The McMaster Anesthesia Checklists

Carine Wood

MUMC

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Objectives

- Préambule
- Concept of aviation checklists
- How you can help
Préambule

• Christmas 2014
• Some time in the 1970’s
• My bad “Good Friday”
• That famous 2009 landing on the Hudson River
• Anesthesia simulation scenarios
Concept of aviation checklists

• Simple, complicated and complex problems
  * Simple baking a cake from a mix and recipe
  * Complicated: sending a satellite in space
  * Complex: raising children
Concept of aviation checklists

- Routine ones: surgical one in the OR, checking the anesthesia machine
- Checklists for unexpected emergencies
  * Engine failure, landing without proper landing gear, cargo door loose…
- All have a short stem and a few items to glance and verbalize at quickly to guide the crew
EMERGENCY DESCENT

THROTTLES .................................................. IDLE ................. C
FUEL FWD TRANS SW .................................. O/RIDE ................ C
TANK 9 & 10 PUMPселs .................................. VERIFY OFF ........... E
PRESSURIZATION ........................................ MAX RATE OF DESCENT .. E
CABIN ALTITUDE sel ....................................... ZERO .................. E
ATC TRANSPONDER ...................................... A7700 ................. C
SAFETY HEIGHT ........................................... CHECK ............... P

TANK 9 INLET VALVES MAIN sel .................... AUTO .................. E
TANK 11 PUMPS ........................................... ALL AUTO ............ E
TANKS 9 & 10 LLC ......................................... 3000 KG .............. E
TANK 11 LLC ............................................... ZERO ................. E
TRIM TRANS AUTO MASTER sel ....................... FORWARD .......... E
FUEL FWD TRANS SW ................................ GUARD ................. E
FWD EMERY RELIEF SW ............................... OPEN ................. E
FWD EXTRACT FANS ...................................... ALL ON ............... E

IF OXYGEN HAS BEEN IN USE
WHEN CABIN ALTITUDE DESCENDS TO 15000 FT OR BELOW
NO SMOKING SIGNS ...................................... ON .................. E
CREW OXYGEN ........................................... SELECT N USE AS REQD.... ALL

PASSENGER OXYGEN SHOULD RETURN TO NORMAL FLOW AUTOMATICALLY BUT IF MANUAL OVERIDES HAVE BEEN USED THEY SHOULD BE RESET.

IF NORMAL CABIN PRESSURE CANNOT BE RESTORED
CABIN & FLIGHT DECK TEMPERATURE SELECTORS ................ COOLEST AUTO SETTING ............ E

END//
The McMaster Anesthesia checklists

• We can follow the same principles
  * Routine checklists for pre case check or patient transfers (my bêtes noires)
  * And others for emergency management
    • Hypotension, brady/tachycardia
    • Poor ventilation…
  * And some context specific ones like OB, basic ICU, ER, peds, Thoracic…
Then comes the computer thing

- I would like it to be on Ipad (freeware of course) same idea as Karen Raymer’s superb book
- We should have a “card” version in the OR too
  * So that any OR staff can help with reading it to us when trouble arises, and we are all on the same page
How to get it done

• Split teams of senior and junior staff to concentrate on specific lists
  * Then put them to the other teams (bit like Delphi) to come up with a consensus of items

• Then put it all together

• Then audit/research on the changes obtained (critical incidents for example)