### Baseline Characteristics and Current Standard of Care (SOC) Among US Veterans with Major Depressive Disorder (MDD)

**Abstract**

**Study Objectives.** To describe characteristics of veterans with MDD and the different treatment regimens received during the first observed and treated major depressive episode (MDE).

**Methods.** A retrospective study was performed using the Veterans Health Administration (VHA) database from 4/1/2015 to 2/28/2019 (study period), supplemented with Medicare Part A/B/D data from 4/1/2015 to 12/31/2017. Adult veterans with ≥1 MDD diagnosis in the VHA database between 10/1/2015 and 2/28/2017 (index date) were included if they received ≥1 line of therapy (LOT) within a complete MDE. An MDE was considered as starting on the date of the first observed MDD diagnosis preceded by ≥6 months depression-free period (i.e. a period without an MDD diagnosis or antidepressant (AD) use); an MDE was considered as ended on the date of the last MDD diagnosis or the end of the medication supply of the last AD/augmentation medication, whichever came last and then followed by ≥6 months depression-free period. An MDE was required to begin and end during the study period. A LOT was defined as ≥1 AD at adequate dose and duration (≥26 weeks of continuous therapy with no gaps longer than 14 days) with or without an augmenting medication. Patients were required to have VA benefit enrollment for ≥6 months before (baseline) and ≥24 months after index (follow-up). Patient baseline demographic and clinical characteristics as well as the number and type of LOTs (up to the first six LOTs) received during the first observed and treated MDE were evaluated.

**Results.** Overall, 40,240 veterans with MDD were identified (mean ± standard deviation [SD] age: 50.9±16.3 years). The majority were male (83.9%), White (63.4%), and non-Hispanic (88.6%); 60.1% were unemployed or retired at some point during the study period. The most commonly observed baseline comorbidities included hypertension (27.5%), hyperlipidemia (20.8%), anxiety (18.0%), and arthritis (12.7%). The mean Charlson Comorbidity Index was 1.6 (SD 2.1). Among the first six LOTs, 21.5% were monotherapy, 23.6% were combination therapy, 9.9% were augmentation therapy, and 45.0% were intensification therapy. The most commonly used LOTs were venlafaxine (26.6%), escitalopram (23.6%), and sertraline (15.4%). The use of any AD (monotherapy or combination therapy) was 60.1% during the pre-period and 91.5% during the index period. The use of any psychotherapy was 12.4% during the pre-period and 30.4% during the index period. The use of any AD and psychotherapy was 76.7% during the pre-period and 93.5% during the index period.

**Conclusions.** This study documents a high level of health care resource utilization among those with MDD and suicidal thoughts and behaviors. Only a small proportion had documented PHQ-9 scores. Given that sizable proportions did not receive any antidepressant therapy or psychotherapy, even after suicidality was noted in their medical record, continued efforts in screening and treatment intensification are warranted for this vulnerable population.

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Ornithine Transcarbamylase Deficiency Presenting with Symptoms of Mania in a Young Adult Male

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Abstract

Study Objective. The purpose of this case study is to review the clinical presentation and medical workup of a young adult male presenting with acute behavior changes in the setting of undiagnosed ornithine transcarbamylase deficiency (OTCD). Method. This case study involves a 19-year-old male with a psychiatric history of depression and one previous suicide attempt, who presented to a large midwestern university hospital emergency department after being found by police naked in a neighbor’s yard. He displayed manic signs and symptoms, including euphoria, lack of sleep for five days, and attempting to purchase a new car and three large screen TVs. Family reported the patient uncharacteristically announced three weeks earlier that he was vegetarian and stopped eating his frequent customary cheeseburgers. Due to increased anxiety and inability to sleep, the patient received lorazepam 2 mg in the emergency department. Upon transfer to the psychiatric unit, therapy was initiated with aripiprazole 5 mg daily and valproate 1000 mg nightly on Day 1 of treatment. The patient refused medications on hospital Day 2, then received this combination again on Day 3. The next morning, the patient complained of lethargy, headache, nausea, and vomiting. Results. The patient’s ammonia level was found to be 204 micromol/L with ALT and AST of 714 and 647 IU/L respectively. Tests for infectious hepatitis were negative. Medical consultation recommended discontinuation of current medications, vigorous hydration, and further work up. On further investigation, the patient was found to have low plasma citrulline level of 8 micromol/L, undetectable plasma arginine, and high urinary orotic acid. The laboratory data showed a biochemical phenotype consistent with a diagnosis of partial OTCD, an X-linked urea cycle disorder resulting in toxic hyperammonemia. The patient was treated with a low protein diet modification as well as a combination of sodium benzoate and sodium phenylbutyrate to reduce serum ammonia concentration. With treatment the patient’s laboratory values normalized, and mental status improved. Conclusions. This study used an episodic approach to evaluate the current standard of care among veterans with MDD. During the first observed and treated MDE, about one in seven veterans received ≥3 LOTs, suggesting presence of treatment-resistant MDD. Monotherapy with SSRIs or SNRIs and combination therapies of AD with anticonvulsants were the most common therapies in the first three LOTs.

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The Effectiveness of De-Escalation Techniques as Compared to Physical Restraint/Seclusion on Inpatient Psychiatric Units: A Quantitative Systematic Review

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Abstract

Background. Restraint and seclusion were considered a form of treatment but consistently has led to physical and mental injuries to staff and patients. De-escalation has been viewed as a safer option. Understanding which intervention yields decreased injuries, aggression and violence will guide policy and inform practice.

Objectives. To identify which intervention leads to decreased physical and psychological injury to patients and staff.

Methods. The frequency of physical injuries to patients and staff from aggressive patients; frequency of psychological injuries to patients and staff from violent, aggressive incidents; frequency of violence, agitation and aggression; competence of staff at managing aggression and violence were evaluated.

Results. Fourteen studies were included in this review. There are many forms of de-escalation. Studies where techniques were taught to patients decreased injury in 100% of the studies included. De-escalation techniques taught to staff, the intervention was effective in decreasing injury in approximately half the studies. De-escalation techniques taught to patients decreased injury in 100% of the studies included in this review.

Conclusion. Consensus on which intervention works best could not be reached, nor is there overwhelming evidence for a particular type of de-escalation better suited for decreasing aggression and violence. Caution should be exercised when choosing a de-escalation technique for implementation in institutions due to lack of regulating agencies that inform practice and standards. In