Cholera surveillance and laboratory capacity assessment

Joint Meeting of the Working Groups on Surveillance
Annecy, France. 16 April 2016

nogaredaf@who.int
Surveillance of cholera

- An effective surveillance system aims to provide reliable and timely information before, during and after the outbreak.

- Objectives
  - early detection of outbreaks in both endemic and non-endemic areas
  - identify hotspots in areas where cholera disease is endemic
  - monitor morbidity and mortality trends
  - monitor and evaluation of the interventions
Laboratory surveillance

• Well-performed laboratories contribute to surveillance through timely and accurate testing of samples to
  • confirm or discard cholera
  • monitor the outbreak, declare the end of the outbreak
  • characterise and determine resistance profile of the circulating strains
  • declare or certify cholera elimination
Surveillance capacity assessment

To determine the current country-specific capacities for cholera surveillance and identify main constraints and gaps

➢ in order to prioritise actions to strengthen the surveillance and laboratory capacities
Questionnaire

- standardised questionnaire to collect the information on current capacity
- The questionnaire was completed by national public health professionals from seven countries
- 25 questions in three sections
  1. Cholera surveillance system
  2. Early detection of cholera cases
  3. Laboratory capacity
Main results
Surveillance of cholera

- National standard case definitions are available and reporting systems in place
- Sources of information are mainly based on health care facilities and laboratories
- Community based surveillance not integrated in the surveillance system, mainly contributing when outbreak is declared
- Registers / line listings available at the health care facilities, although they are not specific for cholera
- Cases and deaths are not systematically reported / delayed to the surveillance unit
  - Lack of technical means and guidance for reporting
- Analysis of data, bulletins and sitreps are regularly produced
- Reporting to WHO varies between countries
Early detection and use of RDT

- Suspected cholera outbreaks detected at health care facilities are reported immediately
- but do not always trigger a field investigation with stool sampling to confirm the outbreak
  - Lack of funding for deployment of the teams
  - Remoteness and accessibility
- RDT are not systematically used at peripheral level for early outbreak detection
  - Inadequate stock and supply delivery to periphery – funding
  - Lack of trained staff at health care centres
- Test results are easy to interpret and are reliable
Laboratory capacity

• Stool culture capacity for confirmation of *Vibrio cholera* O1 or O139 and antibiotic resistance testing available
  • mainly at NRL, and some regional hospitals and in some districts
  • not performed – challenges with regular maintenance and restocking of supplies
• PCR is not available / not used because lack of supplies and trained staff
• Limited capacity for collection, packaging and transport of stool samples from health care facilities to reference labs for confirmation
  • Lack of transport media and supplies, trained staff and SOPs
• Most of countries don't have formal links/agreements with international laboratories
Merci

Joint Meeting of the Working Groups on Surveillance
Annecy, France. 16 April 2016
nogaredaf@who.int