hours of suspicion of CBSI of an adequately dosed antifungal agent to which the isolated pathogen was sensitive in vitro. HLOS was primary and hospital costs were secondary outcomes. RESULTS: Of 90 ICU patients identified (mortality 23%), 78 (87%) had a CVF of which 14 (18%) were not removed. Antifungal treatment was delayed 24 hours in 76 (85%), 44 hours in 44 (49%) and dosed inappropriately in 21 (23%) patients. Unadjusted HLOS and costs increased with delaying in treatment administration (no delay: 12.8±9.9 days, $32,748±$22,292; 24 hours: 24.7±17.8 days, $62,481±$42,814; 48 hours: 27.7±18.7 days, $70,748±$92,797); inadequate dosing. RESULTS: Treatment was delayed in 86 ICU survivors only. CONCLUSIONS: Both delay in and inappropriate dosing of antifungal therapy are associated with increased hospital resource utilization among ICU patients with CBSI. If confirmed in further analyses and studies, these MRFs may provide attractive targets for interventions designed to improve both clinical and economic outcomes of CBSI in the ICU. Funded by a research grant from Astellas Pharma US Inc.

HEALTH CARE UTILIZATION OF ANTIBIOTICS WITHIN THE SLOVAK REPUBLIC

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OBJECTIVES: The aim of this study was to collect comparable and reliable data on the antibiotic therapy in Slovakia during the period 1998 – 2007. Special interest was given to the trend of antibiotic consumption and the relationship between antibiotic prescription and resistance was also studied. METHODS: Data of wholesalers (following ATC/DDD), who are legally obliged provide this information to the Slovak Institute for Drug Control, was used for the analysis. RESULTS: The collected data showed a significant increase in antibiotic consumption from 1998 to 2007, where daily doses per 1000 inhabitants per day (DID) – in 1998 (29.733), in 2003 (30.705) and in 2007 (34.364). We can see a noticeable increase in consumption of macrocides (DID); in 1998 (2.976%), in 2003 (3.631%) and in 2007 (6.144%) and a moderate increase in fluoroquinolones consumption – in 1998 (1.052), in 2003 (1.602) and in 2007 (2.319). A significant decrease in first-generation cephalosporins consumption – in 1998 (1.052), in 2003 (0.662) and in 2007 (0.370), and a noticeable increase in consumption of second-generation cephalosporins – in 1998 (1.200), in 2003 (1.638) and in 2007 (3.261) and third-generation cephalosporins in 1998 (0.015), in 2003 (0.118) and in 2007 (0.406) can be seen from this analysis. The results show that consumption of combinations of penicillins including beta-lactamases has increased – in 1998 (2.977), in 2003 (4.645) and in 2007 (5.778), but consumption of beta-lactamase sensitive penicillins has decreased – in 1998 (4.171), in 2003 (4.609) and in 2007 (2.343) in term of DID. From this study, the stable antibiotics consumption in financial term – in 1998 ($49,141,000), in 2003 ($59,078,000) and in 2007 ($54,680,000) can be seen. CONCLUSIONS: Adherence to principles of antibiotic policy lead to fundamental short and long term financial savings within health care systems.

INCREASING CHC TREATMENT RATE IN US IS A COST-SAVING STRATEGY

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OBJECTIVES: The low treatment rate of chronic hepatitis C (CHC) is partially due to suboptimal SVR achieved with the current pegylated-interferon/ribavirin (P/R) therapy. Here we applied a compartment model to assess the potential impacts of a higher CHC treatment rates in the US. METHODS: This mathematical model was explained by partial differential equations and population distribution on injection-drug use status, CHC status (infection, diagnosis, genotypes, treatment, and SVR), and disease-progression status. Model inputs were based on published sources. Model was calibrated from 2002–2006 and matched closely with CDC reports and other published literature. The model was applied to assess impacts of a higher CHC treatment rate from 2007–2040. Key assumptions included: only the current P/R treatment is available during 2007–2040; P/R durations consistent with current treatment guidelines by genotypes and costs $28,000/48-week. All costs were converted into 2007 dollars using 3% discount rate. RESULTS: When P/R treatment rate increased from the current 6% to 30% across all patient groups between 2007–2040, a total of 431,000 more patients could be treated, leading to 236,716 more patients being cured, and resulting in 111,802 fewer CHC incidences, 110,543 fewer ALD incidences, and 160,679 fewer deaths. Cost increases with higher treatment rate strategy come from more treatments ($12.4 billion) and managing more P/R treatment failure patients ($9.4 billion). Cost savings mainly come from having fewer diagnosed but not treated CHC patients to manage ($20.5 billion) and having fewer patients with advanced liver disease (ALD) to manage ($6.1 billion). Overall P/H0 of all SVS are projected at $4.8 billion compared to the base scenario of 6% treatment rate. CONCLUSIONS: Increasing P/R treatment rate could result in more patients being cured earlier, preventing CHC and ALD incidences and saving lives. Our model projects increasing treatment rates could be a cost saving strategy.