



Saving More Kittens with Kitten University **Video Transcript**

October 2013

This transcript has been automatically generated and may not be 100% accurate. This text may not be in its final form and may be updated or revised in the future. Please be aware that the authoritative record of Maddie's InstituteSM programming is the audio.

[Beginning of Audio]

Dr. Broadhurst: Hi, everybody. I am Dr. Jennifer Broadhurst, as Dr. Levy mentioned. I have attended the UF Shelter Medicine Conference since the first year. I've only ever missed one. I certainly didn't expect to be ever presenting at one, so this is really a great honor that Dr. Levy and the UF team asked me to speak at this presentation. As she mentioned, I'm going to be talking about our Kitten University Program which is our kitten nursery at the Jacksonville Humane Society.

I put my e-mail address on there. It's actually my personal email, because it's weird but I'm leaving JHS in a couple of weeks. I'm talking about our program, but I won't be there to answer questions. Then, Ashley mentioned I'm doing a – I was doing a one-year fellowship with UC Davis but I've extended into my second year, and the kitten nursery was my fellowship project.

A little bit about the Jacksonville Humane Society. We're here in Jacksonville. For anybody that was at the last presentation that was by one our partners, Dr. Farrell with First Coast No More Homeless Pets. We were founded in 1886, so we are one of the older, nonprofits. We're the second oldest in the city of Jacksonville. We made the transition to a limited-admission facility in October of 2006, and we take in about 5,000 animals a year currently, and our live release rate's 90 to 93 percent.

We did have a catastrophic fire on April 7 of 2007 that destroyed our main sheltering facility. The only thing we have left of that main facility is our hundred indoor-outdoor dog kennels that are from the 1950s, so. We have an older and not the perfect facility, so. I like to mention that, because sometimes you're hearing people lecture about the amazing programs they're doing and they have these state-of-the-art adoption centers that they're working out of, and that's not the case for us. We're working out of temporary modular. They're really trailers. We call them modular. We're in the silent phase of the capital campaign to construction a new adoption center. In January of 2012, we did open a high-volume, high-quality full-service animal hospital on our property.

Just a couple of pictures, the top picture is our kitten nursery. It was a house that was donated to us, and it used to be our surgical clinic before we got the new hospital. That's where I did all the shelter surgeries. It

was lucky for us that when we decided to make a nursery we had this empty building sitting there that had cages in it and we hadn't decided what we were going to do with it yet. Most people aren't quite that lucky.

On the bottom is a picture of the modulares. The smaller one in the front is our medical modular, and that's where we do all of our medical exams.

We have our foster office, our cat holding, our feline upper respiratory isolation, our ringworm isolation, and our panleuk isolation in that lovely little building. We're really masters at using the space that we have.

Then, the bigger modular houses our intake, our adoption areas for cats and puppies, and then offices.

In contrast, right across the parking lot is this beautiful state-of-the-art animal hospital. When – our modular, when you're inside, feel like they're nice and like it's this – people thought we had rebuilt, and those things are not going to last. We've had them for six years. It's not made for the traffic that's going through it. There're crappy laminate floors that are peeling up. There're speed bumps that we have marked with colored duct tape. The ventilation is crap. Across the parking lot is our hospital, and obviously, we would like to have a shelter that would match that facility one day.

Why did we decide to start a kitten nursery? We have a really strong partnership in the city of Jacksonville with our friends at First Coast No More Homeless Pets and the City of Jacksonville's Animal Care and Protective Services. The ultimate goal, obviously, is to take the city of Jacksonville to no-kill. They were aiming for 2014, next year. We were looking – all of us were looking at the categories of animals being euthanized.

We still – one of the number one categories was underage kittens. I know that's the case in a lot of communities, because it does take a lot of time to get kittens to adoption age and then – but once you can get them there, they're a more adoptable population. Same thing with puppies, it's a little easier with them. There's not as many, but they're an easy population to target for foster care and then get to adoption. That was one of the categories we targeted first.

We had a really good foster network before we started the nursery, and I think that's important because they have to go hand-in-hand. We were handling the – all the kittens that were coming into our facility, and they weren't staying there. They were going straight to foster care. If we were going to open up – open ourselves up to taking all the underage kittens in the city, obviously, we needed more – a bigger outlet for them. We weren't able to handle the orphaned kittens citywide. JHS, JCPS and First

Coast combined our efforts and we created a nursery facility that could house those kittens and care for them.

Just as an aside, when we're talking about no-kill and the different things that you're targeting, we also made a hospital room in our warehouse that has six indoor dog runs where we could house dog medical cases, because all we had was the double-sided traditional kennels. We talked earlier in the first presentation about dogs going back into wet kennels. For dogs that are having orthopedic surgery, that's obviously not the ideal place for them to be. It was also a place we could put nursing dogs with puppies that are awaiting foster care. We have also started to accept parvo-positive puppies from the city for treatment.

Kitten University was our name we came up for our nursery. It's located around the corner. That house that I showed you is actually around the corner from our main facility. It's not on the main sheltering property. It's a converted house, so it's – since it's around the corner, there's no shelter traffic going through it, totally separated from the rest of the shelter and isolated. The staff and volunteers that are there are strictly at the nursery. That doesn't mean on different days they might not help somewhere else, but when they're at the nursery, that's the only place they're out because we don't want them going back and forth. When I do medical round there, I do those first thing in the morning, before I head to the main facility.

What is the kitten nursery concept? We're starting to see kitten nurseries popping up in different communities around the country. You typically see them in communities that are working toward no-kill, like San Diego and Austin. They both have nursery programs. Kittens are often euthanized just because it takes resources and time to get them to adoption age. Nurseries are one of the ways to decrease kitten euthanasia.

There're different types of kitten nurseries you can think about. Some – San Diego, for example, has all-age kittens in their facility, zero to eight weeks of age, and then they house them based on their age group. They'll have the bottle babies in one section and then the two to four-week olds and so on and so forth, and they have – they meet their different age needs in the different areas of the nursery. Some places will just have bottle-fed kittens in their nursery, so they – that's strictly what they do. I know one shelter – I don't know if they still have it, but they were doing a daycare drop off for their foster parents. You have a lot of foster parents that work, they can't take nursing kittens with them. That was a way for them to foster.

Our model is that we only house kittens that are four to eight weeks of age or nursing moms with kittens. I know that sounds crazy, because it's a kitten nursery. Why don't you have bottle babies? I will get to that in a

minute, and that's what we ended up doing in our facility. One thing to mention as I say four to eight weeks of age, some communities are adopting out kittens and puppies at six weeks of age, so that would be something to consider if that would decrease the amount of time they are spent in your care and move them through faster.

Looking at some of our statistics, there's good and bad here. I want to be totally honest about what the pros and cons are of kitten nurseries. If you look at April – this is from April 1 to August 31 for the last three years. In 2011, we took in 578 kittens and adopted out 412. We had 58 that were euthanized or died, and that's 10 percent that we lost. Last year, our first year of the nursery, in that same timeframe we took in 745 and adopted out 401, and had 196 that we had to euthanize or died. We had a big problem with panleuk last year at our nursery, and I'm going to talk a lot more about that later, which is why I have the – developed the protocols that I did.

This year, we took in 1,269 kittens in the same timeframe and adopted out 860 which is more than double the adoption of kittens the two years prior. That's a big jump in one year. We did have to euthanize or lost 253. The mortality rate is higher than it was in 2011, but it's lower than it was in 2012, and there's a couple reasons for that. Obviously, we're working on decreasing it, because we weren't happy with last year, and I'll talk more

about that. When you take more risk, we take in any injured strays that come in, any cats and kittens that are struggling.

The more risk you take and the less closed you are to admission, the more likelihood you're going to have some problems. We get a lot of trauma cases that end up no – we need to make a decision to euthanize. If you look at all cats and kittens for the last three years, we – our intake has really gone up. We took in 1,409 in 2011, 2,279 last year, and so far this year, 2,411 and there's three months to go. That is a lot more cats and kittens.

To look at our partners, they took in, in the same timeframe, the height of kitten season, they took in 1,486 cats and 2,271 kittens, and then they adopted out 249 cats and 546 kittens, and they transferred to us 78 cats and 453 kittens. I put in the transfer to First Coast No More Homeless Pets, because I know you guys have heard a lot about the Feral Freedom program here, and that's been one of the biggest impacts to feline euthanasia in this city, if Feral Freedom. If you look at those numbers, they transferred 883 cats to First Cost No More Homeless Pets and 499 kittens. Their live release rate for cats during the height of kitten season this year was 87 percent which is amazing in a city this size at a municipal facility. Their live release rate for kittens was 79 percent.

We decided to start off this whole kitten nursery program with a baby shower. We've had two annual baby showers now, and we treated it just like you would any other baby shower. We had the type of food you would have at a kitten – at a baby shower. We had kitten and puppy cookies and baby shower. We had desserts and hors d'oeuvres, and people came to enjoy food with us. That painting is a painting done by foster kittens. We had kitten art. At our second shower, we had puppy art and had puppies make a painting.

That is a diaper cake made out of pee pads. Yeah. We had a diaper cake. We had foster parents on hand that could talk to potential foster parents. Our shower was for donations. It was for raising awareness. It was for getting volunteers for the nursery, but it was also for recruiting new foster parents. We had a lot of our foster parents on hand, so they could talk about their experience fostering and what it entails. We accepted, obviously, gifts. We had kittens available that could leave for foster care if there were any new fosters interested.

We also have a baby registry on Amazon.com. Target and Wal-Mart also have baby registries, but honestly, Amazon has an amazon amount of pet products. They have Kuranda cat beds. They have any size you can think of. They have SnuggleSafe discs. We get bulk pipe cleaners as presents.

We just registered for a lot of stuff we wanted, and it was like Christmas every day for a while.

Why did I develop the protocols that I developed for a nursery? I mentioned earlier the problem we had with panleuk last year. When we decided to start a nursery in 2012, we had a month to get it running and not much money. We didn't have the time to plan it out like I would've wanted to. I did a lot of shopping at our thrift store. We did have an impact, but obviously, I wasn't happy with the kitten mortality rate in those four months.

When we were planning on having our second season, we were lucky enough to get funding from Best Friends Animal Society. Obviously, that helped with increased staffing there and supplies. I developed the formal protocols before we opened the nursery the second year. The fellowship was the perfect opportunity, because I could talk to Dr. Newbury. He'll be speaking tomorrow about ideas and what were the ideal protocols.

I know that panleuk and ringworm – I mean, I work in Florida. I'm sure there's a lot of Florida veterinarians here. Everything you can think of, you think in shelters in Florida: distemper, parvo, panleuk, ringworm. Some of my fellow fellows in the fellowship, they were like, "I haven't seen panleuk in four years." I just can't even imagine what that's like. I

know that no matter how careful I am, if I'm taking kittens from different sources in the city, I'm going to have a case of panleuk. It's going to happen. I needed to say, "You know what? It's going to happen. How am I going to plan for it and minimize the spread?"

We started with one staff member per shift, but we ended up needing two on each shift. Since we don't have bottle-fed kittens, we don't have 24-hour care. We also rely heavily on volunteers, so training is key. The first year, I had a training handbook, but it was a lot of text, which for a veterinarian would be great. For volunteers, they see all this text, they're not going to really get out of it what I needed them to. When I wrote the new handbook, there are a lot of pictures illustrating what I'm trying to say. I pulled out the key points into bullets, so they could really look at what the main ideas were. Then, I had a lot of charts as well that they could easily refer to. It was – it's broken into sections, so they could tab to cleaning or tab to feeding and quickly get the information they need.

The Kitten University Handbook was developed to be our staff and our volunteer guide. Also, we're hoping we'll be able to share it with other communities so that they don't make the same mistakes we did at first – so they have a – somewhere to build from. It will be available on sheltermedicine.com. I'm sure a lot of you use that already for the information sheets. It is on our Web site which is www.jaxhumane.org.

I have three separate groups that I basically am finding a place for when they come into our facility since we don't bottle babies at the nursery. Nursing moms with kittens is one category, kittens without a mom that are under four weeks are one category, and then the almost ready kittens from four to eight weeks are the either group of kittens. I mentioned that we had a really strong foster program, and it's essential to our setup since we're not housing bottle-babies at the nursery. Also, if we have kittens that aren't thriving, because I can say, "Okay, four weeks is our cutoff. They can eat mush on their own. Those are going to the nursery. Under four weeks is going to a foster home," but obviously there's plenty of four-week-old kittens that you think should be able to eat, but they're just not ready yet. They need someone really teaching them how to eat, and those guys we will seek foster care for.

Something that's strange with us or with our, I guess, commitment of our foster parents is that they are – some of them are willing to trade. They'll have nursing kittens, and once they're weaned and eating on their own, they'll bring them into the nursery and then take new un-weaned kittens so that we can keep moving animals through. I know a lot of foster parents would not do that, because they're attached. We do have some that are willing to, because they just love doing the nursing.

We provide resources for foster finders. We have kittens that the community's bringing in, we don't have a foster home that day, we can't house them at the nursery. We ask them even if they'll only take it overnight until we get a foster home. Ideally, we'd like them to keep them until they're ready for adoption. We have bags ready that have KMR, litter, litter box, food bowl, dry food and canned food in there, and along with our foster parent handbook. Our foster parent handbook is similar to our Kitten University Handbook but more foster-specific. We have that bag ready to go. If we can get them to take the kittens home, we will guarantee that we'll take them in when they're ready for adoption. We do that for all of our fosters, provide all their medical care and food and litter, so that's obviously a big plus to people.

The problem is we have kittens that are in foster homes, foster to surrender homes, and the nursery that all needs space and adoption. Communication is really key to making sure we're not ignoring the foster kittens or not ignoring the kitten nursery kittens and are getting them all flowing in. On the Web site, we also have our foster parent handbook if anybody's interested in that.

We did try to have bottle-fed kittens for a really brief time when we first started our kitten nursery last year. It's really hard to get volunteers there 24 hours a day. I'm sure you're not surprised by that. San Diego that does have bottle-fed kittens has 24/7 care that's manned by veterinary

technicians. You can imagine what the budget would be for manning a nursery 24 hours a day, 7 days a week with veterinary technicians. We didn't have that kind of a budget.

We've created a nursery that's a little more attainable to other shelters of a similar size and budget. We decided, again, no bottle-fed kittens there. They're more susceptible. Obviously, they don't have a mom. They're not old enough to have a vaccine yet. We don't know if they ever got their mom's colostrum. They're just a lot more vulnerable than the older kittens.

On an aside, last year, the city of Jacksonville euthanized 1,500 kittens despite our nursery. It's hard for us to justify taking in bottle-fed kittens to the nursery when they're euthanizing five or six-week-old kittens. We weren't at that point yet. Just to go back to the initial slide this year, during kitten season this year, they only euthanized 400 and something kittens. Last year, it was 1,500. So, we've really made a big impact in the city in the last couple years.

The older kittens, they have a better chance at survival. They require less resources and time to get to adoptions. I definitely recommend starting with the older kittens if you're starting a nursery. I think eventually we will have a nursery that we house the under-four-week-old kittens at. I

would definitely recommend it being a totally separate – at least separate room and separate staff and volunteers, because when we did briefly had them, even though we had a schedule, the volunteers spent a lot more time with the bottle babies, naturally, and the other – seems like the older kittens got ignored a bit.

Again, they're labor intensive. You need 24/7 care. A separate facility would be ideal. Having a neonatal nursery that has a high live release rate really requires a significant financial investment and time investment and a lot of staff and volunteer training.

We – I mentioned with the handbook, really put a lot of pictures and everything in there. I'm also working on training videos with Dr. Newbury that can be shared with – on the Shelter Medicine site so that you can sit people down and show them this is how you bottle feed a kitten, this is how you stimulate a kitten, this is how you clean a cage. Everything you could think of, I'd like to have a video on, because you think things to you are second nature, but when you have a new volunteer coming in, they just really don't know how to do a lot of the things that we know how to do. We have our handbooks in each of the different rooms that are available for them to refer to, and we always have a staff member on hand at all times.

Another mistake we made in our first year was we said, "Okay, we have our nursery open," and the first week we had 150 kittens. There's not really time for training when you jam pack the nursery the first week that you're open. In 2013, we opened it a little bit earlier and slowed down our initial intake so that the staff and volunteers really could get comfortable with the protocols and the setup before there were 150 kittens there; because 150 kittens in one place is a lot of kittens.

Just to mention the Association of Shelter Vet Standards of Care Guidelines. I'm sure most of you are familiar with them, and it's something we talk about a lot. Obviously, there's not kitten nurseries mentioned in the protocol, so – in the standards of care, so where do they fit in? They really fit in everywhere, because I mean if you look at intake, preventative care, protocol development, and housing, it's extremely important in the underage population.

Just to pull a few things from it, separate of animals entering shelters is essential, especially the underage kittens that are more susceptible to disease. Obviously, we're separating them at the nursery from the general population which is key. Another thing that's really important with nurseries is having veterinary supervision and trained staff, because you have to recognize disease quickly and have really good protocols in place.

We color coordinated the rooms. Obviously, that's the blue room. We have four different rooms. They're four different colors. The wall – at least one wall is painted I the color, and then everything that can move is duct taped and spray painted. We have different supplies for each room, and mop, bucket, broom, everything is color coordinated. Even though last year we had supplies for each room, we would find that the volunteers liked a different mop better than another one and would just take it from that room, but when everything's color coordinated, it's really easy to see if someone's taking it out of the room it belongs in. It also just helps to remind the volunteers how important it is to keep everything separate.

The way we decided to design our nursery, because we know that panleuk is a problem and we had a problem the year before, is that each room is for one week of intake. We have four rooms, and once that intake week's over, that room is closed and we move to the next room, and we record those intake dates on the outside on a dry erase board. They don't move from that room for at least 14 days which is your panleuk quarantine period unless they're going to foster care. They can go to foster care at any time. That's fine. After that initial 14 days quarantine period, they either can go to adoptions if they're ready or hang out until they're ready for adoptions.

How does this help us? It helps us keep the infectious diseases confined to at least one room or intake week. This year, we did have a couple of isolated cases of panleuk, and they never left the room that they broke in. The first year, when we had panleuk, it spread to all four rooms pretty quickly. I know that that at least helped in keeping it in the one room. The first case we had, it did spread to the cage next to and below, which I can't really blame the staff for. Obviously, kittens play footsie with each other and things fall down. Then – but it did spread to one other cage.

This – another big plus, as I mentioned being swamped with kittens the first week, is by slowing it down to a weekly intake, you could only take in so many kittens in week. Once your space is full, then that's all you can take in that week unless they go to foster care. It keeps you from getting totally overwhelmed in one week. Then, since we have a month's worth of rooms, each room needs to be emptied again before we start with new intakes.

The handbook to teach the volunteers, I really took out the five key take-home messages that they needed to get from it. Keeping kittens warm is number one. They need help keeping their body temperature where it needs to be. Providing them with adequate nutrition. Keeping the clean; a lot of people are afraid to bathe kittens. I'll talk about that a little bit more, but obviously, you also need to keep them nice and clean. Do your best to

protect them from infectious disease, because again, especially in a place like Florida, you know that you're going to have some exposure to infectious disease. Then provide socialization. We can't forget that part. That's also really important for them.

I'll skip through this quickly, because most of you know all this. Mom keeps them really nice and warm. She's a nice 102-degree source of heat from them, and then they have each other too. They all stay snuggled together, and they stay nice and warm. Then you have kittens that don't have a mom they don't have that nice warm source, they need you to provide a source for them. We use SnuggleSafe discs which are on the next page, because the heating pads, the new ones shut off automatically which is great in theory, but obviously, not so great because you can't turn it on every 15 minutes to keep kittens warm. Then, the older ones scare me. They're a bit of a fire hazard.

We – you want to make sure that they have a heat source to keep them warm but that they also have an option to get off of it. Some people make the mistake of covering – they have a heating pad under the whole crate, and they can't get away from the heat source. They need that option. We also like to give them a little nesting box with a food carton. We use the empty food cartons and put a fleece blanket in and give them a little nest. Those are the SnuggleSafe discs that we use, because we don't have to

worry about plugging them into an outlet. They hold heat for eight hours after you microwave them.

We like to keep the cages covered, if it's itty-bitties, to keep the draft – keep it draft-free. In a foster home, ideally, they like to be in an 80 to 85-degree room. Not everyone would want their house that warm, obviously. We do recommend a bathroom or somewhere that's smaller. If you can see, that's a CRIJO kitty crib. You'll see different pictures throughout the presentation. We have some double-sided housing so that we can keep them on one side while we're cleaning. Then, in the bigger cages, we have feral cat boxes that we can shut them in while we're cleaning.

We do have some smaller cages where we don't have the space to do that, so we have the CRIJO kitty cribs. At least they have a perch, because they don't have shelves in these cages. There's also a little baffle, so when they kick their litter, it's not going in their food and water. Ideally, I would like to cut forward holes in all of them so we can have double-sided cages. Maybe somebody will be able to do that next year, but I didn't manage to get that done before this year.

Kitten feeding, basically for – I'm not going to go through all that, but for the foster parents, I really pull out the essential information that they need to know: how much KMR (Kitten Milk Replacer) to water, how much should my kitten eat in a 24-hour period? All that's based on age and

weight. We also tell them everything's going to be – vary by the individual kitten. If a kitten's not getting weight or it's weaker, it needs to be fed more often. A lot of kittens, if you feed the litter, you need to go back again and feed them all again to make sure that they're getting enough.

What do we feed at our nursery? We're lucky to be part of the Purina One Shelter Pet Program, so we have all of our food and litter donated by Purina. All the kittens at the nursery get Purina One kitten food and Fancy Feast canned kitten food. We do place Purina FortiFlora on their food once daily. Then, the kittens that are four to six weeks old, we give them mush with KMR and canned food and then offer them dry. Then the older kittens just get plain canned food and dry food. Obviously, again, it depends on the kittens, but that's the basic guideline. Then we get Yesterday's News cat litter, which is good because we don't have to worry about them eating scoopable litter and having a problem with that in their stomach.

We do recommend that they stimulate them before and after each feeding to make sure they eat an adequate amount. We let them know they should pee each time and at least poop once a day. Obviously, again, this is going to be in a foster home. I have things like this chart for everybody to just

get an idea of what they should weigh at the different ages, what they should be doing, the developmental milestones.

Going back to the whole six to eight weeks for surgery, in theory, they're eight weeks or two months at two pounds, but that's not perfect. You can't say, "This is definitely seven weeks, and this one's definitely eight weeks." If I have a litter that is – right now we're still at the eight-week two-pound guideline, but if we have a litter where the female's 1 pound 13 ounces and all the males are like 2 pounds 3 ounces, I'm not going to hold her back for a week or two, taking up space, getting her sick, when I can move her through adoption.

Bathing an underage kitten, it sounds so simple, but the things I learned with volunteers is you really have to make sure they know each and every step. They're afraid to bathe kittens, because they might get hypothermic which is definitely a concern. Then you also have ones that bathe them every day and get them hypothermic. I really went through all the steps. It's safest to scruff them when you're bathing them. I had a video on a mom scruffing her kitten just to – I know you have a lot of people that are like, "Scruffing is mean. I don't want to do that," but I had a video of a momma cat dragging her kitten by its scruff back where it belongs. It is a natural behavior with momma cats and kittens. We recommend,

obviously, the butt bath if that's the only thing that needs to be bathed which is common in kittens without a mom.

I always knew that kittens are so much healthier with their mom. When you see them in one facility and you see the ones without a mom and you see the ones with the mom, it's amazing the difference. In their coats, in their weights, they are really so much healthier with the mom. They keep them so much cleaner than we can.

Again, we just – we recommend that they don't put the kittens back in the cage until they're super dry. This might be the time to burrito a heating pad around them and make sure they're nice and dry, because we don't want them to put a wet kitten back in the cage, not only because they could get hypothermic but also then they get covered in litter and you just have to bathe them again.

Socialization is obviously something that we need to consider in a kitten nursery, especially versus a foster home. In a foster home, they have one litter of kittens with their family, so they're able to spend a lot of quality time with them. In the nursery, obviously, it's a different situation. It is a hard job to play with kittens, but our volunteers have to do that. Kittens will naturally socialize with their moms and with their littermates.

One of the things that we do is we do pair single kittens. I know that's controversial to some people, but if we have a four-week-old kitten, we're not going to leave it alone in the nursery for four weeks. It needs somebody to play with. It needs someone to snuggle with to learn from. If one's eating before the other one will, sometimes they wash the other one, with using the litter box, with playing with each other.

I'm not going to take a kitten that we got two weeks ago and then give it a new kitten. It's in the same intake week, same basic size, and it's also only from two sources. I'm not going to go, look, there's three different single kittens and put them all together, because that's going to increase my risk. I want to be able to know, if we do have a disease outbreak, where it started from. Randomly mixing kittens would make that impossible. We do occasionally put – if we only have one single and then a litter of two, we will put them together. I'm not going to take two litters of two or put a single with a litter of three or four, because that just increases the risk too much.

Kittens do start to explore and play around four weeks of age which is when we have them in the nursery. Obviously, we want to provide them with kitten toys, but there's a lot of free options like toilet paper rolls and paper towel rolls that you can get, and you don't have to worry about disinfecting. We use those in different areas of the shelter. All of our

bathrooms have a sign above the toilet paper holder that says, "Stop. These make great cat toys," so we do gather them. Pipe cleaners, we keep pipe cleaners attached to all the cage doors. It's amazing how much pipe cleaners will entertain a kitten.

They all receive some in-cage socialization time while they're at the kitten nursery. A little bit about in-cage socialization. We used to call our cat volunteers "kitty cuddlers." I know a lot of places call them "kitty cuddlers." We wanted to get away from our volunteers thinking that cats like to be forcibly hugged and carried around and loved on, because you know that most of you – and it amazes me, because they're cat people. You'd think they would know that cats aren't little dogs, and they don't want to be carried around the room looking at all the other cats, but they think that. They're like, "There she comes," whenever I come in the room, "Stop."

We changed their name to "kitty butler," because they're giving the cats what they want. Basically, they're serving the cats. Our "kitty butlers" aren't supposed to carry cats around or kittens, and they socialize them on their own terms. In the cage, she's playing with the cat through the cage, and there's a picture later where you can see her doing some in-cage socialization. That's in our adoption area, not the nursery, but I had a good picture of that.

To let the staff and volunteers know when they needed to freak out and when they didn't, I made some red and yellow flag so that they know this is when I really need to worry, this is when I need to watch the kittens. Red flags basically mean you need to let a medical staff member know immediately. If you have a kitten that didn't eat at all, if they had any weight loss from the day before, if they have liquid diarrhea, dehydration, are listless, are vomiting, mainly we are sounding like panleuk there, obviously, if they have any bleeding or any neurologic signs, then they need to alert someone immediately. The red and yellow flags will play into our cage cleaning discussion in a little bit.

Yellow flags are basically something that needs to be monitored, and they need to let someone know. At our facility, we have veterinary exam request forms that people can fill out when they have a concern. If they have a yellow flag, we recommend they fill out the veterinary exam request form, and those are checked at least once daily. Those are things like signs of upper respiratory infection, unusual behavior, the kitten just doesn't seem like it did the day before, conjunctivitis, acting mildly depressed. If they don't gain weight; so they didn't lose weight but they didn't gain weight, that's a yellow flag. Loose stool, alopecia because we do have a lot of ringworm, occasional vomiting, decreased appetite but

they still ate some, and limping, problems going to the bathroom, things like that.

I'm not going to go through all this, but we – in the handbook, I broke out the common things we see in our kitten populations and the description of those and how they're basically treated for the volunteers and staff. Then I have pictures of each thing that I'm talking about. When I was mentioning having a little bit higher euthanasia and death rate in the kittens, we have a lot of kittens that come in in really bad shape, and I'm sure you guys are used to that. They come in with flea anemia, hookworm anemia, upper respiratory infection, conjunctivitis, underweight, dehydrated, so we're – have a battle to fight when we first get them.

I've done an amazing amount of eye enucleations in the last month. It's not kittens that we got in that had good eyes. These aren't kittens that we've been treating for conjunctivitis. They came in with horrible conjunctivitis that had been untreated and then ended with their eyes rupturing. These are the things we see the most, obviously, upper respiratory and conjunctivitis, your typical intestinal and external parasites and then panleukopenia and ringworm as well.

I mentioned the red and yellow flags. When Dr. Newbury and I were talking about setting up these protocols, ideally, I want everyone to wear a

different gown with each cage. That would be in an ideal world. In looking at the rooms and volunteer compliance, we thought that I would have a false sense of security that that was happening. There wasn't really a place to safely store the gowns where they weren't going to touch each other. We don't have cages where they could have them all above the cages.

They can wear one gown in the room, and I'll go through how that works. All of the kittens are assigned a color on intake. If they're healthy, they're a green tag kitten. We just use little clothespins. It's not anything fancy, just a little green clothespin. If they're being treated for something like an upper respiratory infection, then they're assigned a red clip or a red tag.

When the volunteers go in the room, they put on their gown, and we ask them to just do a little visual once over to make sure everybody looks good. If they think someone has a yellow flag sign, we ask them to put a yellow clip on them and put on a vet exam request form. If they think someone has a red flag, obviously, they need to alert someone immediately.

Originally when I designed the nursery, I thought I'm going to have URI, I'm going to have ringworm, so I will have a URI treatment room and a ringworm treatment room like we do at the shelter and then two rooms for

intake. After we had the problems we had with panleuk, I would much rather treat upper respiratory infections where the kittens are and not risk moving kittens around and exposing them to something deadly like panleuk. Again, if they have a red flag, let somebody know.

Once they do the visual once over, they clean from green to yellow to red. Then we ask them if they do have to go back to – if they've cleaned a yellow or red and need to go back to a green, then they need to change their gown at that point. We do have them change gloves between each cage and then remove the gown when they're done in that room. We keep – and these seem like little things, but it's amazing all the little things that help with disease control. We keep a garbage bag in the laundry basket so that way they can bag it up and take it to the laundry room, and you don't have to worry about the laundry basket being contaminated.

This is just an example of two of our double-sided cages. You probably can't see it very well, but the top cage has just a little red clothespin, and the bottom cage has a little yellow clothespin. That's just how they know if the kittens are being treated for something or not.

We do use XL in our nursery and have also moved to that in everything but our dog kennels. One thing to mention about XL is don't have bleach anywhere around, so just to make sure no one mixes them up. We don't

have any bleach at the nursery. XL is effective against ringworm in addition to panleukand your traditional upper respiratory viruses. That's why we switched to that from Trifectant, because we do see quite a bit of ringworm. It's really – the staff really likes it, because it's less irritating to them.

We do, just like everywhere else in our shelter, utilize daily spot cleaning in the nursery. We don't clean it any differently. We outline our daily spot cleaning protocols in our handbook. We – that's why I mentioned earlier the double-sided cages, as everyone knows, is ideal to be able to do spot cleaning. You can do touch-free cleaning by shutting them on one side or the other and not have kittens climbing all over you, which is difficult. They love to race out when you open the cage. Where we can, we utilize the feral cat boxes where you can shut them in, and it's also a nice place for them to hide. Again, not all of our cages are like that yet, but we do the daily spot cleaning. Then if the cage is really dirty or the cats move out, then we move to deep cleaning.

The dishes and plastic tools, we wash in a three-step process. I have a picture of our sinks. We wash them in detergent water, then dip them in an XL solution, and then rinse them with fresh water. We do use all disposable litter boxes at the nursery, because we've found that that's just a lot better for us there. That's one of our double-sided cages with the feral

cat boxes. I don't know if – some of you probably use the feral cat boxes, but we got the ones that don't have a top so we can put a bed on top – or don't have the hard handle on top, so we can put a bed on top as well and then we can shut them in there.

We have a laundry area that's totally separate. It's a clean room where we can store all the food and litter. We had one sink in there and our washer and dryer. We installed two more sinks, because the first year we had the poor volunteers outside washing the dishes in tubs under a tent in July in Florida. They didn't like it. When we redesigned the nursery, we did have sinks installed. One of the first things they asked me was, "Are we going to have to go outside and wash dishes again?" They were very excited to be inside.

We do have a basic schedule for each day just to let them know what needs to be done by when and make things a little more organized. We have three different shifts each day. The morning shift does most of the cleaning, because they have to do all the feeding and medicating. The afternoon shift's lucky, because they get to do the socializing and more of the fun stuff, but we do make them work a little bit too.

That is in our adoption category, again, that picture. That's just an example of in-cage socialization. She's just loving on the kitty in her cage

and letting her come up to her. Then in the afternoon, they have to medicate and re-feed and then do the evening cleaning.

We do have individual cards for each of our kittens, and it's a week at a time. They are weighed every day. We have at the bottom the – a section where they can write their weights each day. Then you probably can't read it well, but we can put their medications on there to make sure they're getting them and initialed off. Then there's just basic information on are they eating, did they go to the bathroom, did they poop, is it normal, are they sneezing, just so we can monitor their daily health. We give our – our basic intake treatments, if they're under four weeks of age, we remove fleas manually, which everyone knows is really a lot of fun, and we give them Pyrantel and Ponazuril, or Marquis paste, which I'm sure a lot of you are familiar with.

The kittens that are more in the four to eight-week category, we – if they're a pound or four weeks, we start their initial FVRCP (feline viral rhinotracheitis, calicivirus, panleukopenia) vaccine. We do de-worm with Pyrantel, Ponazuril and Praziquantel, and we also give them Revolution dosed for their weight. The kittens that are eight weeks and up and then our cats, again, we do Pyrantel, Ponazuril and Praziquantel. We start their FVRCP series. We do their combo test.

Just as an aside note, I would be totally fine with doing leukemia only in the kittens that are under four months of age. We just – for ease of staff, it didn't save a lot of money, so we just do combo tests on everywhere.

Although, then I get those lovely FIV-positives that are later negative and confuse vets when they're adopted.

They also get Revolution dosed for their weight Capstar if they have fleas. We do Wood's lamp screening on all the cats and kittens on intake. We do have some that pop up later with ringworm, so I don't know that it's – it's probably just staff being too quick at intake with their Wood's lamp screening. We do at least try to roll that out, and they do catch quite a bit on intake.

We follow the basic AAFP (American Association of Feline Practitioners) vaccine guideline for shelters, because that way we have something to refer back to if someone's asking why we vaccinate as often as we do, because obviously it's very different in a shelter than when you're in private practice. We start them at four weeks of age as I mentioned, and then they receive boosters every two weeks until 20 weeks of age. That recommendation was pushed from 16 to 20 weeks a couple years ago. If they're over 20 weeks of age, they get one initial vaccine on intake and then a booster two weeks later.

As a note, because in theory an adult cat getting an FVRCP is fully immunized, we had a cat that we had a panleuk outbreak and did titers in our adoption area. We did have an adult cat that had had one FVRCP that didn't have an adequate titer, well actually we had two. Definitely, I will keep boosting my adult cats. If they're under four weeks of age, then we have them come back from foster care. They come back every two weeks when they're in foster care. They'll get their first vaccine when they are four weeks of age or a pound. Then we do rabies vaccines in everybody that's 12 weeks of age or older.

Again, we de-worm everyone with Pyrantel and Ponazuril and in the older kittens, Praziquantel, on intake. Then we repeat the Pyrantel and Ponazuril with their booster vaccine. They receive their Revolution once monthly. We do – we weigh the adults every month and then the kittens every two weeks. Obviously, again, in the nursery, it's every day. Then the moms are weighed every week in the nursery. We do recommend our foster parents weigh them every day.

I'd love to weigh the cats every week in the shelter. We had a volunteer that doing that that we lost, and we just haven't gotten back to that. That would be – most of our cats actually gain weight, not lose it, but still. In an ideal world, I would weigh them every week.

We do provide all of our foster parents with a kitchen scale so that they can weigh them every day. That was one of the things we keep on our Amazon wish list. We originally were going to put those in the – I mentioned, the foster finder bags. We were going to put a scale and a SnuggleSafe disc, but there's no way we can give away \$40.00 to every person that walks in the door that we're not going to get back. Our regular foster parents though, we know they'll keep fostering or give it back when they're done.

Ringworm, I mentioned that we do see a lot of ringworm. We do treat ringworm at our facility. Again, we screen them all on intake with a Wood's lamp. If we suspect – and you guys, if you're here tomorrow, I'm sure we'll hear hours and hours of ringworm with Dr. Newbury. I did take some of my protocols from her. If we suspect ringworm, we'll do a Wood's lamp and a veterinary exam and then pull a DTM (Dermatophyte Test Medium).

We don't treat ringworm at the nursery. We do move that to our main facility. I mentioned in the beginning in that modular unit was our ringworm treatment area. We'll move them over to the main shelter, pull a DTM, and then we start twice weekly lime sulfur dips on our cats and kittens. All the kittens in the room that we had ringworm in will then be monitored for any signs of hair loss, because obviously, they were

potentially exposed. I've debated whether to dip everyone on intake or to dip everyone after they're exposed, but at this point I've decided not to. Especially on intake, I think it would be a lot of stress for all the newcomers. With all the other things they get on intake, it would just be one more thing.

We do base our ringworm diagnosis on the positive Wood's lamp, a microscopic examination of the glowing hairs, and a positive DTM culture. I do confirm that they do with microscopic identification of the macroconidia. We do that all in-house. It seemed so daunting to do that until I did it the first time, and now it's really easy to do.

Any of the positive kittens do start oral itraconazole. We do a 21-day course of itraconazole. The lime sulfur dips we continue twice weekly. Then we do DTM cultures every week. Once they've had two negative DTMs a week apart, we'll clear them at that point for adoption. That is just the example of a positive Wood's lamp on a kitten's ears. Nice glowing.

As an aside, they used to say that only 50 percent of the *M. canis* would glow with the Wood's lamp. Now they're really saying that pretty much all the *M. canis* should glow. If you have an adequate Wood's lamp, you should have a positive.

This is our ringworm treatment room. We do – we don't clean every day. We used to do that. They're doing a study at the Dane County Humane Society that has the Ringworm Fit Center on doing twice weekly cleaning and making sure that that's adequate. We've gone to the twice weekly cleaning, because now you're debating the whole stressing the cat out by cleaning every day versus them being exposed to – constantly exposed to ringworm spores. When they're dipped, they're pulled out into their feral cat box, and then their cages are cleaned at that time, and then they're put back into a clean cage right after they're dipped. We like having the feral cat dens in there, because that way they have their house to move with while their cage is being cleaned in between their dipping. We have decent-sized cages in the room, because obviously, they're in there for a while. As you can see by that cat, she's extremely stressed and underweight while being treated for ringworm. She's really not happy at all.

Panleukopenia is the bane of my existence. I hate it more than anything, because we see it so frequently. If we have any kittens with sudden diarrhea, vomiting, or more often than not as you guys know, sudden death in a kitten, you always think of panleukopenia. Then we do an IDEXX SNAP Parvo Test. During kitten season, we waste a ton of money

on SNAP Parvo Tests, I know, but I would rather make sure that we rule out or rule in panleuk if we suspect it.

If I have a kitten that I really think has panleuk that has a negative, I will do a CBC to look at their white count. I don't do that in all of them, because that would be crazy expensive. If there's one that I just – I'm like I know that this kitten or puppy has panleuk or parvo, then I'll follow it up with a CBC.

If a kitten has positive for panleuk, we, again, don't treat that at the nursery, no way, no how. They are immediately transported to our main shelter facility, to our panleuk isolation room. We also move any of their cage mates at that time. Then I determine if the kitten is a good candidate for treatment. As you guys know, most often we're finding either a deceased kitten or a kitten that's dying and not a good candidate for treatment. Then we monitor the cage mates at that point, and they're quarantined for 14 days.

The room that the positive kitten came out of is then quarantined for 14 days as well. We monitor all those kittens really closely for any signs. We also immediately give them all an FVRCP booster even if they're not due yet as soon as we diagnose panleuk in the room. We put a quarantine sign on the door of that time. At that point, obviously, we're not doing the

nice light gowns. We move to the isolation or bunny suits, people like to call them, shoe covers and gloves whenever we're in the room that's under quarantine.

Alternatively, obviously, you could do titers and see who could be moved out to adoption and who's not protected and needs to be quarantined. In the nursery setting, most of them aren't moving anyway. It's not cost effective to do titers if they're going to be staying in the nursery for another week or two. We might as well just quarantine them at that point.

We treat – panleuk and parvo, we give them all a Convenia injection.

There was one – initially, there was a study by CSU where they compared parvo treatment, like intensive in-hospital parvo treatment versus an at-home – and this is obviously parvo, not panleuk. They're two different animals, I realize. They had a pretty good success with doing a Convenia injection, Cerenia once a day and subQ fluids three times a day. With puppies, that's generally what I do, because if they're going to eat out their catheter, then they're not getting one.

I've subjectively noticed that, because we have the hospital, we do treat a lot of parvo at our hospital from clients. The shelter puppies generally are not nearly as sick and do a lot better than the hospitalized owned puppies, because most of the owned puppies coming in have never had a vaccine,

never been dewormed, didn't have flea treatment. They've got hookworms. They've got fleas. They've got other things that they're dealing with on top of parvo. They also waited a few days before they brought them in until they're really sick.

The shelter puppies got a vaccine on intake, got dewormed, got flea prevention. The second somebody sees vomiting or diarrhea, they're getting a parvo test, so they start treatment immediately. That's just my subjective observation of our hospital patients versus our shelter parvos.

I will give them Convenia. I also give their cage mates Convenia, Cerenia once a day if they're vomiting, subQ fluids. Obviously, if they need it, we'll put in an IV catheter. We usually put them on LRS (Lactated Ringer's Solution) with 5 percent dextrose because they're not eating usually, of course. We'll do IV cephalexin or subQ Baytril. A lot of them do need thermal support, when you're dealing with panleuk kittens, because they're fragile and especially if they're underage. We do immediately offer them food and water when we're treating them.

What did we learn? I've mentioned a lot of those things. Bottle-fed kittens really complicate things and take a lot more planning, a lot more manpower, a bigger financial investment. You have to plan for having infectious disease and try to minimize the spread. Just know that it will

happen, and just plan on dealing with it. Having really clear training plans and protocols in place is important. Nurseries can save lives, but they do take a lot of time and money.

Having a managed intake plan was really a big difference this year, because once the floodgates open, you're going to be inundated with kittens. Once people hear, "There's this new nursery program," everybody wants to bring you their kittens. I think the first year we really advertised it, so people were, I think, really bringing them in when it first opened. This year, it's kind of – the nursery's been there, so it's not a new thing. You always want to have a staff member available and a plan for any emergencies.

We like to highlight that the kittens graduated from the nursery program. They're scheduled for surgery as soon as they're around eight weeks of age. Then, eventually, we'll talk about trying to get kind of a collegiate logo and play up the whole Kitten University thing, just I think the public would think that's something pretty cute.

What do we do with all these kittens? Obviously – that's the thing I've heard from a lot of people, is, "Okay, that's great. You're saving more kittens. But then how are you going to get them all adopted? We don't

think we have that many adopters in our community to have twice as many kittens we need to find homes for."

We do have an adoption fee for kittens, but no one ever pays what the normal adoption fee is. We have "two per one" specials all the time, and then do a lot of just promotion with our different adoption specials. In January, we had a JHS Pet Bowl and had our kittens versus our adult cats in our group housing in an eating contest. Anything you can do to try to get people to come in for adoption.

Obviously, this isn't a kitten, but I just thought it was a great adoption picture. You guys all know that people are really using the Internet now to look for their new pets. A picture will really draw people in. Most people get those hideous intake pictures. No matter how hard you try to get a good picture at intake, it's the worst time to get a picture, because they're stressed. They have Strongid on their face. It's not the best time.

We do try to get volunteers to come in to get pictures later, and we have some staff members that are really good at getting pictures. Really personalizing the animal, videos if possible, we really never have time to do videos, but that's a great marketing tool. Then using social media to really highlight your specials, highlight all the kittens – great animals you have for adoption. We also do the New News at the three different

stations each week, so we have three different days that we're having New News, so that helps as well.

We have major mega adoption events. Love them or hate them, they do bring in a lot of adopters. That's people waiting for the doors to open for one of our mega adoption events. There have been times that a thousand people have come through in the first few minutes.

These are some of our numbers. That's two days' worth of adoptions. It's – the mega adoption events are a joint effort of – they're sponsored by First Coast No More Homeless Pets, and they do all the marketing, but they're a joint effort between the cities of Jacksonville's Animal Care and Protective Services, Jacksonville Humane Society, and First Coast. Then we invite other local human societies, rescue groups, and animal controls from all over northeast Florida to come.

It does draw adopters from outside your normal community. We get a lot of people that come down from Georgia just because they know there's going to be a big selection in one place, and obviously, the adoption fees are a lot less when we have those big events. We usually adopt out anywhere from 800 to 1,000 animals in a 3-day period. That's between all the places, not just us. Usually, for us, it's like a hundred animals or so.

We had one this past weekend, and we adopted out 97 animals, and

Jacksonville Animal Care and Protective Services adopted out 349 just from their facility.

We have some adoption counselors ready and waiting. We do a lot of joint marketing, because being a coalition or being a partnership really helps the public, because they know that you guys are working together, that you support each other. If they don't find what they're looking for at our place, we'll send them to the city's facility to look there. We do help each other out as much as we can.

This is just a picture of some adopters with their kitten. Those are the cat cages behind them that are all set up. We do these megas three times a year, and then we also do a lot of on-site three-day adoption events. We'll do them at the same time as our partnership so that we can do joint marketing. We have the same adoption fee, the same application, so that it's easier for people to go from one place to another if they don't find what they're looking for. We've started to utilize different outlets for our kittens. We are utilizing PetSmart where the kittens can stay at their facility, and Petco, and we also go once a week to Petland, and we go to different – there's arts festivals and things like that that we will go to with our kittens.

I actually went a little fast, but I'll have plenty of time for questions. I do want to thank UC Davis, because they helped with my fellowship. Best Friends Animal Society helped fund the nursery. Because presenters always get to be shameless with their pets, the beautiful white pit bull is Miley. She was actually from our partners at the city, and she was a stray, un-spayed, heartworm positive pit bull who has, surprise, megaesophagus. Yay. She gets to eat out of her elevated feeder. She did have surgery, but obviously, she still needs to be medically managed.

Then the cute little guy that you'll notice is missing several things, he's about three months old now. He was brought in by a gentleman who runs a lawn service, and he ran him over with the lawnmower. He was only a week. His eyes weren't open yet, and it shredded both of his front legs. Then his lip, if you can see that it's missing. How the blade managed on a one-week-old kitten to shear off his lip and him to be alive is amazing. He walks like a T-rex. He's a good conversation piece. He's super cute. His name's Monty.

[End of Audio]