**Study of Gurpreet Anand**

**Fostering residents’ understanding of patients with diabetes by self-tracking glucose with a sensor**

**The aim of this study is** to explore and describe experiences of internal medicine doctors after wearing a glucose sensor with focus on two research questions

1. How can self-tracking with a glucose sensor influence residents’ understanding of glucose metabolism?
2. How can self-tracking with a glucose sensor improve residents’ awareness, appreciation and understanding of patients with diabetes?

We plan to conduct a qualitative case study in a single-center (hospital Zollikerberg) in Switzerland

**Population**: Residents working in internal medicine at hospital Zollikerberg

**Intervention**: Self-tracking glucose with a glucose sensor

Residents will describe how their experience with the sensor influenced their awareness, appreciation and understanding of patients with diabetes

Narrative overview of usefulness of this experience to residents regarding awareness, appreciation and understanding of patients with diabetes. So, the focus of the study is not on collecting health data of residents, but on exploring the nuanced experience of wearing a glucose sensor just as patients do to manage their diabetes and explore its effect on residents’ awareness about patients with diabetes.

In a purposive sampling, internal medicine residents willing to participate in the study will wear a glucose sensor (Freestyle libre, FSL) to monitor their own glucose levels for 14 days. Their perceptions will then be explored and shared among participants in semi-structured interviews in focus groups, which will be recorded and transcribed verbatim. Reflexive thematic analysis will be conducted to analyze and interpret perceived usefulness of this experience to residents regarding awareness, appreciation and understanding of patients with diabetes. We choose freestyle libre sensor because of simplicity of its use. Furthermore, it is the most commonly used sensor to manage both type 1 and type 2 diabetes.