



## Surgeon Testimonial

### Mr John Conneely

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Hepatobiliary & Bariatric Surgery

*The striking impact of Ultravision on the visual field, how it helps junior doctor training, and the positive impact on confidence in the operating room.*

*I have been a consultant General surgeon at the Mater Misericordiae University Hospital since 2015.*

*My main special interests are minimal and robotic access Hepatobiliary and Bariatric surgery. In both hepatobiliary and bariatric surgery, both in benign and cancer cases.*

*We have been using the Ultravision system for a little over 2 years.*

#### ***Why did you decide to start using the Ultravision system?***

*During the Covid-19 pandemic, the ability to perform Minimally Invasive Surgical (MIS) procedures was greatly diminished through a combination of factors such as staffing issues and patients that were unable (due to sickness) or unwilling to have their procedures performed. It was also hampered greatly by the recommendations of the major surgical societies, who initially suggested that MIS should be halted altogether as there may have been an increased risk of Covid-19 infection associated with the exposure to bioaerosols created when using energy devices such as diathermy, ultrasonic devices, and laser, in combination with the pressurised abdominal cavity in which it was created (Pneumoperitoneum).*

***“What was immediately apparent, was the striking impact upon the visual field!”***

*At the Mater, our service is heavily geared toward performing as many procedures using minimally invasive techniques, as possible. The benefits of this for our patients are well documented in the literature and this motivated us to perform studies to test whether MIS could be achieved safely, contrary to the recommendations. During these studies my colleagues and I were introduced to the Ultravision system. What was immediately apparent was the striking impact upon the visual field! Surgeons usually use suction or vent the plume when they can no longer see the operative site clearly anymore and no other device that we were aware of came close to it. A clearer operative field is far safer for your patients.\**

*What really led to us deciding to use the system was how effective Ultravision is at reducing the inevitable but accidental escape of plume during MIS. It enabled us to keep providing the service, during what has been an incredibly pressured time.*



### *How does your team feel about surgical smoke exposure?*

*Surgical smoke awareness has increased dramatically in the past couple of years, due largely to the global pandemic, for the entire surgical team. It's reasonable to say that we had a rather cavalier attitude toward the subject prior to this time. We were, and to an extent, still are, behind North America when it comes to policies and legislation. Several US states have passed laws, mandating the use of smoke management devices and, during my time in Canada, it was already compulsory to use such systems. I wasn't allowed to operate without it.*

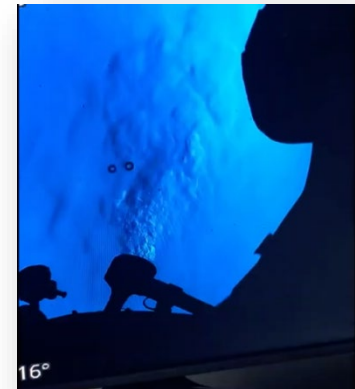
*\*The studies referred to by Mr Conneely can be viewed in more detail via the link below. These findings conclude that better technologies are required in order to further minimize the escape of bioaerosols from the pneumoperitoneum during laparoscopic surgery.*

#### ***Solving the problems of gas leakage at laparoscopy***

*Cahill, R., et al.*

*British Journal of Surgery, August 2020*

<https://doi.org/10.1002/bjs.11977>



*Using Ultravision helps make the whole team to feel more comfortable, knowing that there is less gas (and surgical smoke) released into the OR. It facilitates operating at lower pressures and any gas that is released contains far less particulate matter, reported as 23 times less in a recent paper<sup>1</sup>. Ultimately, anything you can do to mitigate the risk to your team and yourself, you should do. Even if Covid-19 can't be transmitted through surgical smoke, there is evidence that other viruses can and have been - who's to say what the next viral pandemic has the potential to do?*

### *How does UV compare to other smoke management systems that you're aware of?*

*Ultravision approaches the problem from a completely different perspective, so it's difficult to make a direct comparison – it's orders of magnitude better than any other system we've used (at the Mater). Because of its unique mode of action, it eliminates smoke at the point of creation, and you're not relying on either passive or active CO<sub>2</sub> dilution and filtration.*

*Most surgeons can get frustrated with the poor performance of other systems, inevitably causing them to vent unfiltered gas into the operating room due to impatience. Even if passed through a filter, the effect is very inefficient, and as demonstrated by our studies, even a very well-placed port, with a small incision leaks gas – it's almost unavoidable, so if you can eliminate the harmful constituents by ionisation, at the point of creation, you minimise the exposure (to your team and yourself). With Ultravision we are more confident this is 'clean' gas.*

***“Using Ultravision makes the whole team feel more comfortable, knowing that there is less gas and surgical smoke released into the OR.”***

<sup>1</sup> Buggisch et al, 2020.



***How does UV reduce CO<sub>2</sub> usage? And why is that important?***

*It's an enormous benefit to everyone involved with the procedure. Our institution has demonstrated that there are huge amounts of leakage with every insufflation system, some more than others. This includes those that purport to be a 'closed' or 'loop' system with claims of very efficient filtration properties. Less CO<sub>2</sub> released into the operating room helps prevent fatigue amongst the perioperative team and means less potentially harmful elements escape the peritoneum.*

*The Ultravision system facilitates the ability to perform low pressure, low flow procedures because there is no dilution/ filtration requirement. At the Mater we have an unusually high number of patients who undergo their procedures using MIS techniques. Our liver resection patients can have an increased risk of embolism, albeit rare, that could become an issue if using a high flow system to maintain the intra-peritoneal pressure. The value of using low pressure systems during complex gastrointestinal cancers and bariatric surgery have been very well documented. We have seen that our patient pain scores, pleural effusion numbers, upper respiratory tract infections and therefore length of stay have been significantly reduced when using Ultravision as an integral part of our MIS set-up.*

*Being able to facilitate low-pressure surgery, without compromising your visual field is a great step in the evolution of minimally invasive surgery. In high volume units such as ours it is often difficult to find those incremental benefits for your patients.*

*Ultravision has a lot to offer in this space.*

***As an experienced User of the Ultravision system, what are the benefits for your practice in general?***

*Ultravision has clear utility, and it is very easy to use. I like the build quality of the trocar (5mm working port), which is very easy to place and is my preferred choice of Ultravision consumables offered. There is very little training required, just a few simple principles to follow for the surgeon, and it's incredibly easy for the OR team to set up. A benefit that possibly goes un-noticed by many, is that it really helps when teaching junior doctors due to the clarity of visual field, the reduction in operator fatigue and loss of concentration due to pauses for cleaning of the scope and smoke clearance. It is beneficial when used in both complex and more simple procedures.*

***"A benefit that possibly goes un-noticed by many, is that it really helps when teaching junior doctors due to the clarity of visual field."***

*Overall, at a time when the awareness of health and safety is more acute than ever, the system is far more practical than using dilution and filtration systems, or the extreme of hazmat suits. It carries a relatively low cost to the institution.*

***Are there other benefits using UV gives you during a procedure?***

*The operating room is a potentially hazardous environment in which to work. The awareness of the risks arising from surgical smoke exposure has increased over the last two years. Anyone who spends time in this working environment will be aware of how noisy it can be. One of the major factors that often affects a surgeon's willingness to use a smoke evacuation device is the added noise it creates. It can be very distracting when trying to concentrate on a procedure. Ultravision, by contrast, is silent in operation. It only emits an audible tone when the proximity indicator is activated, usually due to the electrode touching tissue. This lets you know that it is not operating at its full capacity but does not cause the patient any harm.*



# ULTRAVISION

*Finally, in summary what would you like your colleagues and peers to understand about UV?*

*The system is incredibly easy to use, so long as you follow the manufacturer's guidance.*

- *It is incredibly effective at providing a clear visual field, even at low intraperitoneal pressures and gas flow.*
- *It helps to give patients a better experience and outcome.*
- *Ultravision is far superior to systems that rely upon dilution and extraction for a modest incremental cost increase compared to passive and active filters and is cheaper than 'advanced insufflation systems'.*
- *Once you see it in action, you will be amazed! Conceptually, it can be difficult to imagine but it is strikingly effective!*