



On the Line



Our Core Values: Pride, Respect, Duty, Unity, Integrity and Compassion.

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Upcoming Events

September

National Preparedness Month: Is your family ready for a disaster?

September

The City's "Grill & Chill" event— free lunch 1100-1300 hrs.

September 10th

FireHouse Medic Demo—Sta. 42 @ 1500 hrs.

September 11th

Annual breakfast in recognition of 9/11-Machine Shed @ 0700

September 14

American Legion Appreciation Dinner—Refreshments @ 1700—dinner at 1730 hrs.

September 24th

Lion's Club @ 42 to cook pancakes for us!

October 5-11 Fire Prevention Week:

10/7/15 – Delivering Fire Prevention activity with **Papa Johns** and **Safe Kids Iowa**, 1700-1900

Open House is 10/10/15—1100—1400 hrs.

SEPTEMBER 11, 2001

Where were you when the world stopped turning?

UFD statistics for August

Calls for service: 285 YTD: 2,077

Average response Time – All incidents: **6 minutes and 22 seconds**

Average response Time – **Emergency** incidents: **6 minutes and 12 seconds**

Emergency Medical Service calls: 202

Average Response Time EMS: 6 minutes and 11 seconds

Emergency: 5 minutes and 40 seconds

Non-Emergency: 6 minutes and 30 seconds

Fire related calls: 83

Average Response Time Fire: 6 minutes and 49 seconds

Average turnout per fire incident: 6 people

We **received mutual aid four times**— two times for fire calls and two times for EMS calls.

We **provide mutual aid 14 times**— ten times for fire calls and four times for EMS calls.

Types of Fire Calls

The 83 fire calls we had in August fall into the following categories:

Fire / Explosion:	8
Hazardous Condition:	6
Service Calls:	5
Good Intent Calls:	20
False Calls:	42
Over Press./Heat:	2

SEPTEMBER IS NATIONAL PREPAREDNESS MONTH

AMERICA'S PrepareAthon! Ready

Birthdays!

Dr. Travis Kain	Sept 11
Kyle Bissell	Sept 19
Jerry Holt	Sept 25



Time and time again it seems that we must re-learn lessons from the past. The old quote attributed to Edmund Burke states it well. "Those who don't know history are destined to repeat it." Perhaps it is something as easy as learning from the mistakes of others by reviewing a case study that helps keep us safe. A good example is the Hackensack fire of July 1, 1988 where five firefighters lost their lives. If we don't learn from those mistakes, we are certain to repeat those mistakes. In Hackensack, the fire service as a whole learned a great deal. We saw their mistakes, we watched the horrible outcomes and because we saw what went wrong, we learned what to do to avoid the same mistakes and improved our operational safety. We became smarter and avoided making the same errors.



Eventually, someone falls through the cracks of the fire service, somehow missing or forgetting the lessons of those who have gone before. The risk of failing to learn from the past is very real. Every time I see firefighters entering through an unsecured garage door, I get chills. Have they not seen the videos? Are they not aware of just how much smoke and gas is venting through that opening? Or how about my personal favorite risky operations that are often performed dangerously, roof operations? In this classic scenario, firefighters are sent to the roof for ventilation operations. Most often they are properly attired in PPE including SCBA. They have the proper tools including working from a roof ladder. So what's the problem? Simple, there are often too many people on the roof!

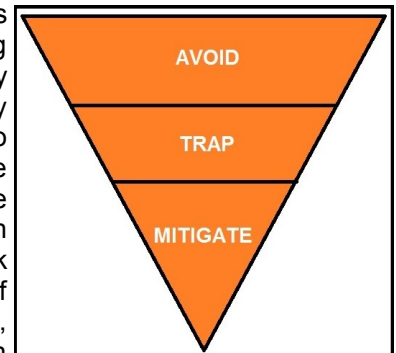
I don't know what it is but firefighters seem to love to be on a freshly opened roof. It is even better to them if they were part of the team that opened the roof! So what's the problem with that? If two people are needed to open the roof, there is no need to have more than two people assigned to the task. I'm not arguing the numbers needed. If you believe that you need five people to open a roof, then so be it but there is no justifying six people if you say five will safely work. The more people assigned, the greater the risk of one or more of them being injured. Basic risk management should cause one to send the least number of people that are needed to safely do the job. More people means more weight, more fingers and toes, more lungs, more everything. When something goes wrong, there are "more" things to be injured. Keep the number of personnel in the hazard zone to the lowest number needed to safely do the job.

Another roof operation problem that seems to be in no shortage is what firefighters do once they have opened the roof. How many times have you seen firefighters stay on a roof and enjoy the show after they have created an opening? There they are, mission accomplished and fire is often blowing out of the hole and there they remain. It is as if

they are thinking "Behold, I've created the perfect hole!" Yay! Good for you, now get off the roof! There is fire below you and there is no reason to stay on the roof. Your mission should be to get off the roof as soon as possible.

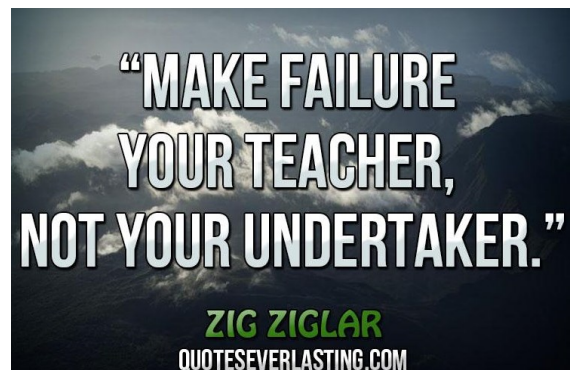
It is simple error management. Avoid, trap, mitigate. Avoid errors, easy to say but we know people will make errors. But by having a high level of proficiency, following SOGs, minimizing distractions, focusing on the task assigned, and maintaining situational awareness, we will do our best to avoid errors. Knowing that there will always be errors, the next step is to trap them. By having layers of redundancy, we can catch errors and keep them from resulting in an accident. Multiple "layers" or "barriers" give us

the best opportunity to "trap" errors – think CRM! And last but not least, mitigate the effects of the error. This can be done by assuring everyone is properly wearing PPE, that they are well trained, etc. so that if an error does cause an accident, we have done everything we can to mitigate (think "minimize") the effects of the error. (seatbelts, wearing a helmet when people are working above your head, etc.)



Error Management

There are many operational lessons that we can learn from. Many great people have unfortunately paid a great price and the true tragedy is if the rest of us don't learn from their mistakes and we end up making the same mistakes. In fact, I believe that every incident, no matter which fire department responds or the outcome provides an opportunity to learn and become better. No one is perfect and there are lessons to learn on each call. Someone paid for the lesson – it would be a shame not to capitalize from their expense.



Prevention & PubEd Updates - Fire Marshal Jon Rech

There's a lot of stuff going on in the city right now. Commercial and residential construction continues at a steady pace. Here's a summary of some of the things going on right now and what we can expect in the near future related to PubEd and construction:

PubEd

Fire Prevention Week (FPW) is the week of October 5th. We will be hosting our Open House at St.41 on Saturday 10/10 from 1100-1400. If you would like to help out please let me know. NFPA's theme for FPW this year is "Hear the Beep Where You Sleep."

Construction

Merle Hay & Aurora – A new Discount Tire store will be built at the north end of the parking lot across from Dunkin Donuts



Karen Acres Elementary – an expansion of the school and total remodel of the existing building will start this fall.

Plum Dr. – the Hampton Inn is underway

NW Urbandale Dr. & Aurora – a couple office buildings are under construction

103rd & Justin – Probioferm is building a 20,000sqft production facility. This company makes food additives and related supplements.

Homemakers – the new warehouse on NW Urbandale Dr. is finally underway. Instead of doing an underground tunnel below the railroad tracks to connect this new warehouse and the existing one on Douglas they will be doing a bridge over the railroad which the conveyor system will travel over. We will be doing crew visits to this building as the construction progresses.

Villa Lodge – demo work has started at Villa Lodge. This building and the old Dragon House restaurant will be going away so new development can take place on the sites. The structural issues with the roof at Villa Lodge remain and crews should still not be on the roof in the event we would have an incident there.

Deerfield – they are converting lower level and first floor units of the north wing into assisted living/memory care. They are also going to be remodeling the main entrance and dining room areas. Phase 2 will involve the construction of a wellness and multi-purpose center at the east end of the building.

128th – the 17,000sqft house on 128th is in the process of getting the drywall installed. We will do another visit within the next couple of months so the crews can get a better perspective of the house and layout. We will also discuss other operational issues that large homes like this create.

142nd & Hickman – The CVS Pharmacy is underway. There are also several new houses that are in this area around the

CVS Pharmacy. The road construction will continue for a while longer.

142nd & Douglas Pkwy – three new 8-unit condo buildings are under construction.

Residential West of 142nd – lots of houses being built – and a lot of big ones. We currently have 6 that are getting fire sprinklers because of their size. But, we have many others in the 7,000-7,999. It's amazing the amount of time, effort, and ironically money that some people put into redesigning a house just to try and avoid the fire sprinkler requirement. Most of the new developments are up on Waterford Rd. west of 163rd St.

156th & Meredith – A new development is planned that will incorporate 3 apartment buildings and a few commercial buildings behind and to the south of the Kum & Go.

Solar Panels – Medicap Pharmacy at 8170 Douglas is beginning a solar panel installation on the roof of the building. As the installation progresses we will update UFD staff with some of the things to look out for on installations such as this. It also looks like we have a few houses that will be adding solar panels. One of the homeowners is willing to allow us to take a look at the installation once completed for training purposes.

Safety Tip: Caution—School is Back in Session!

Another summer comes to a close and school has started. Please be aware of the kids coming and going to school, and around school grounds. Also



– even if you are driving emergent, if you approach a school bus with its lights flashing and the stop sign out, you must STOP and shut down your lights and sirens until they turn off their red flashing lights and pull their stop sign in. From our Policy & Procedures: **All vehicles shall stop for school buses that are loading or unloading people or with the red lights flashing where the vehicle would be required to stop by law. While waiting, the use of audible devices should be discontinued. Vehicles may proceed only when visually indicated by the school bus driver and shall use extreme caution.** Everybody is watching - all the time—check out this video:

http://www.firerescue1.com/firefighter-safety/articles/3032860-Video-Fire-Lt-drives-around-stopped-school-bus/?utm_source=3032957&utm_medium=email&utm_content=TopNewsRelated2Title&utm_campaign=FR1Member&nid=3032957

What the Research Says: RSI, part 2 – Michael Kaduce

Paralytic drugs are the essence of rapid sequence induction however with their pharmacological properties come adverse effects. Adding succinylcholine to an RSI protocol offers the ability to intubate a patient who is not reacting to the intubation stimuli, however the patient is also not reacting to the dangers of hypoxia. Succinylcholine is a well-documented drug and “what the research says” offers insight into considering its use for patient care.

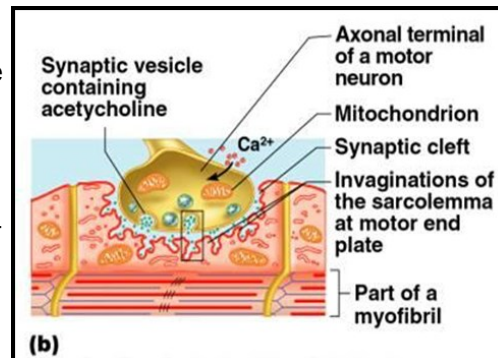
Succinylcholine is a short acting depolarizing skeletal muscle relaxant used to induce skeletal muscle relaxation and facilitate management of patients undergoing mechanical ventilation. To understand what this drug is doing, it is key to remember what is happening to muscles when functioning normally. The motor end plate, or neuromuscular junction is where a motor neuron meets the membrane of a muscle fiber. When stimulated by calcium, the neuron releases vesicles of acetylcholine or other neurotransmitter into the gap between the neuron and muscle. The neurotransmitter then binds to its respective receptor site on the muscle fiber membrane called the sarcolemma. In the case of acetylcholine, the receptor site it binds to is the nicotinic receptor and upon binding causes a cascade of effects leading to calcium driven depolarization or muscle contraction. The neurotransmitter is quickly cleared away by an enzyme such as acetylcholinesterase which allows the muscle to receive the next signal (Sine, S. M. 2012).

In the case of succinylcholine, this normal pathway is altered for the benefit of paralysis. Succinylcholine binds to the nicotinic receptors in the motor end place producing depolarization of the muscle just as acetylcholine does. However succinylcholine is resistant to breakdown by acetylcholinesterase and stays bound to receptor sites longer. This continual binding leads to the fasciculations that can be seen shortly after administration. If the administration of succinylcholine causes muscle contraction, why then is the patient going to be flaccid, allowing for easier endotracheal intubation (National Center for Biotechnology Information)?

This goes back to normal muscle contraction and the stimulation of the sarcoplasm with calcium. In normal muscle contraction, the calcium causes the muscle fibers to contract and is then cleared away. Succinylcholine does not affect this calcium clearing and thus once the initial contraction has occurred the muscle relaxes again. The succinylcholine is only working at the receptor site which leaves the muscle to function normally. The only change is the ability to cause contraction which has been blocked by the paralytic. This is why the patient is paralyzed but is in a state of flaccidity not tetany. Another benefit is succinylcholine has no direct effects on the uterus or other smooth muscles. (National Center for Biotechnology Information).

The first question being raised when discussing succinylcholine should be is there a need for the paralytic or RSI.

There is a great deal of data available that compares the success rates of intubation based on provider level and setting. However less so much on exact drug



usage compared with success rates. One published study in the *Prehospital Emergency Care* journal reviewed intubation success using only etomidate and etomidate plus succinylcholine. Their study reviewed multiple factors including laryngoscopy conditions, age, gender, and intubation difficulty. The results showed a 25% success rate of intubation with etomidate only and a 92% success rate with succinylcholine plus etomidate. The latter group of both drugs was also found to have had better laryngoscopy conditions and the patients were easier to intubate following medication administration (Bozeman, W. P., Kleiner, D. M., & Huggett, V. 2006).

Once it has been established a paralytic is worthwhile, there are many reasons why intubation with a paralytic may be used. One of the most researched includes patients suffering from a traumatic brain injury. These patients are often the most critical and most difficult to manage in EMS as there can be a lot that needs to get done in a short period of time; including the consideration of rapid sequence induction. A study published in the *Annals of Surgery* in 2010 compared outcomes of patients intubated pre-hospital and in-hospital. Their results found a 97% success rate of those intubated pre-hospital with RSI and found an increase in the rate of favorable neurological outcomes at six months compared to those intubated in the hospital (Bernard, S., Nguyen, V. Cameron, P. et al. 2010).

One major concern of those licensing and administering succinylcholine for the use of airway control is the risk to the patient of unsuccessful intubation and whether or not that leads to an increase in mortality. Failing to intubate a patient who is paralyzed or failing to recognize a missed intubation have to be a key part of any implementation plan. However beyond that, is simply manually ventilating a patient who was not successfully intubated going to lead to any future deficits? A study out of Ryder Trauma Center in Miami, Florida looked at just that. They compared some 1320 patients who had emergency airway interventions performed of which 203 were intubated pre-hospital. The study looked at outcomes of those patients who were intubated successfully and how they compared to those who were not intubated successfully. The study found no differ-

See “RSI: What the Research Says, part 2” *continued on the next page...*

ence in mortality between the two groups and cites support for bag-valve-mask for airway management of critically ill trauma patients whom intubation could not be achieved (Cobas, M. A., De la Pena, M. A., Manning, R., Candiotti, K., & Varon, A. J. 2009).

Adding a paralytic like succinylcholine can offer many benefits to patient care but also require the providers are up to date in skills and clinical competency. While the benefits are very well researched, so to are the side effects and adverse reactions. Using past practices and documented trials, “what the research says” can help improve patient care and successful outcomes.

References:

Bernard, S. A., Nguyen, V., Cameron, P., Masci, K., Fitzgerald, M., Cooper, D. J., ... & Judson, R. (2010). Prehospital rapid sequence intubation improves functional outcome for patients with severe traumatic brain injury: a randomized controlled trial. *Annals of surgery*, 252(6), 959-965.

Bozeman, W. P., Kleiner, D. M., & Huggett, V. (2006). A comparison of rapid-sequence intubation and etomidate-only intubation in the prehospital air medical setting. *Prehospital Emergency Care*, 10(1), 8-13.

Cobas, M. A., De la Pena, M. A., Manning, R., Candiotti, K., & Varon, A. J. (2009). Prehospital intubations and mortality: a level 1 trauma center perspective. *Anesthesia & Analgesia*, 109(2), 489-493.

National Center for Biotechnology Information. PubChem Compound Database; CID=5314, <https://pubchem.ncbi.nlm.nih.gov/compound/5314> (accessed Aug. 20, 2015).

Sine, S. M. (2012). End-plate acetylcholine receptor: structure, mechanism, pharmacology, and disease. *Physiological reviews*, 92 (3), 1189-1234.

RSI



- There will be a demo of FireHouse Medic software on September 10th @ 1500 hrs.—Station 42. This software is being evaluated for paperless PCR that could be completed during the call and immediately afterward—eliminating the need to re-enter your work back at the station. **Everyone is welcome to attend and checkout this potential new software.**
- The next meeting with the Chief will be September 30th @ Station 42—1400 hours. Be sure to have your agenda items to the Chief no later than 24 hours before the meeting.
- The preparation for the Capital Improvement Projects is underway. There were no CIP proposals received and there are no new CIP plans being submitted for the FD. The current CIP items for the FD will be moving forward to the CIP Committee. (Continued funding for the preemption project, Station 43 Construction, Replacement of E411 and new engine for the station 43)
- The budget process will be starting soon. If you have items that you want to have considered, they need to be submitted through your supervisor by October 1st. Any submission should include justification and include any and all cost including any savings or on-going expenses so that it can be carefully considered.
- September 11 will find us having the annual memorial breakfast. This year’s event will be held at the Machine Shed at 0700. C-Shift is on duty this year—everyone is invited. No speeches, no program, just a time for brotherhood and to reflect on those who made the ultimate sacrifice on 9/11. If you plan on attending, please let the Chief know by 9/8/15 so we have enough seats reserved.
- Work continues on the “UFD Uniform and Ceremonial Guide” and the committee has worked their way through the first draft. It is hoped that we can wrap up the effort on this project by the end of September or early this fall at the latest.
- City’s “Chill & Grill” lunch...Sept. 9—from 1130—1300 hrs.

**Last Safety Incident:
As of September 1st**

- 1** days without a safety incident
- 1** days without a lost time injury



Last incidents:

- 5/2/15: While attempting to park the ambulance near the curb and between two parked cars, we struck a vehicle’s front bumper with the exhaust pipe of the ambulance
- 6/9/15: Plywood fell on a firefighter while working overhead
- 8/26/15: Ambulance 413 struck a mailbox damaging the mailbox
- 8/29/15: Injured knee on the scene of a vehicle fire

ON THE LINE

Other programs/training/projects completed by UFD in August

Training Report: **624 hours** of training were completed in August.

Fire Training: 365 hours

EMS Training: 259 hours

Prevention & Inspection Activities:

- ◆ Completed 40 inspections
- ◆ Completed 38 re-inspections
- ◆ Completed 6 preplans
- ◆ Conducted 13 plan reviews
- ◆ Conducted 10 Car Seat checks
- ◆ Conducted public education for **1,481** people (774 children & 707 adults)
- ◆ Replaced **13** smoke detectors and 5 smoke detector batteries
- ◆ CPR classes for 18 people



“YOU’VE BEEN CAUGHT DOING AN OUTSTANDING JOB” LETTERS...

We continue to recognize your efforts. Whenever we receive a thank you letter, card or a phone call, we pass that along to the people involved in the form of a “You’ve Been Caught Doing An Outstanding Job” letter. As of September 1st, we have sent 119 notices to our personnel. The following people received “You’ve Been Caught” notices since our last newsletter:

Lt. Routson, Michael Kaduce, Matt Linge, D/E Stiles, and Cody Nicely-Green: While working a block party, the crews noticed that a homeowner had cut down a limb in the yard. While waiting for the Block Party to get going, the crew took it upon themselves to put most of the limbs in a yard waste bag. The remaining limbs which were too big for the yard waste bag was stacked up for the homeowner. Our crew could have simply ignored this task and no one would have thought any less of them but they exceeded the expectations by identifying a task that needed to be done and getting it done – once again exceeding expectations. I am not even sure that “exceeding expectations” is an accurate statement...there are no expectations for our crews to do what they did here and that’s what makes it such a big deal – they did it anyway. The homeowner bought three large pizzas for the group’s efforts!

Lt. Wilson, D/E Erie and Ross Budden: We received a \$100 donation following a smoke detector request. The homeowner, Phyllis Berry of 4112 64th was advised that she needed new smoke detectors and CO detector. She purchased those and called us back to install them for her. Following the installation, she provided us with a donation of \$100. As always, no donation is solicited or required yet she still wanted to provide this for us!

Lt. Miljkovic, D/E Stiles, D/E Erie, Lt. Routson, Josh Boyle, Andrew Klenk, Cody Nicely-Green, Cody Oberfoell and A/C Lyon: We received a thank you card following a fire call at 15721 Walnut Meadows Drive. The card was written by the child of the homeowner and reads: “Dear Fire Department, My name is Ellie Casler and I am going into the 7th grade. I would like to thank you for your action. You do way more than you think. You guys are my heroes. Thanks again. Your friend, Ellie Casler & the Casler Family”

Thanks to all of you for providing outstanding service!!

Member Profile...

Member Profile: Brent Conklin

Length of time with Urbandale Fire Dept: 1 Month

Level: PT FF/EMT

Why I was interested in Urbandale Fire: A progressive department with a great reputation

Previous EMS and Fire experience: Firefighter EMT in southern California for 12 years prior to coming to Iowa.

Family Life: Married to Erica for 9 years. We have 3 children: Morgan is 3, Reece is 6, and Piper is 3.

Profession: I'm hoping to make the fire service my profession in Iowa.

Activities and hobbies I enjoy: Family stuff, anything outdoors, and helping the family farm.

Most memorable moment with UFD: The two week academy was a lot of fun. Everyone here at the UFD has been just great.

Most memorable moment outside of UFD: The birth of my 3 kids.

Favorite TV programs: Anything on ESPN

Favorite movies: Airplane, The Natural, Wedding Crashers, Field of Dreams

Last book that I read: Conversations with Major Dick Winters. Life Lessons from the Commander of the Band of Brothers

Personal goals: Hopefully obtaining a full time position with the UFD.

Words of advice for someone new getting into EMS or Fire: Don't give up. It's a grind, but the job is well worth the effort.

What I enjoy about the Urbandale Fire Dept: The ability to think outside the box and try new things in the fire service. Also, the people in the department are great.

Favorite Quote: The only man who never makes a mistake is the man who never does anything. Teddy Roosevelt



The patch colors: **The color Red** - symbolizes the life and continued growth of our FD. **Gold trim** - symbolizes that Firefighters, like gold, will withstand trial by fire and still remain. **Black background** - represent the foundation built by our past members and we will never forget all they have given in the line of duty.



Our Mission is to preserve life, protect property, and promote safety through education.

Our Core Values: [Pride](#), [Respect](#), [Duty](#), [Unity](#), [Integrity](#), and [Compassion](#).