

**Conclusions:** This analysis suggests that switching to abobotulinumtoxinA (Dysport®) may markedly reduce drug costs associated with chemodenervation for CD when compared to onabotulinumtoxinA (Botox®).

#### Poster 29

##### **ANCHOR-CD (AbobotulinumtoxinA Neurotoxin: Clinical and Health Economics Outcomes Registry in Cervical Dystonia): A Multicenter, Observational Study of Dysport® (AbobotulinumtoxinA) in Cervical Dystonia: Baseline Data and Cycle One Efficacy Data.**

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**Disclosures:** E. L. Polukhin, No Disclosures: I Have Nothing To Disclose.

**Objective:** To determine efficacy and patient outcomes in cervical dystonia (CD) patients treated with Dysport®, abobotulinumtoxinA, in routine clinical practice.

**Design:** Open-label observational study.

**Setting:** 33 U.S. clinical sites.

**Participants:** Target enrollment of 400 idiopathic CD patients treated with abobotulinumtoxinA.

**Interventions:** None

**Main Outcome Measures:** Toronto Western Spasmodic Torticollis Rating Scale (TWSTRS), Pain Numeric Rating Scale (NRS), Clinical Global Impression of Change (CGIC), Patient Global Impression of Change (PGIC), and Modified Treatment Satisfaction Questionnaire for Medication (TSQM).

**Results or Clinical Course:** Data from an ongoing study of CD patients was collected on July 26, 2012 from 209 patients. The types of dystonic posturing included torticollis (85.4%), laterocollis (54.9%), retrocollis (24.3%), and anterocollis (15.5%). 156 (75%) patients were previously treated with botulinum toxin therapy: 102/156 (66%) were switched from onabotulinumtoxinA (Botox®), and 32/156 (21%) patients continued on abobotulinumtoxinA. The median dose of abobotulinumtoxinA in cycle one was 500 Units. The most frequently injected muscles were the splenius capitis, trapezius, levator scapulae, sternocleidomastoid, and semispinalis capitis. Mean (SD) TWSTRS total score was 41.2 (18.3) at baseline and 28.1 (16.3) at 4-week follow-up demonstrating a -12.5 (9.9) mean change or 32.1% improvement compared to baseline. Mean (SD) Pain NRS score (0-10) was 4.8 (3.1) at baseline and 3.5 (2.8) at 4-week follow-up demonstrating a -1.24 (2.6) mean change from baseline. 63.5% of physicians and 42.4% of patients rated much improved and very much improved for the CGIC and PGIC, respectively. Modified TSQM scores indicated that 83% of patients were satisfied with abobotulinumtoxinA treatment. 3 (1.4%) patients withdrew from the study due to adverse drug reactions.

**Conclusions:** Improvements in the severity, disability, and pain symptoms were reported in CD patients treated with abobotulinumtoxinA during cycle 1 along with treatment satisfaction. Ongoing analyses will seek to ascertain factors associated with response and with perceived magnitude of benefits.

#### Poster 30

##### **Predicting Recovery to Independent Physical Functioning after Rehabilitation for Stroke within the Acute Hospitalization.**

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**Disclosures:** M. G. Stineman, No Disclosures: I Have Nothing To Disclose.

**Objective:** Develop a score for predicting recovery of independent physical function through rehabilitation administered during acute hospitalization for new stroke.

**Design:** Observational study applying cross-validated multivariable logistic regression. Points derived from the  $\beta$ -coefficients yielded scores indicating the probability of recovery by adding up the points.

**Setting:** Rehabilitation services within 110 Veteran Affairs Medical Centers.

**Participants:** All 5,316 patients (60% in the derivation cohort and 40% in the validation cohort) receiving either consultative or comprehensive rehabilitation while hospitalized and rated as physically dependent at initial assessment.

**Interventions:** Not applicable.

**Main Outcome Measures:** Recovery to grade VI or above at final assessment is the point when patients no longer need physical assistance with eating, grooming, dressing upper and lower body, toileting, sphincter management, bed to chairs, toilet, and tub transfers, walking/wheelchair use, and require no more than supervision bathing or climbing stairs.

**Results or Clinical Course:** Only 16% of patients reached grade VI. There were 6 independent predictors with the following points: age ( $\leq 79$  years=1,  $> 79$  years=0), time from initial to final grade assessment (1-2 days=0,  $\geq 3$  days=1), lack of renal/genitourinary procedures=2, admission grade (I or II=0; III=1; IV or V=3), admission cognitive stage (I or II=0; III=1; IV, V, or VI=2; VII=3), and type of rehabilitation (consultative=0; comprehensive=2). The proportions of patients recovered to grade VI for the 1st (score $<5$ ), 2nd (score=5-6), 3rd (score=7-8), and 4th (score $>8$ ) score quartiles were 0.54%, 5.95%, 19.61%, and 36.73%, respectively. Area under the receiver operating curve was 0.83 and 0.82 for the point system in the derivation and validation cohorts, respectively.

**Conclusions:** Clinicians can forecast functional recovery to grade VI based on stroke patients' initial status and type of rehabilitation services received by summing points and thus producing a simple score. This high benchmark marks a target for discharge home with nearly complete autonomy.

#### Poster 31

##### **Central Adiposity Is an Independent Risk Factor for Low Vitamin D Among Adults With Cerebral Palsy.**

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**Disclosures:** E. A. Hurvitz, No Disclosures: I Have Nothing To Disclose.

**Objective:** The purpose of the study was to examine the vitamin D status of adults with CP, and to evaluate the association between functional level, age, and anthropometric indicators of adiposity.

**Design:** Cross-Sectional

**Setting:** Academic Medical Center

**Participants:** 112 Adults (18 years old and older) with a diagnosis of cerebral palsy who receive care in the Adults with Cerebral Palsy clinic

**Interventions:** Serum vitamin D levels, body mass index (BMI), waist circumference (WC), and functional level (measured by Gross Motor Function Classification System (GMFCS)) were measured. Vitamin D status was assessed by serum 25-hydroxyvitamin D level (25(OH)D) in ng/mL. The influence of motor impairment and adiposity on 25(OH)D was assessed using general linear models and logistic regression, with GMFCS as a standard categorical covariate (two categories: GMFCS I-III, and IV-V), and age, sex, BMI and WC as moderators.

**Main Outcome Measures:** Vitamin D levels and their relationship to body composition

**Results or Clinical Course:** Mean vitamin D level was  $28.1 \pm 16.0$  ng/mL. Only 27% of subjects had a normal level of 25(OH)D, 29.8% were low normal, 32.4% were insufficient and 10.8% were deficient. Obesity (20%) and overweight (24.4%) were common. General linear modeling demonstrated a robust, independent association between the anthropometric indicator of visceral adiposity (WC) and 25(OH)D level ( $p = .009$ ), even after controlling for age, sex and GMFCS. Logistic regression revealed that for every 10 cm increase in WC, the odds of being deficient in Vitamin D (i.e., per the 2011 IOM report) increase by a factor of 1.5.

**Conclusions:** Adults with CP are at risk for low vitamin D levels and overweight/obesity. Waist circumference is a strong predictor for low vitamin D levels, independent of age, sex, and GMFCS level. There is an urgent need to monitor and support behavioral factors among adults with CP to reduce risk of secondary comorbidities.

### Poster 32

#### **A Prospective Study of the Efficacy of Nerve Conduction/Electromyography Learning Modules Within the Physical Medicine and Rehabilitation Residency Program.**

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**Disclosures:** B. D. Patadia, No Disclosures: I Have Nothing To Disclose.

**Objective:** The objective of this study was to look at the efficacy of the EMG and Neuromuscular didactic lectures/work shop modules provided at the Rehabilitation Residency Program through a 30 item questionnaire done before and after the 8 week learning modules.

**Design:** A 30 question pre- and post- test was tailored to all PGY III and IV residents who attended the NCS/EMG hands-on workshops and didactic lectures that spanned over a course of 8 weeks. The questions were open-ended, multiple choice, and matching items. Data collected were used to compare pre- and post-test results for specific PGY levels as well as individual resident scores.

**Case Description:** N/A

**Program Description:** N/A

**Setting:** Tertiary Metropolitan Medical Center.

**Participants:** Third and Fourth Post-graduation year (PGY) residents in the Physical Medicine and Rehabilitation residency program.

**Interventions:** Pre- and Post-test questionnaire.

**Main Outcome Measures:** Questions answered correctly on the 30 question (40 points possible) survey.

**Results or Clinical Course:** All of the residents that participated in the study were noted to increase his/her raw score after the 8 week learning modules. The total average pre-test score was 24/40 while the total average post-test score was 28/40. The total score improvement ranged from one point to nine points individually. The average PGY III pre-test score was 19, post-test 25, improvement range 3-9 points, with an average improvement of almost six points. The average PGY IV pre-test score was 30, post-test 32, improvement range 1-3 points, with an average improvement of 2 points. The overall average improvement of raw score was just above 4 points.

**Conclusions:** The result of this study supports significant score improvement after the EMG modules. It does reflect knowledge acquisition during the 8 weeks time. Such a wide variation (1-9) among the residents is likely related to how much time each resident spent in the EMG laboratory before the learning modules were given. The fact that PGY III residents had a greater improvement margin does point out the effectiveness of these modules as this was their first exposure to this module while the PGY IV residents had one module prior in our 18 month didactic cycle. We hope to perform further interventions as we work to improve the didactic series for our residency program based on the correct and incorrect answers tabulated from the study.

### Poster 33

#### **Discharge to an Acute Floor During Inpatient Rehabilitation Is Associated With Rehospitalization After Inpatient Rehabilitation.**

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**Disclosures:** N. U. Arene, No Disclosures: I Have Nothing To Disclose.

**Objective:** Large proportions of healthcare costs are spent on hospitalization. Repeated admissions shortly after discharge increase costs. Focus is on rehospitalization as a quality measure. This study aims to evaluate factors predictive of rehospitalization after Comprehensive Inpatient Rehabilitation (CIR).

**Design:** Retrospective study

**Setting:** Community hospital CIR program

**Participants:** 5474 patients in the 21 CIR case mix groups (CMG) - 0101 to 2101 who were discharged from CIR between 1/1/2006 and 12/31/11.

**Interventions:** Logistic regression identified factors that predict rehospitalization. ANOVA and chi square assessed factors associated with rehospitalization within 90 days post CIR.

**Main Outcome Measures:** Rehospitalization

**Results or Clinical Course:** Of 5474 cases, 1097 (20%) were rehospitalized within 90 days. The top 3 CMG were stroke -23.7%, joint replacement - 13.9% and miscellaneous medical/surgical - 17.9%. In >70% of cases reasons for rehospitalization was unknown. In the rest, the most common reasons were cardiac, respiratory and infection. Significantly, discharge during CIR to the acute floor was associated with rehospitalization: 29.7% of those discharged to the acute floor during CIR where rehospitalized within 90 days of CIR compared to 18.5% of those who were not (Chi-Square = 50, DF = 1, P= .00). The top 3 reasons for discharge to