Fluent: Untangling Fluid Management

Announcer:
Welcome to Women’s Health Update on ReachMD. This medical industry feature titled Fluent: Untangling Fluid Management is sponsored by Hologic.

Here’s your host, Dr. Sujatha Reddy.

Dr. Reddy:
Fluid management is an essential component of any successful hysteroscopy and hysteroscopically directed procedure. On today’s program, we’ll be reviewing a new system from Hologic that our guest and other experts say is transforming the user experience, not only for physicians but for nurses and OR staff as well.

I’m Dr. Sujatha Reddy. Joining me to talk about the Fluent system, a new fluid management system in minimally invasive hysteroscopic procedures, is Dr. Beth Plante from the Fertility Centers of New England.

Dr. Plante, welcome to the program.

Dr. Plante:
Thank you for having me.

Dr. Reddy:
So, to start with, what types of procedures are we talking about that require fluid management
systems?

Dr. Plante:
So, really, any hysteroscopic procedure requires some type of fluid management, so any time that we’re trying to evaluate the uterine cavity or trying to remove some type of intrauterine abnormality, we really do need an effective fluid management system. Some of the uterine abnormalities that we most commonly are addressing would be uterine polyps, uterine fibroids, uterine septa, so a very efficient fluid management system is very important to safely and effectively remove any type of intrauterine pathology.

Dr. Reddy:
And that’s a good segue. So, why is fluid management so important during these procedures?

Dr. Plante:
So, in order to operate the hysteroscope effectively, these procedures really require some type of distention media, so something to really open up the uterine cavity; but we know that while we’re performing these procedures, vigilant monitoring of the fluid that’s being used during the procedure is essential so that we are accurately measuring what we call a fluid deficit so we can make sure that the procedure is as safe as possible for the patient—because fluid is being absorbed by the patient during the procedure, and so a modest amount of fluid absorption is safe and reasonable, but we certainly want to make sure that we are avoiding an excessive amount of fluid absorption during the procedure.

AAGL has very clear, robust fluid management guidelines, and these guidelines really serve as best practices for physicians and healthcare providers. As we said previously, we know that too much absorption of the hysteroscopic distention media during the procedure can really result in serious complications for the patient, and historically, these have been reports of life-threatening complications associated with an excessive amount of absorption. Fortunately, we have learned so much over the last several decades and we are much more diligent and much safer with our hysteroscopy, and so we find that as long as we are very careful and we follow the AAGL guidelines and we make responsible decisions about fluid management, always keeping the patient’s best interests in mind, we find that now hysteroscopy is considered a very, very safe procedure.

Dr. Reddy:
With all of that in mind, what currently is available for physicians and surgeons for fluid management systems? And up until now, these have not been, obviously, ideal. What have been some of the limitations?

Dr. Plante:
There is just a number of different fluid delivery management systems, and there is a huge spectrum ranging from basic manual tools to more automated pumps. And with the automated pumps, they offer the ability to maintain a preset intrauterine pressure level, whereas you can imagine the basic manual tools are much more limited in terms of our ability to maintain a very specific intrauterine pressure. What we find with the manual fluid management systems is that it’s very difficult to accurately measure how much fluid is being absorbed by the patient, so how much fluid is going in and how much fluid is coming out, whereas with the automated fluid management systems, these allow for a much more accurate measurement of the fluid deficit so that we can always make sure that we are staying within safety guidelines and we are not exceeding the maximum fluid deficit. For instance, with normal saline, if we’re using that as our distention media, then typically we would try—we to typically use 2500 cc as our cutoff, as our maximum deficit, and if the deficit were to get beyond 2500 cc, we would immediately stop the procedure. For instance, Aquilex is an automated system that has traditionally been used, and that really does—all of the automated systems really do allow us to better maintain the uterine cavity distention so it’s consistent throughout the case so that we can have optimal visualization throughout the entire procedure.

Dr. Reddy:
To that note, I understand the Fluent system is a new system Hologic came out with for fluid management. What can you tell us about it?

Dr. Plante:
So, we are very excited about this new fluid management system from Hologic. The Fluent system does offer a number of advantages. One of the biggest things is that the setup is incredibly simple. Historically with other automated systems, there are tons of tubes and the setup was very complicated and time-consuming, but fortunately, the setup is very simple with the Fluent system, so they don’t have to worry about tangling with tubes anymore. Additionally, the pressure control technology is extremely advanced, and so it’s designed to really optimize everybody’s confidence in the operating room, so the surgeon and sort of the entire OR team can feel very confident about the pressure control technology that is used with the Fluent system. And then, finally, the workflow associated with the Fluent system has been really streamlined so that it’s incredibly efficient and will save a significant amount of time for the OR team as well as the surgeon.

Dr. Reddy:
If you’re just joining us, this is ReachMD. I’m Dr. Sujatha Reddy, and I have the pleasure of speaking with Dr. Beth Plante about fluid management with the Fluent system.
So now we’ve got a better sense of the challenges in using other fluid management systems out there. Tell us, what are some of the benefits of the Fluent system?
Dr. Plante:
So the Fluent system is really meant to make everything as easy and as straightforward as possible for all of the users. So they have FloPak cartridges that just snap into place. There's a single 6 fluid liter waste bag that is designed to eliminate the need for canisters, and there is a very intuitive touchscreen that guides you in terms of how to set everything up, and this is all built right into the system—because what we find with a number of more traditional automated fluid management systems is that we find that they’re not always very intuitive, and it’s very difficult… If there is a new user in the operating room, sometimes it can take a significant amount of time just to learn the system and understand the system. Sometimes there are interruptions as canisters are being switched over. And so the goal with the Fluent management system is to eliminate a lot of that confusion and eliminate those stops and starts so that it is really a smooth and efficient process.

You’ll find that the technology is incredibly advanced. I don’t know of any other fluid management system currently that can offer deficit readings that are quite that accurate. And then, certainly, the pressure control will maintain a very consistent intrauterine distention throughout the procedure, so we don’t run into that issue of the uterine cavity one minute you can see perfectly and then the next minute it’s collapsed and you can’t see very well. The goal with Fluent is that it will allow us to maintain a very consistent, stable intrauterine pressure throughout the entire case so that we can see clearly. And then, finally, the FloPak technology is so simple and straightforward it makes it very easy for the entire team to really just monitor and manage the fluid use throughout the procedure.

Dr. Reddy:
So, how would you say the system works to improve the surgical experience for not only physicians but OR staff as well?

Dr. Plante:
So, one of the nicest things about the system is that there are visual and audible alerts to really make it clear to everybody sort of in a stepwise fashion how the system should be used and just to keep the procedure moving as efficiently as possible. Additionally, the procedure kits are all-in-one, so everything that the nursing team and the OR team will need is in one place rather than having multiple different kits or multiple different resources and tools that we need in order to get ready for the case. That’s not going to be an issue with Fluent because everything is just in an all-in-one procedure kit. Because everything is in an all-in-one procedure kit, there is just less equipment required overall. Certainly, the MyoSure device, which is one of the most common devices that we use for hysteroscopy, that controller is actually integrated into the system, so it really limits sort of the overall footprint within the operating room so that you don’t have all of this equipment taking up space and the people are tripping over each other and tripping over equipment in the operating room. Everything is
really very efficient and integrated and does not take up a lot of space in the operating room.

Dr. Reddy:
Those are some really serious benefits. That sounds really great. But if we continue to focus on pure practice improvement, what would you say is the biggest clinical benefit the system has to offer?

Dr. Plante:
In terms of pure clinical benefit, in the testing that was done before this product was launched, there were really 2 major things that were found. The first was that Fluent uses less fluid when compared to Aquilex. And Aquilex is an excellent system, but Fluent uses less fluid, and so we know that the less fluid we use, the safer it’s going to be for the patient because you’re less likely to reach your maximum fluid deficit during the procedure. It also buys you more time if it’s a complicated or more advanced case. A large fibroid, a difficult case, a large uterine septum, any of those take more time, and so with other automated systems, sometimes you could reach your fluid deficit very quickly, but because Fluent uses less fluid overall, it also gives you more operative time to complete the case if it’s going to be a more difficult procedure that will take a little bit longer than the average case.

The other major thing we found is that Fluent really reduces the loss of uterine distention, particularly while using the MyoSure device. So, even with Aquilex, which was a very good fluid management system, we would find that sometimes you would lose your visualization, and so the uterine distention was not necessarily always maintained perfectly throughout the case, whereas with Fluent, we find that really the uterine distention is maintained very consistently throughout the case.

Dr. Reddy:
Well, it certainly sounds like a very streamlined integrated system with MyoSure working really well with it. And so my last question to you is: Do you feel the Fluent system actually improves your facility’s efficiency or even your procedural experience as a whole?

Dr. Plante:
I really do. Because Fluent is specifically designed to really streamline the workflow within the operating room through the use of its FloPak technology as well as the touchscreen—which is really intuitive so that even a newer OR tech or a newer nurse could really jump in and use the Fluent system very easily—I think that that has improved the procedural experience for everybody. Really, any nurse could feel confident using this system even for the first time, and as a surgeon, I feel like that’s such a huge benefit, because we do find that sometimes with the other fluid management systems, if the nurses and the technicians in the room are experienced, then everything moves quickly, but if it’s a newer team and they’re not as comfortable with the equipment, then everything seems to take longer. But fortunately, with Fluent, what we find is that the efficiency of the case is maintained regardless of
whether it’s a new user or somebody who’s used the system multiple times.

I certainly feel that in my practice I’ve found that the Fluent management system certainly will improve the overall surgical experience, not just for me as a surgeon but for all of the other members of the operating room team.

Dr. Reddy:
Anyone that operates knows how important that is. Well, on behalf of our audience members out there who are looking to improve their fluid management experience during hysteroscopic procedures, I’d like to thank my guest, Dr. Beth Plante, for sharing her insights today. Dr. Plante, it was great having you on the program. Thank you very much.

Dr. Plante:
Thank you, Dr. Reddy. Thank you for having me.

Announcer:
The preceding episode was brought to you by Hologic.
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