

Media Release

Thopaz⁺ digital chest drainage system provides comprehensive post-operative management of chest tubes for improved patient care and shorter hospital stays.

By Dr. Mark Cregan, Medela AG, Baar, Switzerland – June 16, 2014

Medela launches Thopaz⁺

Medela Healthcare is pleased to announce the launch of Thopaz⁺. This mobile and digital chest drainage system promises to empower thoracic and cardiac healthcare professionals with the key therapeutic indicators required for chest drain management including precise and objective data on air leaks, fluid volume and pleural pressure. Using the latest digital technology to provide this data, physicians can reach decisions with more certainty regarding when to remove the chest drainage tubes that are inserted following cardiothoracic surgery.

Chest tubes are inserted post-surgery to evacuate air and fluids thereby ensuring the lung stays inflated. Using the Thopaz⁺ drainage and monitoring system, the reduction in time to chest-tube removal revolutionises the post-operative patient care and allows for earlier patient mobility and hospital discharge. The digital technology used in the Thopaz⁺ allows for real-time data collection and storage.

The most recent clinical study (*Annals of Thoracic Surgery*, June 2014; Article available online; Cecilia Pompili *et al.*) compares the performance of the Thopaz⁺ predecessor against traditional drainage devices used post operatively for patients undergoing pulmonary lobectomy or segmentectomy. Two patients groups were entered into a randomised trial to evaluate the performance of the device (191 patients) versus traditional drainage devices (190 patients). The study was carried out at four investigational sites in Italy, the US, the UK and China over a one-year period. Given that the principles of air leak management in Thopaz and Thopaz⁺ are unchanged, the clinical outcomes observed in this study are comparable.

The findings from Pompili *et al.* demonstrated the superior performance of the digital device with significantly shorter air leak duration (1.0 versus 2.2 days); shorter duration of chest tube placement (3.6 versus 4.7 days); and reduced hospital stay (4.6 versus 5.6 days). In addition to the objective data, patient satisfaction was determined using a questionnaire. The study concluded that patients connected to digital chest drainage acknowledged the superior comfort, portability and convenience associated with the device.

No detailed economic figures could be provided because of the different health care systems and reimbursement models used in the four countries, but clearly a reduction in hospital stay equates to a reduction in the overall cost of treatment.

As the first multicenter study of the Medela digital chest drainage system, the results show global consistency between the different centers. Author, Dr. Alessandro Brunelli, said of the study 'the analysis revealed consistent findings between the different participating centres. This represents interesting and novel information proving the ubiquitous efficacy of the device'.

The co-author of the paper, Professor Frank Detterbeck agrees: 'This randomized trial demonstrates a statistically significant reduction in hospital stay by one whole day by using the Thopaz digital chest drainage system'.

Medela ESTS Lunch Symposium

The clinical significance of these findings was discussed today during the Lunch Symposium at the 22nd European Conference on General Thoracic Surgery in Copenhagen, hosted by Medela. This event is the annual congress for the European Society of Thoracic Surgeons (www.ests.org) and provides a platform for clinicians and members of the medical technology industry to share and discuss their latest findings.

At the Lunch Symposium, Medela's independent, collaborative partners presented the findings of their research efforts used to help develop Thopaz⁺. Preliminary information on the efficacy and safety, as well as patient benefits and health economic advantages of Thopaz⁺ were also described by the following key opinion leaders:

- *Dr Thomas Kiefer, Klinikum Konstanz, Germany.*
- *Mr. Kostas Papagiannopoulos, St James's Hospital, Leeds, UK*
- *Mr Alessandro Brunelli, St James's Hospital, Leeds, UK*
- *Prof. Frank Detterbeck, Yale University, USA*

Full scale clinical studies are underway at leading centres of research excellence and by late 2014, additional clinical data will be available to complement the findings on the Thopaz⁺ device presented during the Lunch Symposium.

About Medela

Founded in 1961 by Olle Larsson and headquartered in the Canton of Zug, Switzerland, Medela is owned by the Larsson-Rosenquist Family Foundation and continues to grow under the leadership of the Larsson family. Medela concentrates on two divisions: "Breastfeeding", leading in the development and production of breastfeeding products, and "Healthcare", engineering and manufacturing highly innovative medical vacuum technology solutions.

Medela conducts fundamental research together with leading scientists, medical professionals and universities, and uses the research results in the development of its products. Medela has 17 subsidiaries in Europe, North America and Asia, and together with independent partners distributes its products in more than 90 countries. The company employs around 1,500 staff worldwide, 330 of whom are located in the Canton of Zug.

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Links:

Thopaz⁺ website: thopazplus.com

Annals of Thoracic Surgery: [http://www.annalsthoracicsurgery.org/article/S0003-4975\(14\)00796-6/abstract](http://www.annalsthoracicsurgery.org/article/S0003-4975(14)00796-6/abstract)