

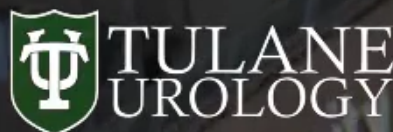
# A Novel Device for Intraperitoneal Camera Cleaning: Robotic Surgery with FloShield Technology

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## A Novel Device for Intraperitoneal Camera Cleaning: Robotic Surgery with FloShield Technology

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### **Introductions and Objectives**

The da Vinci robotic surgical system has continued to play an increasing role in minimally invasive surgery. With healthcare charges

scrutinized as well as safety measures, time saving devices are being evaluated. The FloShield continuous vision system utilizes vortex barrier technology to defog the lens in situ as well as to create a CO2 barrier. It also allows for time sensitive controlled recovery of visualization without removal of the camera from the trocar. In this video we demonstrate the assembly, application, and troubleshooting of the novel FloShield technology during a robotic partial nephrectomy.

## **Methods**

In this video, the patient has a 5.8 x 4.2cm right lower pole renal mass abutting the collecting system. The FloShield apparatus assembly is shown step by step. The sheath is shown applied over the camera, the proper ventilation tubing is connected and the surfactant (Colace) syringe is positioned. During the robotic case where the lens becomes fogged, demonstration of the ability to clean the lens without removing the camera from the trocar is demonstrated. During a critical portion of the hilar dissection, bleeding from a renal artery compromises visualization of the surgical field completely, with “red out”. FloShield technology is shown restoring visualization in a timely fashion without removing the camera from the body.

## **Results**

Using FloShield technology, the robotic partial nephrectomy was successfully completed. FloShield was able to restore vision without camera removal during a critical portion of the hilar dissection during which vision was transiently lost.

## **Conclusions**

In summary, FloShield technology can potentially replace all other laparoscopic clarity products. It is cost efficient and may increase OR efficiency by reducing scope removals and lens cleaning and subsequently operative times.

## **Authors**

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