RESULTS: We plan to enroll 10 subjects. Eight subjects have been enrolled to date and complete data is available on 3 subjects who have completed the study. Their baseline PUCAI scores were 30, 35 and 50, which improved to 15, 0 and 40 respectively, at one month after FMT. All the subjects tolerated fecal enemas without leakage. One subject received only 6 oz enemas due to feeling of fullness. No serious adverse events were noted. Symptoms associated with FMT were mild (cramping, fullness, flatulence, bloating, diarrhea and nausea, which did not need treatment) to moderate (fever in one, which responded to anti-pyretic and anti-histaminic medications). These symptoms were self-limiting and lasted only for the duration of FMT treatment days.

CONCLUSION(S): Fecal microbial transplantation as an enema is feasible, well tolerated and can be performed easily in children with UC with minimal training and support. Two of three subjects achieved clinical response by reduction in PUCAI of 15 points or more. One of them had complete resolution of disease activity. More data is anticipated for the Advances in IBD meeting in December.

P-129
Natalizumab Use in Patients With Crohn’s Disease (CD) and Relapsing Multiple Sclerosis (MS): Updated Utilization and Safety Results
Fred Kerwood1, Lynda Cristiano2, Gary Bloomgren2, Carmen Bozic2, Yu-Jiang Liu3, Grainne Quinn4
1Elan Pharmaceuticals, Inc., South San Francisco, CA, USA, 2Biogen Idec, Weston, MA, USA, 3Biogen Idec Ltd, Maidenhead, Berkshire, UK, 4Elan Corporation, PLC, Dublin 2, N/A, Ireland

BACKGROUND: Natalizumab was approved by the FDA in 2008 for adult patients with moderately to severely active CD with evidence of inflammation who have had an inadequate response to, or are unable to tolerate, conventional CD thera-pies and inhibitors of TNF-α. The TYSABRI Outreach: Unified Commitment to Health (TOUCH®) Prescribing Program, Crohn’s Disease: Investigating Natalizumab through Further Observational Research & Monitoring (CD INFORM), TYSABRI Global Observation Program In Safety (TYGRIS), and TYSABRI® Pregnancy Exposure Registry (TPER) are ongoing risk management activities designed to further evaluate the safety of natalizumab. This report summarizes recent data on natalizumab utilization and safety in patients with Crohn’s disease (CD) and relapsing multiple sclerosis (MS).

METHODS: TOUCH® is a mandatory prescribing program for all patients, prescrib-ers, pharmacies and infusion centers in the US using natalizumab. TOUCH® is designed to inform about the risk of progressive multifocal leukoencephalopathy (PML); warn against concurrent use with antineoplastic, immunosuppressant, or immunomodulating agents, and in patients who are immunocompromised; and promote early diagnosis of PML and timely discontinuation of natalizumab in the event of suspected PML. CD INFORM, a post-marketing commitment, collects patient history, efficacy as assessed by the Harvey Bradshaw Index (HBI), Health Related Quality of Life outcomes, and serious adverse events (SAE) in CD patients on natalizumab therapy. TYGRIS, also a post-marketing commitment, is evaluating the long-term safety of natalizumab in MS. Post-marketing surveillance data are also collected. TPER evaluates the outcomes of pregnancy in women with CD and MS exposed to natalizumab.

RESULTS: As of 30 June 2012, ~104,300 patients have been exposed to natalizi-mab in the post-marketing setting (103,259 MS; 1,041 CD). As of 01 August 2012, 271 cases of PML have been confirmed (270 MS, 1 CD). Of the 271 natalizumab-treated patients who developed PML, 212 (78%) had survived, exhibiting varying levels of disability and there were 59 (22%) deaths. Presence of anti-JCV antibodies, prior treatment with immunosuppressants and longer treatment duration with natalizumab, especially beyond 2 years, are identified risk factors for poten-tial development of PML. As of 07 August 2012, 163 patients were enrolled in CD INFORM with the number of natalizumab infusions ranging from 1-56, with a mean and median of 14.6 and 10, respectively. The average HBI at time of entry for these patients was 8.2 (range 0 to 28). Of the 99 CD patients with an HBI assessment after receiving 6 months of natalizumab therapy, the average total score was 4.8, a mean decrease of 2.8 points from baseline. Cumulatively, as of 07 August 2012, there were 93 SAEs occurring in 51 patients reported in CD INFORM, 4 patients experienced 8 SAEs that were considered treatment related. As of 23 May 2012, 375 women (7 with CD) were prospectively enrolled in the TPER with 372 outcomes reported, including 8 twin pregnancies resulting in 2 outcomes for each pregnancy. Current exposure and safety data from patients receiving natalizumab in both indications will be presented.

CONCLUSION(S): Cumulative findings suggest a safety profile consistent with natalizumab product labeling.

P-130
Factors Predicting Disease Flare in Inactive Ulcerative Colitis
Garth Swanson, Sharon Jedel, Li Hong, Robin Voigt, Malika Shaikh, Ali Keshavarzian
Rush University Medical Center, Chicago, IL, USA

BACKGROUND: Ulcerative Colitis (UC) tends toward a chronic relapsing pattern in most patients. Predicting severity of disease course in Ulcerative Colitis is important to achieve optimal relapse prevention, limit hospitalizations, and prevent surgery. The aim of the current study was to examine which factors might be associated with a disease relapse in a high risk group of patients with inactive UC.

METHODS: 49 patients with inactive UC were recruited into the study. UC subjects had a documented moderate to severe flare in the last 6 months (Mayo Score >6), but were inactive at the time of enrollment (Mayo Score <2). All subjects were on a stable course of medications (SASA, immunomodulators, biologics, and off pred-nisone) for at least 3 months before enrollment. All subjects underwent a gastroen-terologist visit with a clinical assessment, blood draw, stool collection, an unprepped flexible sigmoidoscopy with biopsies at the time of enrollment. In addition all subjects completed a series of validated psychosocial questionnaires includ-ing: IBD Quality of Life Questionnaire (IBDE), Perceived Health Competence Scale (PHCS), Beck Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), Per-ceived Stress Questionnaire (PSQ), and Mindful Attention Awareness Scale (MAAS). Patients were then followed up in the study at 8 weeks, 6 months, and 12 months with all the same measures at enrollment. If patients developed symptoms of a flare during the trial they were seen by the study gastroenterologist. Of the sub-jects that flared, those that flared in the first 90 days were defined as ‘early flare’. The remainder of patients that flared were then defined as ‘late flare’. Baseline fac-tors were then examined to determine which were associated with a disease flare. Statistical calculations were performed by Cox proportional model analysis.

RESULTS: Over the course of the 12 month study 28/49 subjects had a disease relapse (57%). 11 patients had an early flare, and 17 had a late flare. In our study baseline factors that were associated with an early flare included elevated IL-6, Mayo Score, and lack of normal vascular pattern or mild granularity on endoscopy were asso-ciated with a relapse of disease. Findings on pathology, stool calprotectin, and symptoms of stress, depression, or decreased quality of life were not able to accurately predict a disease flare. Further studies are needed to confirm these findings, but adding IL-6, a noninvasive marker of disease activity, or noting subtle changes in endoscopic findings may be important in clinical decision mak-ing to limit disease relapse.

P-131
Evaluation of Mucosal Healing in Small Bowel Crohn’s Disease Treated with Certolizumab Pegol Assessed by Wireless Capsule Endoscopy
Ira Shafrran, Patricia Burgunder, Renee DePanicis, Kara Fitch
Shafrran Gastroenterology Center, Winter Park, FL, USA

Certolizumab Pegol Assessed by Wireless Capsule Endoscopy
Evaluation of Mucosal Healing in Small Bowel Crohn’s Disease Treated with Certolizumab Pegol Assessed by Wireless Capsule Endoscopy
Ira Shafrran, Patricia Burgunder, Renee DePanicis, Kara Fitch
Shafrran Gastroenterology Center, Winter Park, FL, USA

CONCLUSION(S): Cumulative findings suggest a safety profile consistent with natalizumab product labeling.

P-130
Factors Predicting Disease Flare in Inactive Ulcerative Colitis
Garth Swanson, Sharon Jedel, Li Hong, Robin Voigt, Malika Shaikh, Ali Keshavarzian
Rush University Medical Center, Chicago, IL, USA

BACKGROUND: Ulcerative Colitis (UC) tends toward a chronic relapsing pattern in most patients. Predicting severity of disease course in Ulcerative Colitis is important to achieve optimal relapse prevention, limit hospitalizations, and prevent surgery. The aim of the current study was to examine which factors might be associated with a disease relapse in a high risk group of patients with inactive UC.

METHODS: 49 patients with inactive UC were recruited into the study. UC subjects had a documented moderate to severe flare in the last 6 months (Mayo Score >6), but were inactive at the time of enrollment (Mayo Score <2). All subjects were on a stable course of medications (SASA, immunomodulators, biologics, and off pred-nisone) for at least 3 months before enrollment. All subjects underwent a gastroen-terologist visit with a clinical assessment, blood draw, stool collection, an unprepped flexible sigmoidoscopy with biopsies at the time of enrollment. In addition all subjects completed a series of validated psychosocial questionnaires includ-ing: IBD Quality of Life Questionnaire (IBDE), Perceived Health Competence Scale (PHCS), Beck Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), Per-ceived Stress Questionnaire (PSQ), and Mindful Attention Awareness Scale (MAAS). Patients were then followed up in the study at 8 weeks, 6 months, and 12 months with all the same measures at enrollment. If patients developed symptoms of a flare during the trial they were seen by the study gastroenterologist. Of the sub-jects that flared, those that flared in the first 90 days were defined as ‘early flare’. The remainder of patients that flared were then defined as ‘late flare’. Baseline fac-tors were then examined to determine which were associated with a disease flare. Statistical calculations were performed by Cox proportional model analysis.

RESULTS: Over the course of the 12 month study 28/49 subjects had a disease relapse (57%). 11 patients had an early flare, and 17 had a late flare. In our study baseline factors that were associated with an early flare included elevated IL-6, Mayo Score, and lack of normal vascular pattern or mild granularity on endoscopy were asso-ciated with a relapse of disease. Findings on pathology, stool calprotectin, and symptoms of stress, depression, or decreased quality of life were not able to accurately predict a disease flare. Further studies are needed to confirm these findings, but adding IL-6, a noninvasive marker of disease activity, or noting subtle changes in endoscopic findings may be important in clinical decision mak-ing to limit disease relapse.
BACKGROUND: Crotolizum pegol (CZP), a pegylated anti-TNF agent has been approved for the induction and maintenance of response and remission in adult patients with moderate to severe Crohn's disease. Biologic agents have demonstrated efficacy in the healing of gut mucosa leading to better long-term outcomes by sustaining steroid free remission, decreasing the need for major surgery and hospitalizations, and by improving patients overall quality of life. The MUSIC trial revealed CZP-induced endoscopic response and remission at 10 and 54 weeks. Our primary objective is to evaluate mucosal healing assessed by wireless capsule endoscopy (WCE) using the Lewis scoring system (LS) in patients with moderate-to-severe Crohn's disease treated with CZP.

METHODS: We performed a prospective, open-label trial in 10 patients with documented moderate-to-severe Crohn's disease for a period of six months. All patients were given standard induction dose therapy with CZP at 0, 2, and 4 weeks, then standard maintenance dose therapy with CZP every 4 weeks through the end of the study period. WCE was performed at baseline, 16 weeks, and 26 weeks. Blood work including CMP, HEMGPD, and CRP were obtained, as well as Crohn's disease activity index (CDAI) and Short Inflammatory Bowel Disease Questionnaire (SIBDQ) at baseline and every 4 weeks throughout the study.

RESULTS: Ten patients were enrolled in this trial. Of the 10 patients, 6 were male and 4 were female, with an average age of 33.4 and a mean disease duration of 13.1 years. Seven patients had no prior Crohn's surgery, 3 had previous small bowel resection. Eight of the ten patients were secondary non-responders (SNR) to biologics; 3 lost response to both infliximab (IFX) and adalimumab, 1 lost response to either IFX or adalimumab, 1 was biologically naive and the last had an early allergic reaction to IFX. Eight of the ten patients who completed this trial demonstrated an overall clinical improvement in mucosal healing, CDAI and SIBDQ. Of those who responded to CZP, the mean LS at baseline fell from 1861 to 226 at 26 weeks and the mean CDAI decreased from 265 at baseline to 117 at 26 weeks. The mean SIBDQ increased in responders from 39 at baseline to 50 by the end of study.

CONCLUSION(S): This study demonstrates clear evidence of mucosal healing using CZP in patients with moderate-to-severe Crohn's disease. All patients who responded to CZP had prior exposure to anti-TNF therapy. This study establishes a proof of concept that WCE used in conjunction with the LS is a valuable diagnostic test to assess mucosal healing in patients with small bowel Crohn's disease treated with CZP. CZP was well-tolerated in this population with no safety issues. Larger, placebo controlled trials are warranted to assess small bowel mucosal healing in patients treated with CZP.

P-132

The Use of Wireless Capsule Endoscopy in Community Practice: An 11 Year Experience

Ira Shafran, Patricia Burgunder, Michael Kwa

Shafran Gastroenterology Center, Winter Park, FL, USA

BACKGROUND: The role of wireless capsule endoscopy (WCE) in small bowel Crohn's disease (SBCD) has been studied in many clinical trials and has been shown to be superior to other modalities (eg, barium radiography, colonoscopy with ileoscopy, computed tomography enterography, push enteroscopy) for diagnosis and evaluating small bowel stricturing SBCD. There have been concerns about the risk of capsule retention in SBCD because of small bowel strictures, with reported capsule retention rates in patients with known SBCD as high as 13% (range 4-13). Our purpose is to demonstrate the safety of WCE in patients with known or suspected SBCD in our community based, private practice that specializes in inflammatory bowel disease (IBD).

METHODS: We performed a retrospective chart review of patients with confirmed SBCD who had undergone WCE between 2001 and 2012. Patients with documented bowel obstruction; radiographic or endoscopic evidence of strictures <1 cm in diameter; history of bowel obstruction, stenotic surgical hookups, or intestinal scarring were excluded from undergoing WCE per facility protocol. All patients had either a computed tomographic enterography, magnetic resonance enterography or small bowel follow-through in addition to careful pre-screening history and physical exam to evaluate for WCE exclusion criteria prior to any capsule swallow.

RESULTS: Ninety four patients with confirmed SBCD underwent WCE and were included in the study; 44% (n = 43) males, 56% (n = 51) females with a mean age of 46, and mean disease duration of 7.54 years (range <1-46). Forty seven patients (50%) had CD for >1 year in duration at the time of WCE, and the majority had mild-to-moderate CD. Of the 94 patients, 23 patients had serial capsule studies for reassessment during the 11 year study period, with a total of 42 WCE studies done on this population. Of the 94 patients, and 136 separate studies only 10 (2.7%) patients in this 11 year period. This retained capsule was easily removed by endoscopy from a duodenal stricture.

CONCLUSION(S): WCE can be safely performed in SBCD patients, as evidenced by our single center, community IBD practice performing 136 WCE procedures on 94 patients, generating only one single retained capsule event. We believe that careful selection of appropriate patients allows for the safe use of WCE technology in patients with SBCD. By having a single expert physician in inflammatory bowel disease evaluate and prescreen each patient with a carefully taken medical history, physical exam, and use of radiography prior to WCE, the risk of capsule retention in this population is minimized.

P-133

Effect of Time of Meal Consumption on Pharmacokinetics and the Clinical Effect of Oral Tacrolimus in Refractory Ulcerative Colitis

Nobuyuki Hida, Koji Nagomi, Masaki IImuro, Tomomi Kono, Yoshio Ohda, Yoko Yokoyama, Koji Kamikozuru, Katsuyuki Tozawa, Ken Fukunaga, Shiro Nakamura, Takayuki Matsumoto

Department of Lower Gastroenterology, Hyogo College of Medicine, Hyogo, Japan

BACKGROUND: Tacrolimus is effective treatment for induction of remission in refractory ulcerative colitis (UC). Previous studies demonstrated that oral tacrolimus ingestion in a fed condition reduced bioavailability and slowed absorption in healthy volunteers and instable liver transplant recipients. This study investigated the influence of time of meal consumption on pharmacokinetics and the clinical efficacy of oral tacrolimus in refractory ulcerative colitis.

METHODS: This was a randomized, open-label study in 20 patients with refractory, moderately active UC (Disease activity index: 6-10). Oral tacrolimus initial dose of 0.1 mg/kg per day was given (A) 1 hour before meal (fasting condition; n = 10), or (B) immediately after meal (fed condition; n = 10). Venous blood samples were collected at 1, 2, 4, 6, 12 hours following oral tacrolimus on the first day. The blood trough level was adjusted to 10-15 ng/ml for first 2 weeks and then adjusted to 5-10 ng/ml for 10 weeks in both groups. Clinical response was evaluated at week 2 and 12.

RESULTS: Mean maximum tacrolimus blood concentration (Cmax) and time of Cmax (Tmax) values of group A and B were 16.9 ± 5.7 ng/ml and 1.3 ± 0.5 hours versus 5.7 ± 2.5 mg/ml and 3.8 ± 1.1 hours, respectively (P < 0.01). The tacrolimus 12-hour trough level of day 1 was similar between group A and B: 2.6 ± 1.2 ng/ml and 2.0 ± 0.8, respectively. The time required for achieving target trough level was 7.2 ± 0.4 days in group A and 8.5 ± 2.9 days in group B (P > 0.05). Clinical improvement was observed in 60% of patient in group A and 80% in group B at week 12. During treatment, adverse events were occurred 30% in group A and 20% in group B.

CONCLUSION(S): Results suggest that fed condition had a significant effect in slowing absorption of tacrolimus, but did not affect trough levels and clinical response of treatment in patients with refractory UC.

P-134

Ulcerative Colitis in a Child With Partial Trisomy 16

Janet DiFalco, Rebecca Abell, Jeffrey Morgenstern

Stony Brook Long Island Children's Hospital, Stony Brook, NY, USA

Full trimesty 16 is incompatible with life and will always result in spontaneous abortion. In fact, it is one of the most common causes of miscarriage. Patients with partial, or mosaic trisomy 16, however, can survive and live for many years. The reported cases of partial trisomy 16 in the literature have been associated with a variety of abnormalities including intrauterine growth retardation, hypotonia, facial abnormalities, failure to thrive, psychomotor delay, cardiac defects, ambiguous genitalia, and anomalies of the gut and ano-rectum. To our knowledge, there are no reported cases of inflammatory bowel disease in a patient with partial trisomy 16.

We present a 10 year old female with partial trisomy 16 and developmental delay with a 5 week history of acute onset diarrhea. Initial exam was unremarkable except for dysmorphic facial features and underweight relative to height. Lab results were significant for mild anemia, thrombocytosis, and significantly elevated perinuclear anti-nuclear cytoplasmic antibody (pANCA) level of 120.2 EU/6. The genetic basis of inflammatory bowel disease is a growing area of research. Over 100 susceptibility loci for inflammatory bowel disease have been discovered, the most well-known being NOD2 (also known as CARD15 or IBD1) which lies on chromosome 16. Many of these loci have been associated with both Crohn's and with ulcerative colitis (UC). Previous studies have demonstrated that oral tacrolimus ingestion in a fed condition reduced bioavailability and slowed absorption in healthy volunteers and instable liver transplant recipients. This study investigated the influence of time of meal consumption on pharmacokinetics and the clinical efficacy of oral tacrolimus in refractory ulcerative colitis.

METHODS: This was a randomized, open-label study in 20 patients with refractory, moderately active UC (Disease activity index: 6-10). Oral tacrolimus initial dose of 0.1 mg/kg per day was given (A) 1 hour before meal (fasting condition; n = 10), or (B) immediately after meal (fed condition; n = 10). Venous blood samples were collected at 1, 2, 4, 6, 12 hours following oral tacrolimus on the first day. The blood trough level was adjusted to 10-15 ng/ml for first 2 weeks and then adjusted to 5-10 ng/ml for 10 weeks in both groups. Clinical response was evaluated at week 2 and 12.

RESULTS: Mean maximum tacrolimus blood concentration (Cmax) and time of Cmax (Tmax) values of group A and B were 16.9 ± 5.7 ng/ml and 1.3 ± 0.5 hours versus 5.7 ± 2.5 mg/ml and 3.8 ± 1.1 hours, respectively (P < 0.01). The tacrolimus 12-hour trough level of day 1 was similar between group A and B: 2.6 ± 1.2 ng/ml and 2.0 ± 0.8, respectively. The time required for achieving target trough level was 7.2 ± 0.4 days in group A and 8.5 ± 2.9 days in group B (P > 0.05). Clinical improvement was observed in 60% of patient in group A and 80% in group B at week 12. During treatment, adverse events were occurred 30% in group A and 20% in group B.

CONCLUSION(S): Results suggest that fed condition had a significant effect in slowing absorption of tacrolimus, but did not affect trough levels and clinical response of treatment in patients with refractory UC.