Communicating microbiology results to research participants: The Aklavik H. pylori Project

Division of Gastroenterology Research Day
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Outline

- Background
  - CANHelp Working Group
  - The Aklavik H. pylori Project
- Benefits of community-wide endoscopy
- Challenges of communicating results
- Ongoing communication
- Coming up
Background

- Canadian North Helicobacter pylori Working Group

- Established in 2006 in response to:
  - Community concerns about health risks from H. pylori infection
  - Health authorities seeking information to improve management of H. pylori infection
  - Members of government wanting evidence to inform public health policy related to H. pylori infection
Purpose – to bring together researchers from the UofA, northern community leaders, northern health officials, and members of government and find solutions

Goals:
- Address community concerns about H. pylori infection
- Help health care providers find better ways to manage H. pylori infection
- Reduce health risks from H. pylori infection
Background

- The CANHelp Working Group’s pilot project – the Aklavik H. pylori Project

- Aklavik chosen because:
  - Community expressed concern regarding health risks from H. pylori infection and wanted research to help find answers
  - Enthusiasm for the research from local health authorities
Background

- Project components (established with guidance from the community Health Planning Committee):
  - Community surveys
  - H. pylori testing by urea breath test
  - Endoscopy
  - Treatment
  - Policy development
  - Knowledge exchange
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Benefits of endoscopy

- Why would healthy community members agree to participate in community-wide endoscopy?
Benefits of endoscopy

- Why would healthy community members agree to participate in community-wide endoscopy?
  - To have a specialist see if their stomach looks healthy
  - To have biopsies taken to:
    - Have a pathologist see if their stomach tissue looks healthy
    - Contribute to the community’s research goals of
      - Investigating the burden of disease in the community attributable to H. pylori infection
      - Describing characteristics of the local H. pylori strains
Challenges of communicating

- Informing conceptualizations of microbiology
  - Using plain language:
    - Bacteria – tiny living organisms found everywhere; it would take 1 million to cover the head of a pin; some bacteria make us sick, others make us healthy, most do neither
    - DNA – a substance in our bodies passed down from our parents that determines characteristics we are born with
    - Antibiotic resistance – not easily killed by antibiotic drugs
    - Antibiotic susceptibility – easily killed by antibiotic drugs
    - Virulence factor – a code in the DNA of some bacteria that enables them to cause disease
Challenges of communicating

- Perception of size

Width of human hair
Challenges of communicating

- Perception of size

Width of human hair
Challenges of communicating

- How is H. pylori spread?
  - Likely person-to-person
  - Most often during childhood
  - Likely from an H. pylori-infected person who is sick with vomiting or diarrhea
What happens to people infected with H. pylori?
- Most do not get sick; they only get mild gastritis (irritation of the stomach lining) without any symptoms
- Some people with H. pylori get chronic stomach upset, but there are many other things that can cause this
- About 10% of people with long lasting H. pylori get:
  - Peptic ulcers (sores in stomach lining)
- Less than 1% of people with long lasting H. pylori get:
  - Stomach cancer
- Most who get a serious disease from H. pylori do so after being infected for many, many years
Ongoing

- Working with local Health Committee
  - Feedback on how to disseminate information to broader community is key
- Miasma vs. germ theory of disease
Coming up
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Thank you! Any questions?