OBJECTIVES: To measure costs associated with treatment failure among patients with moderate or complicated CA-MRSA skin infections. METHODS: This was a prospective observational study in 4 primary care offices of the Ambulatory Research Network (STARNet). Health care providers collected clinical data, wound swabs, and 90-day follow-up information. Patients were considered to have moderate or complicated infections if they had a lesion ≥5 cm in diameter, diabetes mellitus, or uncontrolled diabetes. Patients experiencing at least one episode of treatment failure within the following occurred within 90 days of their initial visit: 1) change in antibiotic therapy; 2) subsequent need for incision and drainage (I&D); 3) subsequent positive MRSA culture; or 4) hospital admission. The cost analysis was performed from the perspective of the health insurance payer. Medical costs were derived using estimates from the Agency for Healthcare Research and Quality. National Average Drug Acquisition Costs, obtained from the Centers for Medicare and Medicaid Services, were used to estimate drug costs. All costs were adjusted to 2011 United States dollars using national medical-care inflation rates. Costs were calculated for patients with moderate or complicated CA-MRSA skin infections experienced treatment failure (n=11/36, 31%). Of the 11 who failed therapy, 91% required a change in antibiotic regimen at an additional mean cost of $4 per person. Eighty percent of patients who required a change in antibiotics received trimethoprim-sulfamethoxazole as initial antibiotic therapy. Patients frequently required the addition of either clindamycin (50%) or doxycycline (30%) to their initial antibiotic regimen. Additional I&D procedures were necessary in 27% of patients at a mean cost of $2130 per patient. Finally, 9% of patients required hospitalization at a mean cost of $17,590 per person. The overall mean cost of treatment failure was $2184 per patient. No adverse drug events were reported. CONCLUSIONS: One-third of adult outpatient patients with moderate or complicated CA-MRSA skin infections will experience treatment failure at a mean cost of $2184 per patient.

PIN17

COST OF PNEUMOCOCCAL DISEASES IN PATIENTS WITH MIDDLE AGED PERSONS 5 YEARS OLD: A MICRO-COSTING APPROACH
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OBJECTIVES: Streptococcus pneumoniae is one of the most important etiologic agents, which cause community infections and systemic invasive diseases, with significant rates of morbidity and mortality in the elderly, which represents an economic burden. There are few published studies describing the cost of care for elderly patients with pneumococcal disease in Latin America. The goal of this study is to estimate the direct medical costs of the acute phase of pneumococcal disease in its’ complications and sequelae in elderly patients in Mexico, according to the perspective of the Social Security Mexican Institute (IMSS).

METHODS: Resource use in the treatment of pneumonia, bacteremia, meningitis and acute otitis media (AOM) was extracted from 112 clinical files of patients ≥50 years with confirmed diagnosis of pneumococcal disease, treated at Guadalajara, Monterrey and Mexico City hospitals, using a micro-costing approach (bottom-up strategy). Items included in the analysis were: drugs, laboratory tests, outpatient and inpatient care, rehabilitation, procedures and surgical interventions. Resource use for the treatment of complications and sequelae were derived through a Delphi panel (n=13, infectiousologists, pediatricians and internist physicians, IMSS). Concordance index for the Delphi panel results was estimated. The unit cost of medical resources was extracted from institutional source.

RESULTS: The estimated direct cost (2011 US$) associated to acute community-acquired pneumonia (CAP) was $130.8; for CAP with complications was $284.5. In patients with AOM, outpatient patients US$51,202; inpatient pneumonia US$1,502, inpatient pneumococcal meningitis US$8,157, bacteremia US$81,106, meningitis US$11,267, meningitis US$8,060. The costs of cardiac surgery (such as cardiac valve) were $18,202. Additional procedures done were necessary in 27% of patients at a mean cost of $3,140 per patient. Eighty percent of patients who required a change in antibiotics received trimethoprim-sulfamethoxazole as initial antibiotic therapy. Patients frequently required the addition of either clindamycin (50%) or doxycycline (30%) to their initial antibiotic regimen. Additional I&D procedures were necessary in 27% of patients at a mean cost of $2130 per patient. Finally, 9% of patients required hospitalization at a mean cost of $17,590 per person. The overall mean cost of treatment failure was $2184 per patient. No adverse drug events were reported.

CONCLUSIONS: One-third of adult outpatient patients with moderate or complicated CA-MRSA skin infections will experience treatment failure at a mean cost of $2184 per patient.

PIN19

COSTS OF PROBABLE VIRAL DIARRHEA IN CHILDREN UNDER FIVE YEARS OLD IN COLOMBIA
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OBJECTIVES: To estimate the economic cost of bacterial pneumonia in children less than 5 years old in a 130,800-children cohort in Colombia. METHODS: A descriptive study of economic costs was made. A database of 2010 attentions of a Health insurer was analyzed. It has 1,254,000 affiliates (130,800 children under 5 years), resident in 12 Colombian departments. The cases were identified using international classification of diseases version 10 (I189, J180, J159, J158, J851, J18, A409, P361, A408). The types, quantity and frequency of use of health services were measured. Types, quantity and frequency of use of health services were measured. The prices of services were extracted from the Colombian official prices. Median (interquartile range: IQR) of direct cost and average length of stay (LOS) were calculated. The costs were calculated for hospitals by levels of complexity to prices of 2011 and converted to American dollars.

RESULTS: The total cost of cases was US$182,000.3. The costs of cases were mild with low average of stay. Despite the introduction of the rotavirus vaccine, the treatment failure of cases under 5 years old in Colombia has a significant burden of disease in this cohort.

PIN20

COSTS OF PROBABLE BACTERIAL PNEUMONIA IN CHILDREN UNDER 5 YEARS OLD IN COLOMBIA
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RESULTS: A prospective cohort study of economic burden in children under 5 years old in Colombia

CONCLUSIONS: The cost of care associated with pneumococcal disease in children less than five years old in a 130,800-children cohort in Colombia. A total of 1545 cases of probable bacterial pneumonia were identified in children less than five years old (66.7% in under-2 years), 309 cases (20%) were outpatient. Of inpatients, 15.9% were low level of complexity (LOS: 2.3), 7.8% were middle of complexity (LOS: 5.3), and 3.1% were high level of complexity (LOS: 7.1). 2.9% of patients required Intensive Care Unit (ICU): 18. The median of cost per outpatient case was US$686.8 (IQR: 37-147). The median of cost per inpatient case was US$2564 (IQR: 156-284) and in high level of complexity was US$4886.6 (IQR: 1035.5-1064.7) and in ICU US$5,016.5 (IQR: 2,568-6,754). The total cost of cases was US$7,871,809. CONCLUSIONS: The cases of probable bacterial pneumonia in children under 5 years in Colombia are a serious public health problem. Most cases are in under-2 years and inpatients of hospitals of middle level of complexity.