



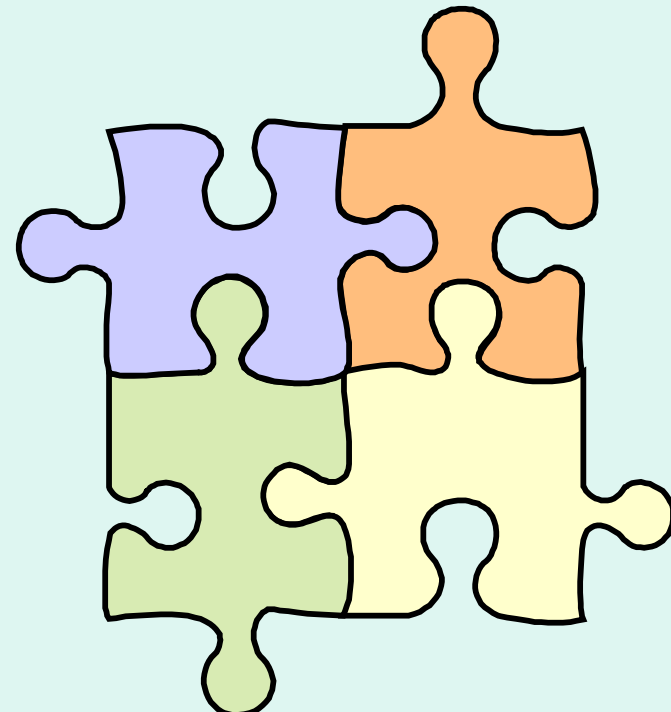
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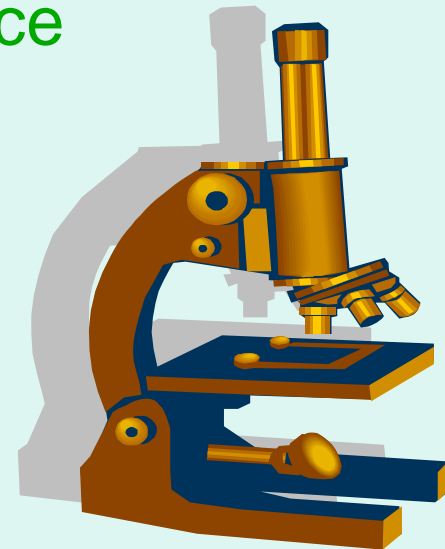
Role of Infection Control Practitioner

- Surveillance
- Development and implementation of policies and procedures
- Audits / Feedback
- Education
- Staff Health



Why Infection Control is Important

- Reduce/prevent nosocomial infections
- Reduce hospital costs
 - Reduced length of stay
 - Reduced antimicrobial resistance
- By
 - Surveillance/audits
 - Policies and procedures
 - Education



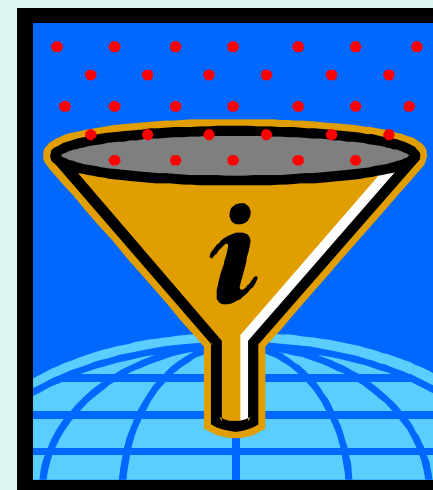
Engineering Mutual Management

- Include engineering staff on ICC
- Understanding of each role - engineering/ICP – and impact on health service
- Advice and support
- Risk management – building works
- Routine maintenance and rapid repairs
- Air and water monitoring
- Sterilization



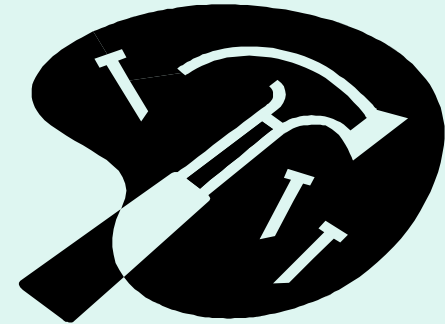
Surveillance

- Continuous evaluation of interventions (policies and procedures) and effectiveness for maintaining continuous improvement
 - Active
 - Passive
- Identify risks/potential problems
- Identify level of risk
- Identify source of infection
- Identify trends
- Reduce infections



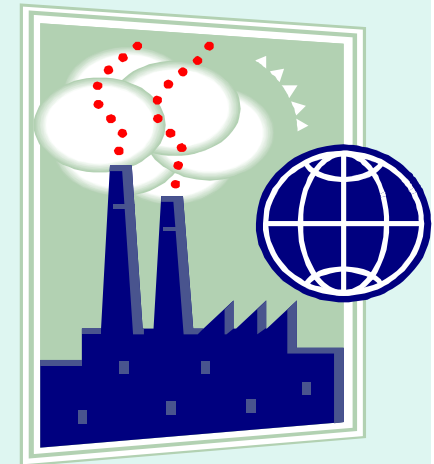
Engineering Surveillance

- Maintenance and repairs
- Cooling towers
- Air and water filtration systems
- Airconditioning units and HEPA filters
- Renovations/repairs:
 - to prevent increased risk of infection and pathogens in the environment
- Building design



Air Sampling

- Not as a routine – risk management approach
- Best during building works
- Useful in some outbreaks – aspergillosis and legionellosis
- Part of HEPA filter testing
- Negative/positive pressure rooms
- Airconditioning systems
- Maintenance program
- New buildings

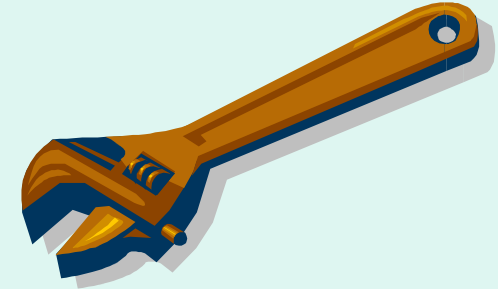


Building Works/Repairs

- Dust and spores
- Environmental reservoirs – water, soil, dust, decaying organic materials
- Site access - staff, visitors, services, site workers
- Sealing building works off adequately
- Air sampling
- Airconditioning systems – filters, exhaust outlets
- Cleaning

Infection Control Engineered

- Effective policies/procedures
 - Reduced infection rate
 - Reduced costs
 - reduced length of stay
 - Reduced antimicrobial resistance
- Understanding of both roles
- Importance of maintenance and repairs
- Building works issues
- Resource for each role



References/Resources



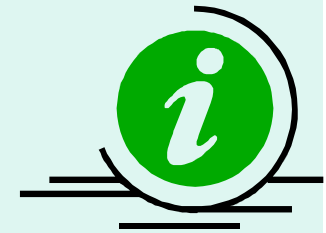
National Infection Control guidelines

- <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/icg-guidelines-index.htm>

DHS infection control website – RICPRAC and Regional guidelines

- <http://www.health.vic.gov.au/infcon/lod.htm>
- <http://www.health.vic.gov.au/infcon/index.htm>

References/Resources



Legionella Guidelines – DHS

- www.health.dhs.vic.gov.au/legionella/index.htm

Environmental Health Unit

- <http://www.health.vic.gov.au/environment/>

CDC ‘Guidelines for environmental infection control in health-care facilities’

- www.cdc.gov/ncidod/hip/enviro/guide.htm

References/Resources

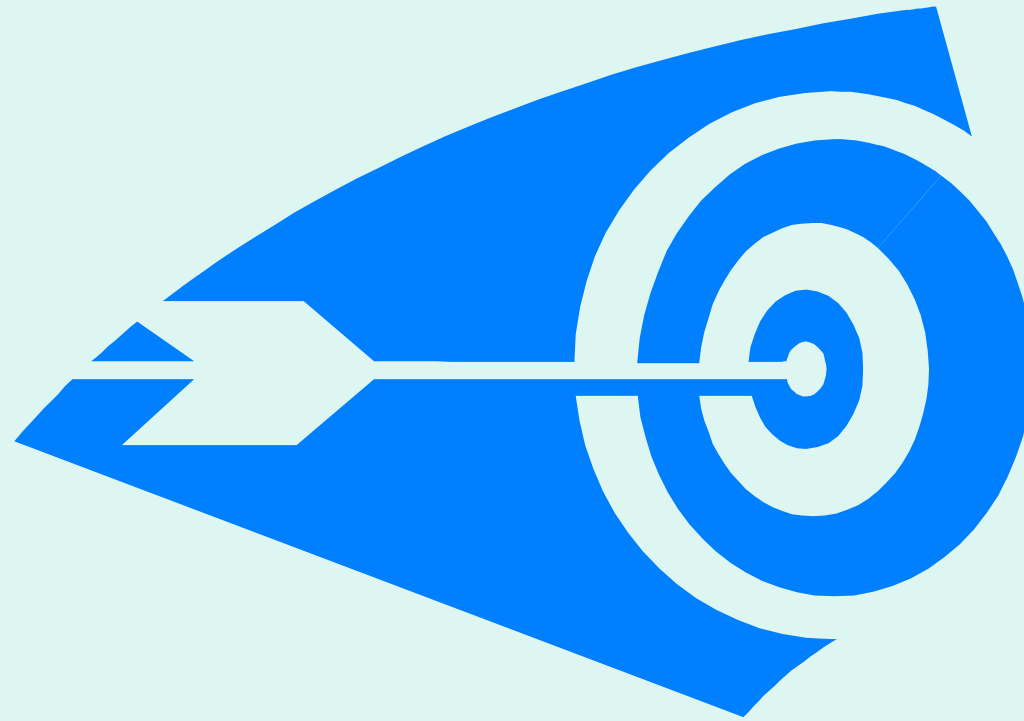


CDC/APIC Report 'the role of infection control during construction of health care facilities'

- www.cdc.gov/ncidod/hip/GUIDE/construct.htm
- www.apic.org/pdf/srconst.pdf

Canada – 'Construction-related Nosocomial Infections in Patients in Health Care Facilities' – CCDR

- <http://hc-sc.gc.ca/hpb/lcdc>



Thank you