Anchorage Fire Department

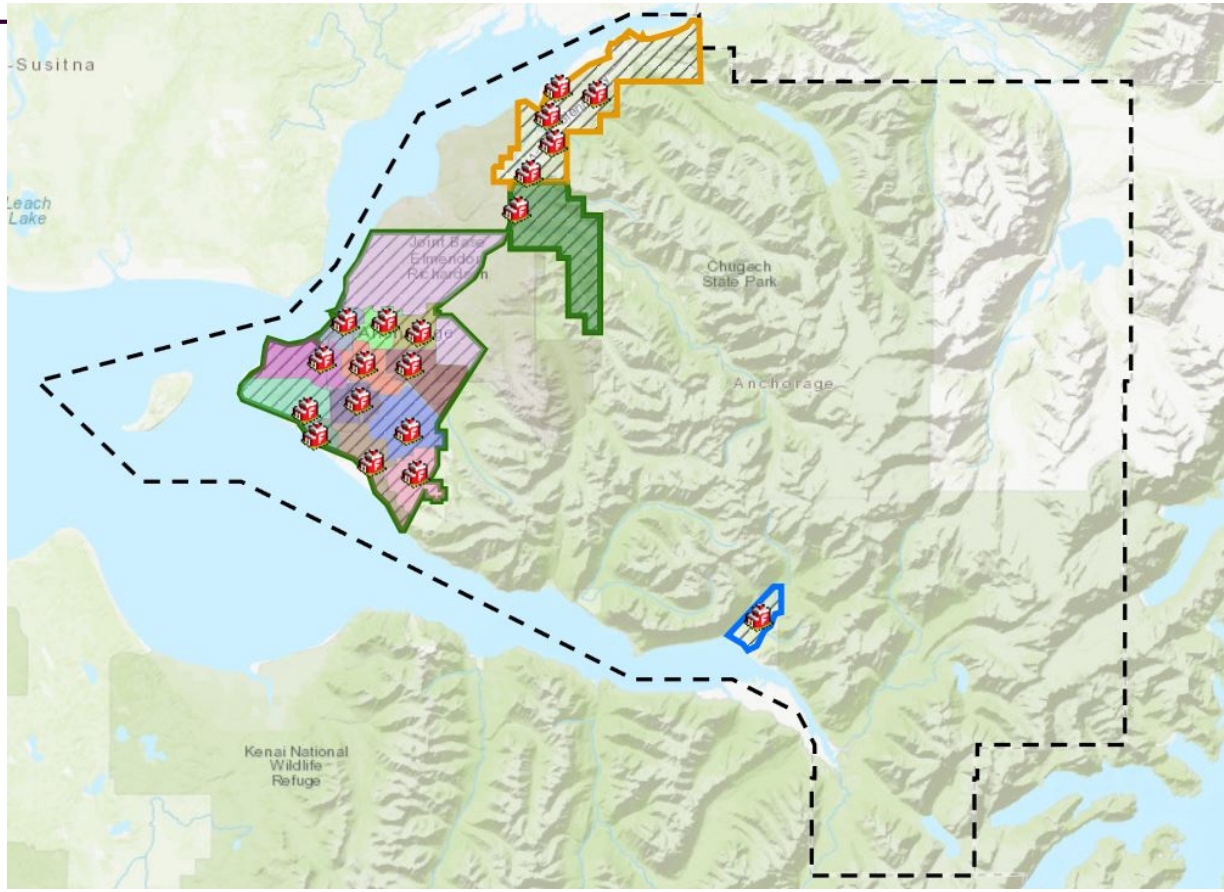
Emergency Medical Services

Erich Scheunemann, EMD, MICP (Assistant Chief)

November 9, 2017

AFD EMS Service Area

- 1,963 square miles
- Pop. 298,695 (2015)
- By ordinance, AFD has responsibility for providing EMS throughout the MOA
- Anchorage FD – 11 ambulances
- Chugiak VFD - 3 ambulances
- Girdwood FD – 2 ambulances
- AFD Dispatch – All 911 Fire/EMS in MOA except TSAIA and JBER (also dispatches LifeMed Ground Ambulance and ASP)



AFD Dispatch Inbound/Outbound Call Distribution

	2012	2013	2014	2015
Total Calls:	155,743	148,762	157,914	195,471
Inbound Calls:	118,327	118,426	128,670	159,035
(Landline)	102,828	103,758	113,637	139,679
(Wireless)	15,499	14,668	15,033	19,356
Outbound Calls:	37,416	30,336	29,244	36,436

AFD EMS Incident and Transport Numbers

Year	EMS	Change	% change	Transports	Change	% change
2010	19,894			14,022		
2011	19,555	-339	-1.70%	14,261	239	1.70%
2012	21,436	1,881	9.62%	15,934	1673	11.73%
2013	21,221	-215	-1.00%	15,867	-67	-0.42%
2014	20,718	-503	-2.37%	16,818	951	5.99%
2015	22,641	1,923	9.28%	18,670	1852	11.01%
2016	24,177	1,536	6.78%	19,358	688	3.69%
2017 YTD 7/31	14,819			12,036		
2017 Extrapolated	25,404	1,227	5.08%	20,633	1,275	6.59%
2010 thru 2016 Change	EMS Runs		21.53%	EMS Transports:		38.05%
2010 thru 2017 Change	EMS Runs		27.70%	EMS Transports:		47.15%

AFD Pediatric Transports

January 2015 – October 2017

- Pediatrics represents 3% of total transports
- Less than 1 Year: 234
- Age 1 – 5: 567
- Ages 6-10: 292
- Ages 11-15: 587
- Status 1: 40
- Status 2: 423
- Status 3: 1217
  - ALS Interventions – 986 BLS Interventions - 694

Primary Impressions (Chief Complaint)
January 2015 – October 2017

1. Traumatic Injuries and Pain (Trauma) – 476
   - Falls and MVCs most common MOI
2. Seizures – 349
3. General Illness - 148
4. Respiratory Distress – 135
   - Unconscious/ALOC - 89
   - Allergic Reactions - 84
   - Poisoning – 56
   - Behavioral/Psychiatric – 44

AFD Pediatric Training

- Paramedics are required to obtain 6 hours of pedi CME every two years (out of 120 total hours)
- EMTs are required to obtain 2 hours of pedi CME every two years (out of 48 total hours)
- AFD utilizes PEPP (Pediatric Education for Prehospital Professionals) as its standard pediatric training model. Full two-day courses offered multiple times each.
- AFD pediatric training content annually far exceeds licensure/certification requirements.

AFD Pediatric Protocols

Criteria Based Dispatching (CBD)

Dispatch Criteria

Medic Response

20M1	Unconscious/unresponsive: Listless, limp, difficult or unable to awaken
20M2	Able to awaken. Poor appearance: Blue lips, mottled, gray-white
20M3	Respiratory Distress (one required): • Unable to speak normally (work of breathing) • Sitting, standing or leaning forward to breathe (tripod)
20M4	Seizures: • Multiple > 3 per hour • Extended, seizing now, > 5 minutes
20M5	Medication overdose, confirmed ingestion < 30 minutes
20M6	Confirmed ingestion of caustic substance w/difficulty swallowing
20M7	Congenital defects/anomalies, or on ventilator
20M8	Illness/infection w/rapid onset (< 10 hours) with: • Dramatic decrease in LOC • Listless,limp or quiet • Drooling w/difficulty swallowing

BLS Red Response

20R1	Breathing difficulty
20R2	Seizure(s), no longer in seizure (any one): • First time seizure • w/history • w/fever
20R3	Medication overdose: • Unconfirmed • > 30 min since ingestion
20R4	Ingestion of caustic substances: • Unconfirmed • No difficulty swallowing
20R5	Not feeling well, non-specific symptoms or RP request for evaluation
20R6	• Confirmed choking on solid item, airway cleared

BLS Yellow Response

20Y1	Confirmed choking - expelled liquid item, airway clear - no other symptoms
20Y2	

Nurseline - TRP

20T1	Minor skin rashes
20T2	Ear ache/Teething
20T3	Temperature, Fever, Minor cold symptoms

Vital Points

Ask to speak directly to someone with the patient, if possible!

- Does the child respond to you?
- How does the child look?
- What is the child's skin color?
- Is the child having any trouble breathing?
- Was the child eating or did they have something in their mouth?
- Has the child had a seizure?
- Has the child been sick?
  - If yes, was it a rapid onset?
  - If yes, how long has the child been sick?
- Does the child have a fever or feel hot to the touch?
- Is the child drooling or having a difficult time swallowing?
- Does the child have any medical or congenital problems?

Note: Consider suspicious RP/abuse, check previous events history! Consider police response, especially if described mechanism does not fit severity of injury/condition.

Pediatric Emergencies

Pre-arrival Instructions

- Keep child calm.
- Nothing by mouth.
- If febrile seizure, loosen clothing to passively cool patient.
- Do not put child in water.

Short Report

- Gender
- Age
- Chief complaint
- Pertinent signs, symptoms and relevant history, if any

AFD Pediatric Protocols

Handtevy™ Prehospital System

Option 1 - USE ACTUAL AGE (IF STANDARD SIZED CHILD)
Option 2 - ESTIMATE AGE USING HANDTEVY LENGTH BASED TAPE (HEAD TO HEEL)

2YR

Anchorage Fire Department				12 KG IDEAL WEIGHT	
DRUG	**CONC**	**VOL**	**RT**	**DOSE**	**AMOUNT**
Adenosine (1st Dose)	3 mg/mL	0.4 mL	IV/IO	0.1 mg/kg	1.2 mg
Adenosine (2nd Dose)	3 mg/mL	0.8 mL	IV/IO	0.2 mg/kg	2.4 mg
Albuterol	5 mg/3mL	3 mL	NEB	Dose =	5 mg
Amiodarone (No pulse)	150 mg/3mL	1.2 mL	IV/IO	5 mg/kg	60 mg
Atropine (Bradycardia)	0.1 mg/mL	2.4 mL	IV/IO	0.02 mg/kg	0.24 mg
Atropine (Organo)	0.1 mg/mL	CMC	IM	Contact Medical Control	
Bicarb 8.4%	1 mEq/mL	12 mL	IV/IO	1 mEq/kg	12 mEq
D10W	25 g/250mL	60 mL	IV/IO	0.5 g/kg	6 g
Diphenhydramine	50 mg/mL	0.2 mL	IV/IO/IM	1 mg/kg	12 mg
Epi 1:1,000 IM	1 mg/mL	0.1 mL	IM	0.01 mg/kg	0.12 mg
Epi 1:1,000 NEB	1 mg/mL	3 mL	NEB	Max 5 mg	3 mg
Epi 1:10,000 IV	0.1 mg/mL	1.2 mL	IV/IO	0.01 mg/kg	0.12 mg
Etomidate (RSI)	2 mg/mL	1.8 mL	IV/IO	0.3 mg/kg	3.6 mg
Etomidate (Sed)	2 mg/mL	0.9 mL	IV/IO	0.15 mg/kg	1.8 mg
Fentanyl IN	50 mcg/mL	0.4 mL	IN	1.5 mcg/kg	18 mcg
Fentanyl IV	50 mcg/mL	0.2 mL	IV/IO	1 mcg/kg	12 mcg
Glucagon	1 mg/mL	0.6 mL	IV/IO/IM/SQ	0.05 mg/kg	0.6 mg
Ketamine (RSI/Sed)	50 mg/mL	0.2 mL	IV/IO	1 mg/kg	12 mg
Lidocaine 2%	20 mg/mL	0.6 mL	IV/IO	1 mg/kg	12 mg
Lorazepam	2 mg/mL	0.6 mL	IV/IO/IM	0.1 mg/kg	1.2 mg
Magnesium Sulfate	1 g/2mL	N/A	IV/IO	Not Indicated	
Midazolam IN	1 mg/mL	2 mL	IN	Dose =	2 mg
Midazolam IV/IM	1 mg/mL	1.2 mL	IV/IO/IM	0.1 mg/kg	1.2 mg
Morphine	10 mg/mL	0.1 mL	IV/IO	0.1 mg/kg	1.2 mg
Naloxone	1 mg/mL	1.2 mL	IV/IO/IM	0.1 mg/kg	1.2 mg
Normal Saline Bolus	0.9%	240 mL	IV/IO	20 mL/kg	240 mL
Ondansetron	2 mg/mL	N/A	IV/IO/IM	Not Indicated	
Rocuronium	10 mg/mL	1.2 mL	IV/IO	1 mg/kg	12 mg
Succinylcholine	20 mg/mL	1.2 mL	IV/IO	2 mg/kg	24 mg
Vecuronium	1 mg/mL	1.2 mL	IV/IO	0.1 mg/kg	1.2 mg

3 YEAR

EQUIPMENT	
BVM	Child or Adult
Blade	2 Straight
ETT Size	5.0 Uncuffed or 4.5 Cuffed
Stylet	10 French
Suction Catheter	10 French
ETCO2 (Colorimeter)	Adult
ETT @ Gum or Teeth	14 - 15 cm
OPA (Teeth to Angle Jaw)	60 mm (Size 1)
NPA (Nostril to Earlobe)	22 French
Air-Q	Size 2
i-gel Supraglottic Airway	Size 2
IV Catheter	18 - 22 Ga
EZ-IO Place needle on bone → 5 mm line should be visible before drilling	25 mm
NG Tube	10 French
Blood Pressure Cuff	Child

DRIPS (15 KG)			
DRUG	**CONCENTRATION**	**RATE**	**DOSE**
Dopamine 200 mg/5 mL	600 mcg/mL 3.75 mL (150 mg) + NS 250 mL	15 gtt/min Titrate to effect	10 mcg/kg/min 10 - 20 mcg/kg/min
Epinephrine Push Pressor	10 mcg/mL Epi 1:10,000, 1 mL (0.1 mg) + NS 9 mL	0.5 mL/min Max 10 mL	5 - 100 mcg Titrate to effect
Hydroxocobalamin Cyanokit	5 g/200mL Powder (5 g) + D5W 200 mL	42 mL Over 15 min	1.05 g 70 mg/kg
Norepinephrine 4 mg/4mL (Levophed)	16 mcg/mL 4 mL (4 mg) + NS 250 mL	3 gtt/min Titrate to effect	0.05 mcg/kg/min 0.05 - 0.1 mcg/kg/min

LIFEPAK	JOULES/KG	1ST	2ND	3RD	4TH
Defibrillation	2 → 4 → 4 → 4	30	70	70	70
Cardioversion	0.5 → 1 → 2 → 2	8	15	30	30

VITALS	SBP	76 - 115	HR	85 - 140	RR	22 - 30

AFD Pediatric Protocols
Perimortal Policy

AFD Policy

This section shall define AFD policy regarding situations that involve patients that have been determined to be beyond resuscitation. Included are guidelines and information pertaining to SUID, obvious death, those patients that do not respond to advanced life support resuscitation efforts, and expected home death/Comfort-One patients

It is the policy of the AFD to assume that a reasonable chance of resuscitation exists unless otherwise addressed in this document.

AFD Pediatric Protocols
Sudden Unexpected Infant Death (SUID)

AFD Policy

In recognition of CDC guidelines concerning death scene investigation for victims of SUID, it shall be the policy of the Anchorage Fire Department not to transport those patients under twelve months of age believed to have expired as a result of sudden infant death syndrome in circumstances when no resuscitation efforts have been undertaken.

AFD Pediatric Protocols
Comfort One/Do Not Resuscitate

AFD Policy

When AFD is called to respond to a confirmed expected home death or Comfort One patient, the closest resource will respond Code Yellow to confirm that the patient is without signs of life. If another call of an emergency nature is received, and the unit responding is the closest available, that unit will divert to the emergency call and the next closest resource will be dispatched to the original call. It is the responsibility of the EMT or MICP to assess the needs of the family for emotional support and ascertain whether logistical assistance in dealing with the deceased is required. A Chaplain may be contacted through AFD dispatch to assist the family or caregivers of the patient at the discretion of the EMT or MICP.

AFD Pediatric Protocols

Safe Surrender of Infants Policy & Procedure

	Section 100 Administration		Policy & Procedure
	Safe Surrender of Infants	Number	**100-43**
		Created	02/25/2008
		Revised	10/23/2017
		Page	1 of 3
Owner	J. Hettrick, Deputy Chief	Steward	E. Scheunemann, Asst. Chief
Approval	D. LeBlanc, Fire Chief		/ /

Purpose

This document establishes organizational procedures for accepting an infant being surrendered under the auspices of the "Safe Surrender of Infants Act."

Policy

The Anchorage Fire Department (AFD) shall accept infants abandoned in accordance with the Alaska Safe Surrender of Infants Act to ensure infants who are abandoned can be done so in a manner preventing harm or risk to the infant.

Contents

AFD Pediatric Protocols

Mandatory Reporting – Child Abuse and Neglect

State of Alaska Mandatory EMS Reporting Requirements

Suspected Child Abuse or Neglect (SCAN)

- SCAN must be reported under AS 47.17.020-290.
- EMTs and paramedics are considered to be required to report child abuse:
  - Under AS 47.17.020-290 a report of a suspicion of child abuse or neglect should be made directly to the Office of Children's Services of the Department of Health and Social Services (OCS).
  - If you can't reasonably contact OCS, a report must be made to the nearest law enforcement officer.
  - Notifying the Medical Director, Chief Medical Officer or the receiving facility is not sufficient to comply with the reporting requirements.
- The form that shall be used is called Child Abuse Neglect Form.doc and is located at AFD Sharepoint website in "AFD Forms" under "EMS Forms."
- The Child Abuse Neglect Form.doc shall be completed immediately following the event and faxed to: (907) 269-3939.
- The electronic document shall be stored with the accompanying ePCR, or hard copy of the report submitted to the AFD EMS Billing Office.

AFD Community Risk Reduction Programs

- AFD Child Passenger Safety Seat Program partnership with Safe Kids Alaska began in 2004
  - 66 certified CPS Technicians, including 4 instructors, on staff (25% of CPS Techs in Alaska)
  - Hosted a minimum of 3 Safe Kids Alaska CPS checkup events annually at Department sites or events such as the AFD Open House (36+ events in 12 years)
  - Reported more than 1,361 individual car seat inspections at AFD fire stations in the past 9 years (2008-2016)

AFD Community Risk Reduction Programs

- Anchorage Bike Helmet Project partnership with Safe Kids Alaska began in 2006
  - AFD fire stations serve as the primary helmet fitting, education, and distribution points to children and teens from families without the resources to provide helmets
  - The Anchorage Bike Helmet Project has fit and distributed more than 30,000 bike helmets to children and teens since 2006

AFD Community Risk Reduction Programs

- Fire Education and Prevention
  - Every October, AFD crews will visit schools, daycares and other facilities to provide direct fire safety education and drills to children of all age groups
  - Groups tours of AFD fire stations throughout the year
- “Every 15 Minutes” Events
  - AFD crews attend high school events designed to demonstrate to teenagers the potentially dangerous consequences of drinking alcohol and texting while driving

AFD Community Risk Reduction Programs

- "Walk This Way" Events with Safe Kids Alaska
  - Child pedestrian safety events at local schools
- Public Service Announcements
  - Fire and injury prevention and education PSAs released regularly via website, social media, local media outlets

AFD Community Risk Reduction Programs

- Prescription Medication Disposal Bags
  - All AFD fire stations, ambulances and fire apparatus carry Project HOPE disposal bags available to the public
- Project HOPE Opioid Rescue Kit Replacements
  - All AFD ambulances and fire apparatus carry a Narcan overdose kit to replace kits used by civilians prior to AFD arrival

Questions?

Email: ScheunemannEA@muni.org