Objective: To survey family practice and internal medicine physicians about their understanding of scope of practice of PM&R, and the effect this and various demographic variables have on intention to refer to physiatrists. Design: Survey-based. Setting: U.S. mailing via U.S. Postal Service Participants: 1000 internal medicine and family practice physicians with 460 responding. Intervention: Not applicable. Main Outcome Measures: Intention to refer patients to physiatrists and primary care practitioners’ willingness to refer to PM&R. Results: While most respondents were likely to refer to physiatrists, there was wide variation in the types of patients referred. Physicians with a greater understanding of the scope of practice of physiatrists more likely to refer (P=0.003). Female physicians were more likely to refer than male physicians (P=0.043). Conclusion: There appears to be an association between an understanding of physiatrist practice and primary care practitioners’ willingness to refer to PM&R. Primary care physicians should be educated about the benefits of referring patients to physiatrists. Key Words: Attitude of health personnel; Consultation; Health care surveys; Referral; Rehabilitation.

Poster 201
Patterns of Inpatient Rehabilitation Discharges to Acute Care Services, Reggies Augusthy, DO (University of Kansas, Kansas City, KS); Lisa McPeak, MD; George Varghese, MD, e-mail: ragusthy@ku.edu. Disclosure: None.

Objective: To identify medical problems and patterns leading to inpatient rehabilitation discharges to acute care services. Design: Retrospective Analysis. Setting: Tertiary care hospital inpatient rehabilitation unit. Participants: All patients discharged from the inpatient rehabilitation unit over a 2-year period (N=543). Intervention: Not applicable. Main Outcome Measures: Discharge diagnosis (i.e., 18.7% of all inpatient rehabilitation discharges discharged to acute service. 77.5% of all inpatient rehabilitation discharges to acute care services were of 5 main medical issues: (1) mental status change, (2) respiratory failure, (3) surgical complication, (4) cardiac abnormality, and (5) fever. 84.5% of all inpatient rehabilitation discharges to acute care services had 5 admitting diagnoses: (1) cerebrovascular accident, (2) orthopedic procedure, (3) spinal cord injury, (4) deconditioning, and (5) traumatic brain injury. 77.5% of all inpatient rehabilitation discharges to acute care services were to 3 services: (1) internal medicine, (2) neurosurgery, and (5) orthopedic surgery. Conclusion: In order to best care for our inpatient rehabilitation patients, we must limit potential medical complications. By identifying the most common medical issues leading to discharges to acute care services, we can anticipate medical problems, and treat them appropriately. If a pattern is established as to which diagnoses are at highest risk for medical complications, we can better evaluate medical stability prior to admission to an inpatient rehabilitation unit. As residents, we must educate ourselves to such patterns, whereby performing at a higher level in terms of using caution and better judgment in screening candidates for inpatient rehabilitation. If a pattern is identified as to which services these retransfers come from, the rehabilitation team should institute an education program regarding rehab criteria and qualifications, according to the new prospective payment system. Setting: None. Key Words: Brain injuries; Cerebrovascular accident; Rehabilitation; Spinal cord injuries.

Prosthetics, Orthotics, and Assistive Devices

Poster 202
Evaluating the Effects of Foot Orthotics on Plantar Pressures in the Normal Adult Population: A Pilot Study. Hope S. Hacker, MD (University of Texas Health Science Center, San Antonio, TX); Alaine Walsh; Gordon Bokser, PC, MA; William Rogers, MS; Gail Walden, MPH; Nicole Walsh, MD, e-mail: HackerH@uthscsa.edu. Disclosure: None.

Objective: To document the efficacy of over-the-counter versus customized foot orthoses. Design: A repeated measure within-subjects pilot study to evaluate plantar pressures in a normal population. Trends of comparative differences between orthoses described by descriptive statistics are analyzed, as well as the determination of statistical significance. Setting: Each subject walked over a level surface at self-selected speed with each of 3 pairs of randomly ordered foot orthoses. Participants: 10 normal subjects (20s) were evaluated using an F-Scan in-shoe pressure system during ambulation to determine the distribution of and peak plantar pressures. Intervention: Subjects were randomized to walk wearing a custom-molded trimmable foot orthosis (CMO), a flat trimmable noncast orthosis (TRO), and a contoured off-the-shelf foot orthosis made of cellular urethane and plastazote (OTS). Main Outcome Measures: A minimum of 15 to 20 steps per orthoses per individual were analyzed for heel, forefoot metatarsal, head, and hallux peak plantar pressures. Results: A mean ± SD reduction of 27%±6.3% (P<.001) in lower plantar pressures was found at the heel along with an 19%±7.1% reduction (P<.001) in these pressures at the forefoot for the custom-molded foot orthosis in comparison to the OTS orthosis. An 8.6%±7.9% reduction (P=.46) in lower plantar pressures was found at the heel along with a 10%±8.4% reduction (P=.38) at the forefoot for the TRO in comparison to the OTS orthosis. Conclusions: The custom molded and flat trimmable orthoses reduce plantar pressures at the heel and forefoot in comparison to the OTS orthosis. These results suggest that custom foot orthoses may provide increased protection for patients susceptible to cutaneous foot ulceration such as diabetics. Key Words: Gait; Orthotic devices; Rehabilitation; Research.

Poster 203
Manual Wheelchair Use by Community-Dwelling and Institutionalized Veterans. Shanthi P. Ganesh, MPH (Duke University Medical Center/Durham VAMC, Durham, NC); Helen M. Hoening, MD, MPH; Anthony J. Hayter, PhD; Phil Kim, MS; Jon A. Sanford, March; Stephen H. Sprigle, PhD, e-mail: helena.hoening@med.va.gov. Disclosure: None.

Objective: To describe the relationship between patient, environmental, and wheelchair characteristics and wheelchair use. Design: Cohort study. Setting: I Veterans Administration teaching hospital. Participants: 99 consecutive cognitively intact veterans newly prescribed a manual wheelchair. Intervention: Not applicable. Main Outcome Measures: Self-reported and study team measured sociodemographic, health, wheelchair, and environmental characteristics. Results: The sample was similar to the veteran population as a whole in an average age of 66, 59% white, and 58% with a high school education. Participants averaged 10 medical conditions and 6 impairments. 65.7% lived in the community and 32% lived in nursing homes. The top conditions subjects reported contributing to need for a wheelchair were recent surgery (78%), hospitalization (73%), amputation (70%), and joint fusion/replacement (67%). Recent hospitalization was present in 76% of the sample and surgery in 37%. A trend toward increased impairment was seen among institutionalized subjects, and primary care practitioners’ willingness to refer to PM&R. Primary care physicians should be educated about the benefits of referring patients to physiatrists. Key Words: Attitude of health personnel; Consultation; Health care surveys; Referral; Rehabilitation.

Poster 204
Low Back Pain and Disability in Persons With Lower-Extremity Amputation. Erik T.shaw, DO; Gordon Bosker, CP (UTHSCSA, San Antonio, TX), e-mail: mbosker@yahoo.com. Disclosure: None.

Objectives: To evaluate the extent to which low back pain (LBP) is present in persons with lower-extremity amputations (LEA), the extent to which it interferes with daily living and work, and to determine if certain prosthetic components are associated with LBP. Design: Questionnaire. Setting: Outpatient prosthetic clinic. Participants: Above (AKA) and below (BKA) knee amputees. Intervention: Not applicable. Main Outcome Measures: Visual analog scale (VAS), Quebec Back Pain Disability Scale, and prosthetic limb components. Results: 51% of the 49 respondents had LBP. The average VAS of those with LBP was 4.59, 4.72 in the below the knee amputees (AKA), and 5.23 in the above the knee (AKA) population. The average disability for the entire sample was 34.4. For the LBP subgroup, the average disability was 40.6. In the BKA group, the average disability was also 39.8 and 23.3 in the AKA group. Those who had LBP were more likely to be BKA than AKA and suffered the amputation from disease rather than trauma. 75% of the study population use a SACH foot, and 56.8% of these had LBP. Of the 25% who used a multiaxis foot, 33.3% had LBP. BKA patients had 52.6% rate of LBP, and 54.8% used a SACH foot. In the AKA population, 28.6% had LBP and of those 40% used a SACH foot. Disability was also greater in the BKA group, regardless of amputation level. No suspension was significantly associated with disability or LBP. Conclusions: Low back pain; Gait; Rehabilitation.

Poster 205
The Challenges of Rehabilitating a Blind Amputee: A Case Report. Edward Albert G. Balbas, MD (University of Texas Health Science Center, San Antonio, TX); Alaine Walsh; Gordon Bokser, PC, MA; William Rogers, MS; Gail Walden, MPH; Nicole Walsh, MD, e-mail: HackerH@uthscsa.edu. Disclosure: None.

Setting: Tertiary care hospital. Patient: A 47-year-old bilaterally blind man with severe type I diabetes mellitus that subsequently had a right below-knee amputation in 2001 and left below-knee amputation in 2002. Case Description: The patient was admitted in inpatient rehabilitation for prosthetic fitting and gait training after evaluation in the amputee clinic. Prosthetic components included a silicone knee, bilateral endoskeletal components, and custom-made foot (K2 level), which required less energy consumption. He had difficulty donning the silicone liner, due to lack of vision. He was taught to use palpation to locate the seams in front of the silicone liner. An Alpha locking gel liner (shuttle locks have audible click) was utilized to remind the patient that his silicone liner was locked in place in his prosthesis. To distinguish left and right prosthesis, he palpates the shutlock on the medial side of each prosthesis. He was taught progressive ambulation from parallel bars to a regular cane. The physical therapist would stand in front of him and give verbal cues and voice to help him mobilize. Assessment/Results: He started ambulating 35ft with minimal assistance and advanced to 100ft with contact guard assist by discharge day 15. Discussion: The rehabilitation of a blind person with a bilateral lower-extremity amputation as a functional prosthetic candidate is difficult. Visual impairment should not be a contraindication to increase independence of the patient if it is medically stable and psychologically prepared. Blind amputees must be motivated, and additional time may be necessary due to the need to utilize nonvisual routes to obtain information and independence in the rehabilitation program. Conclusions: We present a case of a blind bilateral amputee, who despite his associated medical conditions was able to improve his independence and quality of life. Key Words: Amputation; Rehabilitation.

Spinally Injured

Poster 206
Incidence, Etiology, and Risk Factors for Fever Following Acute Spinal Cord Injury. Shane McNamer, MD (Virginia Commonwealth University, Richmond, VA); William McKinley, MD; Michelle Meade, Phd; Katrina Kundra; Nicole Abdul, e-mail: shane mcnamer@va.gov. Disclosure: None.

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