State EMS Committee Meeting Agenda
January 8, 2014
1:00 p.m.

Location: 3760 South Highland Drive
Salt Lake City, Utah 84106
3rd Floor Auditorium

Reporter: Susan S. Sprouse

A P P E A R A N C E S

Jay Downs
Jolene Whitney
Bob Grow
Jeri Johnson
Lynne Yeates
Tom White
Michael Moffitt
Mark Adams
Hallie Keller

January 8, 2014 1:00 p.m.

P R O C E E D I N G S

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JAY DOWNS: Let's go ahead and get things started here. Welcome everybody to our new year EMS committee meeting. Just so we -- everybody knows right now on the action items, we do not have a quorum. We just need one more to have a quorum. So we have eight. So just kind of keep that in mind.

Everybody as you speak today, whoever has something to say, make sure you state your name so that she can get it properly recorded so she can do her little bouncy thing, okay.

JOLENE WHITNEY: Susan.

JAY DOWNS: Jolene just reminded me that we just need -- we have a new member who sits on the board today, Dr. Tom White.

TOM WHITE: Right here.

JAY DOWNS: Nice to meet you. My name's Jay Downs. And we'll just go around real quick and just introduce ourselves. So we'll start off with Tom since he is the new guy.

TOM WHITE: Hi, Tom White, I'm a trauma surgeon. I was -- this is -- I just finished a stint on the state trauma advisory committee and got kicked off of that

committee and got asked to -- for this. I'm pleased to be here.

JOLENE WHITNEY: You were recruited.

DR. PETER TAILLAC: You're not a hell raiser, are you?

JAY DOWNS: Welcome.

TOM WHITE: Thanks.

JAY DOWNS: Pleased to have you. Let's go here and start off to the left. Bob.

BOB GROW: Bob Grow, emergency physician up in Davis County and Weber County and medical director of Weber County.

JAY DOWNS: Okay.

JERI JOHNSON: Jeri Johnson, Wayne County EMS director, rural representative.

LYNN YEATES: Lynn Yeates, Box Elder Sheriff representing law enforcement EMS.

JAY DOWNS: Okay. I'm Jay Downs, representing the rural fire chiefs.

MIKE MOFFITT: Mike Moffitt with Gold Cross Ambulance.

MARK ADAMS: Mark Adams representing hospitals.

HALLIE KELLER: Hallie Keller, I'm an emergency physician at Primary Children's.

JAY DOWNS: Awesome. Everybody welcome. Let's

go ahead now and we'll just start off with the agenda. Let's go ahead -- and the minutes, has anybody had a chance to read the minutes? We can't approve them, though, because we don't have a quorum. So we'll move on until we get another person here.

Let's -- let's go ahead and let's just have a hearing on the Davis County advanced airway medic. We can't act on the elections. So who's representing Davis County? Is Dr. Mark --

MARK ORASKOVICH: I guess that's us.

JAY DOWNS: Now, from what I understand, Jolene, this is a renewal of a -- a presentation they did last year; is that correct?

MARK ORASKOVICH: It is. It's a two-year pilot project that is --

JAY DOWNS: Is this the rapid intubation?

MARK ORASKOVICH: This is the RSI project, correct.

JAY DOWNS: RSI, okay. Cool.

MARK ORASKOVICH: Advanced airway medic.

Well, for those of you who don't know who I am, I'm Mark Oraskovich. I'm an attending ER physician here in Salt Lake City with Intermountain Healthcare. I work at Intermountain Medical Center and at Alta View Hospital. And I represent Layton Fire as their medical director, and

I've been with them since 1998.

We approached your committee about two years ago, a little over two years ago, requesting permission to do a pilot project looking at a novel airway team concept where ground paramedics employ the use of RSI, which is rapid sequence intubation, to establish a definitive airway in patients that they are transporting by ground ambulance.

That project commenced October 1st, 2011. This -- this last October, we completed our -- our two-year study period. We had initially done one year when we came back to the committee. After one year, we were extended for a second year and that -- that year has now commenced.

So we come before you today to kind of give you the results of what our pilot project has shown and to kind of stimulate some further discussion as to what the future holds.

So when we presented our pilot project, we had a description, and the description consisted of several items that we would use an advanced airway team consisting of a limited number of highly experienced and trained paramedics. So we were taking a very select group of paramedics and only training a few to be a member of this elite airway team.

We also proposed that we would use video --

video laryngoscopy as our primary intubating method on every intubation. Layton Fire purchased GlideScopes for their video laryngoscopy. We're doing this study in conjunction with the Davis County Sheriff's Office. They started out with King Vision and they've also moved to GlideScopes for their video laryngoscopy.

Additionally, we said we would do an extensive initial and ongoing training program. That included a very intensive upfront training where all the medics went through the difficult airway course on a national level. We did a three-day very intensive course before we ever started the program. We do 48-hour QA on every intubation that is done. We do twice yearly training and updates, testing, and we have continued through that through the whole project vigorous quality assurance with intensive medical oversight. I essentially review data Danny Wyman who represents the Sheriff's Office as their physician director, reviews every intubation that's done within a 24 to 48-hour period and then collect comprehensive data and eventual consideration of publication of these study results.

This was essentially the data that we're going to talk about here today. We're going to review the cases, demographics, attempts, where we intubated, how we've done scene times. That's just the summary of what I

would like to show you.

We had the IT people within Layton City create a data base for us. That's an online data base that's accessible to those who are within the study, where we record all our data and have it available for review.

All right. Our hope in this two-year period was we would have probably 75 to a hundred intubations that were RSI. We fell a little short of that; we had 52. There were probably at least that many that in the decision-making of the paramedic on scene, the decision was made not to do an RSI and go to the ER instead. So our numbers could have been a little higher, but overall I think you'll see that the results are very favorable for the numbers we did have.

This is a demographic of the age group of the patients that were enrolled into this pilot project. We had several 90 year old's and we had them as low as age 16. And sixteen was the bottom age cut off for this pilot project. Average age was 54.

Whom do we intubate? About three quarters are medical and about one quarter are trauma, which is a little surprising. I think if you look at a lot of national studies on pre-hospital RSI, there's more of an emphasis on trauma than there perhaps is on medical. If you break down those medical cases, you'll find that they

really fall into three categories: Severe respiratory distress and failure, altered level of consciousness -- many of those elderly patients -- and overdoses, which we have plenty of in Utah.

I want to talk about intubation attempts, because this is something that comes up in the literature a lot. And before I show you our results, I wanted to kind of hit on a study that came out last year, which is very surprising.

This is a study that talks about number of intubation attempts and complication rates that ensue with subsequent attempts. You can find that with one pass success rate, you still have a 14 percent incidence of adverse events. And those can include anything from desaturation to esophageal intubation, aspiration.

Once you fail on your first attempt, and attempt is defined as blade in through the lips blade out, and you get into a second pass attempt, your rate of incidence of adverse events goes up to 47, and then with the third it goes all the way up to 63 percent. So it's not just being able to establish a tube without failing, it's being able to establish a tube on the first attempt.

In our study, we had a 75 percent first pass success rate, 22 percent third -- two attempts and -- and only 4 percent did we go to three attempts. That's

probably just one, if you run the numbers. We had none that went beyond three attempts, which would be our definition of a failed airway.

This is another study that was -- I think we presented this when we first brought the pilot project to you. This was a study out of Washington State where they did a control group of non-video RSI and then video RSI. And they found that their attempts went down to 1.2 -- this is about a hundred -- it's almost, I think, 300 patients in that arm of the study from previously two-point through from traditional laryngoscopy. And so you can see our results are very similar at about 1.3.

How do we intubate? We made a commitment in this pilot project that we would attempt every intubation with video first. We succeeded 81 percent of the time. If you review those cases, probably the most common reason that there was a failure on video was secretions, soiling that tip of the blade, not getting a proper suction and having to resort to direct laryngoscopy instead. There were a couple early on in the study where direct laryngoscopy was moved to probably quicker than it was later on in the study. And I think that was just getting phased out with the use of the video scopes.

I should mention, too, that the people who've been involved in this study have also been very active

teaching on both a local, regional and a national level. Some of our medics have been asked to go to other cities in the country and present lectures on the use of video laryngoscopy. I know Jason has done teaching with AirMed with Salt Lake City on the use of video laryngoscopy and pick tricks, tools, techniques that can enhance success.

RSI initial intubating sats, we have initial intubating pre-intubation sat of 83 percent. We have intubating sat of 92 percent and post intubation sat of 96 percent. So overall very favorable trend. I think you can break them down. There are a couple in there where the trend is in the wrong direction, but there were very, very few cases like that.

We put a large emphasis in this study on the importance of oxygenating the patient well. It's not just about putting the tube in. It's about getting oxygen. And so we put a strong emphasis on bag valve ventilation when indicated and pre-oxygenating patients before our RSI is done.

Where do we intubate? 61 percent in the ambulance. This is en route to the hospital. Twenty-nine percent are done at scene. Most of these occurred early on in the study. And interesting, you'll see that there were some done in the ED.

This was a corroboration mainly with the Davis

ER, where the docs had been very receptive to this program. And as our medics would arrive with a patient that they knew required intubation but had a very short transport time, they worked together with the ER docs and were permitted to perform an RSI in the ER, both for educational purposes to show the docs there the process that we're going through and also to facilitate intubation.

These are our scene times for the 52 patients. Average was 18 minutes. I think you can make a couple of conclusions from this. We decreased the utilization of helicopter transport, which probably on average extends scene time by 10, 15, 20 minutes.

Patients that were RSI for the most part were done in the back of the ambulance on the way to the hospital. We also decreased frequency of lights and siren response. So I think you made the comment today, Cory, you haven't done a light and siren response on an RSI intubation in two years.

CORY COX: Two years.

DR. PETER TAILLAC: And the reason for that is what? That -- that you don't have lights and siren?

MARK ORASKOVICH: Well, it's a safety -- it's a safety issue. And -- and there's -- you know, it's a very hot topic in EMS right now that lights and siren not only

put the public at risk, but put our providers and patients at risk and really don't necessarily transfer into a benefit. But when you have a flailing 18 year old with a severe head injury who's got a sat of 70, and you need to get them to the hospital because your only option is to get there and intubate them, you tend to drive as fast as you can and have lights and siren.

Whereas, if it's a controlled setting and they're intubated and you're oxygenating and ventilating them well, you have the benefit of not having to use the light and siren response.

HALLIE KELLER: So they're not putting these patients in the back of the ambulance and intubating them there; they're actually putting them in the back of the ambulance and while they're driving, stopping, going over -- I mean going over bumps, physically moving, that's when they are intubating?

MARK ORASKOVICH: They're doing both. They're doing both.

JASON: But 69 percent of the time, that's an accurate description, yes.

HALLIE KELLER: When they're moving, they're physically moving?

MARK ORASKOVICH: Yes. It's added advantage of the laryngoscopy.

HALLIE KELLER: Right. Absolutely.

TOM WHITE: Mark, what's the definition of a failure? If the lens is smeared and they take the thing out and clean it and put it back in quickly, is that a failure?

JASON: It's an attempt.

MARK ORASKOVICH: It's an attempt. So an attempt is blade through the lips and blade out.

TOM WHITE: So your definition is very strict?

MARK ORASKOVICH: Yeah. Blade in blade out. And three attempts --

TOM WHITE: I'm not sure that's fair.

MARK ORASKOVICH: Three attempts without passing a tube is a failed airway.

HALLIE KELLER: Well, if you're going to be consistent with the literature that has to be --

(Court Reporter interrupts)

TOM WHITE: Well, what I am saying is garbage anyway. But that's a pretty strict definition.

MARK ORASKOVICH: It is, and we pulled that from the literature.

TOM WHITE: It makes it look like a failure, a true failure is more common than in reality it is. I congratulate you on that. It supports my bias as a trauma surgeon in the ER that the video laryngoscopy is changing

the whole --

MARK ORASKOVICH: It is.

TOM WHITE: -- the whole game.

MARK ORASKOVICH: It is, and I think this is one of the things that we felt very strongly from well before we ever came to this committee, is that it's a game changer.

TOM WHITE: Can you -- did you go back and look and see if those -- there were a couple of days there where you failed once or twice?

MARK ORASKOVICH: And went to --

TOM WHITE: Any chance that was a person -- you had one bad guy, one -- one -- one person in your team that needed more education, or was it possible that --

MARK ORASKOVICH: It didn't really come down to individual. Some -- one of them came down, I know, at the scene. We were intubating in the street as opposed to putting him in the back of the ambulance in a more controlled setting where lighting is better and you have suction. And that actually changed how we approach them from then forward.

Each time we have cases that we feel are worthy of review, whether they meet any set criteria or not, we would use those as part of the biannual training and review those cases one-on-one with the entire airway team

present, both from the Layton Fire and Davis.

JASON: To clarify, though, under your definition of a failure, we have not had a failure yet. We're 100 percent success -- successful intubation. What we have had is -- is attempts. And if you look at the multiple attempts beyond the first, it's always been related to secretions, whether it's blood, vomit, whatever. And so suctioning, better positioning, those things resolve those issues.

TOM WHITE: Right. But that second and third -- second and third attempt as -- as portrayed in that early study you showed that had devastating effects and complications --

MARK ORASKOVICH: It does without --

TOM WHITE: -- that's not exactly what you're talking about here.

MARK ORASKOVICH: No.

TOM WHITE: I mean, those -- it's not to the same thing. Taking it out, wiping it, and putting it back in is a second attempt, but it's not the same thing as trying vigorously to get a tube in, fighting with it, not getting it in and then having to redo it again with another person or whatever, those -- those are different.

MARK ORASKOVICH: But if you went back to that study, they would use the same criteria for attempt as we

do, to blade in, blade out. Now, you could have that blade in there for a hell of a long time and be looking around and monkeying around, the sats can be plummeting. But as soon as you pull it out, you're into attempt No. 2 the next time you go in.

TOM WHITE: Good. Thank you.

MARK ORASKOVICH: We pulled some data from our non-RSI scene times within Layton Fire from previous years and compared average scene time to what we find now in our RSI study, and I think it's interesting that we did not extend scene times by employing RSI.

So let's get into our sentinel events. We identified several sentinel events prior to initiating this project. Incidence of hypoxemia or hypotension with head injury, obviously a harbinger of -- could cause much more significant brain injury. We had no incidence of that. We certainly tracked our sats both before, during and after intubation, as well as blood pressure.

Use of a rescue airway or surgical cric, none of those were required in this study. Medication errors, adverse reactions, none.

Unrecognized or failed or misplaced tube, we had none. We had one where there was a patient who was intubated non-RSI, required a paralytic and rode to the hospital to maintain the tube position and prevent them

from extubating themself. It was a -- it was a severe trauma patient.

And in transferring from our gurney onto the trauma bed, there was a brief extubation that was recognized immediately. It went under a vigorous review and it was felt to be factors that happened in that year.

JASON: It's mine. I apologize.

MARK ORASKOVICH: So here's some more quality assurance data. We said at the onset we would maintain an intubation success rate greater than 90 percent. We hit 100 percent, meaning we had no failed airways. Compliance with training, 100 percent.

Confirmation of intubation with video laryngoscopy. This means either at the time we had the blade in or at the time of transfer of care, or the time they were arrived at the ER, we would take a picture and show that that tube was in the proper position. We didn't hit 95. We didn't record that picture 95 percent of the time. But you'll notice 80 percent, we had over 80 percent where video was the final device. So we're using it. It's just that they didn't always record it as they should have.

Confirmation by receiving M.D. was 100 percent on AirMed crew.

Application of qualitative capnography. This

one looks disturbing, but there's an explanation behind this one. If you look at this data, this comes out to seven patients out of 52 in this study. And five of those were intubated in an ER setting. Two of those were intubated and the tube was secured and taped in place just as they rolled up to the deck of the ER. Of those seven patients, they did not employ the use of R-capnography. These were confirmed by devices that the ER uses in their setting to confirm. And I'm not sure what you're using at Davis for -- for confirmation of tube, but since five of those were done in the ER setting and two were done as they were rolling up to the ER, we did not employ our use of capnography because there wasn't time. And compliance of reporting we were 100 percent.

These were just our quality assurance measures that we had identified at the onset. We don't need to go too much into that.

So in looking back, this is kind of the mantra that I think sums up my feelings the best. Intubation done well is safe. Intubation that is done poorly is not safe. It doesn't matter where you do the intubation.

I feel that if you put the right tools, the right techniques, the right training, the right oversight in the hands of capable paramedics, you'll get the same results as you do when you put those tools in the hands of

ER doctors or trauma surgeons. And -- and I think we showed that in the results of first pass success rate and ability to secure an airway.

We didn't do outcome studies in here. There are outcome studies that have been in the literature for years and there are continuing outcome studies that are coming out.

I threw this one in here because when we began this program, we presented the San Diego study, which I think everybody has heard of. It put RSI for trauma patients in a bad light in a pre-hospital setting.

This is a much more recent study coming out of Australia that had 312 randomized perspective traumatic brain injury patients who were either randomized to be intubated by a paramedic using RSI in the field or brought to the ER and intubated in the ER. And their goal was to determine their neuro outcome at six months with the two arms of the study, and they found favorable outcomes; 51 percent favorable outcome with medics, 39 percent when they were intubated in the ER.

They're conclusion, and there's a great discussion in this article, that adults with severe TBI, pre-hospital RSI by paramedics increases rate of favorable neurologic outcome.

Intuitively, I think we all believe that. It's

not good to have decreased sats. It's just that we've had a hard time getting studies to prove it. And they are out there, you just got to find them, and there's more that are coming out there with time.

DR. PETER TAILLAC: Mark, I would just editorialize the reason they do well, and you do well, is because you do it well, as you said in your slide. Some of the other studies that have been out there, I think, are with agencies that don't maintain the same QA oversight in training.

MARK ORASKOVICH: I think you cannot treat pre-hospital intubation and RSI like just any other paramedic skill, like putting in an IV. It requires intensive training up front, intensive ongoing training. There's a lot of expense to this. This is not something I think every agency should or should want to do. It is -- it's -- it takes a lot of investment from the physician, from the city that pays the bills for that fire department or EMS agency, and for the paramedics to come into that rigorous level of training. We think it's successful.

Our two-year study period is up. We are at a point now where we are in discussions with the Bureau. And we really have two different directions we'd like to go and we'd like the input from this council or this committee as to what you feel would be our best course of

action.

We have been approached by the Bureau to extend the study for one more year, essentially extend the pilot project for one more year. In the rule, projects are for a one-year period, can be renewed yearly, up for a total of three years.

In the third year of our pilot, what we would like to do is look at two different medications for induction and paralysis. And that is rocuronium and ketamine.

And we would also look at maybe broadening our age requirement down to a lower age requirement. And I'd like your opinions on that as well. Right now we have a cut off of 16 and above. And we would like to consider taking that down to eight, 10, 12 year old age group.

We -- in looking at cases that we've had of traumatic injury, there have certainly been patients in that age group that would have benefited from RSI in the field and had to wait for para medical transport.

So option No. 1 is to continue the study for another year, employing two new medications to our list and broadening our age criteria, and then bringing that data back to you and back to the Bureau and showing you our success rates and our trends.

The second option would be two years is up, the

study is complete. We plan to continue using RSI, and we just need to work with the Bureau on getting a variance for the meds that we carry, and then we would apply as a variance to carry additional meds should we choose to do that.

TOM WHITE: Mark, can you explain the rationale for adding those two medications, making those available?

MARK ORASKOVICH: So rocuronium is probably the one that is worth talking about the most. The reason behind that is you have a pretty good subset of patients that have contraindications to succinylcholine. Now in reality the numbers aren't big in the patients that fall out of that, but there are contraindications that have very significant consequences if they're missed. Those patients -- those contraindications don't exist with rocuronium.

Rocuronium not only has equal success rates in terms of favorable intubating conditions, but in some more recent studies also show that your saturations are maintained at an appropriate level longer, meaning during the apnea period, patients tend not to de-saturate quite as quickly, the thought being they don't fasciculate, so there's less oxygen demand. And we feel that should be a med that we consider. I think we've seen it gain a lot of traction in the ER setting. And I don't know what your

use is at primary but --

UNKNOWN: Rocuronium.

MARK ORASKOVICH: -- most of our docs in the ER are using it.

TOM WHITE: I guess that's my question. I -- it's -- I think there's a consensus that it's a better drug in the scenario. Why do you need to test it again for a year?

HALLIE KELLER: Because traditionally sucs has been used in the -- in the EMS out of hospital environment, so that's probably standard of care, is it not, to use sucs in terms of every hospital environment?

MARK ORASKOVICH: It is. In the air medical setting, there's certainly a lot of traction behind rocuronium, and it is being carried probably by a large percentage of air medical agencies.

TOM WHITE: Especially outside of Utah.

HALLIE KELLER: Yeah, AirMed carries it.

TOM WHITE: Exactly. And incidentally, in our teaching elsewhere around the country, rocuronium is not new in the pre-hospital environment either. There are many places that have been using it and utilizing it for many, many years with good success. And I think this is just the natural evolution while under the umbrella of a study to say, look, let's look at what RSI looks like

going forward for everybody, and what are the best medications, what is the best patient group to do this with.

MARK ORASKOVICH: And we -- we've been pressured even from the start. I know in our early training that we had here with Eric Barton, he came forward to us before the study was even done and said, "Why aren't you doing roc?" And Eric sits on the board for the difficult airway course.

I know Darren Brody who also heads up that difficult airway course and heads up the EMS portion, will come right out and say he hasn't used anything but roc in the state of New Mexico for what --

JASON: Ten years.

MARK ORASKOVICH: -- ten years. Succinylcholine has never been used.

TOM WHITE: I ask the question again. It seems like you're --

MARK ORASKOVICH: I know.

TOM WHITE: -- reinventing the wheel again.

HALLIE KELLER: There's also how long it lasts, right? Roc only lasts two months instead of a typical three-month cycle that a lot of people --

MARK ORASKOVICH: For storage.

HALLIE KELLER: For storage. So that's an

issue, and it requires either refrigeration or requires a more frequent turnover cycle for carrying that medication. So that's been another reason that it hasn't been as frequently used in the pre-hospital.

MARK ORASKOVICH: And there is some benefit in a longer transport, if you're giving succinylcholine and that patient starts to buck the tube or try to pull out the tube, we're using sedation first, but in some cases we're resorting to vecuronium, which has a much longer health life than using rocuronium right from the start, which would be likely wearing off soon after their arrival in the ER.

JAY DOWNS: Excuse me, Doc. We got a question in the back. Please state your name for the --

RICHARD THOMAS: So my name is Richard Thomas. I'm the ED pharmacist at Primary Children. There is a practical advantage and that is that rocuronium doesn't come ready to use. So it has to be reconstituted and somebody's got to draw the dilio in. It's got to go into the vial. It's got to be dissolved. And all of that takes time in a potentially very critical situation. So if you can eliminate all those multiple steps and just simply draw it out of a vile, it's much easier.

JAY DOWNS: Thank you.

MARK ORASKOVICH: And then we would use that in

conjunction with ketamine, since the two match up in terms of their half life, their same dose and they seem to be a good marriage.

So again, open to discussion. If -- if this council doesn't feel that this needs to be looked at in the form of a pilot project, then we take this back to the state and say we'll ask for a variance and we'll write it up.

JAY DOWNS: Unfortunately, we don't have a quorum here today, so we can't really act on it. But I got a question for you. Do you feel like you're done? Do you think -- do you feel like your study is complete or would you like to have another year to continue the pilot?

MARK ORASKOVICH: I feel like we're done.

JAY DOWNS: You feel like you're done? Okay.

Dr. Taillac, what's your feelings on it?

DR. PETER TAILLAC: And we've discussed this and I -- my bias a little bit is that what these guys have done very, very well, and I congratulate you, has really established potentially a new standard of care in our state.

I -- I guess, as I've been with the Bureau for a few years, doing things fast sometimes is not the right way to go. They've done a great job with the protocol they have. When they're finished with their pilot

project, there will be other agencies who want to take on similar projects, I have a feeling, and that will be great if they can reproduce the same level of oversight, training, et cetera.

The advantage to them, to answer your question, extending a year, in my opinion, and including the new drugs, which aren't new nationally, but are very new for Utah, pre-hospitally, potentially extending the age down a bit for the kids, is that when they're really done, then that will establish sort of the benchmark for the state for other agencies to then replicate. So for them to stop now and then they say, oh, yes, and we'd like to use these other drugs and extend it, is one option. But the benchmark sort of at that point is succinylcholine and the training that they have done to this time.

So to me it's -- benefits us to have them continue to serve the state, if you will, by proving these things work well. You can train the medics to do it well, the age issue is successful, et cetera, before we open it up. At least that's my vote.

JAY DOWNS: Okay. Another question I have is, is that where does that -- I mean, the pilot project ends today, where does that leave them? Are they -- they done? They can't do any RSI until it's approved by the state? Would that --

MARK ORASKOVICH: Yeah.
DR. PETER TAILLAC: Jolene, let you answer, the rule expert. I think they would apply for a variance to continue doing what they're doing essentially.
JOLENE WHITNEY: I was looking at the pilot project rules and the department or committee as appropriate shall allow the EMS provider involved in the study to appear before the department or committee as appropriate to explain and express its views before determining to rescind the waiver for the project. And then all it says after that is, at six months there before the project is supposed to be completed, the medical director will submit their preliminary findings and recommendations for change in the project requirements. So that's all the rules state about where we go from here.
DR. PETER TAILLAC: Yeah, my sense was, it ends, and then you sort of -- in a sense become like everyone else, and if you want to do the extra thing, you apply for a variance, which obviously given your track record would be favorably viewed, I'm sure.
JAY DOWNS: It would take time to do it, correct?
DR. PETER TAILLAC: Given the fact that, you know, a variance required a training plan and key --
JAY DOWNS: That's all done.

DR. PETER TAILLAC: -- that's all done essentially. So, no, frankly, I mean, it's not up to me completely, but if it were up to me, they could start their variance tomorrow.
JAY DOWNS: Tomorrow.
DR. PETER TAILLAC: Or the day after they submit it, because they've done all the ground work already.
JAY DOWNS: Sure. Yeah, it -- they've done everything they need to.
DR. PETER TAILLAC: Yeah.
JAY DOWNS: Members. I mean, can't vote on anything, but, however, we can give them our feeling and then take care of it at the next action at our next meeting. Or do we do that over telephonic or what can we do with that?
Jolene, what's your thoughts on that?
JOLENE WHITNEY: I'm going to have to check on that. I really don't know.
JAY DOWNS: Okay. I don't know either. Yes, sir.
MIKE MOFFITT: I just wanted to, you know, express thanks for a very professionally run two-year study and echo Dr. Taillac's comments that while you guys are in the study mode, and there are a few more things that maybe we ought to look at, you are developing really

the ground work for a protocol for the state. And I think you ought to -- you know, I would support you going further with different medications and lowering the age for another year so that we cover all that and we don't come back with a -- with an approved protocol and then somebody else comes in with those same questions. So while we're here, while we're in the blender, let's just keep going.
MARK ORASKOVICH: My question for you, Hallie, was: What are your thoughts on the age criteria? Certainly, this would be in discussion with your attendings.
HALLIE KELLER: No, absolutely. And I think that it's something -- I think that would be a benefit for another year is to lower the age. We -- we think we are all well aware that EMS management of the pediatric airway is historically quite broad. And so to find, you know, an area that we can improve this, I think would be fantastic. So lowering that age limit, I think, would definitely be something that we should look into, and would be a benefit of extending this.
MARK ORASKOVICH: Do you have an age in mind?
HALLIE KELLER: I need to think about it.
MARK ORASKOVICH: Okay.
HALLIE KELLER: I mean, I -- I agree with you,

definitely not less than age eight.
MARK ORASKOVICH: That would be our absolute minimum.
HALLIE KELLER: But I -- I'd have to think about that. But I'd be very interested.
JASON: Are you using the GlideScope routinely in the --
HALLIE KELLER: Yeah, we have GlideScope in the ER.
TOM WHITE: Routinely might be a stretch.
HALLIE KELLER: Routinely, it's not our first. I mean, we do direct.
MARK ORASKOVICH: So one -- one thing to add to that question specific to pediatrics, the GlideScope we have now, the way that we use it, we can go down to age eight without buying additional equipment to do that. But even if we had to do that, we would. But one of the considerations for us is lowering that age group still allows us to well use the GlideScope or -- or -- or any of the other video devices that we're currently employing and would absolutely be doing that in the pediatrics subset also; no question about it.
HALLIE KELLER: And I have -- I mean, they have -- we have it too, they have the pediatric blade, but then there are different tubes that actually thread

through that GlideScope blade, and some of them you can't thread if you don't have the right equipment. I mean, it does require --

MARK ORASKOVICH: We can go down to age eight with what we have with no problem right now.

JAY DOWNS: Bob.

BOB GROW: So, you know, I work with a group of about 20 docs. We're at two other receiving hospitals that you routinely take patients to, and, you know, it's kind of these issues have percolated through our group. There's been a fair amount of concern about rocuronium. I'm sure this is not the first you're going to hear this, but --

HALLIE KELLER: About what?

BOB GROW: About using roc.

HALLIE KELLER: Roc.

BOB GROW: I guess my question is: Are you planning to use it as your primary paralytic or as a second paralytic when there's contraindications to sucs, or are you just going to use roc for everybody?

MARK ORASKOVICH: I would say if we are going to continue this and -- and do the third year of the pilot project, I would like to see us go primarily to rocuronium. That would be my preference. And -- and I don't know if we've really discussed that formally yet in

terms of how we would do that. Do you have a thought, Peter?

DR. PETER TAILLAC: Um, I think your medics have matured to the point where you can give them more tools, and they can design their paralytic program, treatment plan that day to that patient. And if for some reason roc under -- as you develop the protocol for roc, you come up with the times you'd use it and the times where you might look at sucs instead, and I'd suggest putting it on as an additional tool, not taking sucs off, so you have all those tools in your toolbox, and then design the protocol for when you want to use roc, whether it's going to be primary, secondary. I mean, I would go for primary, based on my experience as well.

But part of that is also negotiating with the docs, I think, to some extent that are going to receive the patients. If they want to have potentially a paralyzed patient come into the ED instead of an awake patient, you know, quote, unquote, awake. But, you know, since your patients are getting that anyway, does it matter. But I'd suggest a conversation with the docs receiving the patients to kind of come up with, you know, a plan that everyone's comfortable with.

MARK ORASKOVICH: The literature tends to spin it as a benefit that that patient roles into the ER,

especially in the trauma setting, where airways already established, requires a confirmation on arrival in the ER and you proceed immediately with your primary, secondary survey and imaging studies. And that delay of establishing a definitive airway, which even in, I think the best of trauma circumstances can be 10, 15 -- 10 minutes in our trauma rooms, that's already done en route to the hospital, so there's a time savings there. And then that patient arrives in a very controlled state for you guys.

There is going to be that time where that still has to wear off before you can get a competent neuro exam, but I think we're already seeing that when rocuronium's been employed; in fact, having to wait longer.

But I'd really like to hear from the group as to what concerns they have and -- and how they would like to see us proceed with it. Is -- is it something you're using routinely up there now?

BOB GROW: I think that's part of the issue. I mean, you've got, like I said, 20 of us or so who, you know, we've trained all over the country, you know, people like me who read the literature, I'm at the meetings. For me roc is not standard of care.

MARK ORASKOVICH: Uh-huh.

BOB GROW: And so for -- you know, the vibe in

this room is very different than what our clinical practice is at the moment. And I guess it -- it just slaps us a little bit the wrong way to say you guys don't know your own standard of care in the field you trained and practiced in. You know, we're just going to kind of go down this route regardless.

But I mean, I've probably been in Utah for five years and, you know, granted I haven't practiced out of the state for quite a while. So if everybody else in the country is routinely using roc, and we're the last group left behind, then -- then I guess we've got issues to address beyond what's happening at the committee.

But I -- I guess my -- my sense of things generally, both in the EMS field and in emergency medicine in general, is that using roc primarily is certainly not standard of care. At least it's -- at least not locally.

And -- and you can show me the studies and maybe that's what we need is some education, but you know, our clinical practice is not that.

JAY DOWNS: There's someone raising their hand over there.

ROB BRYAN: I'm Rob Bryan. I work at IMC. I have an interest in ED and critical care and I'd be happy and come and educate your group about rocuronium worldwide and nationally. Roc has no contraindications, so there's

not the issue of having to forget that someone was in a wheelchair and you could kill them by making them hyperkalemic. There is significant benefit to prolonging the safe apnea iteration in someone that's already sick anyway.

And I think a lot of people historically have clung to a false safety blanket in the use of succinylcholine thinking that it will wear off before your critically ill patient will start breathing again. And there's ample evidence to show that in eight minutes that it takes for a healthy patient to metabolize their sucs and start moving again, is a lot longer than the four minutes it takes for a sick person to get profoundly apneic and to get profoundly hypoxic.

And so I think roc is safer. I haven't used suc in two years. It requires less thinking and less remembering of rules.

And the one other drug supply in all of the recent drug shortages we've had, is that it was two years ago that there was a national shortage of sucs and we had -- had nothing. So roc has been a much better agent.

JAY DOWNS: Dr. Taillac, you had a comment?

DR. PETER TAILLAC: I think that's a conversation that you guys can put together with the receiving docs and kind of decide personally, because I

think the receiving facility should have some input into how the care takes place in the field. That's part of the EMS system between pre-hospital and the in-hospital care.

I -- I just wanted to mention one other thing unrelated, not to take too long. Cory, you had a conversation about the expense of this program so far. Do you mind telling the audience how much you think this program has cost so far to do?

JAY DOWNS: That would be excellent to share with us. Thank you.

CORY COX: Cory Cox, Davis County Sheriff's office. When we first took on this pilot project, I mean, one of the expenses was the initial equipment costs, the medication costs, the training costs just to even put on a class for the equipment and then the personnel expenses. I mean, we have to pay our people overtime to come in -- to come in and train and then cover their shifts.

And based on my prelim -- preliminary analysis so far, this -- this training program is up into the hundreds of thousands of dollars that these agencies have been committed to this program and -- and not necessarily directly to this program but indirectly to this program as well.

So even the non-RSI medics are getting substantial amounts of training to help support the RSI

medics. And which is -- helps out in the final numbers. But if an agency does choose to take on a project like this, they would be prepared for the financial and effect of that so administrative support is absolutely paramount.

MARK ORASKOVICH: We've tried to set the bar at an extremely high level realizing we were under intense scrutiny, and we've been swimming upstream in the arrow of some literature 10 years ago. And so we would hope that the state recognizes that and keeps that bar equally high for any others who would want to consider it because we think that's what's contributed to our success.

JAY DOWNS: Okay. So --

SCOTT YOUNGQUIST: Scott Youngquist, Salt Lake City Fire. I was just going to second what Rob was saying from our emergency department at the U. We use almost exclusively, I think, rocuronium in place of using sucs.

DR. PETER TAILLAC: I haven't seen it in quite a while.

SCOTT YOUNGQUIST: I think -- think there is kind of a tidal wave of rocuronium out there.

The other question I have for you was: How many eight to -- eight through 13 year -- eight through 15 years old do you think you'll have in the next year?

HALLIE KELLER: Trauma. But other than trauma not a whole lot. I mean, our intubations are with the

tiny kids, but trauma. But there's not going to be a ton. I guess that is the bummer.

MARK ORASKOVICH: If I may, we had a patient who was RSI recently, that had she been six months different in age we would not have been able to manage her. Anatomically she wasn't any different, physiologically she wasn't any different, and we've been constrained by not being able to do for her what we were sure we could have by a barrier set by this study. And I think what allowing us to have a wider inclusion range does, is we're not looking to go out and find kids to slam tubes into.

HALLIE KELLER: Right.

MARK ORASKOVICH: But what we are looking to do is based on technology with video, based on the experience that we've gained from this, our confidence of airway managers, we now have patients that you so well said that maybe didn't get managed well before, that we feel we have the tools and the knowledge and the ability and the maturity to manage better now. And that we think that this is absolutely a patient driven thing, which by the way I will add to Dr. Grow's concern, I don't want anybody here or elsewhere to think that we're adding rocuronium because it's the in Vogue thing to do, just like swimming upstream against pre-hospital RSI.

At the onset of this, we've recognized as we've

gone through this that the thought of pre-hospital RSI has evolved elsewhere. And that includes the use of maybe drugs that are new to this area but not new elsewhere. And it's a patient care issue for us, not a keeping up with the Jones' issue.

So we believe that we're heading in the right direction for the right reasons with what we're coming to you to ask to continue to do in both of these circumstances, certainly with input from both, so.

SCOTT YOUNGQUIST: Obviously you guys have shown you can perform this very well and successfully. I guess the -- the remaining question is: Is it benefiting your patients? In other words, are they surviving when they wouldn't have or suffering less neurologic injury, which I don't think you can answer with the study, obviously, if we don't get through people. So the Bernards study, I guess, has to stand for proxy is the only randomized trial that we have.

But you could certainly look at pre and post airway management, desaturations; did you compare those to bag mask ventilation or anything like that?

MARK ORASKOVICH: We did. We didn't have a control group. And that's -- you know, that's going to be the million dollar question is, are we making a difference by improving outcomes? And I think we could apply that

same question to what we do in the emergency room. When we intubate, are we improving survival, because I don't know of any studies that show when we do RSI versus, say, having anesthesiology or somebody else now manage airway versus not doing airway that we've actually improved survival and -- and mortality.

SCOTT YOUNGQUIST: Yeah, cause -- one tale of caution was in analysts looking at, I think it was Cincinnati Children's Hospital, where they videotaped all the RSI intubations using their emergency medicine faculty and fellows, and had an alarming rate of desaturations leading to chest compression and natural administration that graded down the system perception.

I would be very, very careful about applying this to pediatric patients without thinking very carefully about how you're going to -- you know, what -- what's the threshold for stopping it in kids. Is it one bad outcome?

HALLIE KELLER: Yeah, that was --

SCOTT YOUNGQUIST: You're not going to have the numbers to have a real good confidence.

MARK ORASKOVICH: And -- and we don't -- we don't do those studies a lot, where we're looking at physicians. And -- and I work in a group of a hundred physicians. And I dare say that the paramedics I work with -- with Davis and with Layton know their airway,

algorithms, decision-making better than a significant portion of my colleagues because they are held to a standard that we've set higher. And the physicians don't have to necessarily be held to that standard other than having M.D. after their name.

JAY DOWNS: Is it -- is it the consensus of the committee or -- that they want -- we want to go for a third year on this pilot project, or are you guys thinking it's done now, or what would you like -- what would the committee like to do? I know we don't have the quorum. But what's the consensus of everybody here?

Hallie, what do you think? What --

HALLIE KELLER: I -- I mean, it's difficult when, you know, he says he feels like the study's done and he's in the process of doing the study and you say you feel like we're done, and it's hard for me to say, oh, you have to do more. To me, it sounds like between roc and lowering the patient age limit, there is more information to gain. So --

MARK ORASKOVICH: And maybe I was very blunt in saying that. I think in terms of what we were looking at for variables, we've accomplished that.

JAY DOWNS: Completed. Yeah. Which originally set out to do?

MARK ORASKOVICH: Can we help the state now in

acquiring more data, I'm more than happy to do that. We're already technically three months into this third year since it ended September 30th. And so this makes a nice transition for us to move into looking at age group differences and medications, because we can move forward right into that phase within a month.

I would like to sit down with the Davis and Ogden group and have some discussions because I think we need to have good rapport with our receiving physicians, and we all need to be sharing our concerns and -- and whatnot.

JAY DOWNS: So you'd be willing to continue on with it?

MARK ORASKOVICH: I would. I would. I don't want to give the impression that I'm firm that we're done. I would be more than happy to continue this, acquiring data, come back to you in a year from now and show you what we've -- what we've got.

JAY DOWNS: Okay. Mike, what -- what do you guys think? I'm speaking -- am I speaking for everybody or what does everybody -- what does everybody like to do with this? What's the consensus of the group?

MIKE MOFFITT: I've already kind of --

JAY DOWNS: Said what you said.

MIKE MOFFITT: -- said what I said. So I'd like

to see it go another year with the changes.
JAY DOWNS: Bob?
BOB GROW: Well, I think with an entered 52, you're pretty much obligated to continue the study. I mean, if we're talking about making a precedent for the rest of the state and we're going to base it on an entered 52 airways, you got to do more.
JAY DOWNS: Sure. I agree with Bob.
Well, we don't have a quorum to vote on -- I said that before. So now I'm going to refer back to Jolene.
What can we do, Jolene?
JOLENE WHITNEY: You can make a recommendation. And you can vote on that recommendation.
JAY DOWNS: Okay. So basically we're making the recommendation that you continue the study and the next meeting we'll vote on the recommendation; is that right?
JOLENE WHITNEY: Well, I'll find out the mechanism by which you can formalize your recommendation as a formal vote.
JAY DOWNS: Okay. Does everybody got that? Are we going to be telephonic --
JOLENE WHITNEY: It's complicated. We have -- we have to make sure that we're operating within the open meetings.

JAY DOWNS: Yes, absolutely. So on behalf of the -- of the committee and everything, you guys have done fantastic. It's something that, I agree, I think you are setting a benchmark for the rest of the state. I made myself some notes to go and -- and look into it more and everything, so, congratulations.
MARK ORASKOVICH: Well, I'd like to give our sincere gratitude to both, to the EMS Committee and the Bureau, because none of this would have been possible without you allowing us to do it and having the faith that we would do it as we said we would. And so, again, sincere gratitude for letting us proceed forward with this.
JAY DOWNS: And I'm sure your patients benefit and appreciate it. Good job. Thank you.
JOLENE WHITNEY: So do you want to vote on the recommendation, take a vote from the committee on the recommendation?
JAY DOWNS: You want that?
Okay. I'll entertain a motion to vote on the motion. Entertain a motion to vote on the recommendation to continue the -- the study.
MARK ADAMS: I'll make that motion.
JAY DOWNS: Okay. Motion made.
HALLIE KELLER: I'll second.

LYNN YEATES: And I'll second it.
JAY DOWNS: All in favor say aye.
COLLECTIVE: Aye.
JAY DOWNS: Any nay? No. So it looks --
JOLENE WHITNEY: No abstentions.
JAY DOWNS: Any abstained?
BOB GROW: I guess I'm not -- we're voting on the motion to do what?
JAY DOWNS: To make a recommendation that they continue the study. It's confusing because we don't have a quorum.
BOB GROW: I don't think we -- I don't think we understand what continuing the study entails yet, because they haven't told us that. I mean, that's -- right, Mark? Are we still --
MARK ORASKOVICH: What?
BOB GROW: Under what terms are we continuing for it? Are we lowering the age? Are we changing the drugs, or are we continuing as is?
MARK ORASKOVICH: So the study would continue as is with the addition of writing up a protocol for the use of rocuronium, ketamine, and lowering our age criteria. And if you want to have those documents for your review before you vote on it, that would be fine. We can get that to you, and we will just continue the protocol under

the option extending for a third year.
JERI JOHNSON: I'd agree. I think we should have more specifics before.
JAY DOWNS: Okay. Let's continue the -- continue the study and then next month you come with that information. Is that what your motion is?
MARK ADAMS: I'll amend my motion to include that stipulation.
JAY DOWNS: Awesome. And the seconded. Sheriff?
LYNN YEATES: Second.
JAY DOWNS: Okay. Does that clarify? And all in favor again.
COLLECTIVE: Aye.
JAY DOWNS: Any nay? Any abstain? Good. That was good. Made it through that one.
Mobile healthcare -- mobile health paramedic pilot project by Chief Baldwin, salt Lake City; correct?
CLARE BALDWIN: Yes. For those of you who don't know, I -- I'm Clare Baldwin. I'm the Division Chief of Medical Services for Salt Lake City.
A little over a year ago, we started working on a collaborative project with the community including all of the hospitals, nonprofits, other fire agencies within the valley. And we -- we had a little get together in

November of 2012 to begin the thought process of community health.

So we -- we've been working on this community health program. And at this time we are ready to move forward. So we're here in discussions that we've had with some of the members of the Bureau of EMS. It's been suggested that even though community health ideas are a little bit fuzzy as far as whether it falls under the guise of emergency medicine or not, we believe that having the support of the Bureau of EMS and moving forward with that -- with that idea that it is an extension of emergency medicine in more of a preemptive strike rather than dealing with it immediately, it still will work through the 911 system.

At this time I'm going to turn the time over to Dr. Scott Youngquist, and he's going to review our -- our program initiative. Thanks.

SCOTT YOUNGQUIST: Thanks. This is kind of the problem that we got into, why we got into mobile health paramedics. Anyone who practices emergency type care realizes that not everything, not every call for help is an emergency. We certainly realize that in Salt Lake City.

This is some -- these are some of our most frequent callers here; you can see the top four here. We

have -- in 2013, we had 150 unique callers that called 911 at least six times. The top person in 2013 was, I think, 43 at that time. So these are people who either have terrible luck and have run into problems all the time, or there's some other unmet need going on. Anybody who practices emergency medicine knows, that's probably what it is.

So even though I didn't sign up to see three months of back pain that's been seen by five other providers as an emergency physician, that's the reality of the practice environment which we're in. We've got a 911 system that's open and free to all people, and so it's going to be used appropriately and inappropriately sometimes. And sometimes it's naive inappropriate use and sometimes it's frank abuse of the EMS system.

When someone calls 911, of course, this is going to lead to some cascading of health care costs. This is the first domino when they're taken to the emergency department. EMTALA law applies, and I have to figure out whether this is a true emergency or not using some testing, C.T. scans, whatever it might be to figure out if this person is truly dying from their complaint or not. And sometimes it's apparent later that they've been seen yesterday at another emergency department that they went to by ambulance for the exact same thing, and they didn't

bother to tell me, they already had a C.T. of their abdomen or whatever. So there's some unfortunate duplication of services that occurs in the emergency department when patients go all over the place in different -- in -- via EMS for care that's a chronic condition.

It's a high cost care environment, and we also end up overburdening our emergency departments. And you guys know that if the emergency department is full and overflowing, if someone comes in with a heart attack or someone comes in with a massive trauma, their survival has gone down statistically, not by very much, but by a few small percentage points or something like that. And presumably that's due to the staff being diverted and resources being diverted to care for these other patients. So it hurts all of us who seek emergency care if the emergency departments are overburdened with these nonacute complaints.

And, of course, it's provider burnout. We talked to firefighters, paramedics, EMTs, who have seen the exact same person at three in the morning on every shift, and they get tired of the lifestyle. So it's no wonder people burn out from this.

We looked at our top 10 users to try and see if there were some sort of themes that emerge from the people

who call us the most. And not surprisingly, these themes relate with societal problems. We're sort of the tip of the spear when it comes to unsolved problems in society. So homelessness occurred 90 percent of the time among these cases, alcohol and drug abuse in seven out of 10, psychiatric illness in a large proportion, and chronic disease. Those were the things we noticed were reoccurring themes among these top 10 users. So these are problems that society hasn't figured out, so who are we to figure them out as emergency providers, of course.

Well, this problem starts at dispatch, of course, where we have non-medically call centers taking calls and they follow in our system. The -- the Pro QA priority dispatch method of prioritizing calls and figuring out what type of response is required, is it lights and sirens, is a BLS or ALS response. But they don't have any capability for figuring out is this truly an emergency or not.

But there is available in emergency communications a nurse specialist which we're adding to dispatch. And the idea here is that the lowest acuity calls would be transferred after they've been screened to this emergency care nurse who would take a more in depth history using protocols that come from the American Academies of Emergency Dispatch. They're all QA. The

person is trained by the academy as well. And that that person then determines using a directory of services what is the right response, if any, to the person, or can they arrange for alternative means of transportation, a taxi cab, something like that, to an urgent care center, the patient's primary care doctor.

So this person is a nurse navigator who helps this undifferentiated 911 caller who seems to have a nonacute complaint get to the right level of care through the right transportation means.

And then, in addition to that, we're adding what's called a mobile health paramedic. This is someone that is well-trained as a paramedic, but also has the people person skills to be something more. Something like a life coach, a helper, a boy scout, and this is someone who we say you go and find out why this person is calling us so often and see if you can fix the problem, whether it be an unstable condition, they need more in-home health care, whether it's psychiatric illness that's not being treated well, whatever the problem may be, let's figure this out and try and get them the help that they need.

So these are the boy scouts we send out. And they do all sorts of things, but they're -- they're still operating within their scope of practice. They're not giving any new medications, not giving any additional

treatments that home health or a nurse would provide.

And they respond in a smaller vehicle. Every time someone calls 911, two of these may show up and an ambulance. That's a lot of diesel fuel, it's a lot of pollution in our environment, it's a lot of wear and tear on apparatus and on the streets of Salt Lake City, and that goes out from you and I as taxpayers to fix that kind of problem every year, and we all pay for the consequences of too much CO2 emissions.

So these mobile health paramedics would respond in two fashions: One would be the frequent user program. These -- they would go out and try to find these people, as I said, and try to fix whatever problem is going on. It means taking ownership of some people who are just slipping through the cracks of society, and then a dispatch response through the -- this emergency nurse that's in dispatch who can say it sounds like your runny nose does not require an ambulance and two fire trucks and a trip to the emergency department right away. Why don't we send our mobile health paramedic to come check you out, see if you're okay to wait for a visit to your primary care doctor tomorrow.

So that's the kind of response that they would do as well. They would assess the person and figure out, make sure they're not sick.

So these are two mobile health paramedics, Captain Ty Shepard, who's here who's overseeing -- helping oversee the program, and Josh Diamond, who's another paramedic visiting these people.

So this goes from a very simple what so called you call, we haul, that's all, type of model of 911 to a more complicated one by, as I admit, but one that will help these patients keep from falling through the cracks -- cracks further, I think.

So these require partnerships with people. We're not trying to replace any existing services, but we're trying to form a nexus with these people that doesn't exist previously.

Primary care doctors have no idea how often their patients are calling 911. That information is not fed back to them in any fashion. So they're -- unless the patient mentions it to them, they're oblivious to this information. And they're sometimes surprised when we tell them about it. But these are the people we've -- we've been working with and we're hoping to expand this so that this will be multiple slides and not just one in the future.

Here's a case study for you. This patient had cerebral palsy, had a traumatic brain injury, wheelchair bound, independently living alone and had 22 calls between

January and October of 2013. Most of these calls did not require transport and had to do with falls at home. So we sent the in-home -- the mobile health paramedic to their home to do a kind of needs assessment, a case management type of thing from our side, and found that most of these calls resulted from problems with mobility and transfers; the person just couldn't get in and out of their wheelchair to the bed or whatever.

And so this community paramedic worked with case management to arrange for home health, occupational therapy, and that resulted from two calls a month on average to zero over the last couple months of the year. We did have one more call from him recently I just heard, but we've certainly decreased that frequency of calls and this -- the financial impact can be estimated from our restitution cost of just responding on scene to these calls. And it adds up over time as you can see.

Here's another one. This is a homeless patient with traumatic brain injury, seizures, frequent calls to 911 by bystanders who would see the patient seize multiple times a day on the street. Had a history of substance abuse, 22 calls to 911 over three mon -- over six months.

So we initiated an interdisciplinary review with the help of the Fourth Street Clinic. We found this patient had actual insurance and could receive care

through -- through IHC Hospitals and so we established LDS Hospital as the single receiving center when this patient needed transport.

In the meantime, we worked with homeless resources to get a judicial review of this person. And they determined through Adult Protective Services that this person shouldn't be living out on the street unprotected, that they are a danger to themselves and so was placed in a group home. So he went from living on the street here to living in a group home and wouldn't have happened without this type of program. The person -- we'd still be going on -- on runs to this person. So it went from four-and-a-half per month to zero.

This is the financial impact that was estimated from the Fourth Street Clinic. This was a little over three years. You can see the total cost of caring for this individual who is slipping through the cracks was substantial. Now it's about $40,000 a year to the taxpayers for the person to live in this group setting.

So this can have a big impact, I think, on the quality of life for our providers because they could have the satisfaction of knowing that when they're going on someone frequently, they can pass that information along to our mobile health paramedic, that something will be done and that we will do all that we can to -- to reduce

this.

Before we kind of said, we stood and watched in horror as these things happened. I think we can make a difference now. So any questions on that?

ANDY SMITH: What safety measures are in place for that single responding paramedic if he's walking into these situations without anyone or --

CLARE BALDWIN: I -- I can answer that. They're not going to be responding as single resource. They will be responding together.

ANDY SMITH: Okay.

CLARE BALDWIN: We've thought about that and we believe that in our environment that we would rather send two in for that very reason. So they will be going together. There'll be at least two, if I have to go along.

JAY DOWNS: Excuse me, what's your name for the --

ANDY SMITH: Andy Smith.

CLARE BALDWIN: I still am a paramedic, so.

JAY DOWNS: Let's just make sure that we recognize and get your name and everything for the recorder. Thank you.

CLARE BALDWIN: Any other questions?

JAY DOWNS: Any other questions or anything else

you want us to bring? I think it's an action on our agenda for the board to possibly send back down to our subcommittees to -- to review more for what can be done more with the state, if that's so what the board decide -- desires to do. We would send it down to the professional development.

Yes, Chief.

CLARE BALDWIN: I just want to add one more thing. One of the things with these programs nationwide, there have been others that have initiated these. The continued problem of everybody is sustainability. Whether it -- no matter what it is, it's -- it's us proving to the hospitals, to the insurance providers, to everyone involved that the cost savings will be there so that we can reclaim a share of that cost savings, so a cost share, if you will, of those savings.

There's some examples around the country where this is working very well. Fort Worth is one of the -- one of the frontrunners here where they have shown that this works. And they're using a program with both of these, both pieces. There are other pieces in the country that are only doing a mobile health -- by the way we can't say community paramedic, because it's been copyrighted, so it's a mobile health paramedic is our program. That's why that term's being used in MHP. So it's already -- we --

we don't want to have to pay the residuals.

But if -- if -- if we can't, if we can't find a way to share or -- or to save money, then we're -- we're kind of looking at it, it's the right thing to do. We know it's the right thing to do, but that only goes so far.

So part of our -- part of our pro -- our pilot program is to prove that sustainability to the Utah Hospitals Association, to the individual hospital groups that are participating, as well as to other agencies that are looking at maybe is this a good idea for them. There's all that question about, you know, well, we might lose money in the transport, but we're dealing with patients that are either low pay or no pay for the most part anyway in these groups. So we're -- it's a balancing act and -- and we think it's the right thing to do and the time is -- is now rather than waiting.

JAY DOWNS: Yeah, Mike.

MIKE MOFFITT: Mike Moffitt. Having been involved from almost day one with Salt Lake City Fire and the development of this project, I -- I fully support it, first of all. Secondly, I don't believe that anything they're doing really fits the normal mold of pilot project approval, because they're not doing anything new, they're not adding more skills. In fact, really using paramedic

skills, they're going to be an evaluation type thing, and it's pathway management to coin an old term.

I would be supportive of a motion maybe to send the overall topic to our subcommittees, to just have them look at that and -- and see if there's anything they need or the committee ourselves need to do, but I would not want to place any -- any barriers or delays in front of Salt Lake City to move forward with this, because I just don't see -- you know, we're not -- we're not talking RSI or just, you know, drugs or an expanded role for paramedics. We're not trying to have them be something they aren't already.

JAY DOWNS: Jolene?

JOLENE WHITNEY: Just to clarify, too, the reason it's on the committee under an action item is for that very reason is for the committee --

MIKE MOFFITT: Oh, I got one right.

JOLENE WHITNEY: -- for the committee to consider the concept and push it down to the subcommittees for discussion and so they can talk about any concerns or issues that might apply with this concept on a statewide basis and the development of rules. I mean, there's -- it's -- it's seen nationally in a lot of places and it's -- it's taking hold. We're seeing it now in Utah. We need to look at it as an EMS community and see how it

fits. And if there are protections that we can have in place for the providers and for the public, we need to start having discussions in appropriate forums for that kind of -- for this concept.

So the committee doesn't have to consider this proposal as a pilot project, because they're not having any kind of a waiver or variance for anything that they're not already doing within their scope of practice. So just to clarify.

CLARE BALDWIN: I think it's important that we collaborate, that we're willing to share our information as we go to help everybody else along the way. And that's kind of why we're here, is we're going down into new territory and everyone has a lot of questions. And so I -- I would agree with -- with Mike that what we are doing is really not new.

There are some community paramedic programs in the country that are just short of being P.A.'s. And we're not looking at that. We don't believe that that -- there's value in us going down that road. So we're -- there may be in the rural setting, but -- but for us there is not that value. For us, just getting into the home in that so -- social interaction with the patient is where it's at and not -- and not adding new skills or new -- new techniques that -- that mostly it's -- there will be

emphasis with our community paramedics on the mental health aspect, because most of the patients that we're dealing with do have that -- that mental health piece that -- that's not being addressed. And -- and the overall general training of paramedic's role doesn't cover mental health the way it should.

JAY DOWNS: So -- so Chief, I would assume then you'd be willing to have, like, either yourself or one of -- some of your staff come in and meet with the committees --

CLARE BALDWIN: Absolutely.

JAY DOWNS: -- subcommittees and introduce them to the idea and kind of like what you guys have done already. That way --

CLARE BALDWIN: Yes.

JAY DOWNS: -- it kind of gets to it. They're -- they're not redoing it, is what I'm trying to say.

CLARE BALDWIN: Correct. Correct. There's no -- yeah, we're not reinventing the wheel either. We're -- we're stealing, borrowing from everybody else that's already laid the ground. Okay?

JAY DOWNS: We don't have to have a vote on that, we can just make that recommendation to the subcommittees. With the consensus of the committee. Good?

CLARE BALDWIN: Thank you.

JAY DOWNS: Okay. So we will take that to the subcommittees, both of them, the operations and the professional development to look into that.

ANDY SMITH: Can I ask one more question?

JAY DOWNS: Yeah, sure, go ahead. State your name again, please.

ANDY SMITH: Andy Smith.

JAY DOWNS: Sorry for that, Andy.

ANDY SMITH: You said there's two different ways that individuals are identified for this program.

CLARE BALDWIN: Uh-huh.

ANDY SMITH: And either they are dispatched through the -- the nursing side of it or dispatch a community paramedic out there?

CLARE BALDWIN: Yes.

ANDY SMITH: Or you've identified frequent abusers or callers or whatever you want to call them.

CLARE BALDWIN: Correct.

UNKNOWN: Loyal users.

ANDY SMITH: Loyal users. So then your -- your community paramedics just have a list of folks that they visit then?

CLARE BALDWIN: Well, in this collaboration with the hospitals, they are providing us names of people that

are on their list that they need us to go out and visit.

ANDY SMITH: Okay. Okay.

CLARE BALDWIN: So we are working with all the hospitals in the valley that -- you know, that -- that have that -- those frequent users that live in Salt Lake City proper, because right now this program is only Salt Lake City proper.

ANDY SMITH: Okay.

CLARE BALDWIN: So then we -- we get those names and we work on those referrals as well, as well as the referrals that our crews give us. They'll go on a call. They'll -- for right now because we don't have the ECNS in place and they'll give us the referrals through -- we have an Adobe forms, so we get those referrals that way also.

ANDY SMITH: Okay.

BRIAN DALE: So we can meet them before they have crisis.

JAY DOWNS: Excuse me, sir, what's your name?

BRIAN: Brian Dale, Salt Lake City Fire.

ANDY SMITH: Is there a formal report back to that referring physician or hospital of the condition of the patient?

CLARE BALDWIN: Yes.

ANDY SMITH: Okay. All right.

TY SHEPHERD: So that's being -- Ty Shepherd,

Salt Lake City Fire. We usually -- right now so far we're working with the case managers, not as much the primary physicians yet -- we're going to start contacting them but a lot of case management interaction.

JAY DOWNS: I'll have more of this information coming through the subcommittees. So thank you.

The next item was on a digital, the previous agenda, and we figured out it wasn't on this one, so we added it to this one, and that was -- was Tami, North Sanpete ambulance waiver, is that you?

TAMI GOODIN: Well, it's not -- I'll introduce Tracy Braithwaite from North Sanpete. North Sanpete is requesting a paramedic schedule order for the committee for their consideration for their paramedic application. I'm going to turn it over to Tracy.

JAY DOWNS: Tracy.

TRACY BRAITHWAITE: Yeah. I'm Tracy Braithwaite, North Sanpete Ambulance. We've also got Bryan Bench here with me. We're two of the paramedics from North Sanpete. What we're requesting is the waiver, not like -- unlike other agencies have done here recently, to go ahead and allow us to act as paramedics when we are available to respond in that capacity.

Our -- our plan is written out. I don't know how many of you had a chance to read through it. Our plan

was -- is there's five of us that we have. Generally speaking, we can have one of us on all the time to cover our three ambulances. We have stations throughout our area, and that paramedic would respond in a quick response vehicle to any paramedic level calls as is determined through dispatch.

So generally we -- we have a paramedic go on every call, not every call, but we have a paramedic available most of the time to -- to respond to these calls, but that paramedic would be alone with an advanced EMT and an EMT or advanced EMT's depending on how the ambulance is actually staffed. So we would be a lone paramedic but we'd -- we'd still -- we could still function as a paramedic.

JAY DOWNS: So I understand what you are saying is you'd have them like in a suburban or a truck or something.

TRACY BRAITHWAITE: Yeah.

JAY DOWNS: And then if it was an appropriate level of call for a paramedic, that individual would respond with the advanced EMTs on the ambulance?

TRACY BRAITHWAITE: Yeah, the ambulances are staffed as is currently under our advanced EMT license and that they will make no -- continue to be staffed that way, and the paramedic would just be an additional provider

that is coming on these calls that we require paramedic level.

JAY DOWNS: Okay. So with five people, you feel you can staff paramedic, at least one single paramedic on most calls, unless that paramedic's tied up on another call, is that what you're saying?

TRACY BRAITHWAITE: Yeah, unless they're -- if they're on another call, obviously they're tied up, but generally speaking how our work schedules work, is we all work different jobs. There's usually at least one of us around seven days a week.

JAY DOWNS: Okay.

TRACY BRAITHWAITE: That we can manage to get at least -- maybe -- maybe not all seven days, but maybe at least five -- five out of seven days a week we would have a paramedic available to respond.

JAY DOWNS: Committee? What's -- what -- what's your thoughts? Any questions? You got anything else? Is that --

TRACY BRAITHWAITE: That's pretty much our plan.

JAY DOWNS: Okay.

TRACY BRAITHWAITE: We group our ambulances obviously to the paramedic level with the drugs update, our protocols as necessary. We already have bonders, defibrillators that are at the paramedic level. So the

cost to us isn't that much, it's just a matter of adding a few drugs and some airway supplies.

JAY DOWNS: Okay. Anybody got any questions or concerns for them? Of course, we're not a quorum.

TRACY BRAITHWAITE: Yeah.

JAY DOWNS: I mentioned that several times earlier. However, the committee can make a recommendation like we did with the other one; is that correct, Jolene?

JOLENE WHITNEY: Correct.

JERI JOHNSON: Do they have to have a letter from the government so they're aware of --

TRACY BRAITHWAITE: We -- we -- we are a Special Service District. We are our own kind of quasi government agency. So we make our own -- we -- we submit budgets to the Auditor's office every year. You know, so we operate independent of any government agency.

JAY DOWNS: I think what Jeri's referring to is some of the other agencies that we've had them do, is the support of the communities they serve, that they're -- they're --

JERI JOHNSON: They're knowledgeable.

JAY DOWNS: Yeah. That they're --

TRACY BRAITHWAITE: Our -- our -- our Board of Directors is made up of representatives from each city. So each city already kind of has a say in what we're

doing. So that's kind of -- so...

JAY DOWNS: Okay. Tami in the back.

TAMI GOODIN: Just for clarification, the agency that you require the government support letter, that was for a current license provider that -- all that information will come into their -- for their license application. So right now they're just discussing for the staffing waiver. So that was a difference between the two.

JAY DOWNS: Thank you. Okay. Committee?

JERI JOHNSON: It calls in just as the others.

MARK ADAMS: Mark Adams, just one question. Did the proposal include protocols keeping paramedic drugs and things safe and secure --

TRACY BRAITHWAITE: Yes.

MARK ADAMS: -- and locked so that there's no access to them outside of the paramedic?

BRYAN BENCH: Bryan Bench, North Sanpete. We've both done this together. Yes, everything will be separate. So we would actually have separate lock boxes for any narcotics that are paramedic based versus AEMT. So everything would be completely separate.

JAY DOWNS: Good. Well, we can make a motion to make a recommendation, am I right? And then we would take it up at a later date for the final vote, right?

JOLENE WHITNEY: Uh-huh.

JERI JOHNSON: I'll make a motion.

JAY DOWNS: Okay. Motion is?

JERI JOHNSON: To accept --

JAY DOWNS: To approve? To grant it?

JERI JOHNSON: -- to approve their proposal.

JAY DOWNS: Okay.

LYNN YEATES: I'll second.

JAY DOWNS: Seconded by Sheriff. Okay. Any further discussion on the motion? I see none. Call for a vote. All in favor say aye.

COLLECTIVE: Aye.

JAY DOWNS: Any opposed? Any abstained? Good. Okay. Next action. Thank you.

TRACY BRAITHWAITE: I was going to stay up here, I think I'm next.

JOLENE WHITNEY: He gets to stay.

JAY DOWNS: Are you next?

JOLENE WHITNEY: He's next, yeah. Operations.

JAY DOWNS: Oh, good. There you go, Trace. You're up next. Wow us and woo us.

TRACY BRAITHWAITE: So the things I have to report from the Operations Subcommittee is this emergency vehicle operators rule that's gone into effect. We had a -- kind of our own little task force that we had kind of

make up this rule. It's gone into effect.

We subsequently decided that there's things -- that the New Rules Task Force that is coming on board would -- would like to maybe look at taking out, and that's what we had to strike through here on our stuff. So as it is written currently, without the strike through, that's what is in the rule currently. So, but we would recommend that this new Rules Task Force strike the -- what we have decided to take out, but it's kind of unnecessary.

JAY DOWNS: Okay. So what you're saying is you're making a recommendation to be taken back to the Rules Task Force to strike out what you're asking?

TRACY BRAITHWAITE: Yeah, pretty much.

JAY DOWNS: Okay.

TRACY BRAITHWAITE: Let the Rules Task Force take it over now 'cause it's base -- it's in rule. So it's kind of up to the task force now.

JAY DOWNS: Committee agree? Send it back to the rules?

MARK ADAMS: Agree.

JAY DOWNS: Okay. Okay. Anything else?

TRACY BRAITHWAITE: Nothing else from our committee, no.

JAY DOWNS: Okay.

TRACY BRAITHWAITE: We would like some, you know, maybe some more input from the overall, the EMS committee from you guys on things that we can -- can do because we can't find ourselves sometimes, not really having anything to discuss, so.

JAY DOWNS: You want more work to do?

TRACY BRAITHWAITE: We would certainly -- well, yeah, you know, if we're going to take the time to come up to these meetings, yeah, I think it's the consensus of our committee members, let's have something to actually discuss when we come up here.

JAY DOWNS: Okay.

TRACY BRAITHWAITE: Other than that, I have nothing else.

JAY DOWNS: Okay. We'll take that under advisement. Thank you.

The next line item is -- is myself. It was actually -- Dean was -- Dean York? Yeah, from Provo, he was -- he is the newly elected chair of the rules committee.

JOLENE WHITNEY: He's actually the liaison.

JAY DOWNS: Liaison, that's right. Correct.

Let me kind of give you a little history what's happened with the rules committee. It's kind of like in statute, there's a rules committee.

So what we did is, as you may recall from the last year of going through the rules process and different committees and stuff, so what we did is we were tasked by this committee to go and make a Rules Task Force and put it together. And we actually have done that. And we've had our first meeting, which was in December. Our next meeting's coming up in January. That Rules Task Force meets every month.

To kind of give you an idea what we did, is we went through and we solicited a membership from the different organizations that EMS interacts with, i.e., like, some like the Fire Chief's Association, the EMT Association, the Police Association -- the Sheriff's Association, wasn't it?

JOLENE WHITNEY: Uh-huh.

JAY DOWNS: The Utah League of Cities and Towns. Just a -- there was several other ones that we had to make up this committee. This committee is made up of all these different members. And what they do now, is they're tasked right now going through the rules that were during the -- the process where we were looking for public opinion, they're going through those rules that people had questions on. And that's what the Rules Task Force is currently working on.

There will be other things that will come down

from this committee or the Bureau for them to work on. I need to clarify with everybody to understand how that rules task force works. They are not the -- the end all. They -- they -- what rules they make, does not make it the rule. What they do now is they bring it back either depending on whether it's the Bureau or the EMS committee, they'll make a recommendation that comes back to either one of those two agencies. They work for both agencies, but they don't -- they just make recommendations back. But it's the Bureau rule or if it's an EMS committee rule, they bring those information back to those two committees.

Just so everybody knows, we made this -- this really -- emphasize it to those people who are on the rules committee, that they represent the discipline that they've been chosen from. They do not represent the agency that they work for. Okay?

So if you have somebody from the sheriff's office and the Sheriff's Association, they don't represent, like -- like, they wouldn't come in and represent Box Elder County. They represent the Sheriff's Association for the State of Utah as a whole. And by doing that, we're looking at the rules as a state of Utah rules and not necessarily agency.

And I think that was some of the things that was discussed on how we can make the rules committee better.

So that's one of the things that we are working on within the rules committee.

But it is up and going. Next meeting is on the 22nd, I believe, Susan, 22nd. So it's an open meeting. Anybody wants to come and attend. They've -- they've voted to go four-hour meetings with a break in the middle. So they plan on working hard on it. So it's up and going. That's all I have to report on that.

Grants. The next line item is grants and Allan.

ALLAN LIU: That was fast, Jay.

JAY DOWNS: Good. Make yours.

ALLAN LIU: I'm Allan Liu, financial analyst for the Bureau. There's three items on the table. I don't know if the committee has received. There is a subcommittee meeting that we had on November 20th. It was an emergency one. What happened is we had audits of various EMS agencies, and there was an audit finding with Carbon County in their competitive grants.

They purchased a training mannequin for $800. They submitted us for reimbursement, and they get reimbursed 50 percent. That's the matching portion they have to pay.

We processed that. With the audit -- auditor, they noticed that the payment, the actual cost of the mannequin was 499. So in turn the Bureau of EMS has paid

with grant funds more than they should have.

From -- it looks like it was an unintentional clerical error based on what their finance department pays and what they received. And very oftentimes when people are purchasing, there's a discount that's not noticed or applied.

So, you know, the grant subcommittee had to make a recommendation on what to do moving forward. They recommend auditing Cardon County for fiscal year '13 and fiscal year '14. This audit thing that the auditors found was for fiscal '12. So they want to audit the grants for Carbon for fiscal '13 and '14. And that's what you need to vote and make a recommendation on.

I -- during that time, I had a little heartburn because fiscal year '14, we're currently in fiscal year '14, and financially we don't audit things in the future. That just doesn't work. So my recommendation is to change it a little bit, is to audit fiscal year '11 and audit fiscal year '13, not fiscal '14.

JERI JOHNSON: Makes sense.

JAY DOWNS: Okay. I guess we're back to the recommendation of recommendation.

JOLENE WHITNEY: Uh-huh.

JAY DOWNS: This is awkward.

JERI JOHNSON: It is. I accept your

recommendation.

JAY DOWNS: That Allan presented for us?

JERI JOHNSON: Yes.

JAY DOWNS: You want to form that in a motion?

JERI JOHNSON: I'd like to make a motion to accept Allan's recommendations for the audit, fiscal year '11 and '13.

JAY DOWNS: Seconded?

LYNN YEATES: I'll second.

JAY DOWNS: Sheriff, second. Okay. So any discussion on that?

So basically what we're doing is we're making a recommendation that the -- the audit, the years '11 and '13, right, and then we're going to make a recommendation that we accept it as an action item next time or vote on it the next time; is that correct? Okay. All in favor say aye.

COLLECTIVE: Aye.

JAY DOWNS: Opposed? None. Any abstained? Nobody. Okay. Good.

ALLAN LIU: The last item are two things, is the acceptance of the competitive grant guidelines and per capita grant guidelines. There are just tweaks to dates for deadlines. The major changes, they're really tiny, is, like, competitive. For example, under computers,

we're not reimbursing for projectors anymore. Projectors have come down in price, and they feel that that's not something awarded in the grants.

Another item is the deadlines. We're changing the deadlines to have all receipts and things submitted to our office so we can process by end of the fiscal year by May 15th. That bumps it up several weeks. However, for processing and things, it's just necessary for us to do that so everybody gets reimbursed instead of getting caught without being reimbursed.

JOLENE WHITNEY: Well --

JAY DOWNS: Yeah, Jolene.

JOLENE WHITNEY: -- one of the -- one of the reasons for bumping it up also was the grants committee needs to know how much money is left in the -- in the pot. So the sooner they can know that, the sooner they can determine the allocation for the next year. So that's why it was, you know, moved up just a smidge to get all that information so they could make a better decision about the available grants for the next year.

ALLAN LIU: And we will continue to email EMS agency reminders to try to submit things early, because sometimes those email reminders help to get things processed and nothing's just a lax simply because of the volume of grants we get at the end of the year.

JAY DOWNS: Anything else? Thanks, Allan.

Anybody got anything else for Allan for the grants committee? Okay. I guess that's it.

ALLAN LIU: I think you need a motion to -- to request voting on -- on -- on these guidelines.

JAY DOWNS: On the guidelines. So make a recommendation to the recommendation again. Okay. This is incredibly awkward.

JERI JOHNSON: It's too much to say.

JAY DOWNS: Make a recommendation, we don't have a quorum. So I'll entertain a motion. Anybody make a motion? Mark?

MARK ADAMS: So move that we adopt the proposed guidelines from the grants committee.

JAY DOWNS: Okay. Do I have a motion, a second?

MIKE MOFFITT: Second.

JAY DOWNS: That's Mike, second. Okay. Any -- any discussion on the motion? Seeing none, I'll call for a vote. All in favor say aye.

COLLECTIVE: Aye.

JAY DOWNS: Any opposed? Any abstained? Okay. Good. We'll make a recommendation.

Okay. Informational items. Data on medical usage. Richard Thomas.

RICHARD THOMAS: Well, thank you all very much

for giving me a few minutes to talk about a project that we've been working on in the EMSC Advisory Committee.

By way of introduction, my name is Richard Thomas. I'm the team leader for the ED pharmacists at Primary Children's.

This all started actually back in 1979 when I had the privilege of being the first ED pharmacist in California working at the University Hospital in Orange County. And the hospital had the contract for paramedic training. And so I very quickly became involved in EMS. I was on the county EMS committee, as well as on the drug and equipment committee, which basically did all the drugs and protocols for the Orange County paramedic system. And I chaired that committee for a number of years.

After 12 years, I moved to Arizona where I was quickly recruited to beyond the state EMS paramedic drug and equipment committee, and I chaired that for a number of years. I spent two years on the EMSC Advisory Committee in Arizona and I've been on the EMSC Advisory Committee here for five years. That's almost 30 years of involvement in pre-hospital care. And almost continually for those 30 years, I've been frustrated by the inability to answer some very simple basic questions. How are drugs used in the pre-hospital care setting? And do they make a difference? What are the outcomes of using those drugs?

Well, obviously we'd love to have a double-blind randomized controlled study to answer those kind of questions, but we don't have those kind of resources. I was very pleased and delighted when I got here to Utah and learned about the Polaris database that we have actually, a tool that can start us in that direction.

And so a couple of years ago I asked if we couldn't review the use of pre-hospital drugs for pediatric patients. And so we were given -- I was given a database to do that with, and then subsequently we looked at a couple of years later. So we looked at a period from 2007 to 2010. Those of you that are familiar with how things have evolved in terms of electronic medical records know that in 2007 not all the units were reporting. And so consequently we decided to take a rather large amount of data, 27,000 records, and then in 2012 we did just one year's worth of data. As you can see a substantial number.

So in order to be included in the analysis, the interaction had to include at least one drug that was administered in the pre-hospital setting. When you looked at those numbers, you very quickly began to realize that the vast majority of those patients were either getting oxygen or normal saline. And so we eliminated those out of the analysis. We also eliminated any drugs that were

started in a hospital and were just used basically -- were reported during transport.

We ended up with a list of 30 drugs. And then what we did is, we tabulated the drugs based upon route of expose -- route of administration and on outcome.

So hopefully you picked up these two rather small printed spreadsheets which are on the back table. The white one basically talks about routes of exposure and the purple one talks about outcomes.

So when we look at these drugs, we kind of grouped them into pharmacologic or therapeutic categories. We have basically some oral analgesic, antipyretics with Acetaminophen and Ibuprofen. We had some IV analgesics, which are all opiates, fentanyl, meperidine and morphine. We have a couple of what I loosely use this term anecdote, but basically activated charcoal and naloxone, antiemetics, ondansetron, promethazine; drugs for seizures, lorazepam, midazolam; an antihistamine, even though promethazine is an antihistamine, it's not usually used that way. Diphenhydramine is usually the agent of choice for that. One antipsychotic, a variety of different cardiovascular agents, adenosine, dopamine, epinephrine, nitroglycerine, et cetera; some glycemic agents, glucagon and dextrose; a couple of respiratory drugs for inhalation, albuterol and ipratropium. And then

RSI agents, Atomadig, sudsonel and vecuronium.

So what are the drugs that are given to kids? Well, you could probably have guessed this, but it's nice to have some actual data to support what was your guess.

So we can see that there are two drugs, morphine and fentanyl, that are in the top three. So one of the concerns that we certainly should all have is control of pain in pediatric patients. And it looks like we're utilizing two of these drugs in a -- in a very similar way.

It's interesting, however, to see the shift in the use of morphine and fentanyl. Fentanyl has a much more rapid onset of action. It has a shorter duration of action. It probably, at least in some studies, is a -- the drug of choice for orthopedic injuries. And what we're certainly seeing is a drop here from this first period versus the second of about 5 percent, whereas with fentanyl we're seeing an almost compensatory or equivalent increase in its use. So that -- that's an interesting trend to look at.

We see that albuterol is con -- is frequently used. It's the second most frequently used drug.

Epinephrine, ondansetron and midazolam, again you can see what the percentages are, and they don't vary a lot. Although, again, you can see ondansetron here has

gone up significantly in its use, over just this five-year time period.

HALLIE KELLER: Richard, is that inhaled epinephrine?

RICHARD THOMAS: That is all forms of epinephrine.

HALLIE KELLER: All forms.

RICHARD THOMAS: All forms of epinephrine. And if you look on the sheet where it shows routes of exposure -- routes of administration, you can see all the different types of ways in which epinephrine is being administered in a pre-hospital setting.

Now outcomes. I cannot find anywhere in any of the literature -- excuse me, any of the documentation that I have about Polaris and NEMSIS as to exactly what these defin -- what the definitions of these things are. I have to assume that when a medic is filling out a report run and they get to the field that asks the question, what was the outcome, there's a little bit of subjective decision making going on here.

So improved, unchanged, worse, those are probably the three that we are most interested in. The good thing is, is that if you look at worse, that is a very rare outcome.

On the other hand, we see what seems to be an

increasing improvement in the outcome of patients who are receiving pre-hospital outcomes. Again, you have to be very careful when you look at definitions and understand the subjectivity of this database. But it looks like for the most part, at least almost two-thirds of the time when we give a drug, we're getting some kind of observable benefit in pre-hospital care.

Now it would be really nice to better define what that is for the different drugs and their uses, but at least now we have a tool when we begin to look at that.

Now, I have to frankly say that these are a little bit confusing as to when a medic would code the response to a medication using one of these terms: Not applicable, not available, not known, not recorded, not reporting. It would be interesting to see how those are all used.

The good thing is that they're not used an awful lot, maybe one out of every five cases. This area right here obviously speaks to the QA of the process. At least when I get the data, if -- if it doesn't have any one of those, and it's just completely blank, I have to assume that no information was ever entered. So it would really be nice to get these numbers much lower and having at least something up here that would be useful to us.

So how can we use this data? Well, I'm going --

whatever I say, first of all, is from Richard Thomas. This is not IHC speaking, this is not Primary Children's speaking, but I'm going to show you three very quick examples that might be a way to utilize this data.

So the first question is: How's fentanyl being used? Well, 81 percent of the time when fentanyl is being given, it's being given IV. But we know it can also be given intranasally. So how well since we introduced the guidelines almost five years ago for using fentanyl intranasally is it being used?

Well, in the first study period it was used 13 times. In 2012, it was used 16 times. That would probably suggest an under utilization of this very simple and effective route for delivering fentanyl, particularly in kids where it is difficult to establish an IV.

Why aren't we using more intranasal fentanyl? Well, you'll have to be the ones to answer that question. But it would suggest that maybe we need to review our local protocols for how we're using it and look at our education for our medics.

Another one would be, we've got two antiemetics that are on our -- on our formula here. We got ondansetron or Zofran and promethazine or Phenergan. How are those being used?

Well, we clearly saw earlier in the list of the

drugs that we're seeing an increasing use of ondansetron. Are we seeing a decreased use of promethazine and reciprocate -- as a reciprocal? Well, let's see.

Ondansetron, 442 times in this almost three-year period. In one year it was almost 580 times. Consequently, promethazine has now gone from 61 times down to 28 times. Twenty-eight times is not very often to maintain a drug on a paramedic formular.

And so one could ask or make the recommendation why don't we -- Peter.

DR. PETER TAILLAC: Is this peds only, Richard?

RICHARD THOMAS: This is peds only.

DR. PETER TAILLAC: Gotcha. Okay. Because it's used for adults as well?

RICHARD THOMAS: Yes. Absolutely. And, you know, when you look at a paramedic formulary, and I've spent, as you can tell, a lot of years discussing how drugs are -- are -- get on those lists, you have to, again, have a balance between what makes sense pharmacologically, what are the medical -- what are the preferences of medical control, what they're comfortable with and so forth.

So this is just pediatrics. And again, this is Richard Thomas speaking, and you can attribute these only to me. But it would potentially suggest that maybe you

can get rid of promethazine all together for something that is used so, so infrequently, at least in pediatrics. Now the same kind of analysis can easily be done in adults as well.

And last but not least, let's look at our two anti -- oral antipyretic, anti -- or analgesic agents. We have Motrin or Ibuprofen and Acetaminophen. Now, again, you have to be careful in analyzing -- looking at this data, but it is very interesting that when you compare Acetaminophen in this first time period, it was improved 42 percent. The second time period it was 43 percent, compared to 60 percent for Ibuprofen and 64 percent in the second time period. Do you really need two oral antipyretic oral analgesics? Again, a question that needs probably further research and further evaluation.

So there are a number of these kind of questions that we now have the ability to analyze this data and you start to address those issues. Clearly, they need further study in some cases. This can't be the beginning and end of our analysis, but the data is there. I would highly recommend that if someone isn't doing this for adults, that we begin to do that, because I think there is much to be gained from it. And if all it does is raise more questions and cause us to be more accurate in our documentation, and raise more questions about how we can

better capture the real outcomes, it will only make us better in our delivery pre-hospital care to our patients.

Any questions? All right.

JAY DOWNS: Thank you. That was very informational. Good information.

Professional development EMR testing and national registry. Dennis.

DENNIS BANG: I'll make mine quick. Dennis Bang, Bureau of EMS. Ours is just kind of an update. We -- when you guys sent us back to look at the EMR testing with National Registry, we had our committee look at that, think about it, talk about it, we discussed it for quite a bit. They felt like it was better to leave EMR with the Bureau rather go with -- with National Registry due to the -- it would be -- it would be more costly for -- for them to do that. And we felt we're struggling with it now. We're not getting that many courses and we're trying to build that program rather than kill it. We feel like that one actually would be a negative rather than a positive to do that. We are going to go ahead with the AEMT in July, and send that over to the National Registry, but we want to keep EMR with National Registry -- or not with National Registry.

The other item we had was an update for the transition from the AEMT. We had at the beginning of this

when we started the transition, we had 3,500 EMTI's in the state. Yesterday when I looked, we had 461 that had not done the transition that were still certified. So those actually became -- as of December 1, they became EMTs. So we have basically 561 that went back to becoming an EMT.

Now we did -- we tried to give them every opportunity to make that switch because you know how they are. They -- they either didn't hear about it or even though it's been going on for a year. So we have made it still an option for them. They can't take the short transition testing any longer, but they can come back in, take the 150 question AEMT test, redo all their -- everything else, and still pick up that AEMT certification until the end of their certification date. So they won't be able to carry it on forever, but up until the end of their certification period, they can still pick up that AEMT if they want to do that. We figure that's every opportunity that we can have to give to them to be able to do that.

One other thing, then, we have, just to let you know how many AEMTs we now have in the state, we have 3,053 AEMTs now. So we -- we feel pretty good about that. We feel like the transition went pretty flawlessly.

Paul came to me not too long ago and said he had only one complaint from people on it, which I thought was

good, and I knew he was going to get that one, because I sent it to him. So we really felt really, really pretty good about that, when there's some of the states that haven't even hardly started it and very few have even completed it. So we feel actually really good about that.

Any other questions? Okay. Thank you.

JAY DOWNS: Thanks, Dennis. Okay. The next on the agenda is Dr. Taillac. State EMS guidelines, protocol guidelines.

DR. PETER TAILLAC: I don't probably have too much new news. We did launch officially and put on the website the Utah EMS protocol guidelines is the official word. It's formatted like it could be like -- like they are, protocols, so if an agency wanted to just adopt them and put their name at the top, they could do so. But the intent is for them to be guidelines for agencies to utilize or to emulate or to adjust such that it meets the needs of their agency specifically. Comments are welcome. They will be updated on a regular basis at a minimum every two years and then republished. We're kind of proud of them. I've gotten very good feedback.

I'd like to, again, thank publicly Dr. Mark Bear and the rest of the committee, some of whom are on this committee here, for helping us with it and I think turning out a pretty good product. So I'm real interested in

feedback. So please let me know. And feel free to use them. If you want them, they're all yours.

Yes, sir.

ANDY SMITH: Are they in Word format so I can literally just copy and paste my information on them?

DR. PETER TAILLAC: Great question. So what I've asked, just to sort of do version control, is if you'd like them in Word format, I will send them to you specifically. I don't want to publish them on the web in Word format, though.

ANDY SMITH: Okay.

DR. PETER TAILLAC: Does that make sense? So send me an email if you haven't sent me one. And when you do that, then if you're going to change them at all, you know, just be sure you put your name on it so it doesn't -- be on the original, if you will.

JAY DOWNS: Jolene.

JOLENE WHITNEY: I just wanted to mention, too, that the medical directors meeting we're having in --

ALLAN LIU: March.

JOLENE WHITNEY: -- March 17th in Springdale, if I remember right. So just to encourage the agencies to get their medical directors to attend.

DR. PETER TAILLAC: Yeah, if you want -- we're going to have our annual medical directors workshop

March 17th, which is a benefit to them because it's great information in collegiality. It will be in Springdale. The date was changed, and I haven't actually sent it out to the docs yet. It just changed the other day from April 7th to March 17th because of conflicts in the calendar.

JOLENE WHITNEY: What time?

DR. PETER TAILLAC: All day. So it will start at 8 o'clock. We'll be done by two or three. We will pay the docs to travel and give them housing the night before at the Zion Inn, I think, right, Allan?

ALLAN LIU: Zion Park Inn.

DR. PETER TAILLAC: Zion Park Inn. So they are welcome to make it a weekend if they want or just go to the meeting. So please encourage your docs to come. It's a good meeting and it does also count for their annual every four-year required updates to stay certified by the way.

JAY DOWNS: Good. Thank you.

DR. PETER TAILLAC: We're working on some CME for it. I don't know if we'll pull it off for this year. I would love to.

JAY DOWNS: Another informational item, the strategic planning retreat. Whitney?

WHITNEY LEVANO: Yes, I'm Whitney Levano, with

the Bureau of EMS. And 2014 is going to be a strategic planning year. In 2015, we'll be launching a new five-year strategic plan. So the basic discussion for this year, and for this committee specifically, is going forward what do we want the EMS system in Utah to look like the next five years? And specifically what do we want the priorities of this committee to be for the next five years? So we want to have that discussion. We are looking at having a retreat, kind of a half day thing to -- to discuss these issues. The proposed date for that is March 24th -- 25.

JOLENE WHITNEY: Twenty-five.

WHITNEY LEVANO: March 25. It's a Tuesday, kind of half day in the morning. And so we'd like to get that on your agenda or on your calendars now. And if you have any objections or any conflicts, we'd like to know about that. So hopefully we can get a quorum there. But between now and then take some time to think about what -- what you think for our EMS system, and to hear from the people that you represent on this committee as well.

The second thing I wanted to mention also is we've been conducting a statewide assessment of EMS agencies. It's basically a survey asking some questions about online and offline medical direction, a few optional questions about child safety restraints in ambulances and

preferred airway devices. You may have seen this on the front table. You can pick one up. All these smiley faces of the 116 EMS agencies in our state, we've had 75 percent complete the assessment already. So we're very pleased and thank you to all of you who completed it. There's a handful that we're going to follow up with and they're all listed on here with the contact.

If you do have one of these sheets and you have a chance, take a look through the contact list. I'm finding the ones that haven't filled it out, I generally have the wrong contact, that person hasn't worked there in two years, or I've been sending something to the wrong address. So if you know these people and they're not the right contacts for these agencies, let me know. If you know these people and they are the right contacts and you know them well enough to talk to them, feel free to tell them that this is an important survey and we'd love for them to fill it out. If you are one of these people, come talk to me and we'll get the survey done for you.

So again, there's little less than 30 left that need to complete this survey and we have a couple weeks.

So, yeah, any questions? Okay. Thank you.

JAY DOWNS: Okay. Last informational item. Tammy, EMS week.

TAMI GOODIN: Yes, we wanted you to know the EMS

awards ceremony for July 9th to coincide with the EMS Committee so it's helpful to have them both together. So we'll have the nomination forms online by the end of this, hopefully next week, but no later by the end of January. So we just look forward to everybody submitting their nominations. We have nominations for individual and incident of the year. So just to let you know that's when we'll have our award ceremony.

Can I ask one question for clarification regarding North Sanpete? For the North Sanpete, what direction do they go? Can they apply now for their application or do they wait?

HALLIE KELLER: They still have to wait for approval.

JAY DOWNS: Jolene.

JOLENE WHITNEY: We'll be able to get the recommendations from the committee today out to the other committee members that were not present for their input. If they vote favorably for those --

TAMI GOODIN: Okay.

JOLENE WHITNEY: -- then they can move forward.

TAMI GOODIN: Okay. Thank you.

JAY DOWNS: We got that information during the meeting. We're efficient up here.

Anyway, other than that, next meeting is

April 9th at 1 p.m. here in this area. Otherwise, we'll look for an adjournment. Motion?

MIKE MOFFITT: Motion to adjourn.

JAY DOWNS: Okay. Second.

LYNN YEATES: Recommendation to adjourn.

JAY DOWNS: Recommendation to adjourn. We are adjourned. Thank you everybody.

(Meeting adjourned at 3:00 p.m.)

C E R T I F I C A T E

STATE OF UTAH)
)
COUNTY OF UTAH)

This is to certify that the foregoing proceedings were taken before me, Susan S. Sprouse, a Certified Shorthand Reporter in and for the State of Utah, residing in Salt Lake County, Utah;

That the proceedings were reported by me in stenotype, and thereafter caused by me to be transcribed into printed form, and that a true and correct transcription of said testimony so taken and transcribed is set forth in the foregoing pages, inclusive.

DATED this 22 day of January, 2014.

SUSAN S. SPROUSE, RPR, CSR
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