

Script for the NC OEMS online video training:

Here to Help: Proper Child Restraints in Emergency Vehicles

Introduction

It's a car crash...and it's bad.
They've got to get to the ER. Now.
The baby was uninjured until the ambulance was hit by a car going through an intersection and she flew off her mother's lap...
slid out of the stretcher restraints...
fell off the bench seat...
was hit by a monitor.

Every ride in an ambulance is dangerous to a child who isn't properly restrained. It's estimated ground EMS responds to nearly 30 million emergency calls a year in the US: 6.2 million patients are transported—10% of them, *children*.

Every year approximately 10,000 of those ambulances crash, resulting in injuries or death.

A thousand of those ambulances that crash are carrying kids.
Something's gotta change. After all, we're here to help.

In this training video, you'll hear from experts why it's important to appropriately restrain, and so, safeguard children in ambulances. You'll learn about pediatric restraint devices and see a demonstration of how to use the equipment to properly restrain and transport children. You'll also get some tips on safe pediatric transport.

Round Table Discussion

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

So, we've just seen some footage and statistics that really, really make you stop and think. Why are restraints so important?

*Tiffany Holland, Parent Advocate
Salisbury, NC*

Important for the safety of the child as well as the responder, the medical responder.

Myron Waddell, Assistant Director for Administration and Training

*Surry County Emergency Services
Mt. Airy, NC*

I agree and those are some staggering statistics I think that indicates that we need to do something to try to help the safety and provide the safest possible transport for these children in our ambulances.

*David Cuddeback, Training Officer
Duplin County EMS*

I think one of the huge benefits and what EMSC is doing in North Carolina is it is making people very conscious and aware of some of the problems that can occur. It's making an attempt to educate people that are working on ambulances. As a training officer, the number one rule that I have is a duty to warn. And so, the information that's coming out through EMSC and through this program so people are conscious of these problems now. I think that's the first step to the process.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Well, I know for one in my role as an EMSC program manager that I typically get a lot of calls from EMS personnel and EMS agencies asking me about what is the proper way to restrain children when they're being transported in an ambulance and are there any guidelines out there and give us some direction, we really want to do the right thing. And, pretty much, what I try to do is tell them that there hasn't really been anything that's come down really firmly from the national level, but we've tried to move ahead in the state and put some guidance in place. And one of the things that we've done more recently is in our EMS and trauma rules, we actually have a citation in their ground ambulance vehicle and equipment requirements that specifically requires ambulances to have available a pediatric restraint device to safely transport pediatric patients who are under 40 pounds when they're being transported in a back compartment of an ambulance. And that used to be 20 pounds, but we have had recently, probably within the past year, increased that to 40 pounds because of the general availability of restraint devices that could be used for that weight range.

So in your experience as EMTs, I'm speaking primarily to Myron and David, do you see that these restraint devices are actually available for use on the ambulance itself or do you feel they are more commonly obtained, say, the restraint is offsite somewhere and has to be brought to the scene. Can you discuss the advantages and disadvantages of either of those scenarios?

*David Cuddeback, Training Officer
Duplin County EMS*

Yeah, one of the big changes we started seeing in ambulances a couple years ago is they started to put car seats into the captain's chairs in the ambulance so that was a pretty significant change that we started seeing. There are other pieces of equipment that are starting to hit the market now that are becoming more and more available to EMS personnel. And through some of the grants that have been offered to EMS services, we've been able to purchase those pieces of equipment. A piece of equipment

is only as good as the education and the information that's attached to that. So, a big component of that is how the people neglect to educate their providers. They put a piece of equipment on and just assume that they'll use it appropriately. So the equipment is there. The education is slowly but surely leaking out. The duty to warn is there. So, I think that we're going to start seeing these significant changes being made as far as transporting kids.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Now, I'm assuming that there are some restraint devices that might be easier to store on an ambulance and might even be a little easier to use. Can you talk a little bit about, just in general terms, what some of these devices are and how easy is it to use these various devices?

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

The piece of vinyl that looks like just a plastic car seat on a roll is probably one of the more common devices that we see. It attaches to the ambulance stretcher with four straps and then you have the five-point harness that secures the child. They're relatively simple to use, but as Dave has already mentioned, if we put equipment on our trucks just because the state says it has to be there and we don't educate our personnel, are we doing more harm than good?

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Yeah, exactly. What about the child safety seat? I'm thinking, in particular, the convertible child safety seats that can be used for both an infant and older child, say up to the size of 40 pounds? How practical is it for using that in an ambulance and is it possible to have that in the ambulance compartment or is there just not enough room?

*David Cuddeback, Training Officer
Duplin County EMS*

So, when we're talking about transporting kids, we're talking about two populations: the sick child and the child that's being transported with a parent or guardian. So, depending on what circumstances we're dealing with, it's going to change the equipment that we use. When we're dealing with a child that is experiencing some degree of an emergency, time is of the essence. So an important thing with this equipment is making sure that it's user-friendly. Our focus is patient care and if we have a piece of equipment that's going to require so much energy in the whole set-up process, really, it's taking away from what we're there to do. The device that we've discussed already, it's pretty user-friendly. There are some devices on the market that require a lot of energy, require a lot of additional equipment to set them up so the goal is to have a device that is very easily set up and is not going to take away from the patient

care.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Great. I just want to move back a couple steps and ask our physician panelist a question. Cheryl, do you have any experience with when an injured child or ill child comes in to your emergency department, have there been any instances where you've noticed that the child, you know, was not restrained in the ambulance? Can you talk a little bit about that?

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

Yeah, it's unfortunately probably more common than I would like that we see children roll in on their parent's lap and the parent is strapped on to the gurney with the child strapped on to them. I am sure there are a variety of reasons that's the case. Generally, they're smaller children. We will see car seats strapped to the stretchers and sometimes we see the more sophisticated child restraint devices. I would say part of that is a matter of education for EMTs and an availability of equipment and sometimes I could imagine that there are probably parent factors, not wanting to release their children. Myron and Dave might be able to speak to that more eloquently, but I could imagine that at a scene trying to argue with the parent about, you know, let me put this child in this restraint device could get a little bit testy as well.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Yeah. Tiffany, what are your thoughts about that? If you were involved in a crash and you had your child with you? Let's just say your child, and I don't know how old your child is, but let's just say your child was 40 pounds or less and you were injured, but the child wasn't. The child was clinging, mommy, mommy and clinging to you and the offer was made "well, we can transport your child in another vehicle." You're the patient. We've got to get you to the hospital. Can you talk a little bit about how you would feel and what your sense of, you know, would be the right thing to do in light of the safety issues?

*Tiffany Holland, Parent Advocate
Salisbury, NC*

Peyton has been in, I believe it's called the little papoose where he will be on a stretcher board that's going to just kind of wrap him up in it. If it was me that was injured, just because I know this is going to be what is best for my child and he would be less likely to get injured in another instance, if he was riding along with me in the ambulance and he was not restrained properly, if there's a crash there with that, what could happen to Peyton. So just speaking, I think if you approach the parent as saying, this is what's safe for your child, this is what's best for you, this is what's best for your child. I know

myself, as a mother, I would be fine with that. Obviously, there's going to be a level of anxiety there. One, because you're already injured or something's going on with you or something's going on with your child, but the parent just has to be aware of this is because it is a safety issue and with me personally myself, I would not be angry with anyone who told me that this is the way it had to be.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

You know, I think you mentioned the duty to warn and I think it's really important. I think as healthcare providers, it is our duty to tell our patients what we think best practice is. What I think would be helpful in the training courses is being able to script for some of the EMTs and paramedics, "we're going to put your child in this restraint device for their safety. This will enable us to better care for him or her." And if it becomes part of what you say as you're doing things, like "I'm putting on these leads to monitor their heart rate, then I'm putting in an IV so that I can give him fluids," you talk to parents and explain what's happening. I think it will work a little bit better in terms of getting parents to buy in. Certainly, there are medical problems too. It's not always at the scene of an accident. You're going to a house. Things are chaotic. A child might just have had a seizure or might have croup and is in respiratory distress and they get agitated and upset when they're pulled away from their parent and it looks like they're in more distress, but imagine if you would that the ambulance crashed and they were injured in the process of trying to help them. So I think we have to always remember what is safest, what is best practice and adhere to that and try to advocate for that and not just give in. I mean, no one ever plans a motor vehicle collision and you always hope that it will never happen and certainly you hope that it wouldn't happen on an ambulance. And retrospectively afterwards, wishing that you had is just really not going to work for anyone involved.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

I'm going to ask Dave a question: we run into instances where maybe the parent or the child, either one is seriously injured and the other is not and there's that separation. One may be going to a level 1 trauma center versus the other occupant going to a local medical facility. Do you have any experiences with that? I know we have.

*David Cuddeback, Training Officer
Duplin County EMS*

Yeah, absolutely. There's a lot of gray points that have been brought up. First, in cases of emergency, you really have to make decisions for people. They're not really in the state where they can make reasonable decisions and talking to the parents is a huge issue about this. As a paramedic, I just really haven't experienced paramedics that, after

you explain a process to them, are resistant to it. I just have never experienced that. The only concerns that I really see is parents becoming separated from their kids as in a parent is going to one hospital and the child is going to another hospital or on different ambulances even if they're going to the same hospital. Again, I think it's a lot in just how we're talking to our parents and explaining the process to them. So many people put the emphasis on the medication component, the IVs and the oxygen and all that, but a lot of what we do is just talking to people explaining the process and helping them through the process. So I've never really met any parents that were resistant once you talked to them and explained what's going to happen.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Have there ever been instances where maybe it's not the parent who doesn't want to be separated from their child. They want to hold the child on their lap to comfort them. Do you think how the EMT feels, like, if the child is really upset and mommy, mommy and is just really crying, do you think is it reasonable to say that there might be instances where the EMT for their own comfort level, well, okay, I don't want to hear this child screaming and, because they feel bad about it and well, the hospital's just three miles down the road and what would it hurt just to let them...

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*
I'm sure it does.

*Tiffany Holland, Parent Advocate
Salisbury, NC*

Yes, I agree with you. My husband, as an EMT and fire fighter, has gone into situations where that's happened before and the way that we kind of think about it now is, anyone who has a child, our son is going to be three in May, so anyone who has a child, you kind of know what's going to happen if you have a cranky three-year-old. If he's injured, if he's upset, if he's being taken away from his mommy, if they have a child, they know that. So it's just and I don't know if it would be something because I don't know if you guys have children or not, but if you have, if you could tell your EMTs, yeah, you're going to have children who are going to be resistant, who are going to pitch fits, who are going to cry and scream and it's okay. It's just going to be their natural response. That's kind of the way we think now, is like, oh if we're out and about and little kids acting up, it's like oh, it's just their age. They're just upset. They missed nap time.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

I really think, one of the things I will teach the residents about working with children is you have to kind of go into your Zen mode. You know if you separate a child from their parent, they're going to cry, even if it's just a minimal separation, you know you're going

to let the parent ride along and they'll be right there and you kind of just have to block that out. That's just part of all the other training that goes on, getting comfortable with children. When I lecture to EMTs and paramedics, that's one of the things I talk about. You just have to get comfortable with children and recognize developmentally what's going to happen. And, actually, you know what? A crying child is better than a non-crying child. The child that doesn't respond scares the bejeesus out of a lot of us. So, just getting educated and getting that comfort level is a really important thing and understanding what's developmentally normal and what's not.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

Are there any circumstances where it would not be appropriate to restrain a child in the back of an ambulance? Is it ever okay not to?

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

I don't think it's ever okay to not restrain any patient we have in the back of our ambulance, just for their own safety. Are there ways that we can improve that? Certainly. But I think the risk that you take for that three miles is not really worth the benefit in the long run if that ambulance is involved in a collision and is overturned.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

But are there any restraint devices that are available that you could use for an ambulance that would prevent a paramedic from giving medical treatment to that child? Are there any conditions or are there any instances where it's really not going to be workable?

*David Cuddeback, Training Officer
Duplin County EMS*

Well, I agree with Myron. There are never circumstances where we can just accept that a child's not going to be restrained. For the most part, these devices are three-point and five-point harnesses, which allow us access, easy access to airway, easy access to their extremities, easy access to their chest. So, I can't think of any cases, with the exception of maybe evaluating a child's back following a traumatic injury, where these immobilization devices would prevent our assessment. Yeah, physics is very active in the back of an ambulance. Objects will remain in motion until stopped by an outside force and everything does move towards disorder in an ambulance so the focus is not necessarily on preventing movement this way. It's preventing movement this way and this way and this way. So, these devices really have to prevent any movement and they do a very good job of that, I think. It's not just a movement of the patient. It's the movement of everything in the back portion of the compartment so outside of our immobilized and our pediatric patients, we need to secure everything else in the back of

an ambulance.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

By law, children are supposed to be restrained in car seats, driving. So, it just seems like a natural extension that they should be restrained in ambulances. I've certainly seen a number of cases of parents who've pulled their children out of car seat restraints or never put them in because of whatever emergency they thought was happening. I don't think we can honestly say that it makes sense to not take this into consideration. In fact, give it serious consideration. You might have to, for various conditions, make adjustments depending on what your restraint device is, but I can't imagine ever, like Myron saying, just saying, oh well, we don't have to bother because it's too, it's so close or they're so upset or they're too injured. You can't leave out something that's critical.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

So, what are the take-home messages that we want to bring to the EMS community?

*David Cuddeback, Training Officer
Duplin County EMS*

Pediatric patients need to be restrained in ambulances during transport, no exceptions.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

And that's all going to hinge with the available equipment and adequate education on the equipment that's available to those EMTs.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

And there was another message that I think was important as well that, no matter what, we have to realize that kids are going to be upset, the parents are going to be upset and a child may be crying and having a fit, but that's okay. So, it has to be part of the education to our EMS professionals that that's okay and they just have to deal with it. And the important thing to remember is that children always need to be restrained in the back of an ambulance. So, keep everyone safe.

Demonstrations

Expert medical care, fast decisions, good judgment, safe practices...*this* is what emergency responders do every day for people who are sick and injured. But what if there's a child on the scene? Ambulance compartments are designed to transport adult patients—not children. And you can't just "make do" with what you have: Children can

be injured by sliding out of the head end of a gurney, by unsecured equipment that suddenly shifts and by unrestrained EMTs or caregivers.

The North Carolina Trauma and EMS Rules now require that ground ambulances must have one pediatric restraint device available to safely transport pediatric patients and children under 40 pounds in the patient compartment of the ambulance. The goal? To prevent forward motion/ejection, secure the torso and protect the head, neck, and spine of all children transported in every ground ambulance. There are a number of devices for safe pediatric transport in emergency vehicles.

Following are demonstrations of each pediatric transport device; all are quick and easy to set up and use. These demonstrations are based on the latest research into the subject of child transport safety in ambulances.

Pedi-Mate®

The Pedi-Mate® is a fully-adjusting, 5-point harness system that securely holds children weighing 10 to 40 pounds. It features 3 restraint straps that attach quickly and easily. It rolls up for compact, efficient storage and retrieval. See the manual for instructions on cleaning.

To position the Pedi-Mate restraint:

*First, lock the stretcher backrest at an angle between 15 and 45 degrees; you want the patient's shoulders higher than the pelvis.

*Next, position the device with the black backrest strap at the patient's shoulder.

*Last, fasten the side straps to the main frame next to the head-end sidearm casting.

*Remember, the *black* webbing secures the *device* to the stretcher. The *gray* webbing secures the *patient* to the device.

The 3 key steps to securing this device are:

First, lock the backrest so the shoulders are higher than the pelvis.

Next, position the device with the black backrest strap at the patient's shoulder.

Last, fasten the side straps to the main frame next to the head-end sidearm casting.

Remember, the *black* webbing secures the *device* to the stretcher. The *gray* webbing secures the *patient* to the *device*.

Convertible Restraint

Convertible Restraints can be used two ways:

Rear-facing restraints generally secure children weighing 5 to 35 pounds.

Forward-facing restraints generally secure children weighing 20 to 65 pounds. However, some accommodate children up to 40 pounds and others accommodate children weighing up to 80 pounds. Check the weight limits in the manufacturer's instructions before using them on stretchers. See the manual for care and cleaning.

To position a convertible restraint:

- *First, put the patient in the restraint to see if you need to make any harnessing adjustments *before installing* the restraint. Make sure the harnesses come out of the slot at or below the patient's shoulders.
- *Position the restraint on the cot facing the foot-end, with the backrest fully elevated, no more than 45 degrees from the vertical.
- *Use both belt paths to secure the restraint.
- *Last, put the patient in the restraint and tighten the harness; the retainer clip should be at arm pit level.

Remember, put the patient in the restraint *first* to make harnessing adjustments. The harnesses should come out of the slot at or below the shoulders.

Position the restraint facing the foot-end of the cot with the backrest fully elevated, no more than 45 degrees.

Use *both* belt paths.

Last, put the patient in the restraint and tighten the harness, with the retainer clip at arm pit level.

Car Bed

A car bed is a 3-point harness restraint device for infants less than a year old, weighing 5 to 20 pounds and measuring 19 to 26 inches long. Use this device for infants who can't tolerate a semi-upright seated position or who, for other reasons, need to lie flat. See the manual for information on care and cleaning.

Because they're designed for personal car use, car beds come equipped with *just one set* of loops. To use *this* device in an ambulance, you'll need to order a second set of loops. Never use the car bed with one set of loops.

- *Position the bed across the cot with the infant's head toward the center of the ambulance.
- *There's an adjuster on both the head-end of the bed and underneath it. Make sure you close the O ring after you adjust the bed to the infant.
- *Raise the backrest all the way.
- *Attach the bed using *both* sets of belts. The stretcher belt runs through *both* loops of the bed, on *both* sides.
- *Secure the infant in the car bed with the internal harness system.

Remember, only use a car bed that can be secured with *both* cot belts. *Never* use a car bed with a single belt installation.

Put the bed *across* the cot with the infant's head toward the *center* of the ambulance. Adjust both the head-end of the bed and underneath, then, close the O ring. Raise the backrest all the way.

Attach the bed using *both* sets of belts. The stretcher belt runs through *both* loops on the bed, on *both* sides.

Secure the infant with the internal harness system.

Inflatable

Inflatable devices are also an option. It's recommended you use only those inflatables with 5-point restraints and 2 belt paths since they secure the child to the device which is then secured to the cot or Captain's Chair. The main issue with inflatables is that some can only be secured through the back and attached to the stretcher. That means the bottom is unsecured. Plus, they can be hard and time-consuming to inflate. There are more effective restraint systems.

SafeGuard

The SafeGuard Transport is a cot-mounted ambulance restraint for children weighing 22 to 100 pounds. A five-point harness system with color-coded webbing, it was developed in collaboration with Riley Hospital for Children. Easily stowed, follow the manufacturer's directions for care and cleaning.

To use the SafeGuard Transport,

*First, unfold and position it on the stretcher. It's easy because it's color-coded—all you have to do is snap the color-coded webbing hooks into place.

*Next, position the backrest. For children 22-40 lbs, position the backrest between 45 and 70 degrees. For children 40-100 lbs, position the backrest flat and up to 70 degrees.

*Next, secure the child with the five-point harness system.

*You can adjust for height and tighten the harness with the patent-pending one-handed adjustment system.

Remember, the SafeGuard Transport assembles quickly and easily thanks to color-coded webbing hooks that snap into place on the stretcher. For children 22-40 lbs, position the backrest between 45 and 70 degrees. For children 40-100 lbs, position the backrest flat and up to 70 degrees. Secure the child with the five-point harness system. Use the one-handed adjustment system to adjust both the height and harness tightness.

Integrated Child Restraint

Integrated child restraints are the top-of-the-line devices. Weight limits vary. Check the manual and labels on the restraint for instructions on how to use it. With these units, it's important to follow the manufacturer's instructions carefully.

For details on care and cleaning, see the manual.

These are your most expensive devices because they are built in to your emergency vehicle. Think of it as a custom fit. The integrated restraint has a 5-point harness system and can restrain children weighing 20 to 50 pounds and measuring 28 to 47 inches tall. The most important thing to know about these units is that they are custom, unique to each emergency vehicle, so if your team is going to have one, be sure to carefully follow the manufacturer's instructions for how to use yours, and with what size child.

There *are* integrated restraint devices that secure infants, but, to be safe, be sure to

have handy the portable devices appropriate for infant transport in the ambulance.

The most important thing to remember about integrated restraint is that each one is different—they are customized to *your* vehicle. You'll want to read and carefully follow the instructions for using these restraints. The instructions are in the manual and on the label attached to the restraint.

Transporting an Uninjured Child

You catch the call. You arrive on the scene to find there's an infant involved. Luckily, the baby isn't injured, but her parents need transport...fast. How do you transport the infant?

If you have an *uninjured* child to transport, the best solution is to transport the child in a different vehicle, in an appropriate child restraint. You'll want to check the device the child was in before transferring it to another vehicle, just to make sure it's undamaged.

If there is no other vehicle on the scene and the child has to travel in the ambulance with the parent, you can put the child in an appropriate device in the front seat of your ambulance. But, be sure to turn off the air bag. Never use a rear-facing seat or any child restraint device in the front seat if the air bag cannot be turned off. Again, if the car seat was damaged in the crash, make sure you have access to another.

If no alternate transportation is available and the front seat cannot be used because you can't turn off the airbag, you could transport an uninjured child in a forward-facing Captain's Chair or EMS Provider seat. Use an appropriate child restraint device such as a convertible child safety seat or combination seat, installed according to manufacturer's instructions. Never use an infant seat. Also, the chair must be stationary, locked in place so it can't swivel. As an absolute last resort, a rear-facing Captain's Chair would work too, if that's what's available.

Never transport a child on the bench seat or CPR seat. Never allow the parent, caregiver or EMT to hold a child during transport. Safety is your # 1 priority, *not* the emotional comfort level of the child, parent or, even, yourself. Even if the child is older, age 8 and up or weighing 80 pounds or more, it's still best to transport that uninjured child in another vehicle, if possible.

Or, if all else fails, turn off the passenger side air bag and put the child in an appropriate child safety seat secured in the front seat. Be sure to install the safety seat per the manufacturer's instructions. NEVER use a rear-facing seat or ANY child restraint device in the front seat if the air bag cannot be turned off.

Round Table Discussion

Gloria C. Hale, EMSC Program Manager, OEMS

Raleigh, NC

We've just seen a demonstration of the various pediatric restraint devices that are on the market. We know that we are really selling these because it is the right thing to do, to use these devices, but we need to be honest: How easy is it to obtain these devices and how easy is it to use them?

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

I think the Office of EMS here in North Carolina has done a wonderful job providing some of these devices to our ambulance providers. We know that that's probably going to make a very small dent in the actual need. So, finding those monies in our budgets locally and making that a priority, I think, is going to take some time and some effort and creative ways of financing.

*David Cuddeback, Training Officer
Duplin County EMS*

Yeah, we have measured what happens if we don't have these devices in place and the improvement comes in the form of purchasing the devices, finding the money whenever possible and putting them into our day-to-day operations.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

You don't necessarily need the \$600 or \$700 child restraint for your ambulance. What works for your service might not work for another service. So make it fit your service.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

And how easy is it to use these devices?

*David Cuddeback, Training Officer
Duplin County EMS*

Well, as a parent and a paramedic, it's very similar to the car seats that I use for my kids. Some of the other devices are very similar to the three and five-point harnesses that we already have equipped on our stretchers.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

And building on that, it's really no harder to teach a parent how to use their own child restraint in their personal vehicle than it would be to teach an EMT how to use these

devices in the back of their ambulance.

*David Cuddeback, Training Officer
Duplin County EMS*

Yeah, EMTs are tactile learners. Although we give them the brochures, it's best if we can actually put them in the field and do practical applications with them. They are very easy to learn how to use, but there is an education component to that.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

What about for parents? How important is it to you, Tiffany, that children be restrained when they're being transported in an ambulance?

*Tiffany Holland, Parent Advocate
Salisbury, NC*

Safety for the child, I mean, definitely if there was anything, an emergency situation that came up where Peyton had to be transported, I would definitely want the best possible situation for Peyton and with any type of restraint that would be helpful. That would be what I would like to be used.

*Gloria C. Hale, EMSC Program Manager, OEMS
Raleigh, NC*

And I guess just, lastly, how can we help increase the use of these restraints?

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

I think that's going to be through education. The more we make them comfortable with using the equipment, the more we get their hands on it, the more readily they'll be used.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

The bottom line, purchasing and using these restraints just has to be a priority. It's for the safety of the kids.

Dos and Don'ts

Ambulances are a safe haven for sick or injured patients, the first step on their journey to getting the medical care they need. But, ambulances can have hidden hazards—especially for children:

Unrestrained equipment...

Unrestrained patients...

Unrestrained EMS professionals.

Improper restraint is dangerous. Your job is to keep *everyone* in the ambulance safe. These tips can help.

*Drive cautiously at safe speeds, observing traffic laws.

*Tightly secure all monitoring devices and other equipment.

*Make sure everyone is using the right restraint—the patient, the EMTs and the other occupants.

*Transport children who are not patients properly restrained, in another passenger vehicle, if possible.

*And, use the DOT NHTSA Emergency Vehicle Operating Course (EVOC) National Standard Curriculum or equivalent.

*Don't drive at unsafe high speeds with rapid acceleration, deceleration and turns.

*Don't leave monitoring devices and other equipment unsecured in moving EMS vehicles.

*Don't allow parents, caregivers, EMTs or other passengers to be unrestrained during transport.

*Don't let the child or infant be held in anyone's arms during transport—not the parent's, not the caregiver's, not the EMT's.

*And, don't allow emergency vehicles to be operated by people who have not completed the DOT EVOC or equivalent.

Round Table Discussion

*Gloria C. Hale, EMSC Program Manager,
OEMS, Raleigh, NC*

We've just seen a list of do's and don'ts for safe child transports and restraints. Which of these do's and don'ts do you think is the most important and why?

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

I have to think that stowing the equipment in our ambulances is probably top of my priority list. We don't want anyone in the back of our ambulance—patient, caregiver, clinician or otherwise— to be injured by flying equipment or projectiles.

*Tiffany Holland, Parent Advocate
Salisbury, NC*

I would definitely have to agree with that because it's not only just for the safety of the child or the patient, it's also for the safety of the clinician because, if you're not there, then who's taking care of the child or the patient?

Cheryl Jackson, MD, Pediatric Emergency Medicine Physician

*Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*
Good point.

*Gloria C. Hale, EMSC Program Manager,
OEMS, Raleigh, NC*
Yeah.

*David Cuddeback, Training Officer
Duplin County EMS*

In a meeting with ambulance manufacturers, they brought up a great point. They've made a safe product for us. It's now in our hands to operate them in a safe fashion and, with that, is obeying traffic laws, driving at reasonable speeds and securing the equipment in our patients' appropriately.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

I'd have to add the biggest don't is, don't let the child be held in the parent's arms. Just don't do it. Don't go there.

*Gloria C. Hale, EMSC Program Manager,
OEMS, Raleigh, NC*

I would have to agree with that one too, absolutely. If a child is screaming and is upset, it's okay. That's normal and don't ever use that as an excuse not to restrain them properly. Are there any of these that you think that EMTs would have particularly have a hard time with and why?

*David Cuddeback, Training Officer
Duplin County EMS*

Yeah, there will be times where it's going to require a little additional time to put the piece of equipment together, but we need to make it a priority to take that time. Not only is our priority caring for that patient. Our priority is to keep that person safe throughout our whole transport. So we need to take the time and make it a priority.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

Cheryl's already made it known that we don't need to allow our parents to hold those children on that stretcher and I know, as a medic, that's very difficult when the child is crying and we get caught up in the emotions. But we need to kind of be separating ourselves from our emotions and think what is the safest way for our children to ride in the back of our ambulances.

*Gloria C. Hale, EMSC Program Manager,
OEMS, Raleigh, NC*

Okay, so in a perfect world, how do you see children being transported in an ambulance?

*David Cuddeback, Training Officer
Duplin County EMS*

As administrators, we make it a priority to purchase this equipment so that it is available to our technicians.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

Training and education is also going to be a huge part of that.

*Tiffany Holland, Parent Advocate
Salisbury, NC*

I think also too, education just for those who, I guess, maybe. just to touch a little bit more on how to deal with a patient who has a very or a patient's parent who has a very high anxiety level and just maybe ways on just how to communicate with them to make them feel more comfortable with the situation.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

Throughout medicine, you strive to figure out what's best practice. Transporting children safely is best practice and, if nothing else, I would hope that at the end of all of this education that the paramedics would feel that they understand what best practice is and strive to achieve it.

Conclusion

When something goes wrong, you're first on the scene, the front line of emergency response, the person people who are injured or sick depend on, the one who has to get it right...*right then*. Take the time to transport children safely using appropriate devices.

Remember, we're here to help.

Round Table Discussion

*Gloria C. Hale, EMSC Program Manager,
OEMS, Raleigh, NC*

We know that there is a problem and we've seen the solution in this training video. So let's now summarize the importance of proper child restraint. Tell me why you think it's so important that children be properly restrained in an ambulance?

*David Cuddeback, Training Officer
Duplin County EMS*

During 911 activations, the primary sickness or injury has occurred, it's our job to safely transport our patients and, hopefully, get some degree of improvement. If during transport, our patients are further injured because we didn't take the time to strap them in correctly or we didn't take the time to use the appropriate equipment, then we're simply just not doing our jobs.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*

I agree with that point, Dave, because I have to think, as a parent, if that was my child that was injured or killed, how does that affect me as a parent? How does that affect me as a clinician? But what about the child that sustains a permanent disability and you have a loss of income because one parent has to quit work to stay at home with the child or whatever the case may be? I think there's a lot of far-reaching aspects of this and it stresses the importance of why we need to do our job.

*Tiffany Holland, Parent Advocate
Salisbury, NC*

Appropriate pediatric transportation is just for the safety of that child and that's what it all goes back to. It goes back to the safety for the child and the safety for the clinician.

*Cheryl Jackson, MD, Pediatric Emergency Medicine Physician
Medical Director, Pediatric Emergency Department
UNC Hospitals, Chapel Hill, NC*

Quality care is care that is effective, but it's also safe and none of us are doing our jobs if we're not providing safe care and that includes safe transport.

*Gloria C. Hale, EMSC Program Manager,
OEMS, Raleigh, NC*

So, what is the bottom line message with all this training that folks have been viewing through this video? What is the take-home message that we really want to communicate to them?

*David Cuddeback, Training Officer
Duplin County EMS*

The duty to inform is sitting around this table. The next step is finding the money to purchase these devices. We need to educate our staff. We need to educate them about

usage and the importance of it and we need to put it into practice every time we transport a pediatric patient.

*Myron Waddell, Assistant Director for Administration and Training
Surry County Emergency Services
Mt. Airy, NC*
Never gamble with the lives of our patients.