district level. CONCLUSION: This approach seems to be an original, robust and reproducible technique for risk assessment purpose, which can be applied to a number of diseases and technology assessment when the number of indicators (risk indicators, clinical indicators, biologic indicators, etc) make data interpretation, comparisons and decision making difficult.

WITHDRAWN

MRSA: INVESTIGATING THE DANGEROUS HOSPITAL INFECTION
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OBJECTIVE: Methicillin-resistant Staphylococcus aureus, or MRSA, is a commonly acquired infection in the hospital environment. We examine data from the National Inpatient Sample (NIS) to diagnose trends to gain more insight about the infection. It is the purpose of this study to determine if race, age or gender are factors in the severity of the infection, and to ascertain what effects any secondary conditions may have on a patient with MRSA. METHODS: The data were collected from a 10% sample from 2004 from the NIS with information relevant to 5974 patients diagnosed with MRSA. The data were then imported into SAS Enterprise Guide 4. SAS is used to create tables of data and kernel density estimates, which give an estimate of the data’s probability density, to develop a logistic regression model relating death risk to specific diagnoses, and to develop a linear model concerning a patient’s total charges. RESULTS: There appears to be a correlation between the age of a patient and the length of inpatient stay. Asian American and African American patients experience a higher mortality rate with MRSA. Total charges were similar between males and females, although males showed a slightly higher mean; secondary conditions and age had a much more pronounced effect on charges. The three most common conditions present in patients with MRSA were hypertension, urinary tract infection (UTI), and congestive heart failure—UTI and heart failure appear to raise the risk of death to one with MRSA. CONCLUSIONS: Further studies should be conducted to investigate MRSA and how it affects people from various ethnic backgrounds and age groups. By analyzing medical data and performing kernel density estimates, it is possible to uncover important relationships that can be used to treat patients worldwide.

INFECTATION—Cost Studies

BUDGET IMPACT OF ADDING DORIPENEM TO A HOSPITAL FORMULARY
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OBJECTIVE: Quantify the budgetary impact of adding a new carbapenem, doripenem, to a hospital formulary for treatment of complicated intra-abdominal infection (cIAI), complicated urinary tract infection (cUTI) and nosocomial pneumonia (NP) including ventilator-associated pneumonia (VAP), in the United States. Doripenem has been approved in the US for cIAI and cUTI and is under FDA review for treatment of NP, including VAP. METHODS: This model was developed in accordance with Good Research Practices for Budget Impact Analysis disseminated by ISPOR to estimate the annual impact on a hospital’s budget of adding doripenem. Carbapenem (doripenem, imipenem, meropenem) wholesale acquisition costs from 2007 National Drug Data File, hospitalization costs (2006 US dollars) from published literature, annual hospital admissions for NP, VAP, cIAI, and cUTI, current proportional share of imipenem and meropenem (50% each, no doripenem use), treatment duration and length of stay (LOS) from clinical trials were considered. A new proportional share of 50% doripenem, 30% imipenem and 20% meropenem was assumed for this analysis. Sensitivity of results on different proportions of doripenem use was examined. RESULTS: Total cost per treated patient was estimated to be $24,284 (range: $13,117 (cUTI) to $71,026 (VAP)), prior to introduction of doripenem. With the new proportional share, it would decrease to $23,305 (range: $12,987 (cUTI) to $65,289 (VAP)), a 4% reduction in the budget. Pharmacy costs made up 4% of overall treatment costs. The majority of savings came from shorter hospital LOS for VAP, observed in clinical trials comparing doripenem to comparators. Scenarios with a greater proportion of doripenem use resulted in larger savings to the hospital budget ($1927 per patient at 100% doripenem use). Results remained favorable for formulary with doripenem under various sensitivity analyses. CONCLUSION: Results indicate that adding doripenem to a hospital formulary will yield potential savings to a hospital’s budget.

THE WORKFORCE AND COST IMPLICATIONS OF SUBSTITUTING NURSES AND PHARMACISTS FOR DOCTORS IN THE FOLLOW-UP OF PATIENTS WITH AIDS ON ANTIRETROVIRAL THERAPY IN UGANDA
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OBJECTIVE: To quantify the workforce and cost implications of routine doctor-intensive (DI), nurse-intensive (NI) and pharmacist-intensive (PI) ART follow-up algorithms for HIV/AIDS treatment at the Infectious Diseases Institute, a large urban HIV clinic in Kampala, Uganda. METHODS: We performed a societal perspective cost analysis including health resource utilization and opportunity cost of patient waiting (PW) time. A time-motion survey was performed to estimate median health worker utilization (HWU) and PW times for different services. Unique personnel requirements were identified to determine hourly HWU per patient, which was multiplied by hourly wages for different cadres. PW times were multiplied by mean hourly wage for Ugandans. National workforce and cost implications were projected. RESULTS: Median HWU and PW times per visit (hours) were 0.20 and 0.24 for triage nurses, 0.12 and 1.10 for doctors, 0.08 and 0.27 for pharmacists and 0.13 and 0.05 for nurses. HWU time for refill pharmacists was 0.03 with no waiting. Hourly wages were: nurses-$4.6, doctors-$8.3, and pharmacists-$3.3. The average Ugandan hourly wage was $0.99. Total annual societal per-patient cost of follow-up was $45.2 for DI, $28.3 for NI and $16.3 for PI. Total projected national annual follow-up cost was $13.5 million for DI, $8.5 million for NI and $4.9 million for PI. Extrapolating to a national level, we project that the substitution of nurses or pharmacists for doctors would save 404 full-time-equivalent doctors per year, 18.4% of the current number practicing in Uganda. CONCLUSION: The use of NI and PI innovations as substitutes for DI follow-up results in