Choose the Event(s) to Monitor

- Select appropriate health-related event
- Outcome, process, selected events of importance, personnel
- Choose events based on: (see transcript)

High-volume, High-risk Events

- Potential to improve outcomes & infection prevention practices (examples)
- Process events (examples)
- Other events of significance (examples)

Determine Time Period for Observation

- Collect data consistently & for a defined period (e.g., month, quarter, year)
- Difficult to interpret rates for rare infrequent events/procedures
- If rare/infrequent-use long enough observation period for valid measurement

Identify Surveillance Criteria (Case Definitions)

- Use surveillance criteria consistently to determine HAIs
- If case definition changed, note in report
- NHSN criteria used in majority of U.S. healthcare facilities
- Difference between surveillance criteria vs. clinical definitions
Determine Methods for Data Analysis

• Determine statistical analysis measures before data collected
• Express as rates/ratios calculated using same methodology as nationally validated system(s)
• Allows comparison/benchmarking

Identify Data Elements to be Collected

• Depend upon event & statistical measures
• Limit to only elements needed to identify a case & determine whether case criteria met
• Data elements for infectious vs. non-infectious events (examples)

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Determine Data Collection Methods: Select Surveillance Approach

• Concurrent vs. retrospective
• Advantages & disadvantages of concurrent
• Advantages & disadvantages of retrospective

Beware: Passive Surveillance

• Data obtained passively may be biased (incomplete from underreporting)
• Careful analysis of passively-obtained surveillance data:
  – Medication errors
  – Patient falls
  – Occupational injuries

Post-discharge Surveillance

• Important for outcomes occurring once patient has left a facility
• Examples
• Strategy should be clearly outlined in surveillance plan
• Caution when using inter-facility comparisons

Training of Personnel

• Data collection methods specific to each surveillance objective
• Data collectors:
  – IPs
  – Other professionals
  – Interested staff
  – Staff with participation responsibilities
• Oversight of surveillance program ideal with IP (C.I.C.)
Consider Standardized Training Methods

- One-on-one training for those collecting denominator data
- More formal education for those applying definitions or risk-factor collection:
  - In-person workshops
  - Self-study modules
  - Web-based sessions
  - Conference calls

Information Technology (IT) & the I.P.

- Ability to use is basic requirement of an I.P.
- Subscription to e-mail discussion & announcement groups (examples)
- Links to more information
- Social media

Automated or Electronic Surveillance

- Obtaining useful information from infection prevention data
- Manual methods time consuming, error-prone & labor-intensive
- Variety of automated surveillance technologies exist

Meaningful Use & EHR

- American Reinvestment & Recovery Act (ARRA)
- Health Information Technology for Economic & Clinical Health (HITECH) Act
- Electronic health records (EHR)
- Complex issue

Collect Data from Variety of Sources

- Administrative databases
- Patient charts/records
- Communication with caregivers
- Ancillary service reports
- Admission diagnosis reports
- Surgical schedules/databases

Data Collection Tools

- Should fit given objective
- Develop after necessary data elements determined
- Limit data collection to what is needed for specific objective
- Various forms can be used
Data Collection Forms

- Use standardized forms
- Collect only necessary data
- Make user friendly
- Limit narrative entries
- Use IT
- See NHSN forms as examples

Examples of Data Collection Forms

- See Required Reading #2 for sample NHSN & EPINet forms

NHSN Data Collection Forms

- Numerous other modules added
- Examples of surveillance: intravenous & urinary catheters, blood safety, ventilator-associated pneumonia, surgical site infections

A form used by the Birmingham VA to collect surveillance data

Month and Year: _________________________
Unit: ______________