

## OMD Podcast: The Airway Checklist

### Summary Points:

- Why We Need A Checklist
- Why a Checklist for Airways
- The Parts of the Checklist
- Who Should be Leading the Checklist
- What To Do When the Item Is Not Ready
- How to Run the List
- Do I Always Need to Use the Checklist



### • Why We Need a Checklist

- Research and real-world experience have shown that humans do not do well with recalling detailed or complex tasks
  - This has been a source of consistent work in aviation, construction, and medical industries for years
  - It is even common in extreme hobbies like mountaineering, climbing, parachuting, bungee jumping!
  - The most common solution found has been a streamlined checklist to unburden the mind with recalling detail and allowing focus on the complex task and coordination
- Checklists have been shown to increase reliability and success of the completion of complex tasks
  - This is especially true for call-and-response format checklists
- Checklists are versatile and can be used for both common and rare procedures
  - When routinely used, they become second nature and you can run through them rapidly
  - The increased reliability and safety far outweigh the minor time-cost to use a checklist
- Even in the emergency department and operating room, healthcare providers use checklists to ensure consistent high-quality care

### • Why a Checklist for Airways?

- Emergent airway control is a very stressful, high-risk situation and requires a lot from the intubator as well as good coordination with the rest of the team
- Let's use a scenario to examine
  - You are called to a patient in respiratory distress and find the patient in a small back bedroom
  - Fire is already on scene and is an all-basic credentialed crew.
  - Family is distraught as the patient is a young mother
  - The patient is apneic and actively being bagged by fire
  - You quickly assess the patient and decide that she will need an airway and the patient's initial vitals meet intubation goals
  - Despite repeated prompting, family continues to burst into the room and is very loud in the background
  - The medic calls for a kit-dump and announces the plan to intubate

- While kit is being set up, the medic focuses on obtaining access, two members of the fire crew are bagging the patient with Max-BVM, the remaining firemen are attempting to control the scene and keep family from barging in
- Once access is obtained, ketamine is drawn up and administered
- The medic does a final check and start the intubation attempt
- On entering the airway, the patient vomits however suction is not hooked up
  - Suction is quickly assembled and is passed to the medic
- Suction clears the airway however the airway is challenging due to patient's anatomy and a 50/50 view cannot be obtained
  - The medic attempts to pass bougie over the visible arytenoids but encounters difficulty and is unsuccessful in doing so
    - \*\*\*We are now 2 minutes into the intubation attempt
  - Time passes very quickly during attempts
- The medic now looks up and notices that patient has become hypoxic as other providers are preoccupied with other tasks and no-one was watching the monitor
- Despite appropriate Max-BVM, bagging is difficult despite ketamine administration, and the patient continues to desaturate
- The Medic decides to place a quick king
  - However due to space limitations on the small bedside table where the kit dump is set up the king wasn't set out and remained in the bag.
  - The patient's sats drop to 50% and HR starts to slow.
  - A few more tense seconds pass and the King is placed successfully by the medic
  - Thankfully once the king is placed the patient responds well and hypoxia and bradycardia resolve
- Patient stabilizes and is subsequently transported
- It is easy to look at this scenario and say "that would never happen to me"
  - In most cases on most days, you are 100% right
  - We know you are good at managing airway; you are the pre-hospital airway experts
  - The checklist is a perfect tool for tough scenarios where you're tired, on the last call of your shift, your scene conditions are bad and you have a super sick patient
  - BUT, this checklist isn't only for those scenarios
    - Even more routine cases all of us easily could miss pieces that could not set us up for first pass success or lead to a critical safety issue
  - By using the checklist on every airway it becomes familiar and second nature, that way it is even easier to use when you are under the gun in critical situations
    - Practice makes perfect
- We hope that the checklist becomes a tool in your toolbox to help you handle airways when everything is going wrong

- **The Parts of the Checklist**

- Plan
  - Self-explanatory – how are you going to take the airway
  - Forces the airway provider to work through what they will do if the first attempt is not successful

- Allows the airway provider to get all on-scene providers on the same page
  - Everyone knows what to expect, what the plan of escalation is and how to help
- People aren't mind readers, tell them the plan and how they can help
- Prep
  - This makes sure that the patient and your equipment are ready for an intubation attempt
    - Ensure that the patient is resuscitated and goals are met
    - Ensures that you have all equipment ready in case the airway is more difficult than anticipated
    - Ensures your patient is physically set up for first pass success including evidence based things such as HOB elevated, ETSN, apneic oxygenation.
    - Ensures full monitoring as incomplete or loss of monitoring is very common during emergency intubations
- Perform
  - This section gives you some brief reminders of the top intubation hints
  - Reminder that you should open the C-collar to so it doesn't restrict mouth opening during your intubation attempt (Make sure someone designated to hold in-line)
  - Reminder of the 5-tube talk tips
  - Makes sure there are clear bail out criteria, so we don't get into bad situations trying to force an attempt that needs to be aborted, or even worse no one realizes
- Post
  - Reminders of verification of placement
  - Reminders of what meds and doses you can use to keep an intubated patient sedated

- **Who Should be Leading the Checklist**

- Anyone on scene, even the provider who will do the intubation, can run the checklist (take the role of list-lead)
  - Ideally, the list lead should have experience in using the list previously and have been trained in its use
  - Ideally, the person leading the list is not the intubating provider, but we recognize that this may not always be a possibility
    - This allows the intubator to offload some of the preparatory tasks and focus on stabilization
- The List Lead should be the same person for the entirety of the list on one call
  - No switching up list leads part-way through as this may contribute to missed items

- **How to Run the List**

- The checklist leader will read through each item out-loud
  - If the item is ready, the providers assisting with the set-up should answer loudly that the item is ready
  - If the item is NOT ready, the provider should say that it is NOT in place, and work to remedy the situation
    - The list lead will continue to verify items WITHIN THE SECTIONS

- The list lead should NOT advance to the next section until all items are completed
- For example; in the Prep section, the King tube and PEEP valve are not set out when asked about
  - The list lead can continue to cycle through at all of the items WITHIN the PREP section, but CANNOT move to the PERFORM section until the King and PEEP are ready
  - This helps prevent getting stuck on an item, but prevents advancing until everything is ready
- We strongly suggest use of SPECIFIC language
  - Also called closed loop communication
  - Ex 1: -“Please attach the in-line End-tidal to the BVM”;
    - “I will attach the in-line End-Tidal to the BVM”;-“End-tidal is now on”
  - When practiced becomes very efficient
  - This avoids nebulous responses and helps to eliminate vague orders
- At least be very aware of automatic responses from providers on scene
  - When stressed or unsure, some people may simply say yes due to hesitancy to hold up the checklist process
  - This may lead you to believe that something is ready when it is not
  - If you hear responses like: “yeah yeah”, “Mhm”, “sure” be aware that the provider may be answering automatically or be distracted
- Consider doing a quick lead-in so that everyone is aware the checklist is being run
  - Everyone, we are about to run the airway checklist to prepare to intubate. I will ask questions out loud and I will need you to answer loud and clear so we can move forward

- **What To Do When the Item Is Not Ready**

- If you come across an item that is not in place or available, do not proceed to the next section of the checklist
  - For example; if in the Prep section, you realize that you do not have ETCO2
  - The list lead asks that the ETCO2 gets applied and can either wait for confirmation that it has been placed OR can continue to check off items in the prep section
  - List lead should NOT proceed to the Perform section of the checklist until all Prep Items are complete
- This prevents accidental oversight of a checklist item
- Never go to the next section until the current one is complete!

- **Do I Always Need to Use the Checklist**

- Simply put, you should
- The longer answer:
  - We want to see a culture of safety out there where everyone that is involved in an airway expects for the checklist to be used (becomes a standard of care)
  - We don't want to make a hoop to jump through, but use the checklist because we as clinicians in this SYSTEM recognize its ability to increase success and patient safety
- There are almost no situations in which you need to take the airway in the next 2 minutes

- The “Crashing Airway” is somewhat of a unicorn
- Crashing Airways generally occur because we have failed to resuscitate or recognize respiratory distress in time to intervene
- Take your time, resuscitate and take the airway in a controlled manner
- Look at each airway as an opportunity to practice using this tool
  - That way, when you have a tough scene or airway, you are able to seamlessly deploy this tool
  - You never know when you might have a tough airway or a scene may become more hectic
- The goal is to run every airway at the same high-quality, regardless of environmental or human factors
- This checklist should even be used in CPR!
  - Even though you do not need to hit goal prior to the intubation attempt, the same equipment should be set up
  - The PLAN, PERFORM and POST INTUBATION sections don’t change for arrests
  - The only thing that doesn’t apply is intubation Goals

#### **SUMMARY IN BRIEF**

- Checklists have been proven to maximize performance of detailed tasks in stressful environments
- Be familiar with the airway checklist and use it whenever possible to get the reps in!
- Designate a checklist leader that will run the list and do not change who the leader is.
- Do not advance to the next section of the checklist without verifying that everything is ready!
- The checklist is appropriate in CPR as well!