

The Central Line

A NorthStar Publication

Snowmobiler through the ice, are you ready for that call?

Part 1: Cold Weather Call Preparation

By Dennis Kerrigan

Within just the past week we have had several immersion hypothermia incidents around the state, one incident involving 2 victims of a boating related fatality and a near – drowning, and another incident involving a fatal motor vehicle rollover into a partially frozen pond during the height of the recent snowstorm. As I write this article, the hunter lost for 2 nights near Tumbledown Mt. is being Lifeflighted out from Avon. And given the thin lake ice conditions, now blanketed with a thick layer of snow that will further insulate and conceal suspect ice, we will likely have a snowmobile in the water somewhere in our response area before safe ice thickness depths are acquired. These high risk incidents prompt a review of immersion hypothermia related issues of clothing, preparation and scene size-up and access concerns. Next month we'll review immersion hypothermia and treatment concepts.

Ignorance of the unique hazards of water, in both its liquid and solid states, remains a formidable killer of the unprepared, both for victims and rescuers alike. The above mentioned incidents involved significant frostbite and hypothermia issues for the rescuers, recognizing that even the most skilled technician will likely be unable to start an IV or successfully intubate a critical patient if the provider is hypothermic and frostbitten. So, following the rescue adage of "go slow... to go fast", any call for a water or ice related rescue incident demands some thorough pre-planning and preparation prior and subsequent to the tone call out. There's a saying that goes "if you don't have the time to do it right the first time, how are you going to find

the time to do it right the second or third time?" This certainly applies to the time spent doing initial hazard assessment and resource mobilization, based on dispatch call information. An 'all hazards' assessment and an 'all call' request for both equipment and personnel resources needs to be started very early – before you bolt out the bay doors with a well intentioned, but often misdirected adrenalin driven 'need to rescue'. Remember, 'it's the victim's emergency', hopefully not to become yours as a rescuer. A general knowledge of what snowmobile, ice rescue, and water rescue resources are available, and where to begin staging them, will be critical command functions early in the mobilization phase. Efficient radio / cell phone coordination and communication with dispatch and responding fire units is equally critical. "Save your radio batteries and your reputation" is an important communication pearl when emotion and urgency adversely affect radio hailing protocols. Mobilizing both boat and ice rescue resources are generally warranted in this seasonal period of transitional ice conditions. PPE needs include vest type PFD's (life jackets) and appropriate hybrid-type (multi – use) rescue helmets for all responders working in and near the incident site, and snowmobile helmets and insulated suits if access is via snowmobile. "Gumby" water rescue suits or dry suits are a must for in-water rescuers trained in their use, as are throw bags and any specialty rescue equipment like the "Rescue Alive" ice rescue sled or fire hose inflation systems. The technical water rescue equipment resources are generally provided by the response area Fire departments, or by mutual aid

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December Birthdays

- ◆ Barry London
- ◆ Don Cornelio
- ◆ Don Salm
- ◆ Steve C. Grant
- ◆ Jeremy Manzer
- ◆ Pete Boucher

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Director's Notes

By Dave Robie

As we close another year in the NorthStar book, we should take this opportunity to look back on the past 12 months to see what we have done.

- ◆ Aside from the over 110,000 hours of scheduled (and unscheduled) crew time from our outstanding Full/Part/PRN staff, we, as a service have done some pretty significant things (and some small things that also count).
- ◆ Remember the Transfer pager? Livermore to Sugarloaf to Livermore to Farmington where it finally found a home. Along with some schedule changes moving the 52 truck to Farmington to be re-christened 33.
- ◆ New and improved ambulances - #18 to Farmington, #19 to Farmington, #20 to Sugarloaf. Do you know of any other Maine system that took three "new" ambulances in a single year?
- ◆ Sugarloaf's 'hijacked' 2222 number was changed to 2228. People still find the crew, through.
- ◆ First ever Skills Competency Days in February. A very successful start of an annual tradition. Great plans are being made for February 2008! And, the highest NetLearning completion ratio in the hospital for a large department.
- ◆ New equipment... EZ-IO, Capnography, SLIPP Sheets, CPAP, GPS units, Nitrous Oxide introduced. Real proven life savers
- when used by professional NorthStar staff.
- ◆ Field Bridge E-Run sheets on a tablet in selected trucks. Turned off the default narrative leading to MUCH better documentation.
- ◆ New PIFT rules introduced with 100% Paramedic training and compliance. NorthStar recertifies as a PIFT service.
- ◆ Revised firefighter rehab protocol developed by NorthStar/Farmington Fire crews.
- ◆ Early Medicare audit for billing – dismal compliance. New Medicare documentation process implemented (and tweaked) at mid-year. Led to 99.95% compliance. But watch for new EMT signature requirements due in January.
- ◆ Another successful Western Mountain EMS Conference and, in the same month, a great EMS Week celebration.
- ◆ Widely acclaimed Mock OUI crash scene in Rangeley.
- ◆ EMS Memorial Bike Ride. Rangeley's Summer Ice Cream Reward program. Bike Team Leadership transitions from Blaine to Carl.
- ◆ HeartSafe Community (Gold Level) Award given by the State of Maine for NorthStar's cardiovascular and stroke prevention/education efforts
- ◆ NorthStar qualifies to open CMMC's Cath Lab with the highest 12-Lead reading scores on record.
- ◆ Seven Basics promoted to Intermediate. Six new WEMTs, ten recerted. Half of all NorthStar staff is "W". And two newly minted paramedics.
- ◆ Dean Robinson hurt in the line of duty. **Fully recovered, thank goodness.**
- ◆ Farmington Fair week went by without a blip thanks to smooth planning and execution.
- ◆ Sponsored a First Responder Class for the Rte 27 corridor towns. Graduated 19.
- ◆ Case reviews through interactive TV at FMH and two remote sites. The technology of the future.
- ◆ The Livermore Base lot finally got paved. Here's to you, Cleon.
- ◆ "Graduated" two more Ameri-Corps members.
- ◆ Reintroduced the House Calls program. Planning for Operation Santa Claus.
- ◆ NorthStar Lifeline celebrated its one-year anniversary with business ever increasing.
- ◆ Mike and Felicia (and Cory and Wade) take on different assignments to better manage our far-flung domain. And some internal promo-

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Cold Weather Response (cont.)

agreements with adjunct Fire service response. But Fire services rarely have enough PPE for both fire and EMS personnel, besides those required to support the needs of hypothermic victims, often resulting in PPE being under - supplied at a water or ice rescue incident.

Personal clothing needs to include multiple water tolerant layers of fleece and / or polypropylene as well as insulated waterproof duty boots or 'Sorrel' type pack boots. A wind shell / parka and wind pants should make up the outer clothing layer. Leave your duty uniform and any cotton clothing ('cotton kills) in the rig to change back into later if necessary. Hands and feet are particularly vulnerable on winter calls, so I recommend buying some inexpensive neoprene ice fishing gloves from Wal-Mart or Reny's. Double gloving with Nitrile, worn underneath the neoprene gloves, helps provide added vapor barrier layers, and then a nylon or rubberized shell mitten worn over the neoprene gloves gives critical wind protection. Similarly, thin neoprene socks can be worn against the foot under thick polypro / wool socks. Nylon lower leg gaiters will help keep snow out of your boots and socks, and a thin 'skull cap' type neoprene hat can be worn under a rescue or snowmobile helmet for added thermal 'squash' insulation. Extra pair of thinsulate gloves, balaclava type hat, and wool blend socks to change into if (when) your primary pair gets wet are what may save your hands, feet and ears from frostbite. Or they can be used to support the victim's temperature stabilization. Remember the priority of whose gear gets preferentially used / trashed at a back-country scene – first the victims, then the gear of other buddies of the vic-

tim, then the companies gear (Dave Robie might suggest putting that lower on the list!), then other rescuers, and then lastly my own gear! Every NorthStar provider should come to work this time of the year with the clothing expectation of needing to be self-sufficient 'out in the elements' for a minimum of several hours, to include a small backpack containing the above mentioned clothing items plus some high energy food, (i.e. trail mix), water (insulated hydration bladder bags are great), headlamp and spare batteries (cold temps will cut battery life in half), hand warmer packets, fire starter source, etc. Realizing that winter calls demand that we share the same inhospitable environment as our patients; how prepared we are, or not, to work safely in the environment will ultimately determine the success or failure of a winter rescue operation.

Scene and patient access issues can be equally hazardous, putting rescuers at significant risk of becoming additional victims. "Don't go where you don't know" is the scene safety mantra critical to preventing additional victims. If an immersion victim is surface accessible, the first victim based priority is stabilization. Throw the victim a life jacket (tied to a throw rope), or any floatable object available like a cooler or inner tube to help keep them on the surface. Then implement an extrication plan with the fire / rescue scene command, using the lifeguard RETHROG acronym of lower to higher risk water rescue priorities. 'Reach' (a branch, extension ladder, pike pole, backboard, fire hose inflation system, etc) – 'Throw' (a throw bag, jumper cables, multiple 9' straps clipped together, etc) – 'Row' (contact rescue from a boat or Rescue Alive ice rescue sled,

and the last and most risky option is to 'Go' (tethered swimmer or diver in a 'Gumby suit' going into the water to get the victim). The 'Row' and 'Go' options put rescuers at significant personal risk, so they should only be used by appropriately trained fire resources after lower risk options have been attempted. 'Throw' rescues generally afford a good risk / benefit analysis, but generally require pre - tying a large loop in the end of the throw rope or webbing straps to allow the victim to put the loop under their arms, realizing the hypothermic victim's grip strength will be functionally useless. Rescuers also need to appreciate that these 'low to high risk' options are also functions of context specific training – someone untrained or less rope aware could strangle a victim if a lower risk rope throw got wrapped around the victim's neck, whereas a well trained rescue team could safely pull off a higher risk 'live bait' tethered swimmer or Rescue Alive sled contact rescue. Rescuer safety dictates that anyone within 10 – 20' of the high risk 'action circle' of rescue needs appropriate cold water clothing and PPE protection.

Getting a victim out of the water and into a boat can be particularly challenging when multiple clothing layers or a water soaked snowmobile suit can add a hundred or more pounds to the victims weight. This was an issue in the recent boating related hypothermia incident, where victims had to be dragged to shore for a significant distance before they could be removed from the water. For boat access rescues, a system called 'parbuckling' can significantly help with this. Secure a tarp by kneeling on one side of it near the edge of the boat, then tuck the opposite end of the tarp under the horizontal victim

Cold Weather Response (cont.)

lying in the water, and then pull up on the free edge of the tarp, thus 'rotisserie rolling' them up and into the boat. This system utilizes a 2:1 mechanical lifting advantage (100 lbs of pulling force will lift 200 lbs of body weight). Once you remove the victim from the water they lose the relatively stabilizing "MAST pants effect" that hydrostatic water pressure exerts on the vascular tone of immersed bodies. So it is critical to keep the victim as horizontal as possible to avoid the deleterious cardiac irritability that results from 'toxic sloshing' of cold acid laden blood, exacerbated when victims are handled roughly or pulled vertically from the water. More on this in next month's newsletter review of immersion hypothermia assessment and treatment principles.

So although water / ice rescue calls comprise less than 1% of rescue call response, they present a 4 to 10 times greater chance of a line of duty death than any other objective rescue risk. With up to 1/3 of all flat-water drowning fatalities, and 2/3 of moving water fatalities involving would-be rescuers, the life we save

from prior planning and appropriate cold weather call training could very well be our own, or our fellow rescuers. Our foremost priority must be for all rescuers to go home to their spouses and kids, 'at the end of the day', at the end of every call shift. The fire and rescue culture of "tradition, unencumbered by progress or innovation" has for too long glorified and justified preventable line of duty deaths as "dying doing what they loved". This *must* become an unacceptable outcome. The time honored, but short sighted rescue traditions of 'improvise, overcome, and adapt' should instead be replaced with all hazards pre-planning, context-specific training and preparation, and appropriate risk aversion; towards the development of a conscious risk / benefit analysis that hopefully allows for both victim survival and rescuer safety. In short, be careful out there! I invite anyone interested to further your 'all hazards' training and operational readiness by participating in any ice rescue training session this winter offered by Rangeley Fire or other regional Fire services, and any of several open water and swift-

water rescue certification and workshop courses planned for the spring. "If we're not running calls, we should be training for the next call..."

For some of the best information on immersion hypothermia and winter related rescue, go to the website of Dr. Gordon Giesbrecht, aka "Professor Popsicle". Gordon has some great streaming video, including footage that documents one of the 30+ ice water immersions that he has personally done in conducting his hypothermia research. Go to his site at: www.umanitoba.ca/faculties/physed/research/people/giesbrecht.shtml, and review the MEMS hypothermia protocol (which is based on Gordon's research findings), as a "primer" for next month's Part 2 article on immersion hypothermia treatment.



Oh, no, no no.

Base Supervisor's Corner!

By Wade Browne

Medicare: A Never Ending Process of Changes

There seems to be a glitch although a small one in the Medicare HMO process we handle everyday.. There are several sub-Medicare companies that are showing up more and more. Here are just a few to be looking for on the pt.s face sheet. None of them say anything about Medicare on them.

- ◆ Sterling Option II (Sterling Life Ins Co.)
- ◆ Today's Option (American Progressive)
- ◆ Secure Horizons
- ◆ Humana Gold Choice
- ◆ Advantra Freedom

These are just a few that have shown up lately, I know it is a difficult process for us (in billing) to figure out, let alone all of you who are just trying to

take care of your pt. So I think the easiest way to handle these extra Medicare companies is by getting a PCS on everyone who is 60 years of age or older on all transfers. We might not need it every time, but at least we will have one on file in case it is one of the sub-Medicare companies.

Hope this helps, I know it will on my end



Director's (cont)

- tions and assignments to support local base operations.
- ◆ This issue marks the 25th (mostly) monthly edition of *The Central Line*. When you consider that the record before was about three issues, this is a very significant accomplishment! Thanks, Cory, and all the contributors.
- ◆ Countless Bike Team and crew PR events, and education around the region. NorthStar giving back to the community.

- ◆ Four weddings (that we know about), but no babies (that we know about – although there is one expected by year-end!)

And this just hits some of the highlights. There are wonderful and amazing things done every day – many that do not ever get recorded. Ordinary EMTs doing extraordinary things making a real difference in people's lives. And making a great NorthStar even better.

On behalf of the entire NorthStar management team, my wife, Ginni, and I wish you all a very Merry

Christmas and all the best things for the New Year.



Operations Manager's Corner

By Felicia Harris

Since it is December it may be nice to take a moment and discuss the Holidays. It seems as though we all run around trying to find the right gift, deciding which parties to attend, not wanting to offend anyone by forgetting to send them a Christmas Card, etc., etc., etc.

We each have our own thoughts on the Holidays, some people do it up big, others do what needs to be done to get by and some just don't want to deal with the hassle of it all. I for one think it's a wonderful event for children! They spend all year adding to their Christmas lists, then when December gets here they are asking, "when can we get the tree, when is Santa coming." Their eyes get that excited twinkle and you can see they are just so excited they can hardly contain themselves as Christmas nears.

Of course, as parents we want Santa to bring our kids everything on the list, even though we know they don't need it. So we do what we can to help out the fat man in the red suit that seems to get everyone in such a tether. We fight the mobs and spend lots of money, with Dad grumbling that Christmas is way over rated and he's going to make sure this doesn't happen next year, while Mom is saying, "oh but they have been so good this year and they will be so disappointed if they don't get what they want". Its amazing how parents forget what little monsters their kids have been when December gets here.

When you get the little ones Christmas situated and you can no longer see the tree due to the multitude of gifts, take the time to give the gift of your company to those in need this

Holiday Season. For you'll never know what that may mean for a lonely neighbor, a troubled teen or a sad little child. Christmas for some is an exciting time with memories to cherish, yet it can be the saddest time for someone else.

So, do your best to get through Christmas with as little stress as possible and remember that New Years is your time....dump the kids with the Grandparents and bring in the New Year with a Party!!!!

Thank you all for taking care of NorthStar and each other throughout the year. Each one of you is appreciated very much.



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The Back Page

Happy Holidays!!!

