

## A CHECKLIST PROGRAM FOR ASSURING PREPAREDNESS OF EMERGENCY DEPARTMENT AIRWAY AND RESUSCITATION EQUIPMENT

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### Introduction:

At a moment's notice, a medical or trauma resuscitation can present to the Emergency Department with little or no warning. As such, equipment to secure the patient's airway must be rapidly available and be kept in constant readiness. Inadequately stocked and disorganized airway carts, non-functioning equipment, and limited staff knowledge of where to find reserve stock can hinder the ability to prepare for and safely secure an airway in an emergency.

### Abstract:

By refining and streamlining the organization of the emergency department airway cart, equipment during a resuscitation can be rapidly found, and inventory deficiencies can be easily recognized and corrected during restocking.

### Methods:

The acquisition of a new cart afforded the ability to use manufactured dividers. The dividers then formalized the organization of the equipment contained within the cart. With a streamlined layout to the cart and proper labeling (including quantities), restocking of airway supplies should be easily accomplished as a quick glance reveals deficiencies. A view of the new layout of the airway cart drawers are depicted below.

A five question survey was then devised and sent to the ED staff to anonymously ascertain the effectiveness of the new layout and the staff's experience in using and restocking the cart.

### Results and Discussion:

After previous launch of a resident performed equipment check protocol, there was limited acceptance and adherence to the newly assigned duties without persistent reminder, and the responsibility of checking airway equipment reverted back to Nursing Staff in less than 2 months.

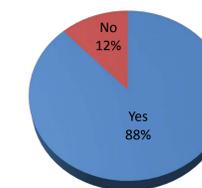
This led to a re-evaluation of the cart, the equipment contained within, and the new organizational paradigm depicted below. With a more concise layout and streamlining of equipment to be stocked, deficiencies can be expeditiously recognized and resolved by any staff member.

Several months after the implementation of the new layout, the survey sent to the staff had roughly a 40% return with 25 responses received. The results of the survey revealed an overall positive improvement in the use and restocking of the airway cart.

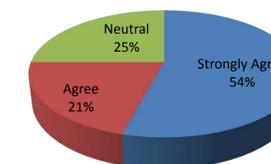


### Survey Results:

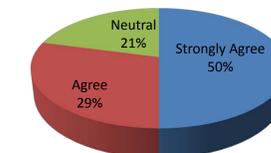
Have you used/pulled/restocked supplies from the airway cart in the last 4 months?



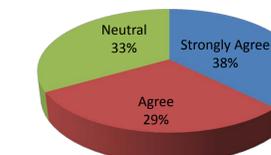
Has the new organization of the airway cart made it easier to find necessary supplies?



Has the new organization of the airway cart made it easier to see deficiencies of supplies?



Has the new organization of the airway cart made it easier to restock supplies?



### Previous Layout:



### Current Layout:



### Other Comments:

Most comments stemming from the survey indicate that the layout is an improvement – the areas are clearly marked and easy to find.

Other comments noted that inventorying and restocking should be assigned to a specified individual(s) to avoid deficiencies and gaps.

Also, there is the suggestion of a central location for all supplies to stock the cart as some supplies are still kept in a locked office space not easily accessible during non-business hours.

### References:

- Chishti, K. (2013). Setting up a Difficult Airway Trolley (DAT). *Difficult Airway Society*. Retrieved from [https://www.das.uk.com/content/difficult\\_airway\\_trolley](https://www.das.uk.com/content/difficult_airway_trolley)
- Chrimes, N. & Peter Fritz (2016). *Vortex Airway Rescue Cart: Clinical Integration*. Retrieved from <https://vortexapproach.org/airwaycart>
- DNV GL-Healthcare (2017). Survey Report and Corrective Action Plan Submittal Form for St. Joseph's Hospital, Elmira, NY. Milford, OH.
- Leviton, Richard (2013). *It's not Laryngoscopy. It's Epiglottoscopy*. [Online Lecture]. Retrieved from <https://www.essentialsofem.com/course/2013>.