

# **WhirlyBird CPR: Should Helicopters Be Used For Cardiac Arrest?**

**R.J. Frascone, M.D. FACEP**

**Chief Medical Officer**

**Life Link III**

**Professor, Department of Emergency Medicine**

**University of Minnesota**

# The Problem

- IFCA is not rare.
- Performing high quality CPR in helicopters is impossible in most helicopters utilized in HEMS due to space limitations.
  - The public is unaware of this.
- The use of automated CPR devices in helicopters is rare (20-30 out of 300 US programs), and has not been studied.







# Method

- Mechanical CPR deployed in 2012 (LUCAS™). Outcomes were compared pre and post LUCAS. Survival = ED admission with ROSC. ITD used in all cases.
- Device pre-loaded based on QA data (likely to arrest i.e., peri-arrest, AMI, severe trauma, gestalt. **14 patients had IFCA without device being pre-loaded.**
- 40 months prior to LUCAS were compared to 40 months following LUCAS deployment.

# Results

- 40 pre LUCAS and 59 post LUCAS patients were analyzed.
- No difference in survival i.e., LUCAS/CPR is as effective as M/CPR. This is supported by current literature.

# Conclusion

- May be out of compliance with federal regulations (FAR 135.100 and 135.128).
- Real risk is “clear air turbulence” i.e. unforecasted and unexpected turbulence.

# Conclusion

- We compromising the safety of the crew when there is a viable option to avoid doing that.
- We are forcing the crews into an ethically untenable position i.e.’ “Do I do CPR and risk safety, or do I not do not do CPR and watch the patient die”.



# In other words...

- If a helicopter is not equipped with an in-cabin, mechanical CPR device...
- And, we cannot reliably predict who is going to have an in-flight cardiac arrest...
- Even though it may not make any difference in survival...
- It may be safer to go by ground BLS, rather than by helicopter, for any patient who has anything more serious than a cold.
- There, I said it.

# QUESTIONS

# Abbreviated Bibliography

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