

Listless in the Big D: Benefits of the “Flow Sheet” in EMS Care?

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Conflicts of Interest: None

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THE UNIVERSITY of
NEW MEXICO





Perceptions?

Benefits?



Per Dr. Gawande-

Checklists should be:

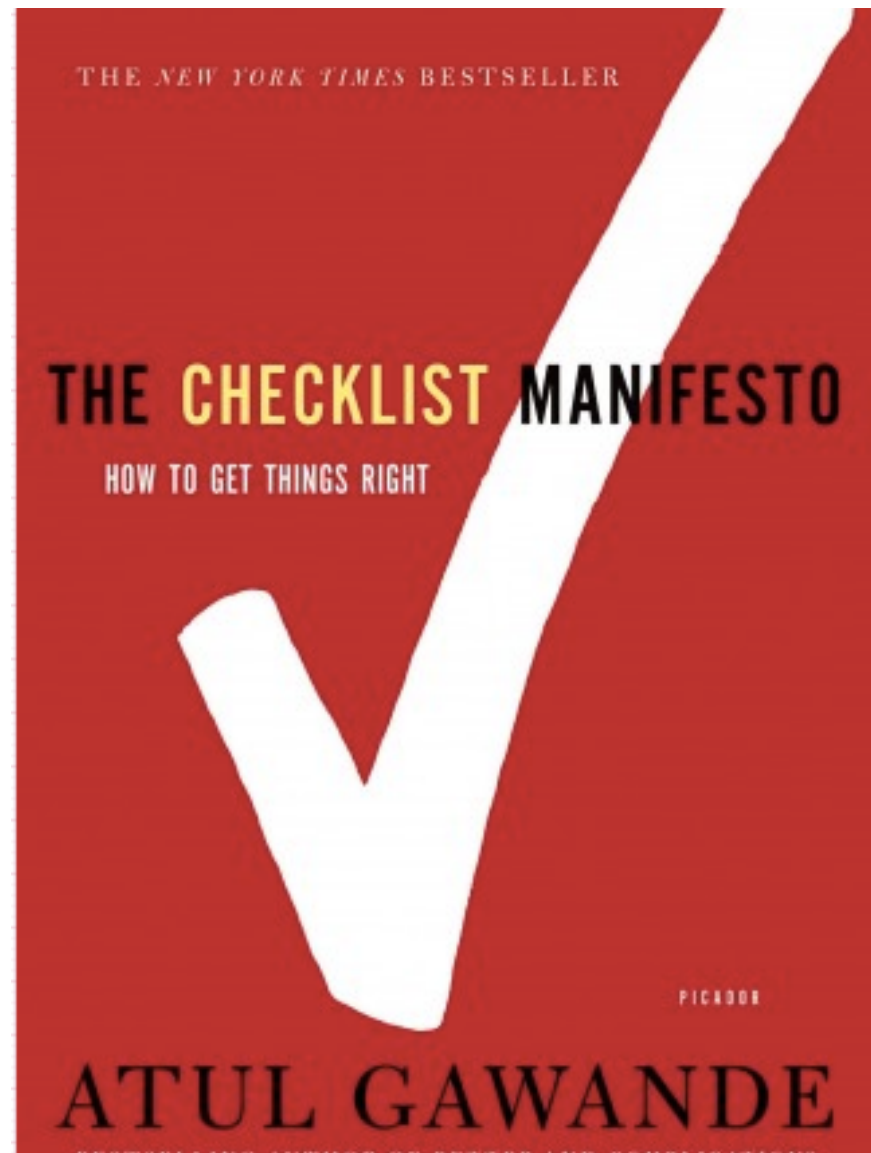
Precise

To the point

Easy to use

**Only reminder of critical
steps**

Practical





Before induction of anaesthesia ▶▶▶▶▶▶▶▶ Before skin incision ▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶ Before patient leaves operating room

- ☐ NO
- ☐ YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

- ☐ YES
- ☐ NOT APPLICABLE

- ☐ SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.

EMCrit Blog

A Discussion of the Practice of ED Critical Care

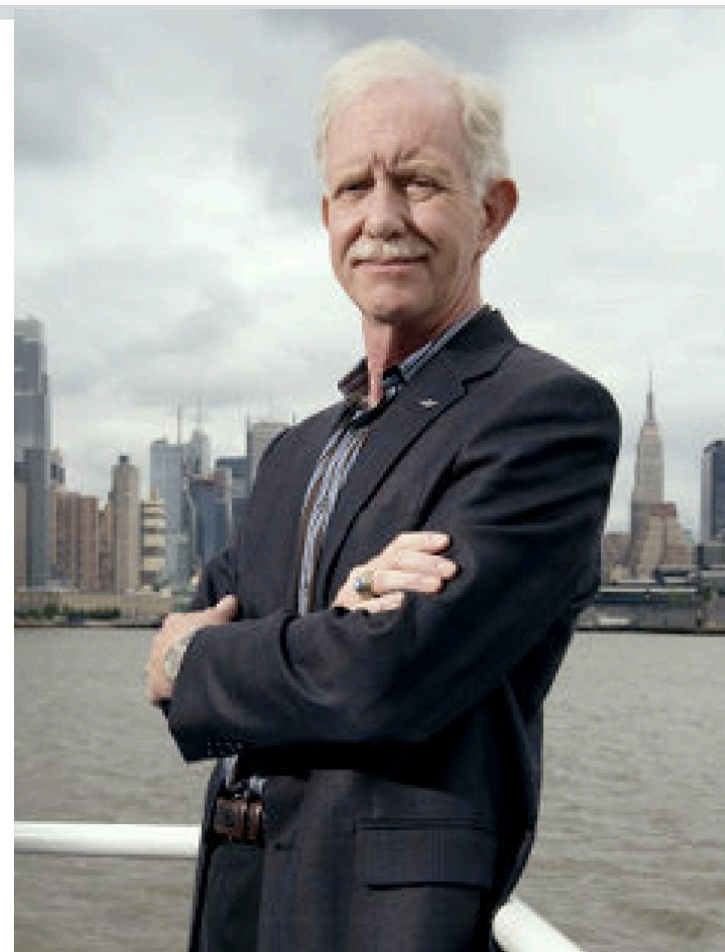
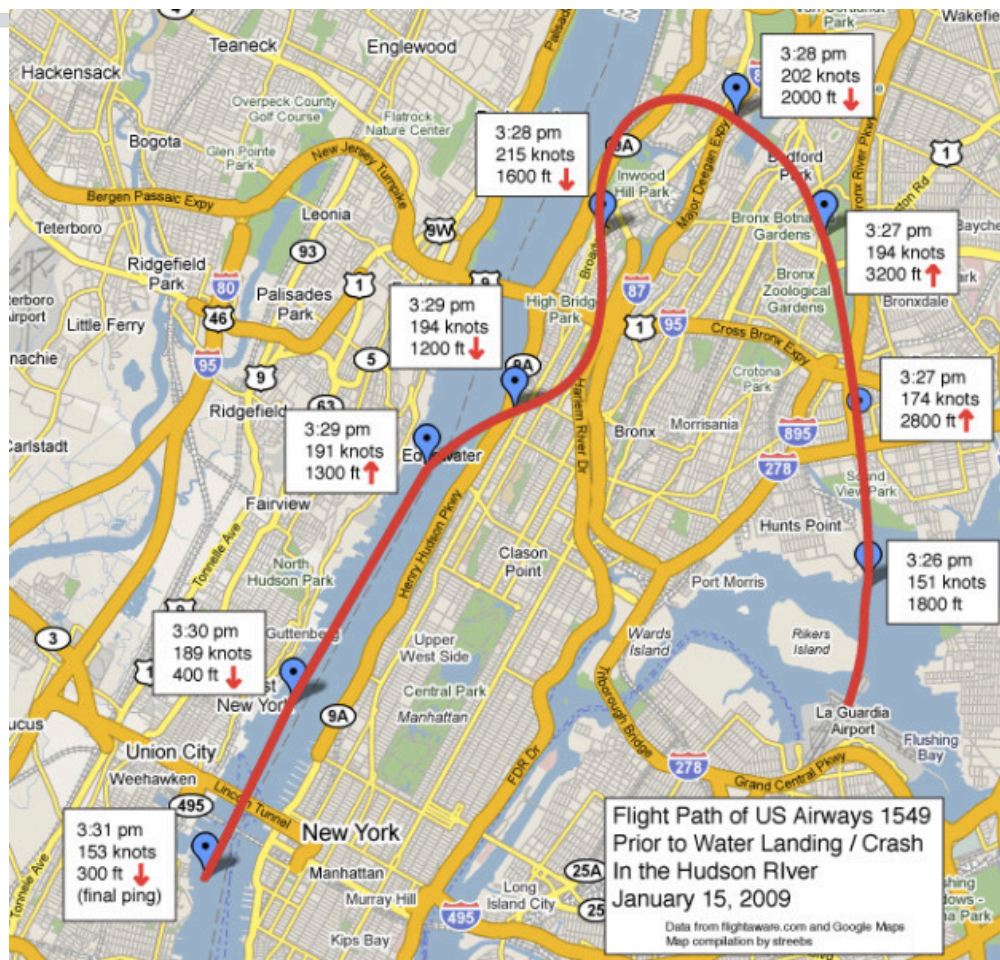


Podcast 99 – Combat Aviation Paradigms for Resuscitatonists

Dr. Novak: Checklists provide “cognitive unloading” & guarantee critical actions are accomplished.

Miracle on the Hudson





Guy knows a thing or two about checklists!

J Patient Saf. 2012 Mar;8(1):3-14. doi: 10.1097/PTS.0b013e3182446c51.

An NTSB for health care: learning from innovation: debate and innovate or capitulate.

Denham CR¹, Sullenberger CB 3rd, Quaid DW, Nance JJ.

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Two part paper written by aviators looking to transfer proving safety innovations from airlines to medicine



EMS already uses “checklists”

- Incident command checklists
- Rescue operations checklists
- Ambulance and Apparatus checklists- DAILY!

ALREADY EVERYWHERE!!



Albuquerque/Bernalillo County EMS Cardiac Arrest Checklist

DATE: _____

CAD # _____

- ☐ Immediate 200 chest compressions
- ☐ Press "CPR" button for Metronome set w/Airway
- ☐ LP-12/15 applied in "paddles" view
- ☐ Apply N/C End Tidal CO2 and print strip
- ☐ Apply NR mask 10 lpm
- ☐ New "compressor" every 200 compressions
- ☐ Pre charge to 200 J, at 1:45 seconds
- ☐ IV/IO access Yes No
- ☐ EPI 1 mg q 3 minutes
- ☐ Advanced Airway LMA ET
- ☐ ROSC obtained Yes No
- ☐ If ROSC, turn this sheet over
- ☐ Code transported Yes No

Form completed by: _____

Comments: _____

IF ROSC obtained TURN OVER

Albuquerque/Bernalillo County EMS Cardiac Arrest Checklist

IF ROSC obtained follow below:

- ☐ Obtain 12 lead EKG and transmit Yes___ No___
- ☐ Obtain complete set of vitals
- ☐ Heart Rate___ BP___ RR___ Temp___
- ☐ Start Vasopressor if needed
- ☐ Confirm and print ETCO2 printout
- ☐ Establish 2nd IV if not done Yes___ No___

Chf. Shaughn Maxwell & Dr. Rich Campbell

SnoCo Fire 1 (WA)

EMS 10 Winner 2013



EMS Checklists

Highlighting critical areas of the protocols not to be missed

article

comments

videos



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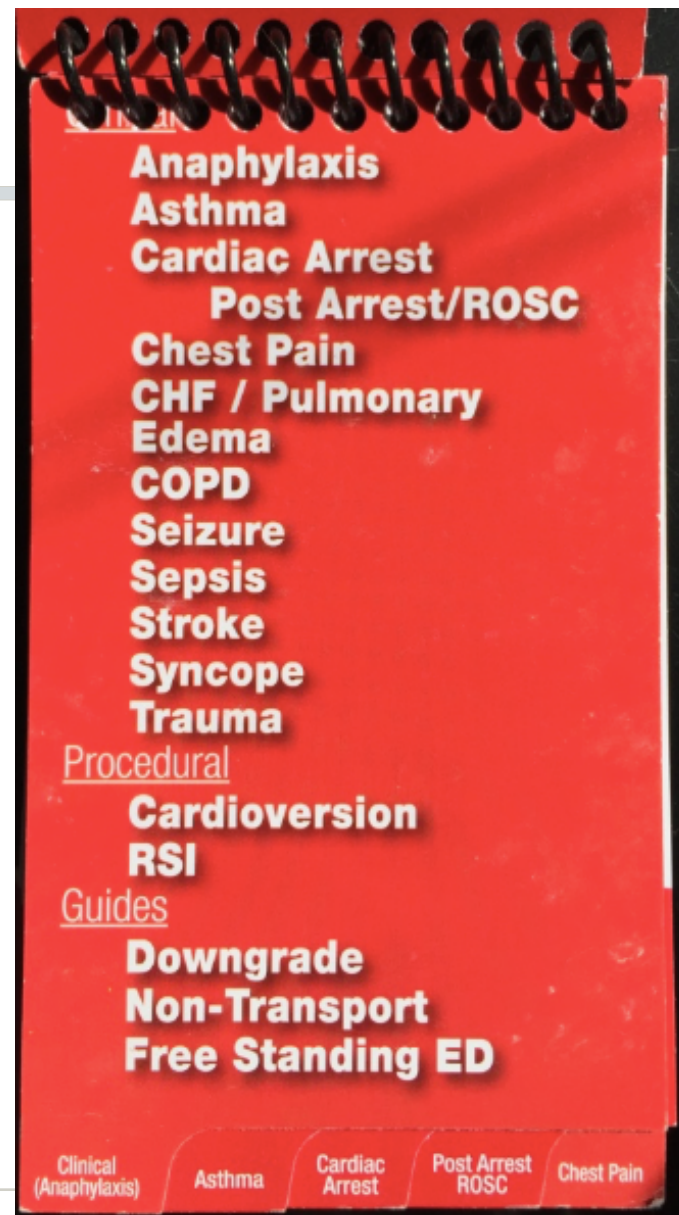
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EMAIL

PRINT

Cynthia Kincaid | From the EMS 10: Innovators of EMS 2013 Issue

<http://www.jems.com/article/administration-and-leadership/ems-checklists/> photo by Gary Jackson



Asthma



START - IMMEDIATE ACTION ITEMS

- 1 Administer Albuterol 5mg / Atrovent 0.5mg nebulizer
- 2 Interpret and monitor EtCO₂
- 3 Administer Methylprednisolone 125mg IV (Ped 2mg/kg)
- 4 Consider Epi 1:1,000 0.3mg IM (Ped 0.01mg/kg, Max 0.3mg)
- 5 Consider CPAP (Unless BP < 90)

KEY CONSIDERATIONS

- Magnesium 2gm in 100 ml NS 15 min
- Repeat Albuterol 5mg Nebulizer
- Consider intubation
- 12 Lead EKG
- Notify ED
- CPAP
- Intubation



Green: Normal

Red: Abnormal

OTHER CONSIDERATIONS

- With CPAP use lowest possible pressure
- Contraindications to CPAP include pneumothorax, respiratory arrest or inadequate respirations, unconscious or inability to protect airway, shock or BP < 90, penetrating chest trauma, persistent nausea or emesis, facial trauma or abnormalities, or recent GI surgery or bleeding
- EtCO₂ should be monitored for trending and waveform indicators (Ex: Bronchoconstriction)

****Document all checklist action items executed in ePCR****

Asthma Checklist[™]



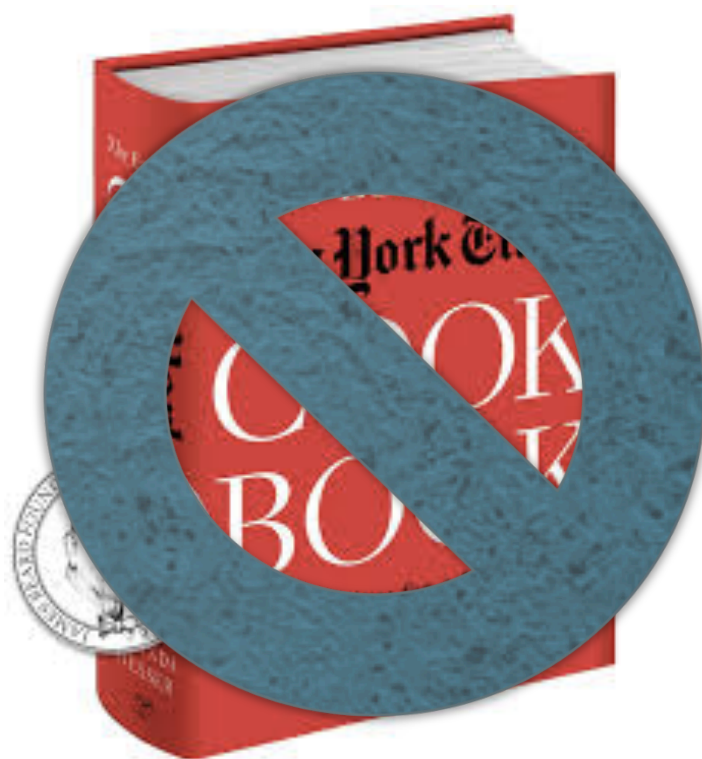
Cardiac
Arrest

Post Arrest
ROSC

Chest Pain

Stroke	Before Checklists(2011)	After Checklists(YTD 2014)
Blood Sugar Checked	57%	91.%
FAST Documented	78%	91%
< 15 Scene Time	69%	81%
Trauma	Before Checklists	After Checklists
< 10 Minute Scene Time	23%	57%
Asthma	Before Checklists	After Checklists
CPAP	20%	66%
Magnesium	20%	66%
Chest Pain	Before Checklists	After Checklists
NTG	75%	88%
COPD	Before Checklists	After Checklists
EtC02	66%	83%
Solumedrol	44%	80%
CHF	Before Checklists	After Checklists
EtC02	57%	90%
Nitro	38%	81%

Not talking
about a
return to
this....!



Perceptions?

Benefits?



My Talk!!

- **EMS Check lists**
- **= System 1**
- **= GOOD!!**
- **“Yeah Drew!”**,
- **Peter Antevy**



In Closing...

- Checklists are NOT return to cook book EMS
- Help when “cognitive overload” hinders process
- Proven to reduce surgical mortality- Gawande/WHO
- Already have an acceptance in EMS- just not here!
- Sno 1 can show you how!! Thanks to the innovators
Shaughn and Rich



Thank You

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- [http://www.firedistrict1.org/
our-services/emergency-
medical-services/ems-checklist](http://www.firedistrict1.org/our-services/emergency-medical-services/ems-checklist)

