LPB treatment rates. Wilcoxon signed-rank tests were used to compare study period direct (medical and drug) costs from third-party payer perspective. RESULTS: During the 6-month study period, duloxetine-treated patients vs. controls had significantly lower rates of other pharmacological therapy (34.2% vs. 43.4% narcotic episods, p = 0.004; 34.2% vs. 43.2% NSMAs, p = 0.001; 17.4% vs. 26.2% muscle relaxants; p = 0.001; 10.6% vs. 20.4% corticosteroids, p < 0.001) and non-invasive therapy (16.4% vs. 35.6% chiropractic therapy, p < 0.001; 13.0% vs. 34.2% physical therapy, p < 0.001). Duloxetine-treated patients were also significantly less likely to have a back surgery during the study period compared with controls (4.0% vs. 2.0%, respectively; p = 0.021). Average 6-month direct costs were not significantly different between duloxetine-treated patients and controls ($3534 vs. $3617, respectively).

CONCLUSIONS: Duloxetine treatment in LPB patients vs. other non-surgical treatment was associated with a lower surgery rate as well as reduced rates of other non-surgical therapies without significant differences in direct costs.

HEALTH CARE UTILIZATION AND FACTOR COST IN HEMOPHILIA
1. University of Southern California, Los Angeles, CA, USA; 2. Angers, Thuell Lacis, USA; 3. Gulf States Hemophilia and Thrombosis Center, Mobile, TX, USA; 4. California, Los Angeles, Los Angeles, CA, USA; 5. University of California, San Francisco, San Francisco, CA, USA; 6. University of Western Ontario, London, ON, Canada; 7. New England Hemophilia Center; Worcester, MA, USA; 8. Indiana Hemophilia and Thrombosis Center; Indianapolis, IN, USA

OBJECTIVES: Hemophilia is a costly chronic illness. Clotting factor accounts for over 70% of hemophilia costs. We examined health care utilization, factor use and costs in people with hemophilia A from six Hemophilia Treatment Centers in seven states. METHODS: We obtained prospective data from interviews and chart reviews with 329 patients aged 2 to 65 years enrolled in the Hemophilia Utilization Study Group. Part V (2005–2007). We analyzed one-year health care utilization (outpatient, emergency visit, rooms, and hospitalization) and total cost of clotting factor dispensed. Factor cost was estimated using average sales price from Medicare Part B. We further examined the association between these variables and clotting factor infusion strategies (episodic, treating a bleed) versus prophylactic (administer multiple times each week) in patients with severe hemophilia using Chi-square test for categorical variables or Wilcoxon rank-sum test for continuous variables. RESULTS: Fifty percent of patients were adults; Mean age 9.7 ± 4.5 years for children and 33.7 ± 12.5 years for adults. Two-thirds of patients had severe hemophilia. 97% used clotting factor; 68% of severe patients infused prophylactically. 50% reported using health services at least once in the last year. 8% had a comprehensive visit (range: 0–28); 31% a clinic visit. 23% saw a physical therapist (range: 0–21); 19% had emergency room visits and 15% were hospitalized. Mean cost of clotting factor was $208,548 (median: $232,831) per patient-year. In patients with severe hemophilia, average number of hospital days/patient-year was 8.3 for prophylaxis users versus 13 for episodic treatment users, p = 0.14. Patients with severe hemophilia were less likely to have an emergency room visit if they were on prophylaxis (13% vs. 25%, p = 0.047). Mean factor cost was $281,151 per patient-year (median: $224,856) for patients on prophylaxis versus $15 4,855 (median: $126,148) for episodic treatment users. (p < 0.001). CONCLUSIONS: This study confirms the prior evidence regarding the prophylactic infusion of clotting factors, compared to episodic treatment, may be associated with decreased health care utilization, including emergency room visits and hospitalizations.

PROCESS MEASUREMENT AND CALCULATION IN IV-PCA AT UNIVERSITY HOSPITAL OULU FINLAND

OBJECTIVES: To describe and measure intravenous patient controlled analgesia (IV-PCA) processes in postoperative pain management in patients with moderate to severe pain in clinical practice that have undergone surgery at the University Hospital Oulu Finland. METHODS: A model was designed and visualized using Swimlane notation. Sub process levels were defined as "education", "purchasing/depreciation/mainte- nance", "procurement", "supply", "application" and "disposal". Based on these sub process levels, data was collected by two research methods, interviews and measure- ment forms including patient and staff satisfaction questionnaires. RESULTS: Twelve members of Oulu University Hospital personnel with different responsibilities were interviewed to define the roles and activities involved in the entire IV-PCA process. Ten different roles were defined with 151 different activities. The involved roles and the duration of each activity in the sub process levels "supply", "application" and "disposal" were measured from 108 consecutive patients with eight different surgery types. The most common surgery types were back surgery and gynecological laparoscopy. The average duration of IV-PCA use per patient was 41 hours and 39 minutes. The staff spent an average 132 minutes in IV-PCA related activities, of which the nurse spent 91%. The average cost, including material and staff, for 24-hour use of a lower back surgery at IV-PCA was €122. The patients found the IV-PCA system easy to operate but hindered them in mobility and they were not able to sleep unattended. According to the staff the IV-PCA system operated error-free and reliably but hindered the mobilization of the patient. CONCLUSIONS IV-PCA involves many different roles and activities and intertwined sub processes. Therefore the whole system is complex and resource demanding. Comparisons of the results from similar studies at other hospitals will be very useful when trying to optimize the process.