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## **New study shows IO Loop™ improves patient follow-up, engagement and satisfaction following treatment with TheraSphere®**

### **Study shows patients treated with TheraSphere® maintain quality of life throughout 90 day post-treatment period**

**BTG plc (LSE: BTG)**, a global specialist healthcare company, today announced the results of a pilot study evaluating the effectiveness of a digital patient engagement platform to educate, engage, and measure Health Related Quality of Life (HRQoL) in a patient group with primary hepatocellular carcinoma (HCC) undergoing treatment with TheraSphere®, a <sup>90</sup>Y transarterial radioembolization therapy. Results from the study demonstrated sustained quality of life at regular intervals throughout three months following treatment. With automated delivery of digital patient reported outcome (PRO) surveys embedded within a continuous remote guidance experience, 71% of all PRO surveys were completed and submitted by patients. 87% of patients activated their accounts, with a mean overall engagement rate of 65%. This study is the first-of-its-kind in interventional oncology to evaluate a novel data collection tool that uses automated prompts to help patients better engage in their own care, while measuring patient quality of life and satisfaction rates across their treatment journeys.

Using the IO Loop™ service (powered by HealthLoop®), the multi-center study enrolled 41 patients on a digital patient engagement platform to guide them through their TheraSphere® treatment (21 days pre-treatment through 90 days post-treatment). Patients were surveyed at regular intervals (baseline, 2, 4, 8 and 12 weeks post-treatment). The timing of these questions was intended to address preservation of physical, functional, and symptom-related quality of life throughout the treatment and near-term follow-up period. Results delivered via IO Loop™ showed stable quality of life, and low side-effect concerns, supporting the use of TheraSphere® to deliver quality of life outcomes equal-to-or-better-than other traditional cancer treatment options.

Riad Salem, MD, Northwestern University Feinberg School of Medicine, IL, and lead author of the study, said: “From these results we confirm several observations. First, the IO Loop™ service provides a powerful digital tool that delivers on several counts, bringing considerable benefits to patients and clinicians. Second, TheraSphere®, a treatment for HCC that can be done as an outpatient procedure, is very well tolerated. Third, quality of life is maintained after TheraSphere®, an outcome in cancer therapy that is extremely important when patients are

ultimately selecting a treatment. Finally, relevant just-in-time information can be relayed from patients to physicians in a timely manner, with outcomes immediately accessible for patient and providers. Using this form of two way communication improves patient care, quality, and overall satisfaction.”

IO Loop™ is a unique service from BTG and the only service of its kind in interventional oncology that keeps physicians and patients connected during treatment. IO Loop™ makes it easier for patients to prepare for their treatment, and track and report symptoms. This ensures early awareness and timely management of complications, reducing likelihood of re-admission. Furthermore, the automated collection of patient reported outcomes helps care teams meet emerging reporting requirements under the Medicare Access and CHIP Reauthorization Act (MACRA) that places increased emphasis on collection of PROs.

“This study shows that digital patient engagement platforms, delivered via services such as IO Loop™, can educate and empower patients by automatically providing daily patient check-ins, education and guidance tools and answers to common questions. By providing patients with relevant information at the right time, IO Loop™ helps to make sure clinician-patient interactions are as valuable and productive as possible,” said Edward Kim, MD, Director of Interventional Oncology and Associate Professor of Radiology and Surgery, Mount Sinai Medical Center, NY, and co-author of the study.

“Traditionally, we have only learned from patients about their quality of life after treatment by asking questions at just one or two time points.” said Ben Rosner, MD, PhD, Chief Medical Information Officer at HealthLoop, “However, with the right tools, patients are very willing to engage with their physicians and share information about their quality of life at frequent intervals, enabling us to learn about the near-term tolerability of treatments in real-time, in ways we have never before been able to do.”

Lisa Hayden, Vice President, Global Market Access at BTG commented: “IO Loop™ offers patients and their clinicians a service that brings them closer together and utilizes the power of this collaboration to support better clinical and health-related outcomes. This study demonstrates that using IO Loop™ to capture PROs after treatment with TheraSphere® can help clinicians efficiently report patient experience, a particularly important need given reimbursement requirements. IO Loop™ is a significant next step in turning patient engagement into a powerful treatment tool.”

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## About BTG Interventional Oncology

BTG Interventional Oncology is transforming the way cancer is treated with wide-ranging solutions consisting of minimally-invasive, highly targeted therapies that can be personalized to each patient's needs. Our products are used to treat or provide symptomatic relief for people with cancer and benign tumors. To learn more about BTG Interventional Oncology, please visit: [www.btg-im.com](http://www.btg-im.com).

## About TheraSphere®

TheraSphere® <sup>90</sup>Y glass microspheres are specifically engineered to carry far greater power than any other <sup>90</sup>Y liver-directed cancer therapy, delivering high doses of radiation to liver tumors while sparing normal tissue. The result is a powerful, targeted and well-tolerated therapy that may lead to patients becoming eligible for curative therapies. In the EU, Singapore, South Korea and Canada, TheraSphere® is approved for the treatment of hepatic neoplasia. In the US, TheraSphere® is approved under a Humanitarian Device Exemption (HDE) for use in radiation treatment or as a neoadjuvant to surgery or transplantation in patients with unresectable hepatocellular carcinoma (HCC) who can have placement of appropriately positioned hepatic arterial catheters. The device is also indicated for HCC patients with partial or branch portal vein thrombosis/occlusion, when clinical evaluation warrants the treatment. The effectiveness of this device for this use has not been demonstrated. For full instructions for use and important safety information, please visit: [www.therasphere.com](http://www.therasphere.com).

## About HealthLoop®

HealthLoop® enables healthcare professionals to engage with their patients both before and after clinical encounters or hospital admissions through automated remote guidance and monitoring. By automatically sending digital notifications to patients and assessing their progress, HealthLoop remotely identifies those that need help, allowing clinical teams to proactively intervene before costs and complications escalate. Developed as an enterprise solution to support all clinical specialties, HealthLoop's content and analytics are deeply integrated into care management workflows. HealthLoop facilitates over 500,000 patient interactions every month. To learn more, please visit: [www.healthloop.com](http://www.healthloop.com).

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