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MEDICURE ANNOUNCES SMILE™-HF STUDY DEMONSTRATES USE OF ReDS™ RESULTS IN 58% REDUCTION IN HOSPITAL READMISSION RATE

WINNIPEG, CANADA – (October 15, 2019) Medicure Inc. ("Medicure" or the "Company") (TSXV:MPH, OTC:MCUJF), a cardiovascular pharmaceutical company, is pleased to announce the primary results of the late-breaking SMILE™-Heart Failure (SMILE-HF) Clinical Trial which was presented at the recent Heart Failure Society of America ("HFSA") conference in Philadelphia, PA by Dr. William T. Abraham, the SMILE-HF national principal investigator.

The SMILE-HF trial demonstrated that when used as intended, Remote Dielectric Sensing (ReDS™) treatment guided heart failure management prevented 58% of heart failure readmission(s). Data was collected from 268 patients by 43 centers across the United States, constituting the largest randomized control trial to date on the impact of ReDS™ on managing heart failure. Patients were recruited for the study during hospitalization and followed for up to 9 months at home. Daily measurements were taken using ReDS™ with the goal of keeping lung fluid content within the normal range of 20-35%. Data aggregated in the cloud was sent to physicians to monitor and adjust medication with the goal to keep each patient's fluid status balanced and avoid hospital readmission.

As previously announced on January 28, 2019, Medicure entered into an agreement with Sensible Medical Innovations Inc. ("Sensible") to become the exclusive marketing partner for ReDS™ in the United States and Medicure continues to hold a 7.71% equity stake on a fully diluted basis in Sensible.

"ReDS™ is an easy-to-use, non-invasive, point-of-care tool that we believe should be in the hands of every healthcare team who monitors and manages patients living with heart failure. We are extremely excited about these new results and believe this adds further evidence and value to support the use of ReDS™ as a primary tool to keep patients living with heart failure out of the hospital" said Dr. Albert Friesen, Chief Executive Officer for Medicure.

About SMILE™-HF

The SMILE™-HF study was a U.S. based prospective, randomized controlled multicenter trial conducted to investigate Remote Dielectric Sensing (ReDS™) guided treatment versus standard of care (SOC) following acute decompensated heart failure (ADHF) hospitalization. The primary endpoint of this study was to determine the rate of recurrent events of heart failure readmissions during the follow-up period.

About ReDS™ System

The ReDS™ is an accurate measurement tool to evaluate pulmonary congestion providing additional information to assist a physician in their assessment of a patient's condition. Assessment with the aid of ReDS™ technology has helped physicians at facilities across the country to better manage their patients' heart failure, with the goal of avoiding readmissions. For more information please visit www.medicure.com/reds.

Indications and Contraindications
ReDS is intended for use by qualified health care practitioners and by patients, under the direction of a physician, in hospitals, hospital-type facilities and home environment, for the non-invasive monitoring and management of patients with fluid management problems in a variety of medically accepted clinical applications.

- ReDS is indicated for patients:
- With fluid management problems
- Taking diuretic medication
- Living with Heart Failure
- Recovering from Coronary Artery Disease related event

The ReDS system is not appropriate for patients with rib fractures, with or without flail chest.

About Medicure
Medicure is a pharmaceutical company focused on the development and commercialization of therapies for the U.S. cardiovascular market. The present focus of the Company is the marketing and distribution of AGGRASTAT® (tirofiban hydrochloride) injection, ZYPITAMAG™ (pitavastatin) tablets and the ReDS™ device in the United States, where they are sold through the Company's U.S. subsidiary, Medicure Pharma Inc. For more information on Medicure please visit www.medicure.com.

About Sensible Medical
Sensible Medical is a market leader in medical radar monitoring and imaging technology. ReDS™ was adapted for medical use from military 'see-through-wall' technology. The technology is well-positioned to be a difference maker in a wide range of applications and to become the next-generation lung fluid monitoring modality. www.sensible-medical.com .

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To be added to Medicure's e-mail list, please visit:
http://medicure.mediaroom.com/alerts

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Forward Looking Information: Statements contained in this press release that are not statements of historical fact, including, without limitation, statements containing the words "believes", "may", "plans", "will", "estimates", "continues", "anticipates", "intends", "expects" and similar expressions, may constitute "forward-looking information" within the meaning of applicable Canadian and U.S. federal securities laws (such forward-looking information and forward-looking statements are hereinafter collectively referred to as "forward-looking statements"). Forward-looking statements, include the results and potential impact of the SMILE-HF study, estimates, analysis and opinions of management of the Company made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors which the Company believes to be relevant and reasonable in the circumstances. Inherent in forward-

looking statements are known and unknown risks, uncertainties and other factors beyond the Company's ability to predict or control that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements, and as such, readers are cautioned not to place undue reliance on forward-looking statements. Such risk factors include, among others, the Company's future product revenues, stage of development, additional capital requirements, risks associated with the completion and timing of clinical trials and obtaining regulatory approval to market the Company's products, the ability to protect its intellectual property, dependence upon collaborative partners, changes in government regulation or regulatory approval processes, and rapid technological change in the industry. Such statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions about: general business and economic conditions; the impact of changes in Canadian-US dollar and other foreign exchange rates on the Company's revenues, costs and results; the timing of the receipt of regulatory and governmental approvals for the Company's research and development projects; the availability of financing for the Company's commercial operations and/or research and development projects, or the availability of financing on reasonable terms; results of current and future clinical trials; the uncertainties associated with the acceptance and demand for new products and market competition. The foregoing list of important factors and assumptions is not exhaustive. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements or the foregoing list of factors, other than as may be required by applicable legislation. Additional discussion regarding the risks and uncertainties relating to the Company and its business can be found in the Company's other filings with the applicable Canadian securities regulatory authorities or the US Securities and Exchange Commission, and in the "Risk Factors" section of its Form 20F for the year ended December 31, 2018.