

severe disease activity decreased from 31% to 6% and has been consistently below 10% over the last year. Mild disease activity also decreased from 23% to 16%. Overall remission increased from 46% to 78%.

**Conclusion:** We demonstrated dramatic reduction of moderate to severe disease activity since joining the ICN collaboration due to a timely intervention based on readily available live data reporting. ICN is an excellent tool for improving the quality of care of our patients, managing their treatment and improving their outcomes.

#### P-065

##### Serum hepcidin in pediatric inflammatory bowel disease

M. Martinelli<sup>1</sup>\*, C. Strisciuglio<sup>1</sup>, A. Alessandrella<sup>1</sup>, S. Perrotta<sup>2</sup>, B. Nobili<sup>2</sup>, A. Staiano<sup>1</sup>, E. Miele<sup>1</sup>. <sup>1</sup>Department of Translational Medical Science, University of Naples "Federico II", Naples, Italy, <sup>2</sup>Department of Paediatrics, 2nd University of Naples, Naples, Italy

**Objectives and Study:** Anemia in patients with Inflammatory Bowel Disease (IBD) has a multifactorial origin, including blood loss, iron malabsorption (IM), and anemia of chronic inflammation (ACI). Hecpudin regulates iron homeostasis. We sought to correlate hepcidin serum levels in patients affected by IBD with disease activity, inflammatory markers and iron load test (ILT) and to compare with a group of celiac and healthy patients.

**Methods:** One-hundred-fifty subjects (50 IBD, 50 celiac patients and 50 healthy controls; mean age: 12.8 years; range: 4 to 18 years) were prospectively enrolled between December 2012 and June 2013. Full blood count, hepcidin, serum iron, ferritin, transferrin, soluble transferrin receptor, C-reactive protein (CRP), erythrocyte sedimentation rate (ESR) and fecal calprotectin were obtained. In order to evaluate the efficacy of iron absorption in IBD patients ILT was performed. PUCAL, PCDAI, disease localization, disease duration and IBD therapy were also evaluated.

**Results:** Serum hepcidin was significantly higher in patients with active IBD compared with patients with IBD in remission, celiac disease and healthy controls ( $p=0.02$ ,  $p=0.005$ ,  $p=0.004$  respectively). Hecpudin levels directly correlated with serum ferritin, CRP and ESR ( $p=0.001$ ,  $p=0.01$ ,  $p=0.01$ , respectively). An inverse relationship was found with serum transferrin and iron load test ( $p=0.01$  and  $p=0.03$ , respectively). No correlation was found regards to IBD type, disease localization and therapy ( $p=0.2$ ,  $p=0.3$  and  $p=0.5$ , respectively).

**Conclusions:** Serum hepcidin is significantly increased in pediatric IBD patients with active disease and correlates with IM. Therefore it should be considered as a useful marker in differential diagnosis of IBD-associated anemia.

#### P-066

##### The association between perceived relational support and health related quality of life in adolescents with inflammatory bowel disease

T.Z. Hummel<sup>1</sup>\*, H. Maurice-Stam<sup>2</sup>, E. Tak<sup>2</sup>, M.A. Benninga<sup>2</sup>, M.A. Grootenhuys<sup>2</sup>, A. Kindermann<sup>2</sup>. <sup>1</sup>Medical Spectrum Twente, Enschede, The Netherlands, <sup>2</sup>Academic Medical Center, Amsterdam, The Netherlands

**Introduction:** Adolescents with inflammatory bowel disease (IBD) are at risk of lowered health-related quality of life (HRQoL). Little is known about the role of perceived relational support from parents and friends on HRQoL of adolescents with IBD.

**Aim:** To assess the perceived relational support from parents and from best friends and the HRQoL in adolescents with IBD, and to evaluate whether perceived relational support from parents and friends is associated with HRQoL.

**Methods:** A total of 62 adolescents (response rate 74%, male 51.6%, mean age 18.6 years) completed the Relational Support Inventory and the RAND-36 (HRQoL questionnaire).

**Results:** Adolescents with IBD reported high scores of perceived relational support from parents, as well as from best friends. No significant differences were measured between perceived support from parents and from best friends. In comparison with peers, the HRQoL of adolescents with IBD was impaired on domains of social functioning, role limitations due to physical health and vitality. Furthermore, a higher level of perceived parental and friend support was correlated with better HRQoL.

**Conclusions:** This study provides support for a positive relationship of relational support from parents and friends with HRQoL. Health care professionals working with adolescents with IBD should be aware of this and identify patients at risk of difficulties in relationships with parents and friends.

#### P-067

##### C reactive protein as a predictor of response to infliximab in pediatric Crohn's disease

A. Al-Sahafi<sup>1</sup>\*, K. Jacobson<sup>1</sup>, M. Smyth<sup>1</sup>. <sup>1</sup>British Columbia Children's Hospital, Vancouver, Canada

The aims of the present study were to evaluate the temporal relationship between CRP and disease activity (PCDAI) in pediatric patients with Crohn's disease (CD) on infliximab (IFX). Patient data was retrospectively collected from the established British Columbia Children's Hospital Pediatric Gastroenterology Division IBD Database. CD patients who received IFX induction and maintenance for  $\geq 30$  weeks were included. Baseline variables and selected inflammatory markers were collected. From January 2002 to December 2013, 97 patients (54% male) fulfilled inclusion criteria. The mean age of diagnosis was 11.53 years, and mean PCDAI was 32.3. The majority of patients had ileocolonic (22%) or ileocolonic plus other small bowel disease (54%). Median disease duration to IFX start was 2.2 years; Of all of the parameters measured, the CRP was most responsive. 79% of patients with elevated CRP at IFX start had a decreased CRP by week 6. In contrast, symptoms and ESR declined more slowly resulting in poor correlation with CRP, but a significant correlation for ESR and PCDAI after IFX induction ( $P < 0.05$ ). Of the 63 patients (65%) with elevated CRP at IFX start, 63% demonstrated clinical response at both week 30 and week 54. No difference was observed between pre-infusion high ( $\geq 10$  mg/L) and low ( $< 10$  mg/L) CRP groups and their respective PCDAI score at week 30 or 54 ( $P = 0.84$ ). In CD patients on IFX an early biological response was seen with a decline in CRP that preceded a significant decrease in ESR and PCDAI.

#### P-068

##### Disease-related knowledge in New Zealand children with inflammatory bowel disease (IBD) and their parents

A.S. Day\*, L. Burgess. University of Otago, Christchurch, New Zealand

**Background:** Insufficient disease-related knowledge can be a major barrier for effective management of the unpredictable and lifelong course of IBD. Patients with chronic illnesses have high non-compliance rates, which can have direct clinical consequences. While no single intervention strategy can improve the adherence of all patients, research shows successful attempts to improve patient adherence depends upon realistic assessment of patients' knowledge and their understanding of the regimen. One such way to measure disease-specific knowledge in children living with IBD is the IBD Knowledge Inventory Device (IBD-KID).

**Methods:** One hundred and fourteen families of children with new or established diagnoses of IBD were asked to complete