Irrational Antibiotics Prescribing Behavior of Physicians in Taiwan

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Imprudent antibiotics prescribing – Global concern

Antibiotic resistance—the need for global solutions (The Lancet Infectious Diseases Commission November 17, 2013 http://dx.doi.org/10.1016/S1473-3099(13)70318-9)
Introduction

• Irrational or Imprudent antibiotics prescribing
• Global concern
• Policy implications required
• Physicians behavior
REASONS ANTIBIOTIC PRESCRIBING GUIDELINES ARE NOT FOLLOWED

Belief that non-recommended agents may be more likely to cure an infection

Concern for parent or patient satisfaction, a common method by which clinicians are evaluated

Fear of infection complications and related negative consequences

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Objective

- Whether the policy implication for antibiotics prescription on Taiwanese physicians would influence in following years or not
- To investigate the trends for acute bronchitis
Methods

• Taiwan’s Bureau National Health Insurance Database (BNHI)
• 1 million population cohort data sample
• Time duration: 1998-2011
• Selected subjects who visited with acute bronchitis
Inclusion criteria

• Acute bronchitis (*International Classification of Diseases, Ninth Revision*, code 466.0)

• Presence of antibiotics (Anatomical Therapeutic Chemical, first level of the code J; excluded J05, J06 and J07)

• Gender and Age groups 18-44 and 45-64 year

• 258049 visits of acute bronchitis met inclusion criteria
Exclusion criteria

• Patients who were admitted to the hospital
• Or the visits associated with:
  ✓ Chronic pulmonary disease
  ✓ Immunodeficiency
  ✓ Cancer or
  ✓ Concomitant infectious diagnoses
Results

Conclusion

• New regulations discouraged physicians
• Reduced the antibiotics prescriptions if it is not proven
• Significant behavioral change
• It could be because of multifactorial effects such as
  ✓ National health insurance reimbursement
  ✓ Dissemination of knowledge
  ✓ Peers’ pressure and behavior
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THANK YOU