

醫療照護感染群突發之處理 ~回顧與前瞻~

陳瑛瑛
感染管制室
臺北榮民總醫院

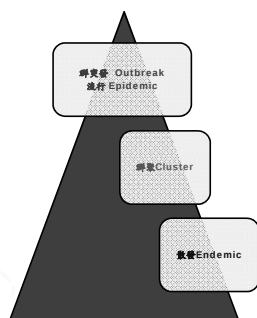
Healthcare-associated infections HAI

- Infections acquired during or associated with delivery of care in healthcare settings
 - Including occupational infections among staff of the facility

*Ducet G et al. WHO/BAC/79.1.
Grand Heymann. Control of communicable diseases manual, 17th edition.
Washington, American Public Health Association, 1995.

Dr. Ronald Lam SMO, ICB, CHP

Yin-Yin



Yin-Yin

Origins and progress in surveillance systems

■公元前 Hippocrates: Credited

- observing recording → collecting facts → analyzing →inform reasonable courses of action

■the early 1300s: First real public health action

- related to surveillance probably occurred during the period of bubonic plague

■1847 Dr. Ignaz Philipp Semmelweis: Puerperal fever

- Hospital epidemiologic study (Surveillance outbreak)→ Wash hands with Chlorinated lime hand antiseptis

■1854 Dr. John Snow: Cholera

- a legendary figure in the history of public health, epidemiology and anesthesiology.

■1962 Dr. Alexander Langmuir: the first chief epidemiologist at the USCDC the Department of Health and Human Services. (1949-1970)

- Public health surveillance as we know it today
- the use of the term surveillance to the collection, analysis, and dissemination of data.

Thacker SB & Stroup DF. Infectious disease Surveillance, Second Edition, 2013

Yin-Yin

How to investigate and control outbreaks of infectious disease?

■Surveillance and Outbreak detection

Outbreaks may be recognized through analysis of reports of individual cases of disease.

■Outbreak Investigation

Yin-Yin

Surveillance Systems

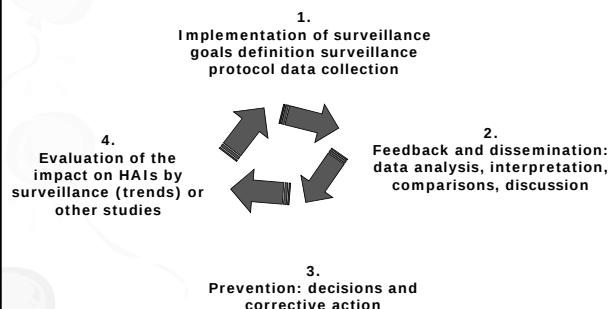
■Community-based surveillance

■Hospital-based surveillance

Thacker SB & Stroup DF. Infectious disease Surveillance, Second Edition, 2013

Yin-Yin

SURVEILLANCE IS A CIRCULAR PROCESS



Yin-Yin

Principles in HAI surveillance

- Valid quality indicators (risk- adjusted rates, etc)
- Effective, timely feedback (rapid, useful)
- Appropriate implementation of interventions
- Evaluation of the impact of by continued surveillance (trends), and other studies

Gaynes RP. Surveillance of nosocomial infections. In: Hospital infections, fourth edition. Bennet and Brachman, eds. Philadelphia, Lippincott-Raven, 1998:65-84.

Dr. Ronald Lam SMO, ICB, CHP

Yin-Yin

Patterns of Healthcare-Associated Infections (HAI)

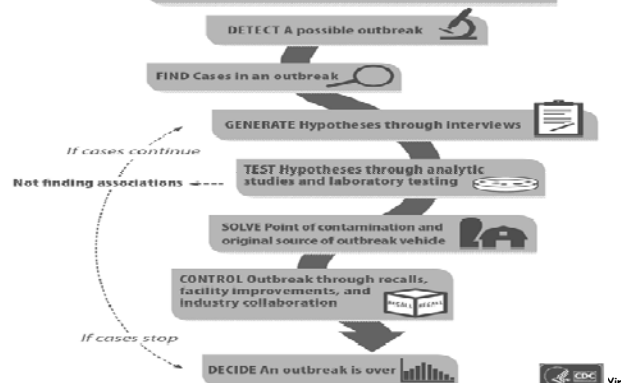
- Endemic
 - 90-95 % of all HAI
- Epidemic
 - 5-10 % of all HAI

EID 2001;7:295-98
Infect Control 1995;6:233-36

Dr. Ronald Lam SMO, ICB, CHP

Yin-Yin

Steps in an OUTBREAK INVESTIGATION



Yin-Yin

Important parts to cover in Healthcare-associated infections (HAI)

Focus on

Why
and
How



Dr. Ronald Lam SMO, ICB, CHP

Yin-Yin

Outbreak Investigation

Ten steps are involved in outbreak investigations, including

- establishing the existence of an outbreak
- preparing for fieldwork
- verifying the diagnosis
- defining and identifying cases
- using descriptive epidemiology
- developing hypotheses
- evaluating the hypotheses
- refining the hypotheses
- implementing control and prevention measures
- communicating findings



Yin-Yin

