

**ASRC BOD Meeting – 10/11/14**  
**Unfinished Business - D**

**TOPIC:** Medical screening/wellness assessment

**DETAILS:** asrc\_bod email thread (below)

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**From:** asrc-bod@yahoogroups.com [mailto:asrc-bod@yahoogroups.com]

**Sent:** Wednesday, July 23, 2014 5:25 PM

**To:** asrc BOD

**Subject:** Re: [asrc-bod] Fwd: [Search and Rescue / SAR Talk] This photo shows members of Red Rock SAR ...

Great discussion.

There is a saying in medicine that 80% of the diagnosis is history, 10% is the physical exam, and 10% is lab testing. Unlike many other medical aphorisms, I've found this to be right on.

Even if someone's vital signs were OK, would you want to have him or her on your field team if:

- \* He or she is on the lung transplant list?
- \* Is scheduled to have heart valve surgery next month?
- \* Has poorly-controlled seizures that every 3 months or so over the past year have required multi-day hospital stays?
- \* Over the past few weeks, develops chest pressure radiating to his right arm whenever he walks up a steep hill?

(Side note: just about every kind of chest pain radiates to the left arm. But if it's radiating to the right arm, even if uncommon, it's essentially always due to coronary disease. Radiation of pain to right arm 94% specific, with 41% sensitivity. Coronary disease diagnosed in 94% with radiation to right arm. Radiation of pain to left arm 76% specific, 55% sensitive.

[Berger JP, Buclin T, Haller E, Van Melle G, Yersin B. Right arm involvement and pain extension can help to differentiate coronary diseases from chest pain of other origin: a prospective emergency ward study of 278 consecutive patients admitted for chest pain. J Intern Med 1990;227(3):165-72.]

[Beunderman R, Sramek M, Koster RW, Garssen B, van Dis H. [Criteria for differential diagnosis in cardiac symptoms; left- or right-sided chest pain?] Ned Tijdschr Geneeskd 1990;134(46):2249-52.]

Before you laugh, think about all those local volunteers you take out with your teams... do you have any idea what kind of medical problems they might have? I've had similar stuff in spontaneous volunteers I was asked to lead on a strenuous task. (No. Just.... no.)

Such volunteers may be heavily invested in the search and willing to expend their lives to help. We can

support this, but provide better alternative ways to help the operation. Given that, I will also say that we have had members who participated in the field for years with epilepsy and Type I diabetes mellitus. The member with epilepsy wouldn't belay "for real," which I seems a reasonable accommodation in ADA terms, although she passed the belaying and other skill tests with great style and efficiency.

Seems to me that questioning a team member about thirst, headache, lightheadedness, and doing a quick test of short-term memory might have a lot better receiver operating curve (a useful measure of how good a test is) than vital signs. Also requires no equipment other than your voice and the member's ears. (My quick and dirty test of short term memory and cognition: "Touch your left thumb to your right ear and stick out your tongue." Pretty sensitive for cognitive impairment from hypothermia or dehydration or hypoglycemia and also gives you an assessment of cerebellar function as you watch the coordination of the thumb going to the ear.)

Just as we improvise medical care in the field given limited equipment, maybe we need a set of "improvised" best practices (not requirements) for medical screening at Base, both before heading out, and after returning. Some such practices would be for hot environments, some for cold, some for simple fatigue, and could be employed at the discretion of the FTL, Ops, or AR.

And, as we look for outside credibility for our standards, perhaps, in addition to timed skills tests, we might want to add some simple aerobic or agility tests such as the "walk ## with a pack weighing ## in ## minutes" test. I suspect all of our members can pass these tests, such as the ones proposed for DMAT, without breaking a sweat. But it would still look good to have done these.

I really don't want to sound like bragging, but a couple of years ago I had frequent premature ventricular contractions (PVCs) and had to have an exercise stress test. I had been out running or on my bike for a week or so when I got the stress test, so I took it as an opportunity to get some real exercise on that treadmill. After a while, the cardiologist came over to me and said "Keith, not only have you passed the EKG portion of your stress test, you just met the aerobic requirements to enter the State Police academy." And I \_know\_ there are many members who can leave me in the dust without trying. BTW, the PVCs went away and were presumed to be from a bit of viral myocarditis.

-- Keith Conover, M.D., FACEP

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**From:** asrc-bod@yahoogroups.com [mailto:asrc-bod@yahoogroups.com]

**Sent:** Wednesday, July 23, 2014 2:54 PM

**To:** asrc-bod@yahoogroups.com

**Subject:** Re: [asrc-bod] Fwd: [Search and Rescue / SAR Talk] This photo shows members of Red Rock SAR ...

I see this from two perspectives.

(1) The infrastructure to do something like this for non ASRC folks would be tremendous and very hard to do. I can just imagine other SAR teams or the AHJ wondering why we are taking vitals instead of searching.

(2) For our folks we definitely want to do everything possible to keep everyone safe. My take here is that the more we train together the more likely someone from within the ASRC will recognize you just aren't acting normal and are very fatigued. Basically create a camaraderie between everyone where we not only look out for ourselves but everyone else within the ASRC. I know this is the reason that I've booked hotel rooms for SAR personnel at the end of 2 different searches instead of having folks driving late at night. One was the Gabriel Bechen search in 2006 where the outcome wasn't that great and the other was the Aliyah Lunsford Search in 2011 where there was no find.

-Douglas Moore

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**From:** "Kenneth Chiacchia [chiacchiakb@gmail.com](mailto:chiacchiakb@gmail.com) [asrc-bod]" <[asrc-bod@yahoogroups.com](mailto:asrc-bod@yahoogroups.com)>  
**To:** asrc BOD <[asrc-bod@yahoogroups.com](mailto:asrc-bod@yahoogroups.com)>  
**Sent:** Wednesday, July 23, 2014 2:17 PM  
**Subject:** Re: [asrc-bod] Fwd: [Search and Rescue / SAR Talk] This photo shows members of Red Rock SAR ...

I agree with Chris, but more specifically: firefighters developed their procedures in the face of horrendous MI rates (I think cardiac events kill more firefighters than any other cause) and it's because the interior and wildland tasks are so incredibly exertive. Which isn't to say we can't "right size" something like this, but Chris' point about the infrastructure required to add monitoring should be carefully considered.

Ken Chiacchia  
[chiacchiakb@gmail.com](mailto:chiacchiakb@gmail.com)

On Wed, Jul 23, 2014 at 1:52 PM, Christopher Ruch [ruch.chris@gmail.com](mailto:ruch.chris@gmail.com) [asrc-bod] <[asrc-bod@yahoogroups.com](mailto:asrc-bod@yahoogroups.com)> wrote:

I'm very hesitant of a policy suggesting like "every time a team returns from a task, the team should self-assess vitals and log them." Something like this is nearly impossible to enforce on real incidents, requires infrastructure for logging the data, and would result in us expending energy and resources gathering a bunch data that we have no clear goal for using for anything. It also doesn't have a clear connection to our goal of finding missing people.

I have seen one SAR team have a policy of doing vitals before and after task - they were a team that started as a wild fire fighting team then switch to SAR -- I saw it during a MRA evaluation I was running. The team did a great job checking vitals and then promptly went out, did poorly on the eval and failed. The next time I saw them, when they actually passed their evaluation, they had eliminated the vitals check from their process and in the 6 years since they haven't added it back in. I don't think there is any correlation between checking vitals and doing well as a search team, and in fact adding additional requirements that don't directly relate to our goals takes away time, effort, and focus from the skills that area needed.

Also, adding requirements for things at searches to keep skills sharp is not something that real missions should be for. That is what training's are for.

The fire service puts a lot of focus on vitals because they are addressing an issue of force protection due to the nature of their work. Heart attacks are by far the leading cause of line of duty deaths in the fire service. There aren't good statistics for wilderness SAR line of duty death causes that I am aware of, but in my experience sitting through a number of annual line of duty death memorials at the NASAR/MRA conferences, my anecdotal take is that heart attacks are not even in the top tier of causes of line of duty deaths for SAR personal. So it think we would be going after the wrong problem. Fatigue and motor vehicle accidents are still way bigger problems for us.

Another significant issue to doing anything at missions is the fact that the vast majority of people at the search are not our personnel. It will be very difficult to enforce a vitals policy on 100 people at search when only 15 of them are ASRC members.

I support having health and performance standards that members have to test to on an annual basis. I could also see supporting adding a screening process for emergent volunteers at registration if their health is suspect. But doing vitals for everyone before/after every task seems to have little to no benefit for us.

Chris

On Wed, Jul 23, 2014 at 11:10 AM, Scott Glazer [RADIOINSTL@aol.com](mailto:RADIOINSTL@aol.com) [asrc-bod] <[asrc-bod@yahoogroups.com](mailto:asrc-bod@yahoogroups.com)> wrote:

I think at a minimum, every time a team returns from a task, the team should self-assess vitals and log them. This does a few things. This keeps the skill set up. It get the team to self evaluate which has proven on foreground rehab to be huge factor. And it can start to get us some baseline info and we build a policy.

Scott Glazer  
PVRG

On Jul 23, 2014, at 9:35 AM, "Kenneth Chiacchia [chiacchiakb@gmail.com](mailto:chiacchiakb@gmail.com) [asrc-bod]" <[asrc-bod@yahoogroups.com](mailto:asrc-bod@yahoogroups.com)> wrote:

We should definitely consider and discuss, but remember that the fire service is dealing with a far more extreme environment than we are. I took the Pa. wildland firefighting course a few years back, and I have never worked that hard in the woods on a SAR task. Not that I'm arguing against it, just that we don't want to invest the time and money overhead into a health surveillance system that's overkill for us.

On Wed, Jul 23, 2014 at 9:33 AM, [caverbru@aol.com](mailto:caverbru@aol.com) [asrc-bod] <[asrc-bod@yahoogroups.com](mailto:asrc-bod@yahoogroups.com)> wrote:

Hi folks,  
Sorry if the thread below seems sketchy. It is about rehab and clearance for duty/return home on/after a mission; some organizations even get baseline vitals in staging before folks deploy to the field.

The NFPA standard 1584 can be viewed at

[http://www.nfpa.org/standard\\_items/search\\_results?searchStr=NFPA%201584](http://www.nfpa.org/standard_items/search_results?searchStr=NFPA%201584)

While written for fire service, it includes reference to wildland fires which are a kin to SAR.

We might want to consider some sort of plan or policy on this topic for ourselves.

Just a thought,  
Bru

Bruce A. "Bru" Randall  
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412-760-5054 (mobile)  
304-257-5022 (on the mountain)

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From: [notification+ycz2\\_fz6@facebookmail.com](mailto:notification+ycz2_fz6@facebookmail.com)  
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To: [283568135067747@groups.facebook.com](mailto:283568135067747@groups.facebook.com)  
Sent: 7/22/2014 1:31:55 A.M. Eastern Daylight Time  
Subj: Re: [Search and Rescue / SAR Talk] This photo shows members of Red Rock SAR lining...

Dustin Signor [commented on David Cummings's photo in Search and Rescue / SAR Talk.](#)



**Dustin Signor**

1:31am Jul 22

We follow NFPA 1584. All members must go through rehab. Before released their vitals must be in a certain range. Not only is it about liability, but caring for our own. The team can search anywhere from 115 degrees in the summer to the teens in the winter. We also make sure members are actively cooled or heated as needed and rehydrated. Now looking into some sort of stable food to keep for members if they need that too. My personal goal is every member leaves a search or FTX feeling as good as when they showed up.

Comment History



**Dan Cook**

11:16pm Jul 21

Guessing they have a standard form, and taking into consideration the terrain and latitude it would certainly cover dehydration and hyperthermia.



**Lori Johnson**

10:49pm Jul 21

what does the exam consist of? would like more info - great idea



**Bobby Borchardt**

9:02pm Jul 21

This team is the best.



**Bru Randall**

8:08pm Jul 21

Something all SAR teams should consider



**Eilene Green**

3:12pm Jul 21

You guys are AWESOME! Love how you take care of one another...)

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Original Post



**David Cummings**

10:49am Jul 21

This photo shows members of Red Rock SAR lining up for a medical check up prior to being allowed to sign out from a training / and or mission.



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