

review data for Montgomery County shows increasing methamphetamine associated overdose deaths, nearly doubling between 2016 and 2017 [1].

We hypothesized that the increase in the diagnosis and prescriptions for Attention Deficit Hyperactivity Disorder (ADHD) over the past several years may be contributing to the observed increasing rates of methamphetamine psychosis in our area [5]. This study was undertaken to identify any association of methamphetamine psychosis and prior prescriptions for stimulant ADHD medications.

In this retrospective study, eligible participants included patients with a diagnosis of methamphetamine overdose or psychosis between 10/2016 to 12/2017. This study was reviewed and approved as exempt research by the Wright State University Institutional Review Board. Methamphetamine toxicity or psychosis was confirmed. The prescription history of these patients was accessed using the prescription drug monitoring program (PDMP). The system extracts prescription data for the past 2 years from the date in which the chart was accessed. The amount and the date of the prescription for any stimulant ADHD medication was recorded. Following extraction of this data, patient records were deidentified and the results tabulated as described below.

Participants included 48 subjects with methamphetamine psychosis or overdose. Participants were 68% male, 92% Caucasian and ranging in age from 18 to 65 year (median 30). None of these cases had an identified prescription for stimulant medication within the most recent 2 years. Therefore, there was no association between patients presenting to the ED with signs and symptoms of methamphetamine intoxication and having received a recent prescription for any ADHD stimulant medication prior to their presentation.

Over the past decade prescriptions for ADHD medications have doubled [6]. In light of this increase, we attempted to determine whether there was an association between methamphetamine overdose and a recent prescription for an amphetamine based ADHD medication. We were concerned that, not unlike what was noted regarding the opiate epidemic, recent increases in the frequency of patients presenting to the emergency department may have been associated with amphetamine-based ADHD medication prescribing. However, this study did not identify any associated amphetamine prescription among ED patients with methamphetamine psychosis or overdose.

Due the limitations of the prescription drug monitoring program (PDMP) in use, remote prescriptions may not have been identified. Our study was also limited in the fact that the PDMP does not identify non-prescribed stimulant use, unauthorized use of prescription medication from another patient, or a more remote prescription history. Non-prescribed stimulant use is common among middle, high school, college, and medical students, both recreationally and as an aid in studying [7,8,9]. It is possible that recreational use of stimulants could lead to drug abuse later in life. Further directions will focus on the role of ADHD medication prescribing in childhood and early adolescence in the subsequent development of methamphetamine addiction.

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## Comments on GEDI vs. CVP goal-directed fluid resuscitation for chronic obstructive pulmonary disease patients with septic shock: A randomized controlled trial



To the Editor,

We have greatly enjoyed reading the article by Yu et al. [1], which was a single-center, prospective, randomized, controlled trial (RCT) compared the effects of Global end-diastolic volume index (GEDI) vs. central venous pressure (CVP) goal-directed fluid resuscitation for chronic obstructive pulmonary disease (COPD) patients with septic shock. The authors conclude that GEDI goal-directed fluid resuscitation shows better clinical effects compared to CVP for COPD patients with septic shock.

We would like to add several appreciations. First, the author defined a targeted endpoint CVP of 12 mmHg based on the 2008 SSC guidelines. [2] However, the 2008 SSC guidelines recommended a targeted endpoint CVP of 15 mmHg in patients with mechanical ventilation, not 12 mmHg for mechanical ventilation decreasing venous return. The normal range of GEDI is 680–800 ml/m<sup>2</sup> [3]. The low targeted endpoint CVP of 12 mmHg could result in lower fluid volume and higher norepinephrine dosage. Second, the main endpoints were fluid volume, NE dosage, ICU mortality rate, blood lactate clearance rate and ICU length of stay. Nevertheless, it is common for sample size to be based on the primary outcomes alone. The author did not explain the calculation of sample size (71 patients). Blood lactate clearance rate could assess the mortality rate of patients with sepsis shock during hospitalization with high specificity and sensitivity [4]. Thus, I suggest that the author could define blood lactate clearance rate as the only primary outcome and calculate the sample size based on it. Fourth, the lack of blinding could lead to observer bias in length of ICU stay and duration of mechanical ventilation. At last, according to 2008 SSC guidelines, [1] norepinephrine and dopamine were recommend as the first vasopressors agent, epinephrine should be the first alternative agent when septic shock is poorly responsive to them and dobutamine was recommend in patients with myocardial dysfunction. Hence, the types and doses of total vasopressors administration not just norepinephrine should be provided.

Abbreviations: GEDI, Global end-diastolic volume index; CVP, central venous pressure; COPD, chronic obstructive pulmonary disease; RCTs, random, controlled trials.



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## Conflicts of interest

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## Commentary on prophylactic systemic antibiotics for anterior epistaxis treated with nasal packing in the emergency department

Dear Editor,

We read with great interest the paper entitled “Prophylactic systemic antibiotics for anterior epistaxis treated with nasal packing in the emergency department” by Murano et al. [1]. The authors compared the infection rate between patients who were and were not prescribed prophylactic systemic antibiotics for anterior nasal packing in spontaneous epistaxis. They found that prophylactic antibiotic use for nasal packing in spontaneous epistaxis patients is unnecessary. This is an excellent study, and may help to avoid the abuse of antibiotics. However, there are areas that require further clarification.

The infection rate is related to the nasal packing material. Iodoform (or petrolatum) gauze increased the injury to the nasal mucosa and, thereby, induced infection of the nasal cavity. On the contrary, some biological materials including Merocel, absorbable styptic gauze, etc. do not increase the nasal mucosal injury [2,3]. The authors found that the most common method of anterior packing was the use of intranasal balloon devices (74/106, 69.8%), followed by foam polymer nasal tampon use (29/106, 27.3%) [1]. However, the type of packing material used in the remaining three cases was not discussed. The authors should, therefore, compare the infection rate between different packing materials in a future study. In addition, the duration of pack use can affect the infection of the nasal cavity. In this study, the pack was usually removed within 48–72 h after admission. However, the duration of pack use was increased because of the recurrence of epistaxis. The prolonged duration of pack use would cause obstruction of the ostiomeatal complex and affect drainage of the nasal sinus, thereby increasing the chance of infection of the nasal sinus [4]. Thus, we believe that prophylactic antibiotic use should be considered in this case.

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