AICDA(exon 1-5) and UNG(exons 1-7) genes were normal. The patient was treated with immunoglobulin replacement and prophylactic antibiotics, decreasing the frequency of infections and improving his serum IgM (202 mg/dl). At 16 years of age, whole exome sequencing (WES) was performed, revealing the heterozygous presence of the de novo c.1973delC variant in the SATB1 gene.

**Conclusion:** WES should be considered when hyper IgM syndrome targeted testing fails to elucidate the diagnosis. The SATB1 gene is a chromatin organizer and transcription factor which plays a role in immune function, lymphoid development, neuronal development and function. This case report adds to the literature the identification of the variant c.1973delC in the SATB1 gene with a clinical presentation of hyper IgM syndrome with distinctive neurological features.

**OR090**

**QUALITY IMPROVEMENT SURVEY ASSESSING IMMUNOTHERAPY EFFICACY AND BARRIERS IN AN OUTPATIENT SETTING**

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**Introduction:** Immunotherapy is commonly used in allergy practices. Classic immunotherapy includes a buildup phase continuing until maintenance and once a month thereafter for 3-5 years. Per the Practice Parameters, symptoms with allergen immunotherapy have been cited to improve soon after beginning maintenance dosing. In this study, a quality of life questionnaire was given to subjects receiving environmental allergen immunotherapy with a goal of assessing efficacy along with addressing barriers leading to practice improvements and adjustments where possible.

**Methods:** Surveys with questions regarding duration, medication usage, ability to wean, and symptoms were distributed to 145 subjects receiving environmental allergen immunotherapy over 8 months. All subjects surveyed received subcutaneous immunotherapy.

**Results:** Length of duration for immunotherapy ranged from 1 week to over 40 years for the subjects surveyed. 87% of subjects endorsed symptom improvement. 63% of the subjects were able to decrease their medications used in conjunction with immunotherapy. 62% identified barriers associated with receiving immunotherapy with 58% identifying build up phase scheduling as the main barrier. Additionally, 38% identified the buildup schedule to be time consuming and difficult to maintain, while 16% stated that parking issues played a role.

**Conclusions:** Overwhelmingly, the majority of the subjects noted improvement on immunotherapy with the earliest subject noting improvement within 2 months. Subjects started to consistently note quicker than expected relief around 5 months (during build up phase). Results will be used to improve immunotherapy services. Subjects who failed to show improvement will be contacted regarding possible cessation of immunotherapy, while barriers brought up during the survey will be addressed via administrative improvements.

**OR092**

**UTILITY OF INPATIENT PENICILLIN ALLERGY TESTING AT REDUCING EXPOSURE TO NON-BETA LACTAM ANTIBIOTICS**

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**Introduction:** A history of penicillin allergy is associated with increased risk of nosocomial infections as patients are exposed to non-beta lactam antibiotics. Ruling out penicillin allergy during hospitalization has been shown to increase prescription of beta lactam antibiotics and decrease vancomycin and fluoroquinolone use. However, the timeliness of penicillin allergy testing in relation to initiation of antibiotics is not known.

**Method:** We performed a retrospective chart review of patients admitted to our institution between January 1, 2008 and December 31, 2016 who underwent penicillin allergy testing.

**Results:** 49 patients were identified. 27 (55.1%) were female. Median age was 61.7 years (IQR 48.5-71). Median Charlson Comorbidity index was 4 (IQR 2-5.5). 42.86% (21) patients were admitted to the intensive care unit. 12.2% of beta lactam reactions occurred 1 year prior to hospitalization of which 6.1% occurred during hospitalization. 79.6% of allergy consultations were requested by infectious disease physicians. Median hospital stay was 11 days (IQR 5.5-18). 87.8% were receiving non-beta lactam antibiotics at the time of testing. Patients received a median of 5 days antibiotics prior to testing (range 0-16; IQR 3-7). 91.8% of penicillin skin tests using major and minor determinants were negative. Antimicrobial therapy was changed in 78.0% (32) of which 68.3% (21) was attributable to penicillin allergy testing.

**Conclusion:** Inpatient penicillin allergy testing is a key component of antibiotic stewardship; however, it requires the necessary infrastructure for timely evaluation.

**OR093**

**EVALUATING PNEUMOCOCCAL VACCINATION STATUS, PATIENT DEMOGRAPHICS AND DISEASE BURDEN AT AN INTERNAL MEDICINE CLINIC**

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**Introduction:** Pneumococcal illnesses are the cause of most frequently preventable diseases. A large number of patients are admitted for community acquired pneumonia (CAP) every month leading to prolonged hospitalizations and mortality. In this project,