with constipation and 1:1 matched controls without constipation. Two- part semi-logarithmic multivariate regression models were estimated to assess the impact of constipation on all-cause resource utilization and costs. Smearing estimates were applied to interpret results of the semi-logarithmic models. **RESULTS:** We identified 39,485 patients of whom 2,519 (6.4%) had constipation. Most patients with constipation were female (66%) and ≥45 years old (68%). Compared to controls, the constipation group had higher rates of concurrent use of ≥2 opioids (36% vs 24%; $p < 0.001$), discontinuation (31% vs 25%; $p < 0.001$), and switching (45% vs 28%; $p < 0.001$) between opioids. Patients with constipation were more likely to have inpatient admission (odds ratio [OR] = 2.13; $p < 0.001$), emergency (OR = 2.25; $p < 0.001$), outpatient visits (OR = 9.45; $p < 0.001$), skilled nursing (OR = 2.26; $p < 0.001$), hospice (OR = 2.27; $p < 0.001$) and home health services (OR = 1.54; $p < 0.001$). Patients with constipation had significantly higher all-cause costs for emergency ($1,277 vs. $588), outpatient ($3,635 vs $1,861), nursing facility ($1,885 vs. $613), home health ($1,909 vs. $1,069) and prescription drug ($12,005 vs $6,809) services compared to patients without constipation. **CONCLUSION:** Presence of constipation in opioid-treated patients was found to have significant impact on opioid use patterns, health care utilization, and associated costs.

PGI12

THE DUEC (DIGITAL ULCERS ECONOMIC COST) STUDY: ECONOMIC BURDEN OF DIGITAL ULCERS IN ITALIAN PATIENTS AFFECTED BY SYSTEMIC SCLEROSIS

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OBJECTIVES: To estimate the economic burden of Digital Ulcers (DU) in patients affected by Systemic Sclerosis (SSc, scleroderma), in the perspective of the NHS, patients, and society. **METHODS:** Pilot, observational study based on a retrospective, one-year, data collection of clinical characteristics and consumption of resources in the target population, at the Rheumatology Unit of the University Hospital in Padova. EC approval and informed consent were obtained. Clinical records of adults with limited/diffuse SSc, who developed >1 new DU (from September 2005 to April 2006) were analysed. Direct cost and indirect cost per patient/year were calculated using 2007 published tariffs and market values. **RESULTS:** Twenty patients (90% females) (age 51 +/– 12 yr), 60% affected by limited SSc and 80% by severe DU (average nDU = 3) were included. Twenty percent of patients had longer SSc history and more severe DU. All patients received home treatments; 55% also received outpatient care; 85% received on average 3.7 cycles of prostanoids (iloprost or alprostadil) in the DH setting, 15% were also hospitalised. DU complications, mostly superinfections, occurred in 85% of patients. 80% of patients healed. In the NHS perspective, cost of DU is on average €23,730 per patient/year, 71.8% due to DH treatments (including prostanoids) and 23.7% to management of complications; cost per patient varies from €20,533 (no complications, average nDU = 1) to €24,295 (with complications, average nDU = 4); main cost driver is the number of DH accesses. Out-of-pocket expenditure is lower for patients with complications (€360 vs. €900/year) as cost of complications is mainly borne by the NHS. Cost/patient/year is on average €26,756 in the societal perspective (€27,309 and €23,619 with/without complications); indirect costs increase when complications occur. **CONCLUSION:** Despite the small sample, DU economic burden is relevant because of DH treatments and complications' management. In absence of complications, cost of management shifts to patients' charge.

PGI13

THE EPIDEMIOLOGY AND HEALTH CARE RESOURCE USE IN PATIENTS WITH CROHN'S DISEASE: A POPULATION BASED UK STUDY

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OBJECTIVES: Crohn's disease (CD) is a potentially expensive disease as it is a chronic, not curable condition with high hospitalisation rates. The objective of the study was to estimate the health care resource use and epidemiology in a large UK population. **METHODS:** This was a retrospective study using NHS inpatient data (HES data) from 2001 over a period of 5 years representing England (population in 2001 49,140,000). To compare these results data from the region of Cardiff, Wales, UK (population in 2003 approximately 434,000) was used. This data contains inpatient, outpatient, biochemistry and mortality data over a period of at least 12 years that has undergone record linkage. Patients included were those with a diagnosis of CD (ICD-10 K50*) as cause of admission. Number, type and method of admission, incidence and survival were analysed. HRGs were used to calculate inpatient costs. **RESULTS:** A total of 18,573 patients were identified in the NHS data [644 Cardiff data], of whom 7,666 (41.3%) [250 (38.8%) Cardiff data] were male. The average incidence was 14 per 100,000 per year. Mean length of stay for primary index admissions was 9.2 (SD 14.7) days and mean costs ≤2304 (SD ≤2778). Re-admission rates (primary or secondary ICD code) in the year after index admission were 1.36 (SD 3.26) and disease related 0.83 (SD 2.34) per patient; average length of stay per admission were 6.5 (SD 14.6), average costs ≤1776 (SD ≤2692). Surgery rate in the year after index admission was 0.16 (SD 0.46); average length of stay 12.5 (SD 22.1), average costs per surgery ≤4048 (SD ≤4158). The rates declined over the follow-up years. Hospital days, costs and rates approximately matched the Cardiff data, but were slightly higher. **CONCLUSION:** This study provides epidemiological and resource use information on patients with CD. It confirms the high resource use and gives insight into determinants.

PGI14

THE EPIDEMIOLOGY AND HEALTHMCARE RESOURCE USE IN PATIENTS WITH ULCERATIVE COLITIS: A POPULATION BASED UK STUDY

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OBJECTIVES: Ulcerative colitis (UC) is a potentially expensive disease since it is a chronic condition with high hospitalisation rates. The objective of the study was to estimate the health care resource use and epidemiology in a large UK population. **METHODS:** This was a retrospective study using NHS inpatient data (HES data) from 2001 over a period of 5 years representing England (population in 2001 49,140,000). To compare these results data from the region of Cardiff, Wales, UK (population in 2003 approximately 434,000) was used. This data contains inpatient, outpatient, biochemistry and mortality data over a period of at least 12 years that has undergone record linkage. Patients included were those with a diagnosis of UC (ICD-10 K51*) as cause of admission. Number, type and method of admission,

incidence and survival were analysed. HRGs were used to calculate inpatient costs. **RESULTS:** A total of 22,657 patients were identified in the NHS data [592 Cardiff data], of whom 11,719 (51.2%) [288 (48.6%) Cardiff data] were male. The average incidence was 13 per 100,000 per year. Mean length of stay for primary index admissions was 11.3 (SD 15.4) days and mean costs ≤2524 (SD ≤2757). Re-admission rates (primary or secondary ICD code) in the year after index admission were 0.88 (SD 2.42) and disease related 0.32 (SD 0.99) per patient; average length of stay per admission were 9.9 (SD 18.4), average costs ≤2441 (SD ≤3244). Surgery rate in the year after index admission was 0.10 (SD 0.38); average length of stay 13.5 (SD 21.2), average costs per surgery ≤4175 (SD ≤3175). The rates declined over the follow-up years. Costs and rates approximately matched the Cardiff data, hospital days were slightly lower. **CONCLUSION:** This study provides epidemiological and resource use information on patients with Ulcerative colitis. It confirms the high resource use and gives insight into the determinants.

PGI15

PERSISTENCE WITH INFLIXIMAB THERAPY REDUCES CROHN'S DISEASE RELATED MEDICAL COSTS

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OBJECTIVES: To evaluate the impact of persistence with infliximab treatment on medical costs among patients with Crohn's disease (CD), using a managed care database. **METHODS:** A retrospective study using the PharMetrics managed care plan database in the US from July 1, 1999 through June 30, 2005 was conducted. Patients newly initiated on infliximab, continuously enrolled for 12 months before and after their index infliximab claim, and having at least two diagnoses of CD (one of which occurring in the pre-index period) were included. Persistence (%) was defined as the number of days between the first infliximab claim and the last infliximab encounter, divided by 365 and multiplied by 100. Two mutually exclusive cohorts were defined based on the levels of infliximab persistence: patients who were persistent >=80% and those who were persistent <80%. CD-related medical costs (those in which CD was the diagnosis) in the 12-month post-index period were computed for each patient. The cost of adverse events could not be identified separately in this analysis. Univariate differences between the persistent and non-persistent cohorts were assessed using Mann-Whitney and chi-square tests. **RESULTS:** Four hundred, eighty patients were included, 251 (52.29%) with a persistency ratio >=80% and 229 (47.71%) with a persistency ratio <80%; 55% were female and the mean age was 36.9 years. The 80% persistency cohort had lower CD-related medical costs compared with the <80% persistency cohort ($4380.21 versus $8570.11; p = ns), primarily driven by inpatient costs ($2014.31 versus $5981.51; $p < 0.001$). Costs were also higher for emergency room and outpatient levels of care in the lower persistency cohort. **CONCLUSION:** This study indicates that a higher persistence rate with infliximab therapy is associated with lower CD-related medical costs, primarily driven by decreased inpatient hospital costs. Future studies to examine the impact of persistence with infliximab on clinical and humanistic outcomes are recommended.

PGI16

AN EXPLORATORY ANALYSIS OF HEALTH CARE UTILIZATION AND COSTS ASSOCIATED WITH PEDIATRIC CROHN'S DISEASE

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OBJECTIVES: Evaluate health care utilization/costs associated with pediatric Crohn's disease (PCD). **METHODS:** Claims for HMO patients assigned to HealthCare Partners Medical Group from six commercial health plans in Southern California were analyzed, which identified patients <18 who were newly diagnosed with PCD (ICD-9 555.x) for this analysis. Patients were required to have 6-months pre and 12-months post continuous eligibility from disease index date. Cost and resource utilization were compared to a cohort of non-PCD claimants, matched to the PCD cohort on age, sex, and birthday (within 30 days of age/sex matched PCD patients). Statistical significance was not assessed due to small sample size. **RESULTS:** Sixty-two PCD patients were identified; 30 met the eligibility criteria; 56.7% were female and median age at diagnosis was 13. The comparator group included 10,864 children. The total per member per month (PMPM) cost for PCD patients was $2547.32 (70% attributable to PCD), as compared with $166.07 PMPM for the non-PCD cohort. There were 500 admissions per thousand members per year (PTMPY) for the PCD group as compared with 11.2 for the comparator cohort. The average length of stay was 7.6 days for the PCD cohort versus 4.4 days for the comparators. Inpatient stay PMPM cost was $1409.41 for the PCD cohort versus $18.16 for the comparators. **CONCLUSION:** PCD is associated with much higher levels of resource utilization and costs of care, primarily driven by inpatient stays, compared with a matched group of children without PCD. Treating PCD appropriately before the disease progresses to a level requiring hospitalization may help reduce costs.

PGI17

INCREASED INPATIENT UTILIZATION FOLLOWING COLECTOMY IN ULCERATIVE COLITIS IN THE MEDICARE POPULATION

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OBJECTIVES: Examine inpatient hospital utilization, following colectomy, in patients with ulcerative colitis (UC) covered by Medicare. **METHODS:** A retrospective analysis was conducted using claims from the Medicare Standard Analytic Files (SAF) 5% sample database between January 1, 2001 and December 31, 2005. Patients with UC were identified using diagnostic codes (ICD-9 codes 556.x) and were limited to those with a procedure code indicating colectomy (45.7x), and a diagnosis of UC prior to that date. Patients with a subsequent diagnosis of Crohn's disease were eliminated from this analysis. The first procedure was chosen if the beneficiary had multiple 45.7x procedures (these are partial excisions, so a beneficiary could have multiple procedures over time). The study design consisted of a 12-month pre- and 12-month post-colectomy period during which continuous enrollment was required. Inpatient hospital costs and resource utilization were evaluated 12-months before and 12-months after the quarter in which the colectomy occurred. All costs are presented in 2005 US dollars. **RESULTS:** A total of 905 patients with UC who had a claim for colectomy were included in the analysis. Total inpatient costs ($19,778 vs. $23,765) and