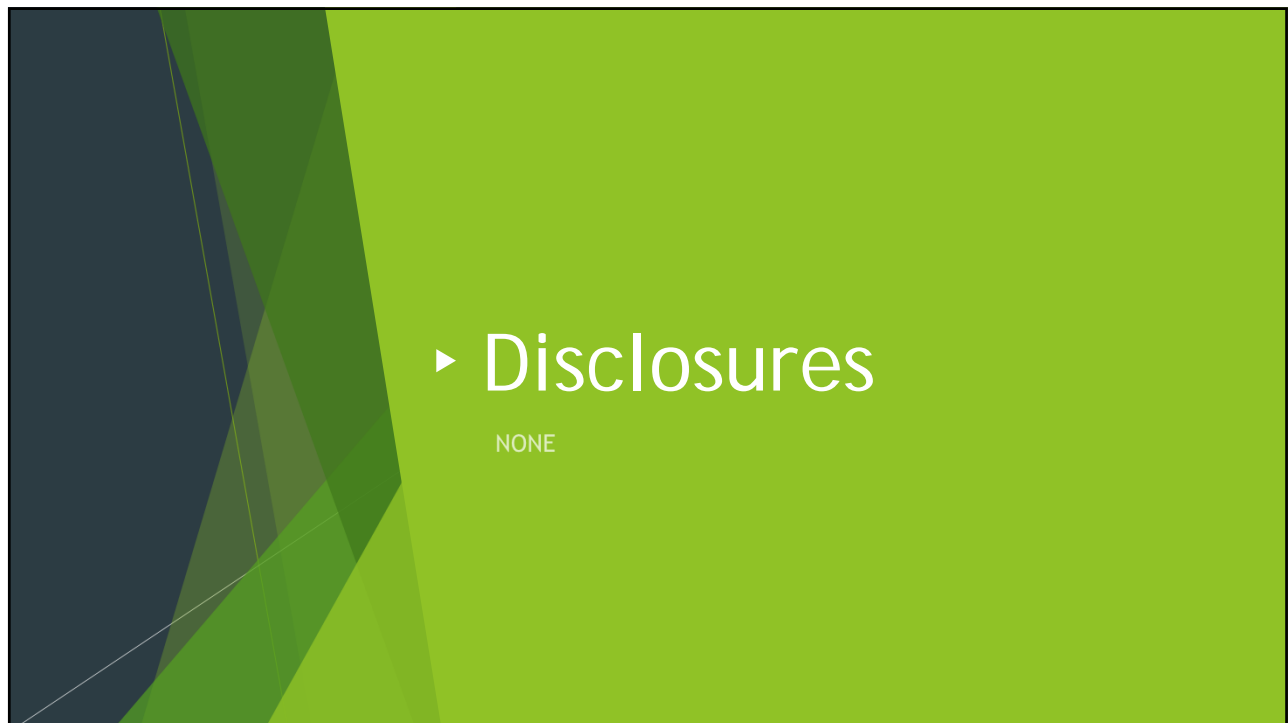


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2

Learning Objectives

1. Understand the need for a Systems-based solution to Difficult Airway outside the OR.
2. Learn how to adopt a Systems-based solution within your own organization based on best evidence.
3. Understand the necessity of team-based simulation for critical airway management.
4. Have clear strategy for approaching any airway - in any environment.



3

Who do we have here?

Front Line Nurses?
Comprehensive Care
Physicians? Anaesthesia?
Surgery? Emergency
Medicine specialists? Nurse
Practitioners? Others?

4

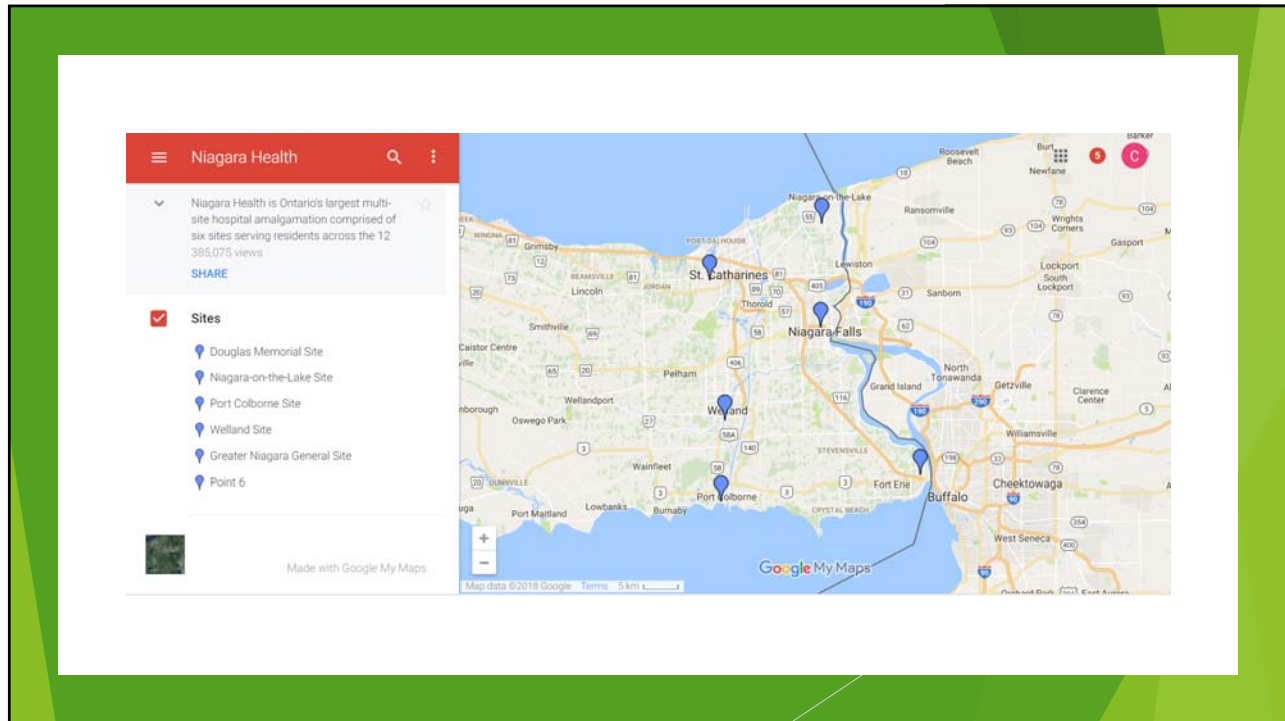


5

AN OPPORTUNITY TO SAVE LIVES


	What is a Difficult Airway (DA)	Unable to oxygenate or intubate
	Why Is This Important?	Higher complication in non-OR settings
	Why Did we develop a program?	160,000 ED and 40,000 Urgent Care visits annually 0.32% of visits involve intubations annually 44% could be classified as difficult based on literature.

6




7

Niagara Health



3 EMERGENCY DEPARTMENTS AND 2 URGENT CARE SITES



"BACK UP" FOR DIFFICULT AIRWAY VARIES WIDELY ACROSS THE SYSTEM.

8

Why a Systems Approach?

- ▶ Creating and communicating a novel or unfamiliar strategy in the heat of the moment is a recipe for failure.
- ▶ Having a team-based shared mental model will improve outcomes.



9

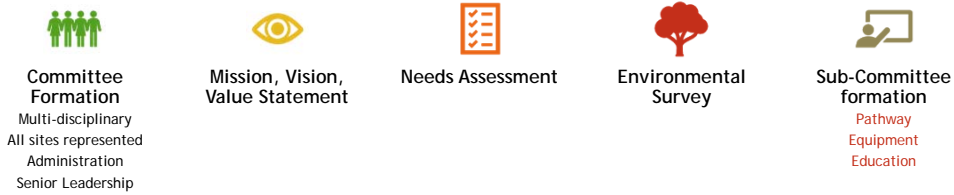


So How Do We Create a Systems-based Approach?

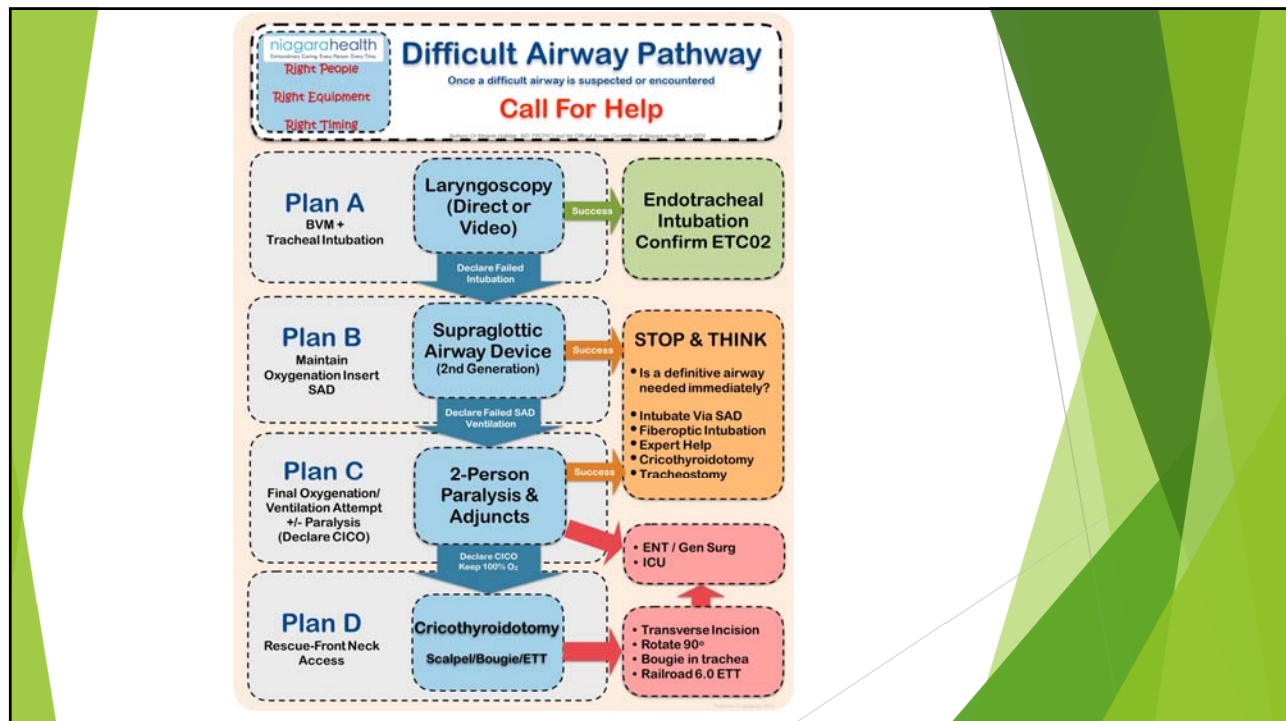
Where do we begin?

10

This was our Approach



11



12

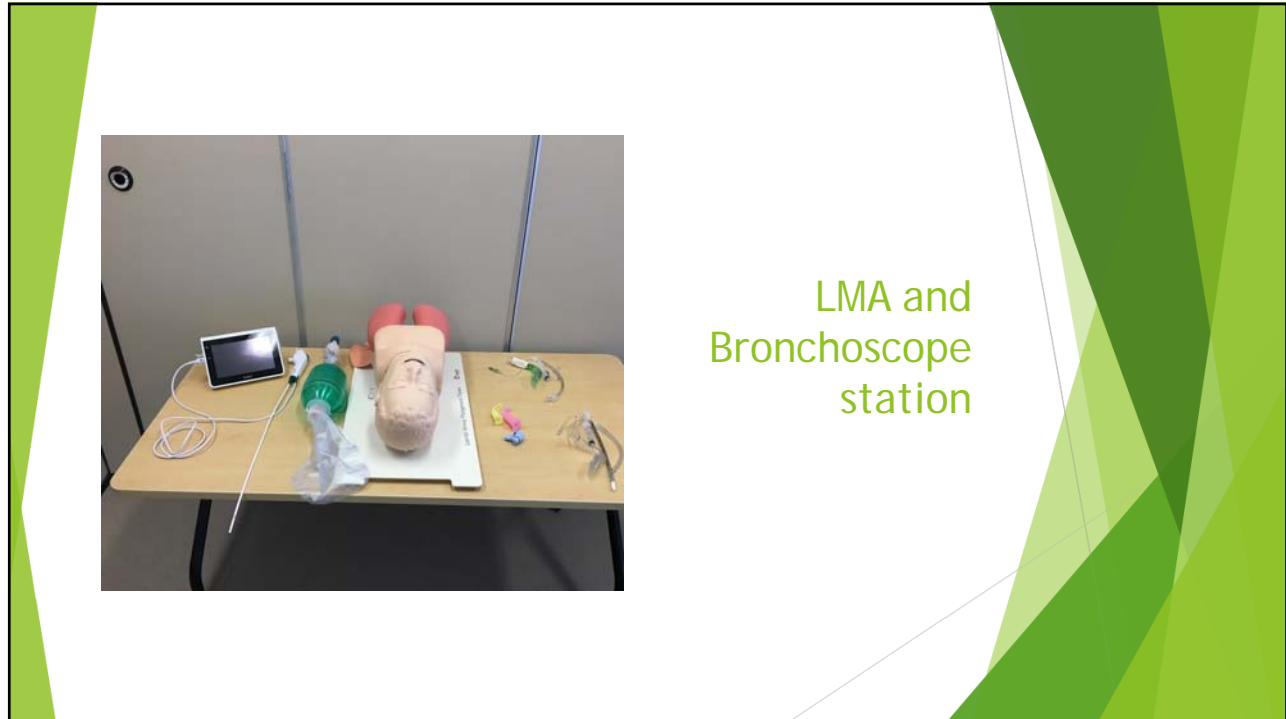


13

Team Education

- ▶ The Online Module System
 - ▶ Self Paced - flexible
 - ▶ Need the Basics to build on
 - ▶ Serves as a reference
 - ▶ Learning by seeing and hearing
- ▶ Pre-test
- ▶ Simulation-based Learning: High fidelity but low fidelity will work!
- ▶ Post test

14



LMA and Bronchoscope station

15

FONA Practice: Low Fidelity Simulation

- ▶ All you need:
- ▶ Scalpel
- ▶ Bougie
- ▶ ET tube/syringe
- ▶ Lube
- ▶ Washing machine discharge hose
- ▶ Grit

16

High Fidelity Simulation



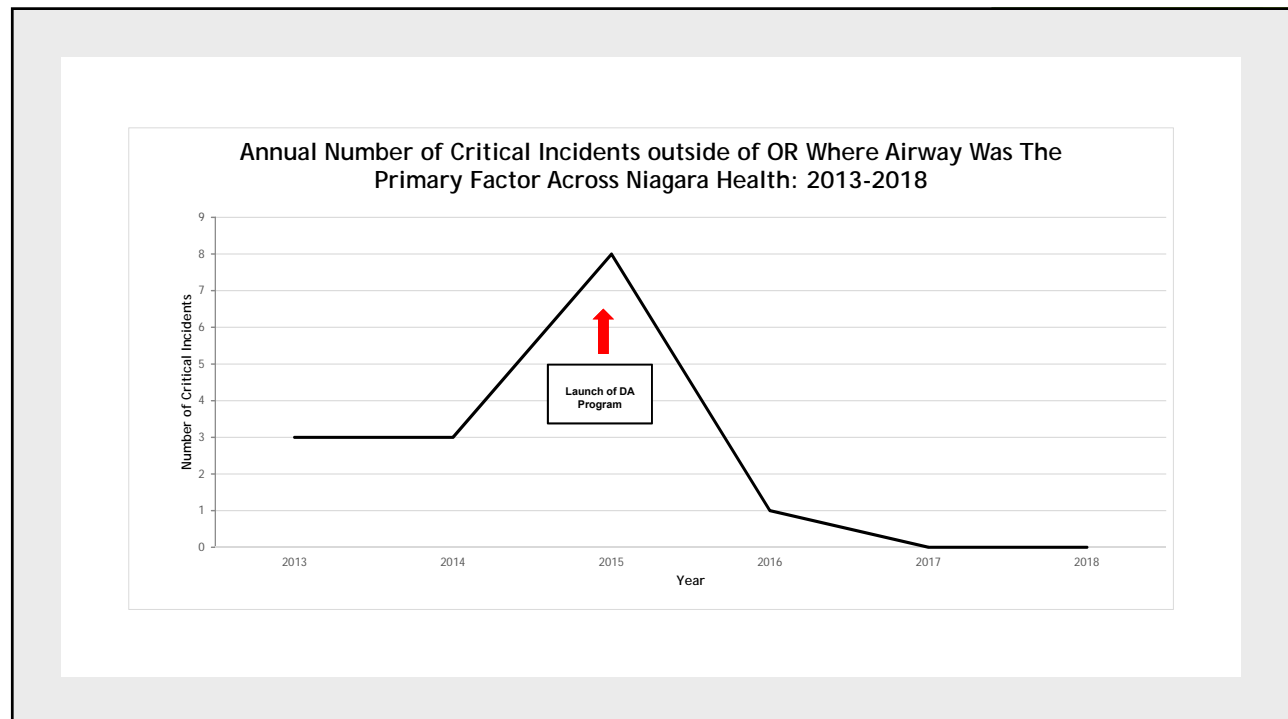
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So... did it make a difference?

19



20

“

14 year old boy falls 5 stories and arrives by EMS with massive facial trauma

”

1 Failed attempt at direct laryngoscopy

- Blood everywhere
- Mobile facial architecture
- Direct to Front of the Neck Access (FONA)

21

“

53 year old man with retropharyngeal abscess loses airway in ED...

”

Immediate Front of the Neck Access (FONA)

- ED physician struggles with dilating the incision and tract
- RT immediately supports physician with a bougie

22

Where do you go from here?

23



24

Who is your team?



25



Or this?

26

What does your organizational approach and cart currently look like?

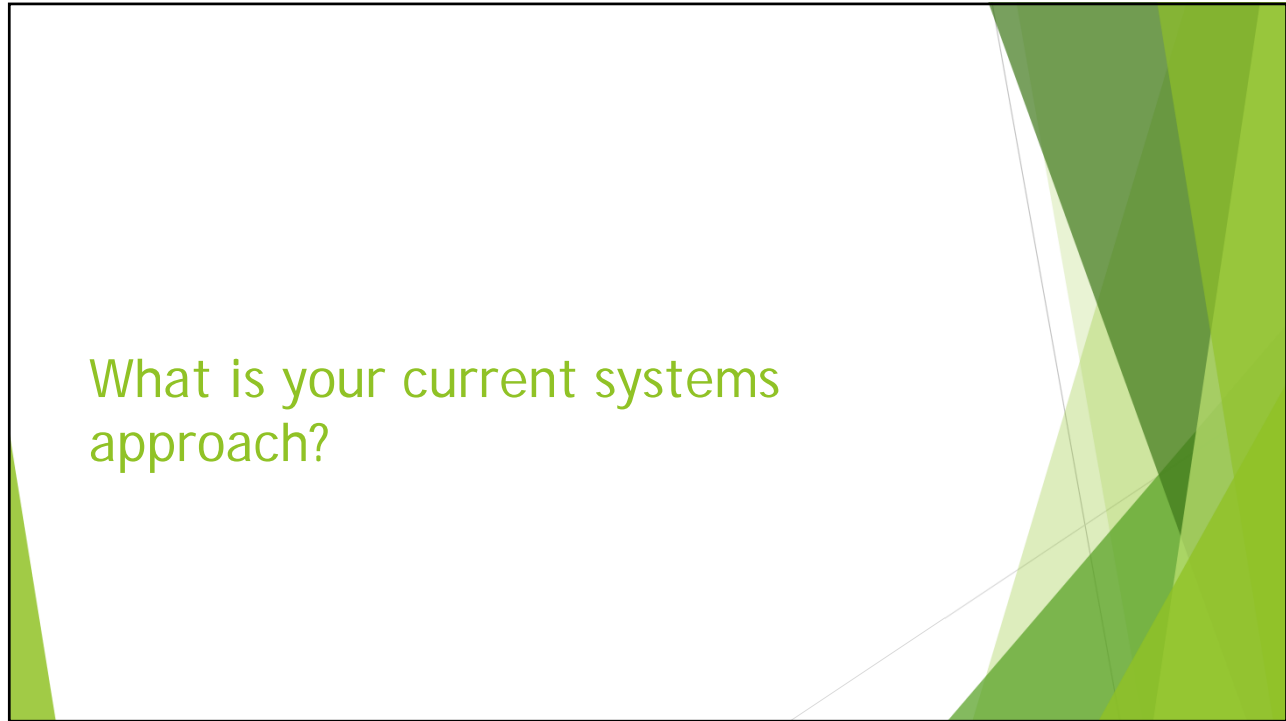
It might make sense to someone...

27

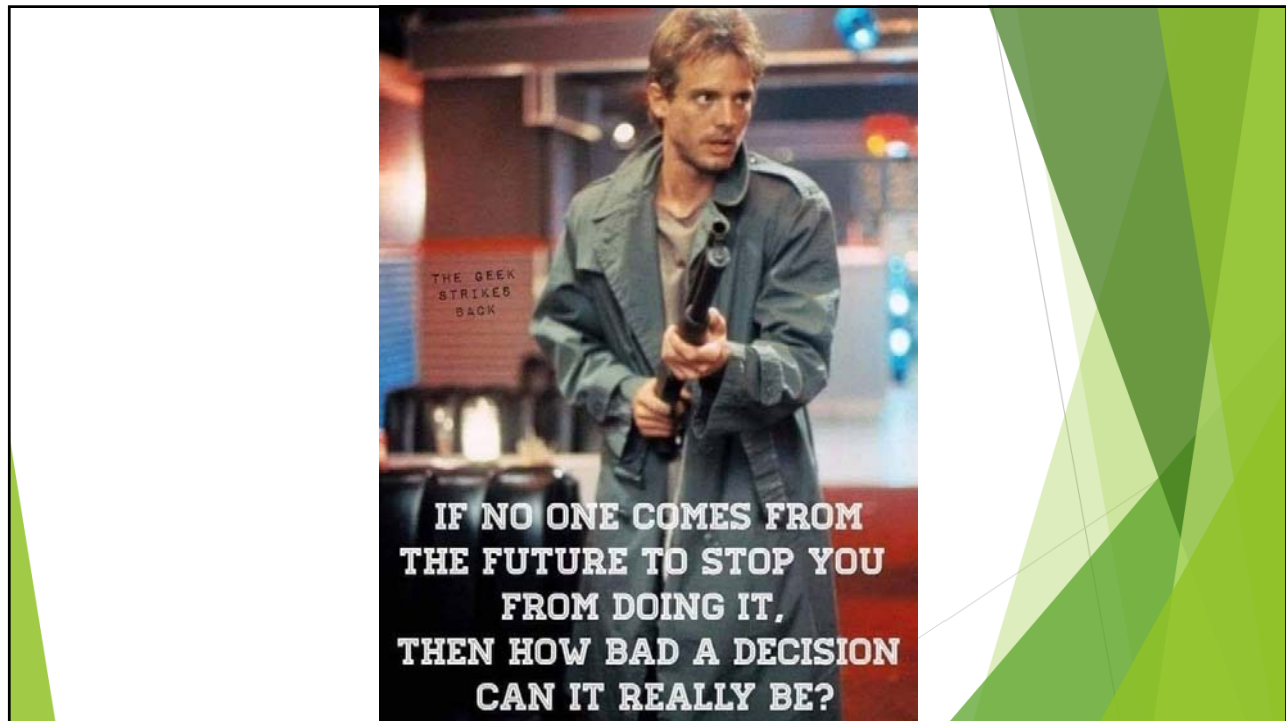


But it needs to make sense to everyone.

28



29



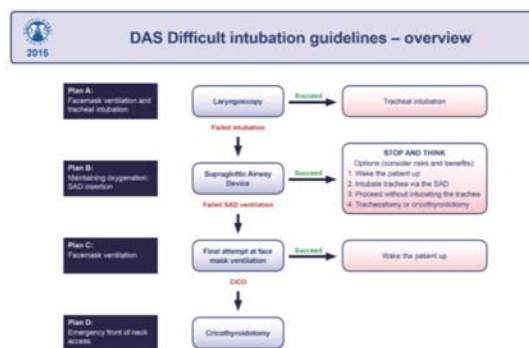
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Me when I'm about to take a test I didn't study for



31

Good News!
You do not need to reinvent the wheel...



32

Adult Difficult Airway Cart Contents
Hanging on Pole
Drawer - Plan A - Direct & Video Laryngoscopy

Ambu aScope 3 Regular Bronchoscope - ETT Sizes ≥ 6 (ED's & UCC's Only)
 Intubating Catheter (Bougie)

Tape	Tongue Depressors
10 cc syringe	Scissors
Lubricant Packages	Lidocaine Spray
Lidocaine Nozzle	Laryngoscope Handle - Regular
Laryngoscope Handle - Stubby	Macintosh Blade - Size 2
Macintosh Blade - Size 3	Macintosh Blade - Size 4
Miller Blade - Size 2	Miller Blade - Size 3
Miller Blade - Size 4 (Not at SCS ED or ICU)	Stylet - Size 14 French
Stylet - Size 10 French	Stylet - Glidescope
Magill Forcep - Adult	Magill Forcep - Paediatric
Cuffed Endotracheal Tubes - Sizes 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5	End Tidal CO2 Detector
In-line End-tidal CO2	Oral Airways - Sizes 8, 9, 10
Face Masks - Sizes 4, 5	

33

Drawer - Plan B - Supraglottic Airway

Ambu Aura-i Intubating LMA Size 3 (Maximum size ETT can accommodate is 6.5)
Ambu Aura-i Intubating LMA Size 4 (Maximum Size ETT can accommodate is 7.5)
Ambu Aura-i Intubating LMA Size 5 (Maximum Size ETT can accommodate is 8)
Teleflex LMA Fastrach Mask - Sizes 3, 4, 5 (All sizes can accommodate up to size 7 Fastrach ETT)
Teleflex LMA Fastrach Endotracheal Tubes with Stabilizer Rod - Sizes 6, 6.5, 7
20 or 30 cc Luer Lock Syringe

34

Drawer - Plan D - Front of Neck Access

Melker Emergency Cricothyrotomy Catheter Set - Size 6 Cuffless	Tracheostomy Surgical Tray
Jet Ventilator Kit **** (ED's & UCC's for Paediatric Use Only) - Jet Ventilator - Connecting tubing - Catheters 13 G, 14 G, 16 G Connection to ambubag preferred over jet vent.	Stab Bag - ETT Cuffed Size 6 - Intubating Catheter (Bougie) - Chlorhexidine Swabs - Scalpel #10 - 4x4 Gauze - Lubricant - 10 cc Luer Lock Syringe
Posey Tracheostomy Tube Ties - Large	Prolene Sutures
Lidocaine with Epinephrine 1:100 000 topical - 2%	25 Gauge Needle
Tracheostomy Tube - #4 cuffed	Tracheostomy Tube -#6 cuffed
Tracheostomy Tube - Pediatric #3.5 cuffless (ED's and UCC's Only)	

35

Practice together!



36

Low Fidelity works!



37

Don't wait to be a leader.



Someone out there is depending on you.

38

Questions?

shira.starfish@gmail.com

Brown, N.S., Chirico, J., Hollidge, M. Randall, J. *Clinical leadership in reducing risk: Managing patient airways.* Healthcare Management Forum. January 30, 2019