

## Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Peterson DC, Martin-Gill C, Guyette FX, et al. Outcomes of medical emergencies on commercial airline flights. *N Engl J Med* 2013;368:2075-83. DOI: 10.1056/NEJMoa1212052

# Outcomes of In-Flight Medical Emergencies Aboard Commercial Airlines

## APPENDIX

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**Table S1: In-Flight Medical Emergencies by Complaint and Airline**

<b>Category</b>	<b>Total IMEs</b>	<b>Airline 1</b>	<b>Airline 2</b>	<b>Airline 3</b>	<b>Airline 4</b>	<b>Airline 5</b>
TOTAL	11920 (100%)	2933 (24.6%)	2476 (20.8%)	1254 (10.5%)	1006 (8.4%)	4251 (35.7%)
Syncope	4463 (37.4%)	1078 (36.8%)	782 (31.6%)	466 (37.2%)	199 (19.8%)	1938 (45.6%)
Respiratory	1447 (12.1%)	291 (9.9%)	195 (7.9%)	226 (18.0%)	70 (7.0%)	665 (15.6%)
Nausea & Vomiting	1137 (9.5%)	341 (11.6%)	287 (11.6%)	134 (10.7%)	111 (11.0%)	264 (6.2%)
Cardiac	920 (7.7%)	241 (8.2%)	268 (10.8%)	54 (4.3%)	99 (9.8%)	258 (6.1%)
Seizures	689 (5.8%)	95 (3.2%)	170 (6.9%)	60 (4.8%)	60 (6.0%)	304 (7.2%)
Abdominal Pain	488 (4.1%)	159 (5.4%)	122 (4.9%)	45 (3.6%)	74 (7.4%)	88 (2.1%)
Infectious Disease	330 (2.8%)	95 (3.2%)	87 (3.5%)	17 (1.4%)	91 (9.0%)	40 (0.9%)
Agitated / Psychiatric	287 (2.4%)	79 (2.7%)	65 (2.6%)	26 (2.1%)	38 (3.8%)	79 (1.9%)
Allergic Reaction	265 (2.2%)	55 (1.9%)	68 (2.7%)	31 (2.5%)	32 (3.2%)	79 (1.9%)
Possible Stroke	238 (2.0%)	41 (1.4%)	68 (2.7%)	23 (1.8%)	24 (2.4%)	82 (1.9%)
Trauma NOS	216 (1.8%)	66 (2.3%)	35 (1.4%)	37 (3.0%)	30 (3.0%)	48 (1.1%)
Diabetic Complication	193 (1.6%)	42 (1.4%)	49 (2.0%)	20 (1.6%)	12 (1.2%)	70 (1.6%)
Headache	123 (1.0%)	38 (1.3%)	24 (1.0%)	15 (1.2%)	15 (1.5%)	31 (0.7%)
Extremity Pain / Injury	114 (1.0%)	27 (0.9%)	30 (1.2%)	20 (1.6%)	14 (1.4%)	23 (0.5%)
Obstetrical & Gynecological	61 (0.5%)	14 (0.5%)	21 (0.8%)	4 (0.3%)	8 (0.8%)	14 (0.3%)
Ear Pain	49 (0.4%)	12 (0.4%)	6 (0.2%)	5 (0.4%)	6 (0.6%)	20 (0.5%)
Cardiac Arrest	38 (0.3%)	9 (0.3%)	16 (0.6%)	1 (0.1%)	3 (0.3%)	9 (0.2%)
Laceration	33 (0.3%)	7 (0.2%)	7 (0.3%)	1 (0.1%)	7 (0.7%)	11 (0.3%)
Other	821 (6.9%)	239 (8.1%)	176 (7.1%)	67 (5.3%)	113 (11.2%)	226 (5.3%)
Unknown	8 (0.1%)	4 (0.1%)	0 (0.0%)	2 (0.2%)	0 (0.0%)	2 (0.0%)

Table S2: Medications Used During In-Flight Medical Emergencies (IMEs)

	Number of times used	Percentage of time used during IMEs	Contained in FAA Mandated EMK <sup>1</sup>
Oxygen	5,954	49.9%	Yes
Normal Saline	625	5.2%	Yes
Aspirin	595	5.0%	Yes
Nitroglycerin	354	3.0%	Yes
OTC Analgesic	311	2.6%	Yes
Anti-emetic	265	2.2%	No
Diphenhydramine	245	2.1%	Yes
Albuterol	128	1.1%	Yes
Anti-anxiety	62	0.5%	No
Morphine	43	0.4%	No
Epinephrine	39	0.3%	Yes
Dextrose/glucose	17	0.1%	Yes
Atropine	13	0.1%	Yes
Nalbuphine	12	0.1%	No
Other	103	0.9%	--
None	4,815	40.4%	--
Unknown	2	0.02%	--

Table S3: Contents of Emergency Medical Kits (EMK)

<u>Required contents of EMK<sup>1</sup></u>	
Airways, oropharyngeal	Analgesic, non-narcotic
Adhesive tape, 1-inch	Antihistamine, 50 mg, injectable
Alcohol sponges	Antihistamine tablets, 25 mg
CPR mask	Aspirin tablets, 325 mg
IV administration set	Atropine, 0.5 mg, 5 cc
Needles	Bronchodilator, inhaled
Protective gloves	Dextrose, 50% / 50 cc, injectable
Sphygmomanometer	Epinephrine 1:1000, 1 cc, injectable
Stethoscope	Epinephrine 1:10,000, 2 ml, injectable
Syringes	Lidocaine, 5 ml, 20 mg/ml, injectable
Tape scissors	Nitroglycerine tablets
Tourniquet	Saline solution, 500 cc
Manual resuscitation device with 3 masks	
Basic instructions on use of the kit	
<u>Additional contents of enhanced EMKs*</u>	
Burn dressings	Calcium chloride
Cord clamps	Diazepam
Disposable scalpel	Digoxin
Endotracheal tubes	Glucose gel
Emergency tracheal catheter	Furosemide
Glucometer	Lorazepam
Laryngoscope blade	Haloperidol
Steri-strips	Hydrocortisone
Thermometer	Meclizine
Tourniquet	Methylprednisolone
Urinary catheter	Metoprolol
	Morphine
	Nalbuphine
	Naloxone
	Promethazine
	Sodium bicarbonate

\*Additional contents of enhanced emergency medical kits are airline-specific and may exceed or deviate from the contents listed. This list includes contents in some kits of airlines that were involved in this study.

## REFERENCE

1. Policy AC121-33B - Emergency Medical Equipment. Federal Aviation Administration. 2006. (Accessed June 16, 2012, at [http://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/22516](http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22516).)