



## **Position Paper on Gynaecological Robotic Surgery**

The daVinci robotic surgical platform (Intuitive Surgical, Sunnyvale, CA) was approved for use in gynecological surgery in 2005 by the US FDA. Since then robotic surgery has become the standard of care in gynecology in many healthcare environments in the United States and across Europe. In healthcare environments where robotic surgery is not considered a standard of care, it is accepted as an established surgical option for women undergoing gynecological surgery. It is no longer considered “experimental” or a novel surgical option in contemporary gynecological surgery.

Open surgery remains the standard of care throughout Asia for many gynecological indications. Reductions in the use of open surgery in gynecology and other disciplines have been shown to be associated with decreased use of banked blood, analgesia and inpatient services. It has also been shown to reduce the rate and complexity of postoperative readmissions, both in the early as well as late postoperative periods. [Mok et al.]

The first laparoscopic hysterectomy was performed in 1988, but global rates of open hysterectomy have remained fairly stable. This suggests that laparoscopy as a modality while clinically effective on an individual basis does not lend itself to generalized use and has limited value in reducing rates of open surgery. The introduction of robotic surgery has been shown to dramatically decrease rates of open surgery and programs have been able to convert rapidly from open to robotic surgery as their standard of care while improving outcomes. [Leitao et al., Mok et al.]

Robotics, while perceived to be more expensive because of its significant capital investment and maintenance cost, has actually been shown to be more cost-effective when compared to open surgery. [Lau et al] The cost effectiveness of a robotic surgical program increases over the lifetime of a patient. The further out from the primary surgical event, the more cost-effective that robotic surgical procedure becomes. Therefore payer programs and healthcare costs analyses that the only factor in the cost of the procedure and the related cost of the equipment may be prematurely writing off a modality that could end up more cost effective for a healthcare system where gynecologic surgery is commonly performed. The cost-effectiveness of robotic surgery becomes even more pronounced in healthcare systems where there is a high volume of gynecological surgery of moderate-high complexity spread out over several institutions or centers as in public-funded healthcare systems. [Lau et al., Coronado et al.]



### Summary of Key Points

- Robotic surgery in gynecology is not an experimental or novel surgical option.
- Robotic surgery is considered a standard of care and an acceptable option in contemporary gynecological surgical practice.
- Open surgery is still considered the standard of care for many gynecological conditions in Asia.
- Robotic surgery has been shown to effectively decrease rates of open surgery where laparoscopy has not.
- Robotic surgery has been shown to be cost-effective in large-scale gynecological healthcare environments.

### References

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