



**NCSBN**  
Leading Regulatory Excellence

***Past Event: 2024 NCSBN APRN Roundtable - The Collaborative Compass: Guiding IV Hydration Regulation for Improved Patient Outcomes in Mississippi Video Transcript***

©2024 National Council of State Boards of Nursing, Inc.

**Event**

2024 NCSBN APRN Roundtable

More info: <https://www.ncsbn.org/past-event/2024-ncsbn-aprn-roundtable>

**Presenter**

Phyllis Polk Johnson, DNP, RN, FNP-BC, Executive Director, Mississippi Board of Nursing

&gt;&gt; Phyllis: I am delighted to be here today to present a topic of paramount importance in the realm of health care: the collaborative compass, guiding IV hydration regulation for improved patient outcomes in Mississippi. The focus will be primarily on what we have done in Mississippi, in this presentation aims to shed light on a critical aspect of patient care, exploring how collaborative efforts can serve as a compass to navigate and enhance IV hydration practices, ultimately leading to improved patient outcomes. As we delve into the subject, we will uncover key insights, evidence-based strategies, and collaborative initiatives that can revolutionize IV hydration regulation. The significance of this topic cannot be overstated, particularly in the context of Mississippi's health care landscape, where our collective efforts can make a profound impact on the well-being of our patients. Without further ado, let us embark on this journey together, navigating the collaborative compass towards a future where improved IV hydration regulation translates into tangible advancements in patient care across Mississippi. I would like to take a moment to outline the key objectives we aim to address. First, the importance of regulation. We will explore the crucial role that regulatory frameworks play in ensuring the safety, efficacy, and quality of IV hydration practices. Understanding the landscape of regulations is essential for health care professionals to deliver optimal patient care while adhering to industry standards. Second, collaboration, recognizing the interconnected nature of health care. We will delve into the significance of collaboration among the various regulatory bodies. Effective collaboration fosters a unified approach to address challenges and achieve common goals in the realm of IV hydration. Third, common indicators for IV hydration. An in-depth exploration of the common indicators and best practices in IV hydration will be a focal point in our presentation. This section aims to provide a comprehensive understanding of the clinical markers and standards that guide health care professionals in administering IV fluids. Four, scope of practice. We will discuss the defined scope of practice for health care professionals involved in IV hydration, ensuring clarity on responsibilities, competencies, and ethical considerations within their respective roles. The fifth objective, FDA and FTC regulations, an examination of the regulatory frameworks set forth by the U.S. Food and Drug Administration, FDA, and the Federal Trade Commission, FTC, it will be undertaken, shedding light on the compliance

requirements and implications for practitioners in the field of IV hydration. Objective number six talks about the case studies. We will present case studies to illustrate some of the scenarios that Mississippi has encountered regarding IV hydration and the outcome of those cases. From the Nursing Regulatory Body's perspective, regulation is a mechanism to ensure public protection, and the trust in nursing. Although license requirements may vary by state, nurses in the U.S. need to be authorized to practice by a Nursing Regulatory Body or a board of nursing. NRBs, Nursing Regulatory Body's, outline the standards. Once a license is issued, the NRB will monitor the licensee's compliance to those jurisdictional laws and take action against those who have demonstrated unsafe nursing practice. Each jurisdiction has a law known as the nurse practice act, which is enforced by the NRB. NRBs might administer and enforce regulatory law and rules to accomplish their mandate of public safety. Decisions of the NRBs must be evidence-based, clearly defined, consistent, targeted, and proportionate to the level of risk determination. When you talk about collaboration, Merriam-Webster gave three definitions. The one that I prefaced here is one that defines it as to cooperate with an agency, the instrumentality with which one is not immediately connected. Also, to work jointly with others or together, especially in an intellectual endeavor. In addition, the symbiotic relationship between the Mississippi Board of nursing, the Mississippi Board of pharmacy, and the Mississippi medical licensure board is not just a testament to effective governance, but a dynamic force that significantly influences the quality and safety of health care delivery in our state. Together, they form a triad of regulatory oversight, working in harmony to ensure the highest standards of professional practice, patient care, and public safety. So, what does collaboration look like? Achievement of common goals, respect for each other, resolution of interest, safeguarding the contributions that each member makes to achieve the optimal goal of public safety. In other words, trusting each other. In response to ongoing concerns within the jurisdiction of the Federation of State medical boards, SSNB, the National Association of boards of pharmacy, and the National Council of State Boards of Nursing, a collaborative effort has been undertaken. These three organizations have partnered with the FDA and the Federal Trade Commission to conduct an educational initiative for regulators. The primary objective of this collaboration is to establish a platform for regulators and practitioners, fostering a comprehensive understanding of the evolving landscape and equipping them with the necessary insights to safeguard and educate patients in response to observed trends in this domain. Moreover, a crucial aspect of this educational endeavor is centered on patient safety. This emphasis on education is paramount to the health and safety of patients, aligning with our collective commitment to maintain the highest standards of care within our health care systems. This information was recently shared by the FDA. As you can see, this is a list of some of the most common establishments providing intravenous hydration services. The analysis of various websites reveals a spectrum of IV hydration services that claim to cater to a plethora of health care needs. These offerings reflect the evolving landscape of IV hydration services, providing individuals with a range of options to address specific health and wellness goals that is not evidence-based. It is essential for regulators and practitioners to be aware of these trends to ensure informed decision-making and the safety of the patients. IV hydration facilities may not be registered or licensed with states. State licensing boards focus on the practitioner. Involvement of multiple disciplines may cause complexities of state oversight. FDA was also concerned with the compounding of drug products by medical offices and clinics under unsanitary conditions. Investigations by the FDA ensued and revealed unsafe and unsanitary conditions and some clinics related to the preparation of IV hydration products. We first looked at what IV hydration is and the common indications for IV hydration. Intravenous hydration, commonly abbreviated as IV hydration, encompasses the administration of fluids directly into an individual's bloodstream via a vein. This serves the purpose of addressing dehydration or maintaining optimal fluid balance. The intravenous route facilitates a rapid and efficient delivery of fluids, electrolytes, and, when

required, essential nutrients. This is particularly advantageous in situations where oral rehydration may prove inadequate or impractical. Primarily employed in medical settings such as hospitals or clinics, IV hydration is a valuable intervention when the oral route may not suffice, or is deemed impractical for ensuring the timely and effective restoration of fluid balance. The expedited and controlled nature of IV fluid administration makes the preferred method in situations demanding swift and precise hydration management. Intravenous hydration is typically warranted under various clinical scenarios where specific medical needs arise. Common indicators for IV hydration include severe dehydration. IV hydration is often employed in cases of severe dehydration, ensuring rapid and efficient fluid restoration. Surgery and medical procedures. Before, during, or after surgical and medical procedures, IV hydration may be prescribed to maintain optimal fluid balance and support the body's recovery process. Nausea and vomiting. Individuals experiencing persistent nausea and vomiting may benefit from IV hydration to replenish lost fluids and prevent dehydration. Electrolyte imbalances. IV hydration becomes essential in cases of electrolyte imbalances, allowing for precise administration of electrolytes to restore equilibrium. The board of pharmacy, part of the collaboration in Mississippi, uses a checklist for compliance make sure infusion clinics are operating under best practice standards. The Board of medical licensure and the board of nursing utilizes what is called the investigative questionnaire to make sure clinics are operating on the best practice standards. The diagnosis of the patient's condition and the recommendation of IV therapy constitutes the practice of medicine. Thus, only physicians, APRNs, or PAs may diagnose, treat, correct, advise, or prescribe IV meds for a person for any disease, ailment, injury, infirmity, deformity, pain, or other condition, whether real or imaginary. IV hydration is a medical procedure with risk and should be conducted in the clinical setting as any other medical procedure. It is imperative for health care providers to adhere to the boundaries of their professional scope of practice when delivering care. Full histories, examinations, diagnoses supported by medical justification, plan of care, and complete records must be maintained like any other medical condition. The patient may not select the product from a menu. The hydration and our supplements suggested must be based on medical justification and clinical decision-making by the practitioner as part of the assessment, diagnosis, and treatment plan. IV hydration is a medical procedure with risk and should be conducted in the clinical setting as any other medical procedure. Hydration status is an important aspect for health maintenance. However, evidence of the specific effects of hydration relative to the general population is scarce and inefficient. Studies are needed to field current gaps in knowledge and enable us to understand the specifics of the role of hydration in promoting health as well as to help inform public health recommendations. There are benefits to IV therapy. However, does the advertisement depicts the actual benefits of IV hydration? In addressing the landscape of IV hydration, advertisement is crucial to debunk prevalence and ensure a clear understanding of the facts surrounding this crucial aspect of health care. North America dominated the market for IV hydration therapy with a share of 46.82% in 2022, and is anticipated to maintain its dominance over the forecast period. The high share is due to the unprecedented adoption of IV hydration therapy in the United States. There is an increasing demand for energy and immune boosters in the region, owing to rising incidents of chronic diseases. The global IV hydration market has been witnessing steady growth, not only in North America but in Europe, Asia-Pacific, Latin America, the Middle East, and Africa. Some of the key players in the global market are brought medical, Baxter international, and next gen health, to name a few. The cocktails that IV vitamin therapy clinics create and administer are not supported by scientific evidence. There have been no clinical studies to show vitamin injections of this type offer any health benefit or are necessary for good health. Through collaboration with the Board of medical licensure in the board of pharmacy, discovery was made regarding two Mississippi IV hydration sites. Aqua pure drip was a mobile IV hydration service in Hattiesburg, Mississippi, RN-own, going to events offering hydration services. Another site

was infusion therapy also in Hattiesburg, Mississippi, which was LPN-owned, providing clients with the menu but they could select whatever they wanted from that menu. IV hydration 2U was another site that offered many services to clients. As you can see, there is a hefty cost associated with these services. In addition to IV hydration, infusion therapy was also offering weight-loss services. As you see, they advertised the Facebook on the location and the services offered that day. The FDA is responsible for enforcing the USP standards recognized by various provisions of the Food, drug, and cosmetic act, and USP Chapter 797 provides the standards for sterile compounding, including supervision of compounding personnel, training of compounding personnel, and sanitary conditions for preparation of drug compounds. IV hydration clinics must comply with both of those regulations. The purpose is to prevent unfair or deceptive acts of practices. Sections 5 and 12 of the act. The first principle is advertising must be truthful and not misleading. And before disseminating an ad, advertisers must have adequate substantiation for all objective product claims conveyed expressly or by implication to consumers acting reasonably. All health claims require competent and reliable scientific evidence. Disease treatment or cure claims require human clinical studies such as randomized studies, placebo-controlled, double-blind studies, measuring the relevant end points with statistically significant results. And advertising must have at least a level of proof claim. For example, reference to a clinical study or scientific research pay claims that a product is clinically proven or scientifically proven to work requires evidence sufficient to satisfy the relevant scientific community of the claim. Respondents operating a chain of IV clinics in Texas and Colorado, the FTC challenged false or unsubstantiated claims that the IV cocktails were first effective treatments for cancer, cardiovascular disease, multiple sclerosis, diabetes, fibromyalgia, and on and on and on. Clinically proven to treat various diseases. In the instances where the FTC was involved with these clinics, the consent order was issued that required human clinical testing for disease claims, competent and reliable scientific evidence for other health claims, and that they also agreed to send an email notice to consumers who had purchased the cocktail, informing them that scientific evidence has not shown the cocktail to be an effective treatment for any disease. The FTC has issued more than 70 warning letters challenging various IV therapies. For example, vitamins C and D and Myers cocktail. Many clinics offer IV therapies along with other alternative or compounded treatments. For example, vitamin injections, ozone, hyperbaric oxygen therapy, stem cells, and peptides. Let's talk about some legislation that has been introduced. In Florida, house Bill 227 and Senate Bill 672, which are companion bills. This bill outlines the requirements that qualified health care providers, including APRNs, RNs, and PAs, when administering IV vitamin treatment. Additionally, this bill directs the Board of nursing and other relevant health care boards to adopt rules establishing procedures to safely administer IV vitamin treatment as well as protocols to follow in the event of a health emergency. House Bill 227 was reported out of the house Health and Human Services committee on January 16th. Mississippi house Bill 648 is a bill that states that nurse practitioners and RNs license by the Mississippi Board of nursing shall be authorized to administer fluids contain vitamins for the purpose of improving a person's immune health through IV therapy in a clinical setting. The bill further states that there is no limit on the number of vitamins that may be administered through IV therapy by a nurse practitioner or RN at any one time. Now let's talk about a few case studies. The first one is an actual case that happened in Mississippi. The respondent, who is a registered nurse rather than a nurse practitioner, has been engaging in practices beyond the typical scope of the registered nurse by administering IV hydration without specific orders. The respondent enlisted with a company and operated within the framework of services provided by the franchise. Within this operational model, the administration of IVs was based on client preferences without any medical justification for the selected IV. Clients had the option to choose fluids and medications from a menu of services. The respondent executed these procedures under standing orders from a physician located in another state who did not

conduct a direct assessment of the clients involved. So let's look at the outcome of this particular case. The Board issued a formal reprimand, a fine, legal aspects of nursing course, an ethics course, a scope of practice course, and a medication administration course. In another case in Mississippi, it involved a certified registered nurse anesthetist. The Board of nursing conducted an interview with the respondent, who is the owner of an anesthesia establishment. During the interview with the nurse, it was revealed that the establishment did not possess an approved practice site with the Mississippi Board of nursing. At that time, the respondent was practicing in her home and through a mobile service, thereby violating 30 Mississippi admin code part 2840, rule 1.1N, and part 2840, rule 1.2D2. The respondent violated the Mississippi code 73-15-20, 7D, prescribing outside the scope of practice for a licensed CRNA with said scope of practice being limited to anesthesia and analgesia. The respondent admitted to having no quality assurance, a quality improvement plan, or documentation, which again was in violation of the statute and the code, and the respondent did not have electronic medical records for the clients, and admitted to performing no exams. They did submit a collaborative agreement, dated 2019. However, standing orders were not signed until 2022. The respondent backdated documents submitted. As you are aware, Mississippi is a collaborative state, and they must have a collaborative agreement, and it must be signed by the collaborative physician. What was the outcome of this case? A formal reprimand was issued, a sign was given, legal aspects of nursing course, every day ethics course, professional accountability course, documentation course, social media course, and a scope of practice course were issued as to be compliant with this order. In this next case, the respondent is a registered nurse and not a nurse practitioner. The respondent has a previous disciplinary action with another State Board of nursing for practicing outside the scope of an RN. The respondent has been practicing out of scope for a registered nurse by administering IV hydration without specific orders. The respondent is the co-owner of an IV hydration business. IVs are administered based on a client's want and there is no medical justification for the selected IV. Clients select fluids and medications, again, from a menu of services. The respondent administered the IV via standing orders from a medical doctor located in another state who never assess the client. The MD did not meet the physical practice requirement per the medical licensure code part 20 6:30, chapter I. In another case, the respondent is the owner of a mobile IV hydration service, again, located in Hattiesburg, Mississippi. Allegedly, the respondent is running a weight loss clinic and acting as a nurse practitioner without MD supervision and no assessment of patient or labs collected before administration of fluids. What are your thoughts on those two cases? Hold that for the question and answer session. Let's look at a couple other cases that had been in the media recently. A woman died after receiving IV therapy in Frisco, Texas. This led to the licensure suspension for an anesthesiologist in that area. In another instance, a radio employee died after having a sudden cardiac death following IV treatment at a Medspa. The third incident involves a woman in Mississippi who died after being administered administered IV therapy in-home. This goes to show you that there are risks involved with administration of IV therapy, so you must adhere to the standard of practice, the scope of practice, when administering IV therapy. Thank you for your time and attention today. I am now open to any questions or discussions you may have. Before we conclude, however, here is a reference slide acknowledging the sources and references that have enriched our discussion.

&gt;&gt; Michelle: Thank you so much for that excellent presentation, Phyllis, on a really hot topic that boards of nursing get question on almost weekly, is what I hear. Thanks for sharing this unique regulatory approach that you have taken in Mississippi, and I just wanted to get us started with a question as to who, what are your feelings about the benefits and drawbacks of this particular regulatory approach when you're collaborating with the Board of medicine and the board of pharmacy. &gt;&gt;

Phyllis: Thank you, it's great to see you again today. In answer to that question, Mississippi has not been particularly in a drawback of being in collaboration with the Board of medical licensure and the Board

of pharmacy. It provides an opportunity for us in a collaborative spirit to join forces and promote an interdisciplinary type of discussion about things that are happening within our state that are affecting our particular laws. One thing unique about Mississippi is that our law may have some caveats in it that, if we combined with the Board of medicine and board of pharmacy, there are laws to do our investigations in a more efficient manner. So it has been a great experience for us to be able to work together, to combine our resources together, and to go out together to investigate these complaints that we usually get from people in the public arena that helps ensure we have an optimal patient outcome when we work together and do these investigations. It also provides for safe administration of IV therapy. &gt;&gt;

Michelle: Thank you. Next question, does this framework have a role in other APRN regulatory efforts? &gt;&gt; Phyllis: I would think, Michelle, that it does have a role. This framework could work and other regulatory efforts. Again, we have to remember that, as regulators, our primary objective is to protect the public, and IV hydration, although it is something that nurses use in their everyday component of being a nurse, you have to be aware that there are adverse risks or events that can occur from the use of IVs, even in the hospital setting, the clinic setting, and the appropriate settings. It is so important that our licensees understand that. So this framework could possibly work, and the framework is us working together and using evidence-based research to go into these investigations, to look at what is being done in the clinics, and then to make a determination as to, is the safe practice or not? All states have different laws, and that's the thing. What works for Mississippi may have to be tweaked in another state, because laws are different from state to state. Our laws allow us that opportunity to work together, so whatever your law would allow you to do, I think you can take this framework and tweak it to fit your particular state laws and get some great outcomes from that. &gt;&gt; Michelle: Thank you. Next question, what barriers did you face when you begin your collaboration with the pharmacy and medical boards? &gt;&gt;

Phyllis: I think we are a little bit unique in Mississippi, in that, when you talk about barriers that we faced, we have been able to meet over the past years. We have what we call our own tri-regulated meetings you have on a monthly basis. So this is something we have been doing and it has worked very well for us on other entities, not just IV hydration, that other entities that we go out and investigate together. So we meet monthly, we meet with our investigator division, we discussed concerns or issues affecting us, because, as you are aware, Mississippi is a collaborative state. APRN cannot practice independent Lee. They must have a collaborative physician and they must meet certain stipulations and requirements that our law dictates in order to practice in that collaborative agreement. So it was only fitting that all three regulatory components, pharmacy, the Board of medicine, and the board of nursing, should work together and collaborate during our investigation. These joint investigations have been very efficient, very productive, and I think the patient outcome has been enhanced by us all working together and going out and doing these investigations. &gt;&gt; Michelle:

Thank you. Can you share the specifics of the physical practice requirement for the out-of-state physicians in your example in Mississippi? &gt;&gt; Phyllis: Our example in Mississippi -- again, the Board of medical licensure rules and regulations -- the physician has to be licensed in the state of Mississippi, and they have specific mileage requirements if they are operating a specialty clinic and not in a general practice or hospital setting. In the case study that was mentioned, this particular physician violated the mileage requirement for collaborating with the nurse that had this particular IV hydration business. &gt;&gt; Michelle: Okay, thank you. How do you balance the competing goals of ensuring public protection and regulation while allowing for safe innovation? &gt;&gt; Phyllis: Asked me that question again. &gt;&gt; Michelle: [Laughs] The question is, how do you balance between ensuring public protection, regulating APRNs, and still allowing for safe innovation? It's a good question. A tough one. &gt;&gt; Phyllis: Boy, that is a tough question. But it is a very good question. I approach everything in my job as the regulator from a public protection standpoint. The other thing that I also

utilize is, is it evidence-based? Whatever they are doing, is it evidence-based? To be have a standard of care? Are we adhering to a standard of practice guideline? What does the data show? What does the evidence show in doing that? So when you say, how do I balance that, I approach it with that mindset that we are here to protect the public. We educate our staff, we go out and we do presentations at conferences, not only to our licensees but to anyone who invites us out to talk about regulations. And we do have a public that wants us to come out and talk about what our nurses are doing and what things we look for when we go out to do that. So that's a tough question, but I think, if you always approach it from that mindset as a regulator -- and I am a practitioner, as well. I'm a family nurse practitioner and, believe it or not, would have time, I still try to practice because I love taking care of patients. But I also follow that same mindset when I'm taking care of this patient, educating them as well as these new things that are coming out. Patients always want to try them, but is it the best for the patient? So I try to balance that through education, through remembering that dumb I quit my job is as a regulator, and in that respect, as a patient care provider, I can be an advocate for my patients and for patient care. So with technology and medicine evolving, there's a lot of things that are happening and we have to just make sure that the evidence is there to support what our licensees are doing. And it's not that all the clinics in Mississippi are not doing what they're supposed be doing. We do have a couple of clinics in the state that reach out to the Board of nursing because it's a business. Anyone can own a business. They don't try to prohibit that. We just make sure that you are doing what a nurse should do and if you are operating as a nurse, you are bound by the nurse practice act. So we do have a couple of clinics who have done everything as they are supposed to do them and are doing these clinics in a safe manner. &gt;&gt;

Michelle: Thank you. Next question, "I work with new NPs you might not have the experience to identify practices with potential regulatory risks. What would you recommend for a new APRNs or entrepreneurs interested in offering novel approaches to the delivery of health care services to ensure that they are well within the regulatory requirements?" &gt;&gt;

Phyllis: The first thing I would recommend is that, whatever state they are practicing in, that they reach out to that board of nursing or they are well-versed in what the law says they can or cannot do. What is their defined scope of practice? That too is a good question because we do an orientation class to all APRNs. It is here at the Board of nursing. COVID had us go to Zoom, but it can be held in person. All new graduates are required to take this orientation course, and recover all of the rules and regulations, the laws, scope of practice issues, things they can and cannot do. But I think educating them from a regulatory standpoint is really important, because, when I came out, I didn't know everything there was to know. I worked in federal government for a while so I ended up learning the thank federal regulations as well as the state regulations. You tend to operate within those confines a lot better, and the patient outcomes are a lot better. It protects you and it protects the patient, as well. So I think education is key. Whatever realm you feel the education should be provided, be it in the clinic they are going into, educating them about the type of patients being seen there, but it is they can and cannot do within that facility, things of that nature. So education and communication are key roles to play with our new NPs coming out, especially if they are going to enter into novice innovation such as IV hydration or other new techniques coming out. We have a lot of nurses coming out that want to do things, we have the decision tree we have them utilize on our website, and if we run into the problem with the decision tree model, where they can't advance and notify the board of nursing. I think it is key that we educate our young nurses or new NPs coming out in general about what they can and cannot do, and define what that scope of practice is for them. Our scope of practice is defined in our law pretty much as to what they can and cannot do. &gt;&gt;

Michelle: Thank you. We have a couple questions around the same topic, so I'm going to combine a couple of questions. How does telehealth impact IV prescribing? Can a licensed provider conduct an assessment via telehealth with a nurse in an IV hydration clinic? &gt;&gt;

Phyllis: In answer

to that question, yes, they can. We at the board of nursing, a telehealth visit to us is a face-to-face visit. You've done an assessment on the patient, and then there must be documentation of that visit in some form or fashion in your electronic medical records. But, in answer to the question, yes, telehealth is considered a face-to-face business. It can be utilized as long as you are doing that assessment on the patient. It's when they don't utilize the telehealth and don't do an assessment, that they have no knowledge of the patient, but the issue it through a third party to say this is what this patient has chosen. What we are finding out is that the patient just goes and says, I want that from the menu, I want that from the menu, and they have a standing order that says, if they choose this, you give a list. That's not really safe practice. Because you don't know what kind of history this individual has, what underlying health conditions they may have. Everybody wants to look good, everybody wants to feel good, so if I advertise I can make you look good and feel good, if I want to feel good I might go and select something from that menu. However, they need to follow all the components of good provider care. That's that patient relationship, developing some type of relationship, having the specific assessment on that patient, be it in person or via telehealth, and executing the other things you need to do in order to ensure that patient needs that particular item that they have selected from your menu. &gt;&gt; Michelle: And just to add a little detail to your response, and going back to something you said earlier, in Mississippi that telehealth visit would count, but maybe in other jurisdictions in other states it doesn't. Just to clarify that you are speaking to Mississippi, just for our attendees. Eve already said that before. I just wanted to reiterate. Another question, how do you see this modality going forward, or possibly expanding? And also, excellent presentation, is in the comments. Any thoughts on that, Dr. Johnson? On what you see the future of this type of IV hydration? &gt;&gt; Phyllis: I will just say this, I know Michelle and I were involved -- I think it was last June or July, in a conference. It was a webinar. Hopefully many of the people on this call remember that webinar. But I worked with Michelle on this and they have done a lot of research in NCSBN. So I appreciate that. There's exponential growth growth in this particular sector. I was looking at my notes earlier. Last year, a Google search for nurse and IV hydration yielded over 31 million results. That was last year. So here we are a year later, almost, and you have the presence of mobile IVs, all of them are offering this IV hydration, and on-call infusion administration where they will come to your home. This has exponential growth and I see it continuing to grow. Financially it has impacted a lot of individuals' lives. It's a business. So I think we will continue to see growth in this arena. Here's the caveat, though. Regulators have to consider the risks. I'm speaking from a regulator component. We need to consider the risk to public protection. If we have licensees or individuals that sometimes on these clinics that have no health background, no nursing background, it's just business for them, and some of these we have no jurisdiction over, but they are giving IV therapy and they are not a medical provider at all. So that, again, is something outside of our realm, but it is a public protection component. So we follow evidence-based standards. Performing a patient history, including medications and allergies, documentation of the treatment that is being provided, and preparation to manage any complication which may occur. If you remember, on one of the slides I mentioned that one of the adverse events that had occurred was in Mississippi where a licensee went to a friend's home and administered IV therapy. And an ambulance had to be called to take the patient to the emergency room, and the patient did expire. I did not follow up on this. I don't have any information for you as to what the cause of death was. But it was so closely related to the IV administration that you could make an assumption, maybe this has something to do with it. What was the underlying health reason or health factors that this patient had? So we have to make sure that we are following the standard of care in providing care to individuals that are out there receiving IV therapy. The issue of scope of practice is one of the major things that we encounter here. The scope of practice, LPNs, we have rules and regulations. They can own an IV therapy clinic, they can own anything they want to. But if you are an



LPN and you are practicing in that particular IV therapy business, what are you doing as an LPN? Because we have rules and regulations that stipulate what they can do with IVs. So we have individuals we end up disciplining because they are doing things outside their scope of practice. We have been fortunate enough that most of the violations that we have investigated, that we encounter, our scope of practice issues. There does not functioning within the scope of practice as defined by our law. &gt;&gt; Michelle: Thank you. We have time for just one more short question, Phyllis. That question is, you mentioned earlier kind of the shift from the health care provider, the APRN, ordering and determining what type of treatment is required to the shift is somebody going and choosing something off the menu. Could you respond to that briefly before we are out of time? &gt;&gt; Phyllis: Well, again, that goes to the standard of care. If they are just selecting something off the menu, again, you don't know what that person has is an underlying health issue. It's not safe to be going around with a mobile clinic on golf courses, putting up tents, and hanging IVs. It costs a lot of money for you to select from these menus, so you understand that this fluid is probably being -- so that the issue, follow the standard of care is. What should you do as a health care provider? He follow the steps and rules and regulations, the administration of the IV therapy will be within the confines of the standard of care. But we are just not seeing that. &gt;&gt; Phyllis: Thank you so much for an excellent presentation, really interesting and thought-provoking responses to our questions from our attendees. Thank you so much, Dr. Johnson. &gt;&gt; Phyllis: Thank you.