November 29, 2019

To whom it may concern,

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Announcement on Official Launch of Radiofrequency Ablation System For the Treatment of Liver Cancer

Japan Lifeline Co., Ltd. ("JLL") has announced today that JLL will officially launch "arfa", a radiofrequency ablation system for the treatment of liver cancer, in December 2019. "arfa" is a JLL's proprietary product and no similar products are manufactured in Japan today. "arfa" has been insured by the specified comprehensive category[*1] in October 2019, and JLL has determined to begin nationwide sales, after confirming a stable supply of the product and a certain extent of evaluation in the clinical trials at limited facilities.

As for the treatment of liver cancer, there is a surgically resecting procedure. However, this procedure may be inappropriate for patients, such as the elderly, because of the heavy burden on the body. In contrast, the radiofrequency ablation has been established as a minimally invasive treatment for liver cancer. The radiofrequency ablation is a procedure in which a needle-shaped electrode is inserted percutaneously into the lesion tissue under ultrasound (echo) monitoring or CT and then, the lesion is burned out by heat generated by the radio waves around the electrode. In Japan, the use of radiofrequency ablation for treatment of liver cancer became covered by insurance in 2004, and this procedure has become widespread on the back of several reasons. Behind the widespread, there are advantages of this procedure, such as high therapeutic efficacy gained by complete ablation of the lesion tissue and less invasiveness due to percutaneous treatment, and repeated treatment allowed at recurrent cases. In Japan, approximately 40,000 people have liver cancer, and approximately 18,500[*2] of patients undergo radiofrequency ablation therapy each year.

"arfa" consists of an electrode with a handle and a dedicated generator. On the electrode, there is a handle which was designed thoroughly weight-reduced and employs an ergonomic shape. These features contribute to accurate puncture of the target site and high stability during ablation. In addition, the electrode has its own temperature sensor at the tip, and it enables real-time measurement of tissue temperature during ablation, while comparable products have temperature sensor only inside the electrode tube. Furthermore, a variable mechanism that can adjust the length of the current-carrying part of the electrode according to the ablation site and the size of the lesion will support the efficient implementation of the procedure.

A dedicated generator used for electrification supports an efficient procedure while ensuring high safety with three output modes and functions to automatically adjust the output during ablation using a predefined algorithm. The operation panel attached to the generator is detachable and not only can be operated in a place suitable for treatment, but also can be visibly displayed so that operators can easily check various parameters indicating the conditions and the progress of ablation.

"I welcome the introduction of Japan's first radiofrequency ablation system for the treatment of liver cancer. I

had a good impression on “arfa”. As a domestic brand provides, “arfa” is very well thought and well designed for users,” said Shuichiro Shiina M.D., Ph.D. of Department of Gastroenterological Imaging and Interventional Oncology, Juntendo University School of Medicine.

JLL has positioned as a primary challenge over the medium to long term the entry into new fields, by leveraging the strengths of its proprietary technologies. “arfa” is based on long-standing expertise in radiofrequency ablation and catheter manufacturing. In the gastrointestinal field, JLL has launched “JENTLLY”, the first domestically produced colon stents in 2017, and with the official launch of “arfa” this time, JLL will further develop the gastrointestinal field.

JLL will strive to provide superior products by leveraging its proprietary technologies and its unique development capabilities to meet the various needs of medical professionals.

*1 “A2 (specified comprehensive category)” in which the price of the product is included in the medical fee

*2 Ministry of Health, Labour and Welfare Recept Information and Specified Medical Examination Information in FY2016 (4th NDB Open Data)



“arfa” active electrode



“arfa” generator