



# Rural Rounds

The Occasional  
Airway Emergency

# Disclosures

**I'm not an  
expert**



# Aspirations



# The Occasional Rural Airway Emergency



**High Acuity & Low Occurrence = HALO**

# CASE#1

Daajing Giids

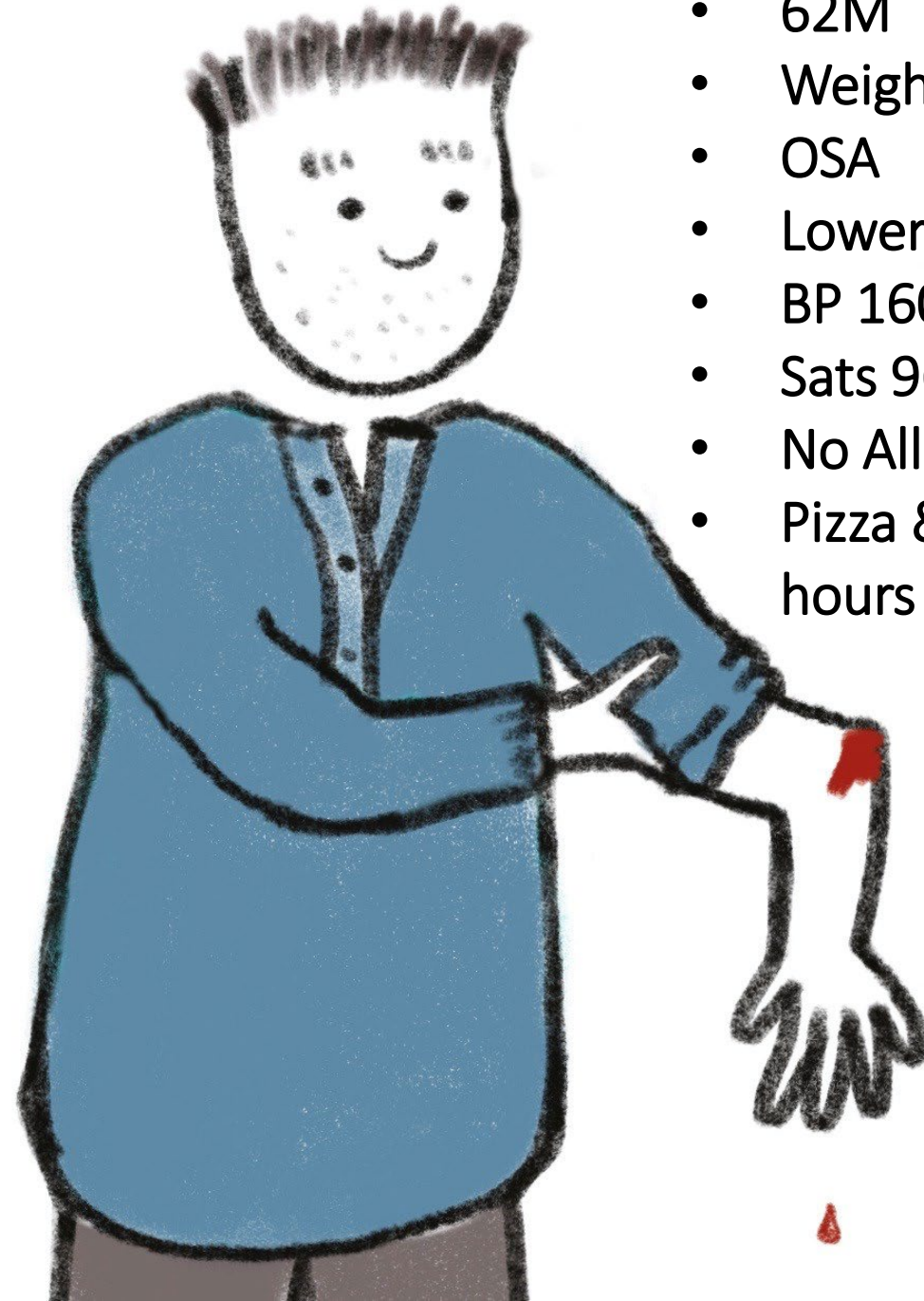
Haida Gwaii Hospital



# CASE#1

Daajing Giids

Haida Gwaii Hospital



- 62M
- Weight = 100Kg
- OSA
- Lower dentures
- BP 160/100
- Sats 96% on RA
- No Allergies
- Pizza & beer 2 hours ago

# Procedural Sedation



## P. R. E. P. A. R. E.

**P** reprepare team, PPE, position patient, pre-oxygenate

**R** esuscitate

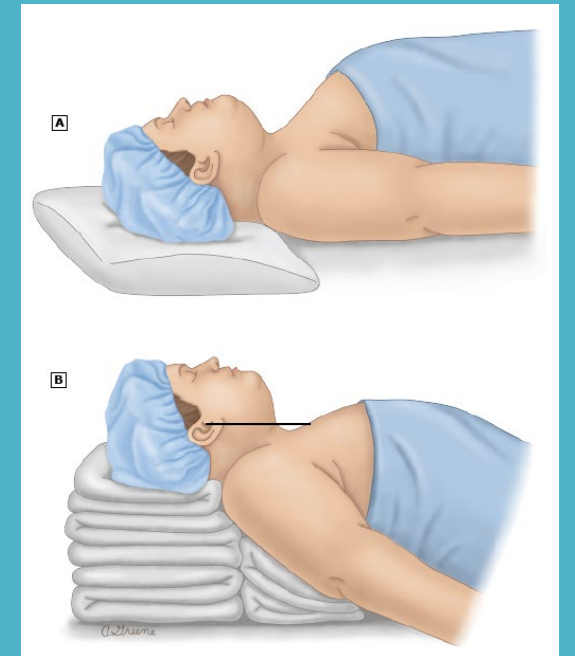
**E** quipment, meds

**P** lan A, B, C

**A** ssess, adjust

**R** emain, review

**E** xit strategy



# POLL #1

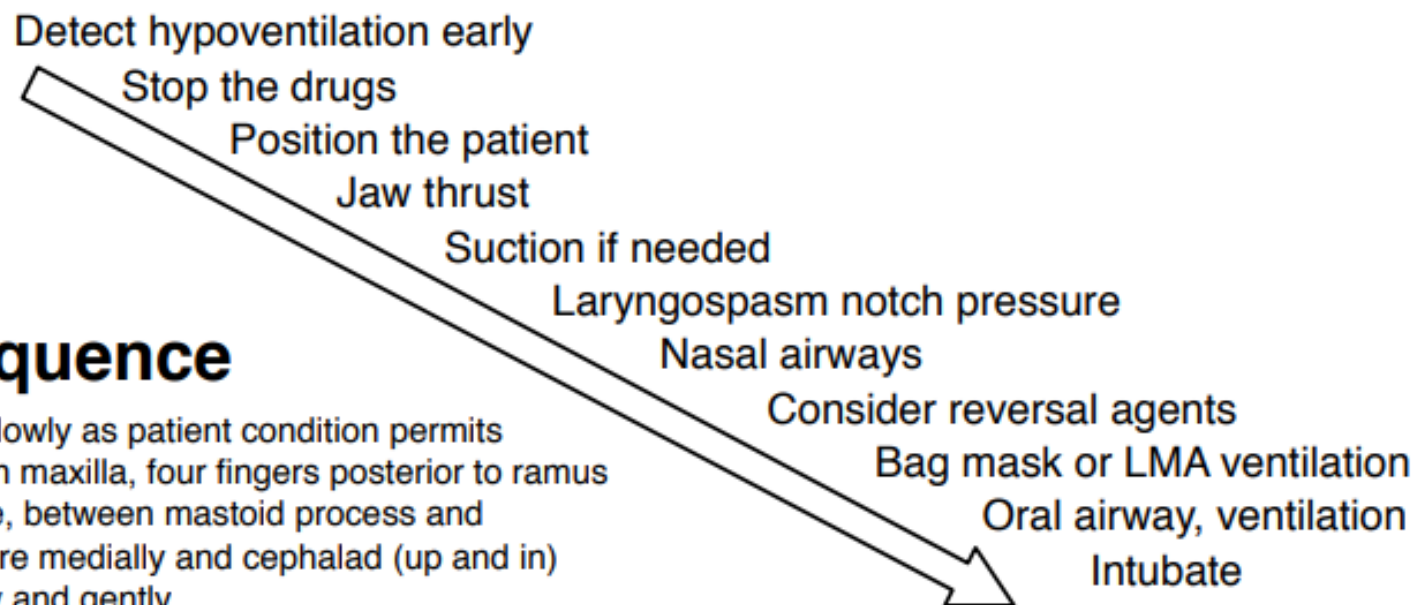
Would you call in a  
second MD if available?





## PSA Intervention Sequence

- Proceed down intervention sequence as slowly as patient condition permits
- Jaw thrust as illustrated above - thumbs on maxilla, four fingers posterior to ramus
- Laryngospasm notch is behind the earlobe, between mastoid process and condyle of mandible – bilateral, firm pressure medially and cephalad (up and in)
- If rescue ventilation is required, bag slowly and gently
- see [emupdates.com/psa](http://emupdates.com/psa) for details



[www.emupdates.com](http://www.emupdates.com)



# HACK #1: USE A CHECKLIST

[Dr. Ruben Strayer's PSA Checklist](#)

[www.emupdates.com](http://www.emupdates.com)

# CASE#2

Dease Lake

Stikine Health Centre

- 34F
- 65Kg
- GCS 10 (E2 V3 M5)
- BP 100/60, HR 130, RR 30
- O2 Sat 89% on NRM  
@15LPM
- PMH/Allergies??
- Last meal??



# POLL #2

Do you need to  
intubate this  
patient right  
now?

Resuscitate before you intubate!



# P. R. E. P. A. R. E.

**P** repare team, PPE, position pt,  
pre-oxygenate

**R** esuscitate!

**E** quipment, meds

**P** lan A, B, C

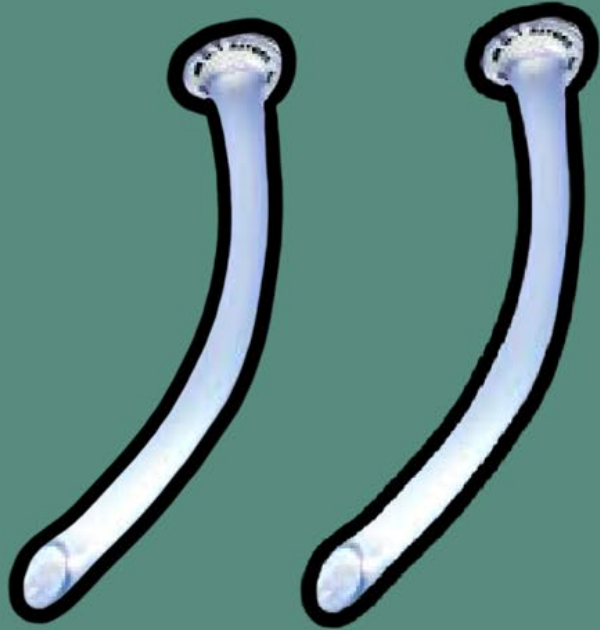
**A** ssess, adjust

**R** emain, review

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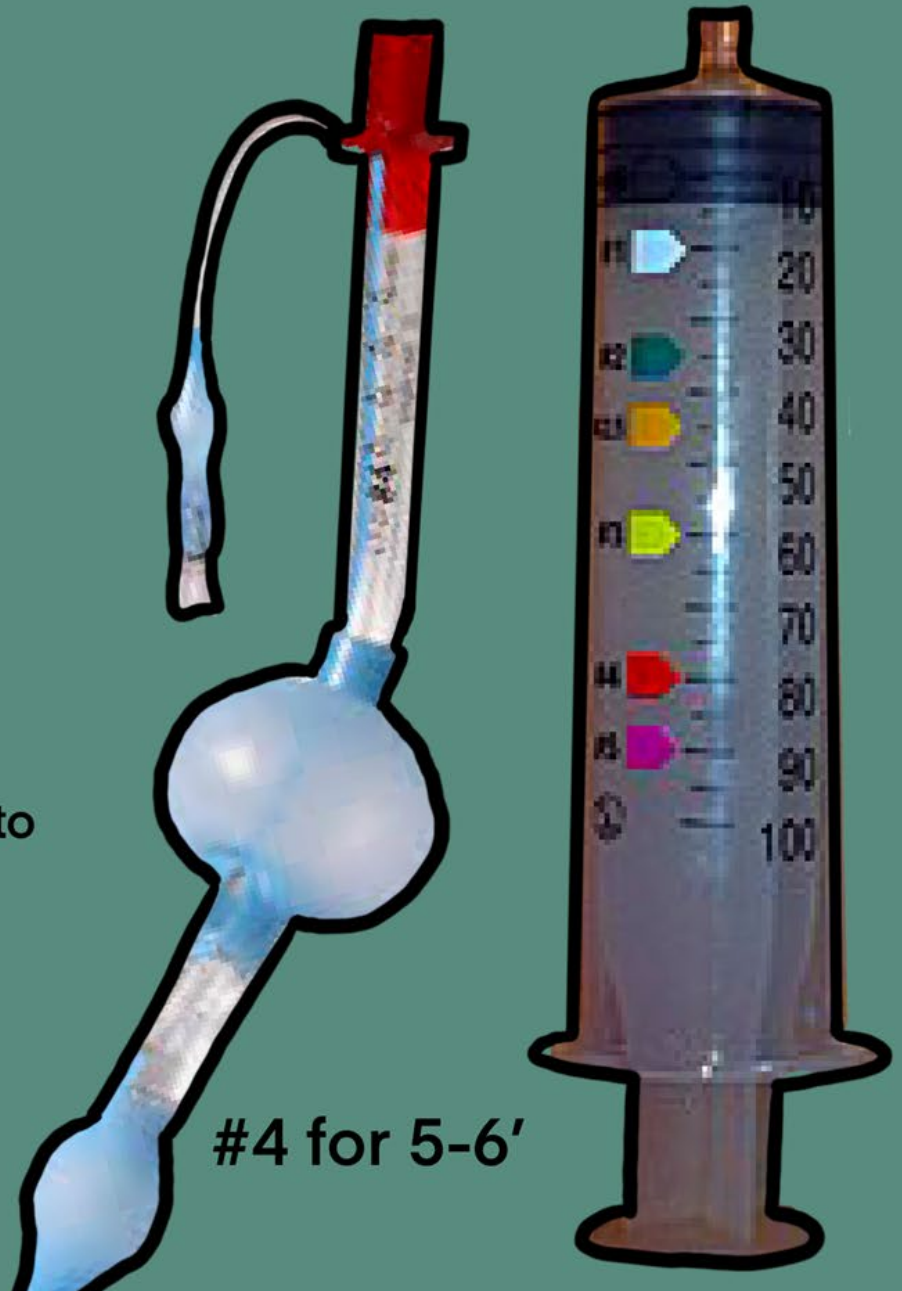
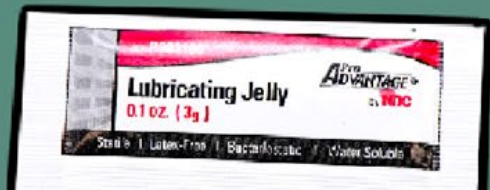
# HACK #2: SHADOW BOXES



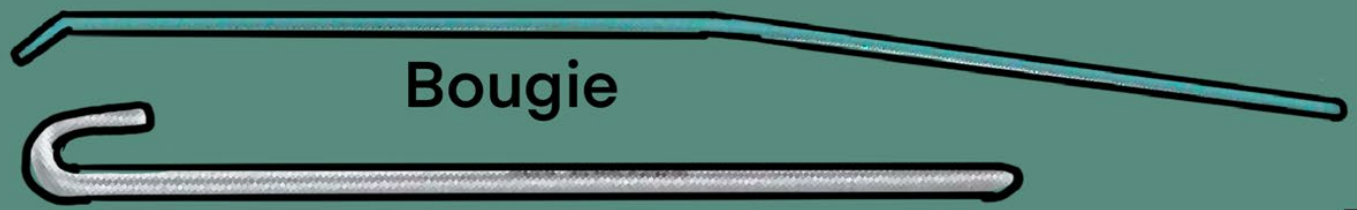
NPA x2  
Nare to auditory  
meatus



OPA  
Corner of mouth to  
angle of jaw

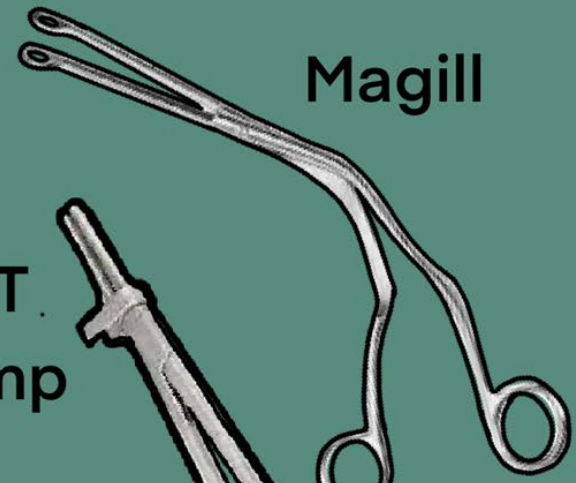


#4 for 5-6'

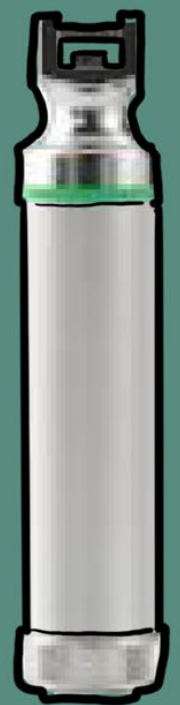
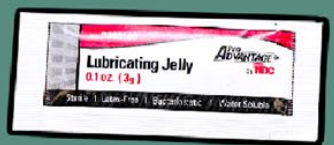


Bougie

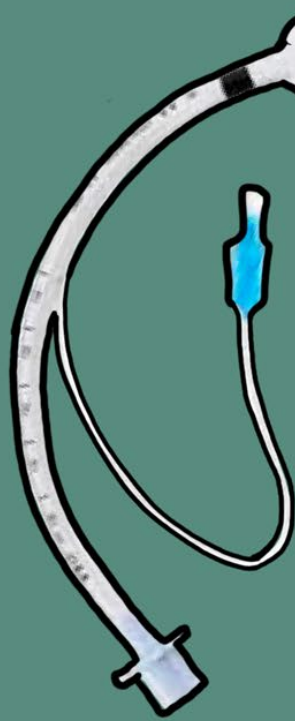
Stylet



Magill



MAC 3



8.0



7.5

ETT clamp



ETT holder

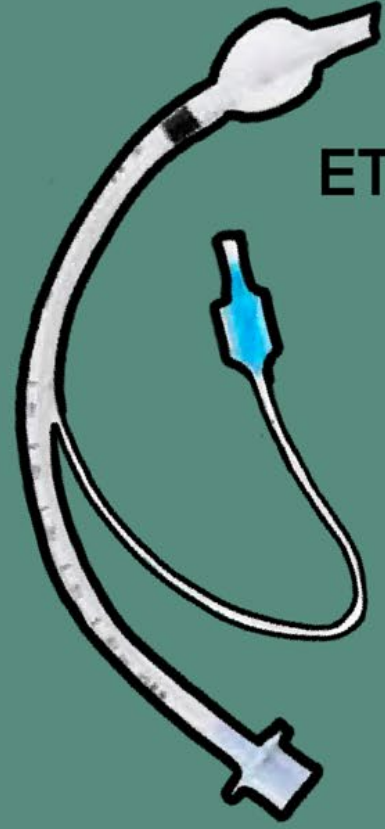




#10 scalpel



Bougie



ETT 6.0



Cotton tape  
to secure ETT

# Back to CASE#2

- Tension pneumothorax released
- IV NS 1L
- O2 supplementation

-> GCS up to 14

-> no need to intubate (for now)





# CASE#3

Port McNeill Hospital



# P. R. E. P. A. R. E.

**P** repare team, position pt, PPE,  
pre-oxygenate

**R** esuscitate

**E** quipment, meds

PediSTAT  
Broselow

**P** lan A, B, C

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**HACK #3:**

ER MEDS Request Form

DATE: \_\_\_\_\_ WEIGHT: \_\_\_\_\_

LABEL

ORDERING MD: \_\_\_\_\_

**EMERGENCY MEDICATIONS**

#	MEDICATIONS	DOSE	DOSE per VIAL = AMOUNT per SYRINGE	HOW TO MIX	AMOUNT DISPENSED (dose & time given)	WASTED
	<b>Fentanyl</b>	0.5 - 2 mcg/Kg	<b>100mcg</b> in 2mL	Mix 1 vial (2mL of 50mcg/mL) with 8mL NS = <b>10mcg/mL x 10mL</b>		
	<b>Morphine</b>	0.07 mg/Kg	<b>10mg</b> in 1 mL	Mix 1 vial (1mL of 10mg/mL) with 9mL NS = <b>1mg/mL x 10mL</b>		
	<b>Hydromorphone</b>	0.015 mg/kg	<b>10mg</b> in 1mL	Mix 1 vial (1mL of 10mg/mL) with 9mL NS = <b>1mg/mL x 10mL</b>		
	<b>Midazolam IV</b>	0.025 - 0.05 mg/Kg	<b>10mg</b> in 2mL	Mix 1 vial (2mL of 5mg/mL) with 8mL NS = <b>1mg/mL x 10mL</b>		
	<b>Midazolam IM/IN</b>	0.2mg/Kg	<b>10mg</b> in 2mL	Draw up undiluted (syringe size depends on quantity requested)		
	<b>Lorazepam</b>	0.05-0.1mg/Kg	<b>4mg</b> in 1mL	Mix 1 vial (1mL of 4mg/mL) with 3mL NS = <b>1mg/mL x 4mL</b>		
<b>1</b>	<b>Ketamine IV</b>	2 mg/Kg (0.5 mg/Kg if low BP)	<b>200mg</b> in 20mL	Draw up 1 vial in two 10mL Syringes = <b>10mg/mL x 10mL x2</b>		
	<b>Ketamine IN/M</b>	1-5mg/Kg IN 5mg/Kg IM	<b>100mg</b> in 2mL	Draw up undiluted (syringe size depends on quantity requested)		
	<b>Propofol</b>	2 mg/Kg (0.5 mg/Kg if low BP)	<b>200mg</b> in 20mL	Draw up 1 vial in two 10mL Syringes = <b>10mg/mL x 10mL x 2</b>		
<b>1</b>	<b>Rocuronium</b>	1.2 mg/Kg	<b>50mg</b> in 5mL	Draw up 2 vials in 10mL Syringe = <b>10mg/mL x 10mL</b>		
	<b>Succinylcholine</b>	1.2 mg/Kg (1.6 mg/Kg if low BP)	<b>400mg</b> in 20mL	Draw up 1 vial in two 10mL Syringes = <b>20mg/mL x 10mL x 2</b>		
<b>1</b>	<b>Push-Dose Epi</b>	5 - 10ug (0.5-1 mL) q2-5 min*	1:10,000 Cardiac Epi in Crash Cart ( <b>100mcg</b> )	Mix 1mL of 1:10,000 Cardiac Epi in 9mL NS = <b>10mcg/mL x 10mL</b>		
	<b>Phenylephrine</b>	0.5-2 ml (50-200 mcg) every 2-5 minutes PRN hypotension	<b>500mcg</b> in 10mL (Premixed)	Premixed 10mL Syringe = <b>50mcg/mL x 10mL</b>		
	<b>Norepinephrine</b>	start 2-4 mcg/min, titrate by 1 ug/min q5min	<b>4mg</b> in 4mL (16mcg/mL)	Add 8mg (2 vials) to 500mL D5W		



# CASE#3

- Cyanotic
- RR 70, shallow
- HR 170
- BP 70/30
  - normal SBP =  $70 + (2 \times \text{age in yrs})$
- O<sub>2</sub> Sat 83% on NRM at 10L/min
- Wheezes bilaterally with little air movement

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HACK #1– Use your checklists!

HACK#2 – Shadow Boxes

HACK#3 – ER Medication Order Sheet

[Rural ER resources](#)





OR

SINK

Practice  
makes  
perfect!

SIM

OR

# Acknowledgements

- EMUpdates
- EMCrit
- Emergency Medicine Cases
- AIME Course
- First10EM
- RebelEM
- The CARE Course
- The P.R.E.P.A.R.E. Mnemonic

My amazing MD, RN and RM colleagues at the [Haida Gwaii Hospital](#)