

# Adult Airway Scenario

## Halva Glass

### General description

This is an adult airway scenario involving intoxication/overdose resulting in an obtunded patient.

The scenario creates the opportunity for the team to discuss considerations around whether intubation is indicated—the pros and cons, and a safe approach.

The need for simple airway manoeuvres, resulting in a patent airway is good practice and then the issues around airway maintenance and protection in transport (or even in the facility) can be addressed.

### A brief note on this scenario description

Vital signs are given as a guide. It is impossible, when writing a scenario, to predict how the scenario will progress, so please feel free to alter them, within reason, to fit the clinical situation. Changing vital signs should not be a way of playing games or 'punishing' actions.

Included are a few useful 'resources' on the bottom right side of the page that relate to this scenario. Also included are resources that provide interesting background information relating to airway care.

### Last minute reminders

- Fun
- Fast
- No one 'on the spot' too much
- Never 'punish' an action
- It's about relationships and team working...and team success
- Foster group problem solving
- The written scenario is a 'guide'. The skilled facilitator will adjust it to fit clinical interventions, learners needs, emotion of the moment etc.....success is important!

### Resources

- RSI resources in Critical Procedures at [theCAREcourse.ca](http://theCAREcourse.ca)
- NODESAT [emcrit.org/preoxygenation/](http://emcrit.org/preoxygenation/)

# Halva Glass

## Background *(read aloud at outset)*

NAME—Halva Glass.

A 43 year old woman is brought in by the ambulance ~10 minutes after a 'pre-alert' message is received by the facility by phone. She is said to be 'unconscious' and 'has been drinking'. The ambulance and police were called to her house. She was in the front yard on the ground.

She had been seen in the general store a little earlier in the day.

You know her as a patient. She previously had an alcohol problem but had been dry for the last 4 years.

## Initial Vitals

<b>Appears</b>	<b>HR</b> 68	<b>BP</b> 112/60	<b>RR</b> 16	<b>Temp</b> 36.1 ax	<b>O<sub>2</sub> Sat</b> 93% on O <sub>2</sub>
	<b>Eyes</b> 2	<b>Verbal</b> 2	<b>Motor</b> 2		<b>Gluc</b> 4.1

## Additional History *(info given if participants ask)*

<b>Symptoms / Story</b>	As above. Early on the police arrive from her house and inform you that an empty bottle of lorazepam, in someone else's name, was found in the bathroom of the house.
<b>"What's going on?"</b>	
<b>Allergies</b>	Not known.
<b>Meds</b>	Unknown. None on the pharmanet search
<b>Past Medical History</b>	Known to you—alcoholic in the past but had been dry for the last 4 years. Not seen in Emerg in the past two years.
<b>Last Meal</b>	Not known
<b>Events</b>	As above

# Initial Assessment

Supine.

Airway—snoring respiration.

Breathing—a bit shallow.

Circulation—as per vitals, no bleeding seen.

General Exam—unremarkable.

## Repeat Vitals (if airway opened and maintained and oxygen given)

<b>Appears</b>	<b>HR</b> 74	<b>BP</b> 110/68	<b>RR</b> 14	<b>Temp</b> 36.0 ax	<b>O<sub>2</sub> Sat</b> 98% on O <sub>2</sub>
	<b>Eyes</b> 2	<b>Verbal</b> 2	<b>Motor</b> 2		<b>Gluc</b> 4.4

## Repeat Vitals (post-intubation)

<b>Appears</b>	<b>HR</b> 100	<b>BP</b> 112/62	<b>RR</b> –	<b>Temp</b> 36.3 ax	<b>O<sub>2</sub> Sat</b> 100% on O <sub>2</sub>
	<b>Eyes</b> –	<b>Verbal</b> –	<b>Motor</b> –		<b>Gluc</b> 4.1

## **Developments** (depending on management)

1. Jaw thrust and/or lateral positioning / dependent positioning helps open the airway control. But, if the jaw thrust is removed, snoring resumes and O<sub>2</sub> Sat. falls.
2. Gags if oropharyngeal airway is inserted. Tolerates nasopharyngeal airway.
3. Respiratory rate remains on the low side with poor ventilation. This can be controlled with jaw thrust/positioning and supported ventilation with bag-valve mask.
4. Will need definitive airway management if not improving or if trending down—which she is.
5. Delayed sequence intubation (DSI) is indicated (DSI = RSI but with good attention to pre-oxygenation and being well prepared).
6. Post intubation care (early recheck of vital signs, deal with hypotension, blood gases or ventilate to end-tidal CO<sub>2</sub>).
7. Intubation success is important—assist the learner, if necessary, to ensure that success.

*(Continued on the next page.)*

**Developments** *(continued from the previous page)*

8. If intubation is achieved early, move on to monitoring, bagging technique (rate, volume), ventilator use (if available)—and transport considerations.
9. LOC will not improve even if given IV fluids, Naloxone (0.4mg IV up to 5 doses) or Dextrose (which would bump her glucometer reading up to 8, from 4).
10. ECG shows simple sinus tachycardia.

## **Learning opportunities**

1. Care when inserting oropharyngeal airways (and less so, nasopharyngeal airways)—look for gag reflex.
2. Assisting ventilation, ie. bagging, with her, rather than against, to avoid inflating her stomach.
3. During pre-oxygenation, we usually avoid 'bagging' pre-intubation if a patient has adequate respiratory drive/function, to avoid increasing the risk of aspiration from a distended stomach.
4. Mitigating the three main risks of intubation—aspiration (suction, be ready to roll the patient)—can't intubate, can't ventilate (rescue airway tray, good pre-oxygenation)—hypotension (large bore IV, pre-drawn push-dose pressors).

*(Continued on the next page.)*

**Learning opportunities** *(continued from the previous page)*

5. Importance of avoiding/noticing post intubation hypotension in head injury Cycle the BP monitor as soon as possible after the tube is passed.
6. Early decision making around controlling the airway.
7. Attention to pre-oxygenation—non-rebreather mask with reservoir bag—avoid positive pressure ventilation if possible (so as not to inflate the stomach)—gentle sedation (not in this scenario) may be needed to allow adequate pre-oxygenation.
8. Use of nasal cannulae with high flow oxygen for apnoeic oxygenation—'NODESAT'.
9. Early need for maintenance sedation is not always obvious (rocuronium is a long acting paralytic and may outlast the anaesthetic agent used).
10. Pros (paralysis, less likely to extubate) and cons (masking of seizures) of maintenance paralytic.
11. Ventilator settings.
12. Transport—taking enough drugs—need to have pre-drawn and push-dose rather than relying on the pump working well.
13. Team working in a stressful situation.
14. Team debrief

## Outcomes

- Can be varied to suit participants.
- Good response from opening airway but this will need a definitive airway—intubation.
- Could vomit at the time of IV push of induction agent—need to roll to protect the airway.
- Can vary intubation—from uneventful, to unable to intubate, requiring a rescue airway (King airway / LMA)—easy intubation followed by hypotension, etc.
- A successful final outcome achieves best learning.

## RSI medications

- Anaesthetic agent—etomidate or ketamine.
- Paralysis—rocuronium (long acting, non-depolarising) vs. succinylcholine / suxamethonium (shorter acting, depolarising, more serious adverse effects and other issues).