

## P055

**Canadian emergency physician attitudes toward endotracheal intubation for aspiration prophylaxis**

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**Introduction:** Emergency patients with decreased level of consciousness often undergo intubation purely for airway protection from aspiration. However, the true risk of aspiration is unclear and intubation poses risks. Anecdotally, experienced emergency physicians often defer intubation in these patients while others intubate to decrease the perceived clinical and medico-legal consequences. No literature exists on the intubation practices of emergency physicians in these cases. **Methods:** An online questionnaire was circulated to members of the Canadian Association of Emergency Physicians. Participants were asked questions regarding two common clinical cases with decreased level of consciousness: (1) acute, uncomplicated alcohol intoxication and (2) acute, uncomplicated seizure. For each case, providers' perceptions of aspiration risk, the standard of care, and the need for intubation were assessed. **Results:** 128 of the 1546 Canadian physicians contacted (8.3%) provided responses. Respondents had a median of 15 years of experience, 88% had CCFP-EM or FRCPC certification, and most worked in urban centers. When intubating, 98% agreed they were competent and 90% agreed they were well supported. A minority (17.4%) considered GCS < 8 an independent indication for intubation. For the alcohol intoxication case, 88% agreed that aspiration risk was present but only 11% agreed they commonly intubate. Only 17% agreed intubation was standard care, and only 0.8% felt their colleagues always intubate such patients. For the seizure case, 65% agreed aspiration risk existed but only 3% agreed they commonly intubate, 1% felt colleagues always intubated, and 5% agreed intubation was standard of care. Additional factors felt to compel intubation (394 total) and support non-intubation (366 total) were compiled and categorized; the most common themes emerging were objective evidence of emesis or aspiration, other standard indications for intubation, head trauma, co-ingestions, co-morbidities and clinical instability. **Conclusion:** It is acceptable and standard practice to avoid intubating a select subset of intoxicated and post-seizure emergency department patients despite aspiration risk. Most physicians do not view the dogma of "GCS 8, intubate" as an absolute indication for intubation in these patients. Future research is aimed at identifying key factors and evidence supporting intubation for the prevention of aspiration, as well as the development of a validated clinical decision rule for common emergency presentations.

**Keywords:** aspiration, endotracheal intubation, intoxication

## P056

**Gastric ultrasound in stable patients with decreased level of consciousness and recreational substance use -- are presumed full stomachs full?**

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**Introduction:** Intoxicated patients with decreased Glasgow Coma Scale (GCS) are common presentations to emergency departments. These patients are often intubated due to presumed full stomachs and perceived aspiration risk. Gastric ultrasound (GUS) -- a simple, non-invasive and objective option -- could be applied to this problem. This pilot study uses GUS alongside usual care at a music festival; a

bounded, intoxication-dense environment where airways are often managed using non-invasive airway strategies. We aim to (1) clarify the gastric contents of any intubated patients, and (2) assess if patients managed without intubation go on to have a lack of aspiration sequelae because of empty stomachs or in spite of full stomachs. **Methods:** A prospective cohort study was conducted at a multi-day music festival. Patients presenting to on-site medical services with GCS  $\leq$  13 and known or suspected substance use were included. Patients with trauma, instability, metabolic derangements or additional aspiration risk factors (eg morbid obesity, pregnancy) were excluded. Standard GUS was performed by a trained provider and results were categorized according to convention as FS (full stomach, ie solids or liquids >1.5mL/kg) or ES (empty stomach, ie empty or liquids <1.5mL/kg). Additional patient data were extracted from linked medical records post event. **Results:** 33 patients met inclusion criteria and 27 remained after exclusions were applied and consent obtained. 25 patients reported substance use and 19 polysubstance use. The FS group had 15 patients (7 solid & 8 liquid > 1.5), and the ES group had 12 patients (5 empty & 7 liquid < 1.5). The median low GCS documented for FS and ES was 7 and 11 respectively, and 10 patients total had a GCS of 8 or less (6 FS & 4 ES). No patients were intubated and all were managed conservatively according to usual care. 3 patients (2 FS, 1 ES) were transferred to hospital. No patients re-registered at medical for clinically significant aspiration. **Conclusion:** This pilot study demonstrates the potential utility of GUS in stratifying aspiration risk in intoxicated patients with decreased GCS. "Empty" stomachs might avoid intubation, while the implications and true risks of "full" stomachs for aspiration sequelae in the absence of intubation remain unclear. Due to the small numbers in this pilot study and the quoted GUS sensitivity (only 95%), further research is needed to evaluate the safe application of this modality to clinical decision-making in intoxicated patients.

**Keywords:** aspiration, endotracheal intubation, gastric ultrasound

## P057

**Impact of a clinical pathway for the treatment of acute asthma in the emergency department**

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**Introduction:** In Canada, acute asthma is a common cause of emergency department (ED) attendance and its treatment is affected by ED overcrowding and increasing wait times. Literature suggests that a clinical pathway (CP) for the treatment of acute asthma can increase the use of medical therapy, reduce hospital admission rates and decrease associated costs. However, only few have looked at the effect on ED length of stay (ED LOS) when such a CP is initiated by triage nurse/respiratory therapist among adults. In this optic, an asthma CP was launched on Feb. 2016 at Centre Hospitalier Universitaire de Sherbrooke (QC) and included medical directives allowing triage nurse and respiratory therapist initiation of treatment. **Methods:** The objectives are to determine the effect of an ED nurse/respiratory therapist-initiated asthma CP on (1) ED LOS, (2) time-to-treatment (beta-agonist, corticosteroids), time-to-MD and other secondary outcomes. This was a retrospective before-after study. Adults presenting to the ED before and after CP implementation with a final diagnosis of asthma or asthma exacerbation were eligible. The groups A (before implementation) and B (after implementation) were compared for ED LOS. Three subgroups of 50 patients were generated and compared for outcomes: A1 (before implementation), B1 (after implementation)