



**Quanta Publishes Study in PLOS ONE:
Enhancement of Solute Clearance using Pulsatile Push-Pull Dialysate Flow for SC+**

Alcester, Warwickshire, UK, 03 March 2020: Quanta Dialysis Technologies Ltd (“Quanta” or the “Company”), a British medical technology innovation company, today announces that the peer-reviewed scientific journal [PLOS ONE](#) has published results from the Company’s investigations into a possible future development concept for its personal haemodialysis platform SC+. The publication reports on an *ex vivo* feasibility study showing enhancement of solute clearance using an experimental mode for pulsatile push-pull dialysate flow in a prototype variant of the SC+ device. This establishes feasibility that SC+ is potentially capable of delivering a therapy comparable to haemodiafiltration (HDF) without introducing additional complexity to the user.

Haemodialysis (HD) is based on diffusive clearance and is generally accepted as the standard of care for renal replacement therapy. HDF has been developed as an alternative form of therapy that adds convective flows to improve middle-molecular-weight clearance. Several studies suggest there may be clinical benefits to HDF; however, the additional complexity of managing an HDF treatment can create barriers making it burdensome for in-centre patients and inaccessible to self-care and home patients.

For this study, Quanta developed a prototype variant of SC+ that delivers convective flows equivalent to HDF without introducing any additional complexity to the user. Results from the study show that the pumping action generated by the prototype SC+ produced an enhancement of middle-molecular-weight clearance comparable with that achieved using pre-dilution HDF. Further studies are required to optimise device settings, but initial results show that SC+ has the potential to increase patients’ freedom of therapy choice without introducing additional complexity to their treatment.

Professor Clive Buckberry, Chief Technology Officer, commented: “We are pleased to announce the publication of this study in PLOS ONE. The results not only establish the feasibility that SC+ could deliver a therapy comparable to HDF, but also further demonstrate the versatility of SC+ for self-care and home haemodialysis applications.”

John E. Milad, Chief Executive Officer, added: “Although this is only a feasibility study, it clearly demonstrates the exciting potential for SC+ to address future applications and additional clinical needs.”

The full paper entitled ‘*Enhancement of solute clearance using pulsatile push-pull dialysate flow for the Quanta SC+: a novel clinic-to-home haemodialysis system*’ is available online here: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0229233>

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About Quanta and SC+

Quanta is a technology-enabled solutions provider based in the UK that aims to improve the lives of dialysis patients through beautifully engineered innovation. Quanta's lead product SC+ is designed to empower dialysis patients by giving them greater freedom, convenience and control over the delivery of their life-sustaining therapy.

SC+ is a small and simple-to-use haemodialysis system designed to empower patients to manage their dialysis therapy, providing greater flexibility around where, when and how to dialyse. As a CE marked medical device, SC+ has been successfully piloted with the NHS, demonstrating clinical efficacy and performance compatible with traditional treatment regimens used in-centre. The innovative and patented technology behind SC+ is based on a design breakthrough that allows all dialysate fluid management to be conducted on a small, lightweight, disposable cartridge. The small form factor and intuitive design are intended to enable a broader range of users—including patients themselves—to manage dialysis therapy delivery across a wide range of settings, from the clinic to the home, without compromising on performance. SC+ is designed to work with the Internet-of-Things through a propriety cloud-based digital health offering.

For more information, please visit our website: quantadt.com.

SC+ is not yet FDA cleared and not yet available for sale in the USA.