



COMMENT ON UMPIERREZ AND KLONOFF

## Diabetes Technology Update: Use of Insulin Pumps and Continuous Glucose Monitoring in the Hospital. *Diabetes Care* 2018;41:1579–1589

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Jennifer Grammes,<sup>1,2</sup> Eva Kuestner,<sup>2</sup>  
Lutz Heinemann,<sup>2,3</sup> and  
Thomas Kubiak<sup>1,2</sup>

We applaud Umpierrez and Klonoff (1) for reviewing the evidence on the application of insulin pump therapy (continuous subcutaneous glucose infusion [CSII]) and continuous glucose monitoring in inpatient settings. However, we missed a dedicated section about the patients' perspective and experiences concerning insulin pump use in hospitals. In a qualitative survey conducted in Germany, elderly patients with type 1 diabetes ( $\geq 65$  years,  $n = 136$ ) and health care professionals (HCP,  $n = 96$ ) were asked about their wishes, concerns, and needs related to CSII (2). The 290 responses (165 patients; 125 HCPs) were classified into three categories.

First were positive experiences (patients  $n = 17$ ; HCPs  $n = 5$ ), which were a result of perceived respect of the patients' autonomy and feeling safe and cared for by an experienced health care team in the hospital well acquainted with CSII. In almost all cases, such positive experiences were reported in specialized diabetes hospitals or care units with diabetes care specialists.

Second were neutral experiences (patients  $n = 21$ ; HCPs  $n = 5$ ), which encompassed being allowed to continue CSII if possible even if the health care team was unexperienced with CSII ("Nurses and physicians seemed relieved that I was able to manage my

insulin pump therapy by myself."; "If you can't handle your pump by yourself anymore, you're in big trouble."; "We always try to prepare our patients for the hospital, because oftentimes they feel left alone."). Here, many patients voiced their concerns over possible discontinuation of CSII and the resulting loss of autonomy in the future ("In case I'm not able to handle my diabetes myself anymore, I hope that I can't realize anymore how others are doing that.").

The vast majority of responses were classified as poor experiences (patients  $n = 127$ ; HCPs  $n = 115$ ). Patients reported about trust-damaging and, in some cases, disrespectful communications with HCPs who insisted on the discontinuation of CSII without taking the patient's perspective into account ("The physician felt disrespected and got mad at me because I insisted on keeping my pump on and running during my hospital stay."; "I was called therapy resistant because I did not want to discontinue pump therapy."; "My pump was taken away during surgery without telling me beforehand.").

We strongly agree with Umpierrez and Klonoff (1) in that diabetes technology offers the potential to significantly reduce the burden and risk of diabetes for hospitalized patients. The importance of emphasizing the

patients' needs for autonomy should be endorsed. In addition, it has to be ensured that the health care team is sufficiently experienced with insulin pump therapy. Although several clinical guidelines recommend the inpatient use of CSII in selected patients (3–5), our evaluation shows a lack of specialized consultation. Many HCPs in the hospital are not familiar with pump therapy, which in turn leads to poor experiences and feelings of insecurity in the hospital setting and increases future worries in elderly patients. We strongly endorse the need for clear policies and procedures to allow patients to continue their pump therapy while hospitalized.

**Duality of Interest.** L.H. is a partner and consultant of Profil Institut für Stoffwechselforschung, Neuss, Germany, and ProSciento, Inc., San Diego, CA. He is a consultant for a number of companies that are developing novel diagnostic and therapeutic options. No other potential conflicts of interest relevant to this article were reported.

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<sup>1</sup>Health Psychology, Johannes Gutenberg University, Mainz, Germany

<sup>2</sup>Diabetes Technology Working Group, German Diabetes Association, Ulm, Germany

<sup>3</sup>Science-Consulting in Diabetes GmbH, Neuss, Germany

Corresponding author: Jennifer Grammes, [jegramme@uni-mainz.de](mailto:jegramme@uni-mainz.de)

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