Analysis of Novel Methods to Determine the Accuracy of the OmniPod Insulin Pump: A Key Component of the Artificial Pancreas System

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Abstract

In this issue of *Journal of Diabetes Science and Technology*, Zisser and collegues describe two inexpensive methods for accurate measurement of dosage delivered by OmniPod insulin pump. The first method is based on imaging a meniscus movement in a micro-pipette and using simple image analysis; the second relies on using a digital microscope to measure the volume of a dispensed droplet while it is still attached to the cannula tip. Both methods produce accurate measurements for doses >0.2 U, and the latter method is especially appropriate for doses <0.2 U, with accuracies down to 0.9%.

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