

## Vision Improving Tools for Laparoscopic Surgery



**Dr. Wayne Poll - CEO**

### **About Minimally Invasive Devices, Inc.**

Minimally Invasive Devices Inc. (MID) was founded by a laparoscopic surgeon to develop surgical tools that improve vision during Minimally Invasive Surgery.

**Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine**

### **CEOCFO: Dr. Poll, what is the concept at Minimally Invasive Devices?**

**Dr. Poll:** When laparoscopic surgery is being done it is common for surgeons to lose their ability to see clearly from body fluids and smoke that settle on the optics. The average surgeon has to stop what he or she is doing five to ten times an hour because they cannot see. They must physically remove the scope, clean the lens, and place it back to re-start surgery. We have a product that puts an end to that and a technology that actually prevents fluid and debris from settling on optics. Surgeons will be able to utilize a crisp view and rarely need to interrupt surgery.

### **CEOCFO: What has been the challenge? Why was this not taken care of years ago?**

**Dr. Poll:** The existing paradigm has been that the lens gets dirtier until finally you cannot see and the surgical team has to stop no matter how critical the moment and clean the lens externally. No one had ever considered a system that could prevent and deflect debris – a system that would be almost like a “force field” that guards the lens. If you think about it, you have no such other experience like it. Whether it is camera lenses, windshield on cars, or your glasses, you just assume they get dirty and you have to clean them. You have never seen an optical technology before that prevented itself from getting dirty.

### **CEOCFO: What is the science?**

**Dr. Poll:** The science is that we create a curtain of gas over the scope. We flow gas over the end of the scope and it acts as a protective shield. It is similar to a lens cap made out of flowing gas. It is a barrier that acts to block debris, yet it is invisible.

### **CEOCFO: How did you come up with the idea and do people have an initial hesitation?**

**Dr. Poll:** When laparoscopy is done, the abdominal cavity is inflated with carbon dioxide to create a space. That is called insufflation. FloShield utilizes the same gas and first flows it over the scope to create the barrier.

### **CEOCFO: How does it work?**

**Dr. Poll:** The device works continuously. Gas is flowing almost continuously into the patient, and we direct it over the scope on its way in. It functions automatically while the surgeon works instead of intermittently after the lens gets dirty.

### **CEOCFO: How do you get the gas to adhere to the lens?**

**Dr. Poll:** The gas does not adhere; it flows over it. Some stores in the winter will have a barrier of air at the door – they will not have the physical door, they will have air blowing that forms a barrier between the store and the outside. That is what we do.

### **CEOCFO: Where are you in the process with the product? What is the name of it and how do you classify it?**

**Dr. Poll:** It is called FloShield and we have three different versions of the device at different price points and capabilities. We are a commercial stage company and launched the most recent version of the technology nine months ago. FloShield Air costs around \$50 and decreases the need to remove the scope by 90 percent. FloShield PLUS sells for \$100-200 and virtually eliminates the need to remove and clean the scope during laparoscopic or robotic surgery.

### **CEOCFO: This is disposable?**

**Dr. Poll:** Yes it is.

**CEOCFO: *Why the need for one that is almost as good when the cost does not seem all that much?***

**Dr. Poll:** Everything has changed since the Affordable Care Act. What used to be considered an insignificant cost add is now considered significant. Hospitals will really push back at the difference between \$100 and \$50.

**CEOCFO: *Does that scare you as a doctor?***

**Dr. Poll:** It does not scare me as a doctor as much as it concerns me in the medical device business because it has affected new product introductions.

**CEOCFO: *Are doctors surprised when they hear about the device? Are they receptive? Are you reaching the doctors or are you reaching someone else?***

**Dr. Poll:** The touch point for the more expensive device is clearly the doctors because it is the surgeon that has to operate and see clearly. Supply chain executives at hospitals are busy people and they hear a lot of claims from sales people. With the changes in health care reimbursement, they are under tremendous pressure to reduce costs and they have tough job. Our \$50 product more fits with what they are currently spending on the problem and it is easier to replace what they are currently using with our better product at the same price

**CEOCFO: *How are you marketing? Do you work through a distributor, are you going at it alone or are you doing conferences? What is the grand plan?***

**Dr. Poll:** We have a full commercialization team with VP's of marketing and sales, three regional managers, and a network of 80 independent reps.

**CEOCFO: *Are you outside of the US as well at this point?***

**Dr. Poll:** Not yet. We are CE marked, so we could launch in Europe at any time,

**“Our FloShield product line offers surgeons, nurses, and patients a technology that prevents loss of vision during surgery. For hospital administrators, it offers a better product at a lower price and is a win/win.” - Dr. Wayne Poll**

**CEOCFO: *What are you working on today?***

**Dr. Poll:** We launched our robotic device two months ago. It would be common for a surgical team to remove the robotic scope for cleaning, after vision is compromised, 2-10 times per surgery, or even more. We have now done 170 robotic cases and have had one scope removal. Instead of 400-1000 times that the surgeon could not see, we have had it happen once. We have been able to eliminate 99 percent of the time that a surgeon cannot see, and that is good for the patient.

**CEOCFO: *I would imagine before the doctor decides he or she cannot see that there are a few moments where they are not seeing quite as well.***

**Dr. Poll:** That is correct.

**CEOCFO: *It seems like a no-brainer that people would want FloShield.***

**Dr. Poll:** There have been several surveys where surgeons were asked a completely open ended question – what problem would you like to see solved in all of laparoscopic surgery? In every survey, surgeons report loss of vision and the need to take out the scope over and over. There is no question that the need is there. We are early in commercialization, but commercializing any product is challenging. Physicians have many priorities on their mind, as do hospital administrators. New launches takes time and resources.

**CEOCFO: *Is there a way to show the correlation between using FloShield and negative outcomes, whether it is time surveys or potential problems?***

**Dr. Poll:** Surgeons and nurses understand that vision is important. Numerically showing a change in complications would require a large and expensive clinical study. We have done studies that show a clear time savings but our device is about a lot more than just time. It really is that operating and being able to have a crisp view is important for the safety of the patient and the focus of the operating room staff. Someday, we think doctors will look back with disbelief that they used to lose vision and take the scope out all the time to clean it.

**CEOCFO: *For you as CEO, what is the key to adjusting with the changing market and changing health care environment?***

**Dr. Poll:** Clearly the most important trend in devices is cost savings, and that can be less expensive generic versions of current products, or new disruptive products that allow disease states to be treated less expensively.

**CEOCFO: *What are the next steps?***

**Dr. Poll:** Our next steps are to scale the business by replacing all other products at the lower price tier, and also offering a full solution set at the upper price tier.

**CEOCFO: *Put it together for our readers. Why pay attention to Minimally Invasive Devices?***

**Dr. Poll:** Our company has solved a significant unmet need in surgery and established a new standard of vision. The “perfect laparoscope” would resist getting dirty to begin with, and this technology can be expanded throughout medical endoscopy and then to other industrial applications.

**CEOCFO: *Final thoughts?***

**Dr. Poll:** Continuous clear vision and having an active lens protection system is a new standard of vision. One of our surgeons has not taken out a scope to clean in two years. He typically would have spent 30 hours last year just cleaning the scope. Why would he want to go back?

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**BIO:** Dr. Poll trained in Urology at The Massachusetts General Hospital and practiced Urology and laparoscopic surgery for 22 years before forming Minimally Invasive Devices to solve loss of vision during laparoscopic and robotic surgery.

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