

OBJECTIVES: The purpose of this project was to assess the prevalence and risk factors for diarrhea at a large tertiary care medical center. **METHODS:** Prospective cross-sectional study conducted on December 13, 2004 in a 600-bed tertiary care medical center. All patients hospitalized for greater than 24-hours on the study day were interviewed. Patients were asked if they were experiencing diarrhea (defined as passing of two or more unformed stools in the past 24-hours.) All patients reporting diarrhea were tested for *Clostridium difficile*. Patient demographics, and use of antibiotics, tube feeds, GI motility agents, steroids, chemotherapy proton pump inhibitors were collected for every patient. Chi-square analysis was used to determine risk factors for diarrhea. **RESULTS:** A total of 485 patients were interviewed for the study, of which 60 (12.3%) patients reported diarrhea. The risk factors for diarrhea include *Clostridium difficile* infection (OR 15.1, $p < 0.0001$), hospitalization duration ($p < 0.0001$), current use of antibiotics (OR 1.95, $p < 0.0166$), and tube feeds (OR 3.34, $p < 0.0018$). Prevalence of diarrhea increased with longer duration of hospitalization ($p = 0.03$). **CONCLUSION:** Twelve percent of hospitalized patients experienced diarrhea in our study. Common risk factors for diarrhea included *C. difficile* infection, current use of antibiotics, tube feeds, or longer hospitalizations.

PGI2

THE BUDGET IMPACT OF TEGASEROD ON A MANAGED CARE ORGANIZATION FORMULARY

Bloom MA¹, Barghout V², Kahler KH², Bentkover JD¹, Kurth H¹, Gralnek IM³, Spiegel B⁴

¹Innovative Health Solutions, Brookline, MA, USA; ²Novartis Pharmaceuticals Corp, East Hanover, NJ, USA; ³David Geffen School of Medicine at UCLA, VA Greater Los Angeles Healthcare System, CURE Digestive Diseases Research Center, Los Angeles, CA, USA; ⁴Department of Gastroenterology and Hepatology, VA Greater Los Angeles Healthcare System, Los Angeles, CA, USA

OBJECTIVE: To develop a budget impact model that assesses the economic impact of adding tegaserod for the management of irritable bowel syndrome with constipation to a managed care organization's (MCO) formulary. **METHODS:** The model estimates per patient and per-member per-month (PMPM) economic impact of two patient subgroups six-months prior to and six-months after the initiation of tegaserod. The incremental budget impact of tegaserod was then calculated by subtracting the prior period costs from the post period costs. The two patient subgroups were 1) females with an IBS diagnosis (FIBS); and 2) males and females with other GI diagnosis (GID). Resource utilization data were based on a retrospective, longitudinal study of 3365 tegaserod users from a large, geographically-diverse MCO utilizing medical and pharmacy administrative claims data. We used prevalence and tegaserod treatment rates observed from the aforementioned MCO. Sensitivity analyses were performed by varying several model inputs parameters. **RESULTS:** The base-case model resulted in an incremental PMPM budget impact associated with the use of tegaserod of \$0.01. Total per-patient budget impact (for all resources, including tegaserod) for a six-month period was \$274.34 for FIBS and \$301.84 for GID. Overall, 25.9% (29.0% for FIBS and 21.9% for GID) of the cost of tegaserod was offset by decreases in resource utilization. Key drivers of post-tegaserod reductions in resource costs were hospital stays, abdominal and pelvic CAT scans, colonoscopies (for FIBS), and outpatient office consultations and emergency room visits (for GID). **CONCLUSIONS:** Tegaserod therapy can decrease GI-related resource use, resulting in a significant cost-offset percentage. When the associated budget impact of adding tegaserod to formulary is absorbed across

an entire MCO population, the PMPM impact of tegaserod is small.

PGI3

THE ECONOMIC IMPLICATIONS OF SOMATROPIN [rDNA ORIGIN] MANAGEMENT IN PATIENTS WITH SHORT BOWEL SYNDROME

Migliaccio-Walle K, Caro JJ, Möller J

Caro Research, Concord, MA, USA

OBJECTIVES: Short bowel syndrome (SBS) results from extensive surgical removal of portions of the small intestine, and leads to serious morbidity and shortened life expectancy. A recent trial showed that use of somatropin [rDNA origin] for injection (rhGH) significantly reduces the need for standard treatments such as parenteral nutrition (PN), which significantly impair quality of life. This study sought to evaluate the economic impact of this new treatment. **METHODS:** A discrete event simulation was developed to compare a regimen of daily rhGH for four weeks with PN alone in the management of patients with SBS. Risks of treatment- and disease-related complications and resource use were modeled in two identical cohorts of 1000 patients for two years. Rates of disease-related events (e.g., biliary problems), including age-dependent mortality, were assumed to be the same across strategies. Risk functions for each strategy were estimated from the literature and one randomized clinical trial. Direct medical costs were obtained from Medicaid and the literature. Sensitivity analyses were conducted on key parameters. Direct medical costs are reported in US\$2004. All outcomes were discounted at 3%/yr. **RESULTS:** Overall, 96.0% of patients receiving rhGH reduced or eliminated PN use within six weeks of initiating the regimen; one-third weaned completely; and PN use decreased 2.8 days. PN was estimated to cost \$118,099 in year one and \$132,935 in year two, totaling \$251,033 vs rhGH cost of \$84,309, including \$17,459 for treatment, in year one, a savings of \$33,790 per patient; over two years \$165,559, for a total savings of \$85,474. Cost neutrality is achieved within eight months. Sensitivity analyses showed no significant change in results. **CONCLUSIONS:** The reduction of PN use or complete weaning in the vast majority of patients with rhGH results in a substantial savings and improvement in quality of life—a dominant strategy.

PGI4

THE COST-EFFECTIVENESS OF TWO STRATEGIES FOR VACCINATING PATIENTS WITH HEPATITIS C VIRUS INFECTION AGAINST HEPATITIS A AND HEPATITIS B

Jakiche R¹, Borrego ME¹, Raisch D², Gupchup G³, Pai M¹, Jakiche A⁴

¹University of New Mexico, Albuquerque, NM, USA; ²VA Cooperative Studies Program, Albuquerque, NM, USA; ³Southern Illinois University Edwardsville, Edwardsville, IL, USA; ⁴Albuquerque VA Hospital, Albuquerque, NM, USA

Although hepatitis A and B vaccinations are recommended for patients with chronic hepatitis C virus (HCV), the ideal vaccination strategy is not determined. **OBJECTIVE:** To model the cost-effectiveness of two strategies of vaccinating patients with HCV infection against hepatitis A (HAV) and hepatitis B (HBV) viruses. The strategies evaluated were: universal vaccination with the combined HAV and HBV vaccine, and selective vaccination based on immunity by blood testing. **METHODS:** A decision tree computer model was constructed to compare the cost-effectiveness of the two vaccination strategies from the New Mexico Veterans Affairs Health Care System (NMVAHCS) perspective. A retrospective review of all HCV patients (2542 subjects) at the NMVAHCS was performed to extract prevalence of immunity to HAV and HBV, and prevalence of decompensated