



## Prospective, multicenter, international Phase 2 trial evaluating ultrasonic energy for pulmonary artery branch sealing in VATS lobectomy<sup>1</sup>

 **15**  
surgeons

 **7**  
centers

 **150**  
patients



US | Canada | UK

**139** lobectomies  
**11** segmentectomies

**424** PA branches divided  
**239** with the HARMONIC ACE®+7 Shears  
**181** with staplers  
**4** with endoscopic clips

### Intraoperative bleeding



**HARMONIC ACE®+7 Shears**  
3 / 239 vessels bled  
**99% sealing success<sup>1</sup>**



**Staplers**  
4 / 181 vessels bled  
**98% sealing success<sup>1</sup>**



**No difference in hemostasis compared to staplers<sup>1</sup>**

p=0.47



**Zero clinically significant thermal injuries reported<sup>1</sup>**



**Zero postoperative bleeding complications<sup>1</sup>**

### Surgeons in the trial reported:

**91%**  
**easy to use**

HARMONIC® technology was easy to use in 91% of the cases<sup>2</sup>

**74%**  
**easier approach**

HARMONIC® technology made the approach easier in 74% of the cases compared to their standard approach<sup>3</sup>

**18%**  
**conversions prevented**

HARMONIC® technology prevented conversion to open in 18% of the cases compared to their conventional methods<sup>3</sup>

<sup>1</sup> Liberman M, et al. Prospective, multicenter, international phase 2 trial evaluating ultrasonic energy for pulmonary artery branch sealing in video-assisted thoracoscopic surgery lobectomy. J of Thoracic and Cardiovascular Surgery, Sep 2019. DOI 10.1016/j.jtcvs.2019.09.061 (127242-191107, 127243-191107, 127241-191107, 127251-191107, 127390-191111). <sup>2</sup> Rated as "Very easy to use" (n=112); "Somewhat easy to us" (n=23); when performing VATS lobectomy via a surgeon questionnaire following each case to evaluate their impression of the use of HARMONIC® during the operation. Liberman M, et al. Prospective, multicenter, international phase 2 trial evaluating ultrasonic energy for pulmonary artery branch sealing in video-assisted thoracoscopic surgery lobectomy. J of Thoracic and Cardiovascular Surgery, Sep 2019. DOI 10.1016/j.jtcvs.2019.09.061 (127299-191108). <sup>3</sup> As compared to their conventional methods when performing VATS lobectomy via a surgeon questionnaire following each case to evaluate their impression of the use of HARMONIC® during the operation. Liberman M, et al. Prospective, multicenter, international phase 2 trial evaluating ultrasonic energy for pulmonary artery branch sealing in video-assisted thoracoscopic surgery lobectomy. J of Thoracic and Cardiovascular Surgery, Sep 2019. DOI 10.1016/j.jtcvs.2019.09.061 (127383-191111, 127249-191107)