'DIY' type one diabetes treatment demands clearer guidelines for patient benefit

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Type one diabetes patients need a more open approach from their doctors, supported by clear professional guidance, to unregulated 'Do-It-Yourself' (DIY) artificial pancreas systems (APS) if they are to reap the

potential treatment benefits, according to a new article.

Frustrated by slow progress in managing type one diabetes, some persons with the condition have created DIY systems. These use a smartphone or mini computer to link a continuous glucose monitor and insulin pump so that their bodies' glucose levels can be frequently adjusted and maintained in real-time.

Globally, there is an almost complete lack of guidance—legal, regulatory, or ethical—for clinicians, leading to doctors being cautious about discussing DIY APS with patients, let alone recommending or prescribing them.

Experts at the University of Birmingham today published their findings in Medical Law International—calling for greater trust and transparency between adult patients and clinicians around the potential benefits and risks of using DIY APS.

Muireann Quigley, Professor of Law, Medicine, and Technology at the University of Birmingham, commented: "Clinicians are encountering more patients considering using DIY systems. However, lack of clear guidance means even specialist doctors are not starting conversations with their patients for fear of potential regulatory and legal ramifications.

"This approach undoubtedly threatens to undermine trust and transparency, making the goal of shared decision-making harder to achieve. Analysing professional guidance from the UK regulator—the General Medical Council—nothing within it should be interpreted as preventing clinicians from starting discussions about these systems."

The team argues that the current cautious approach to discussing DIY APS means patients and clinicians cannot have open and honest

discussions about the potential benefits and risks of using DIY APS, potentially damaging the doctor-patient relationship.

They note that, although the GMC advises clinicians to exercise caution before prescribing unapproved medical devices, they are not precluded from doing so—provided that doctors determine that DIY APS is both necessary to meet their patient's needs and there is sufficient evidence of effectiveness to justify their decision.

Dr. Joseph Roberts, Research Fellow in Law and Philosophy at the University of Birmingham, commented: "If doctors are to take shared decision-making seriously, then, at the very least, they ought to be free to initiate conversations with their patients about DIY APS. For them to be able to do this, and given the increasing use of DIY APS technology, guidance on clinicians' ethical and professional obligations has become an imperative—something which is needed sooner rather than later."

More information: 'Prescribing Unapproved Medical Devices? The Case of DIY Artificial Pancreas Systems' - Roberts, J.T.F, Moore, V, and Quigley, M., *Medical Law International*.

Provided by University of Birmingham