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Continuous glucose monitoring in Gestational Diabetes, by using FHIR Cloud Server and IRIS for Health

Poor glycemic control is associated with a greater risk of miscarriage, NICU admission, operative delivery, and shorter gestational periods. Especially at risk are those with preexisting diabetes, who would benefit from maintaining near-normal glycemia before conception. All DIP patients would benefit from earlier referral to the diabetes service. Emphasis is placed on the early detection and effective treatment of DIP to achieve normoglycemia if associated complications, perinatal mortality, and maternal morbidity are to be reduced. Earlier diagnosis, lifestyle management, and treatment of diabetes will reduce the incidence and severity of hyperglycemia complications.

[Glycemic control and pregnancy outcomes in patients with diabetes in pregnancy: A retrospective study](#)

Continuous glucose monitoring (CGM) is a method for self-monitoring of blood glucose levels throughout the day and night, which means that the user can catch (and act on) cases of hyper- and hypoglycemia as they happen.

Compared to standard care, CGM improved maternal glycated hemoglobin levels and lowered Cesarean delivery rate and neonatal birth weight. However, not only glucose level monitoring but also track of unusual symptoms and timely doctor's appointment higher the chances for delivery of a healthy baby.

We wanted to bring in healthcare completely new solution to make diabetes diagnostics easier and more complex. We believe that our innovative approach in implementing FHIR and IRIS systems to processing and storing medical data can prevent patients from many further pathologies connected with gestational diabetes. [DiaBro](#) will allow doctors to track risk factors in gestational diabetes with increased attention and take quick action in case of fatal changes in their patient's condition.

We have connected the data from FHIR and IRIS. Main data (doctors, appointments) goes from FHIR, and additional (due to doctor's request) from IRIS. This helps to keep only precedence information in the FHIR (hospital database) and not overload the system with secondary information (e.g. patient's personal notes about his/her everyday condition).

Considering the integrability of IRIS for Health and its data formats used in the healthcare industry, in our further development we are planning to store and process all main data from the hospital with additional patient data that couldn't fit in FHIR format.
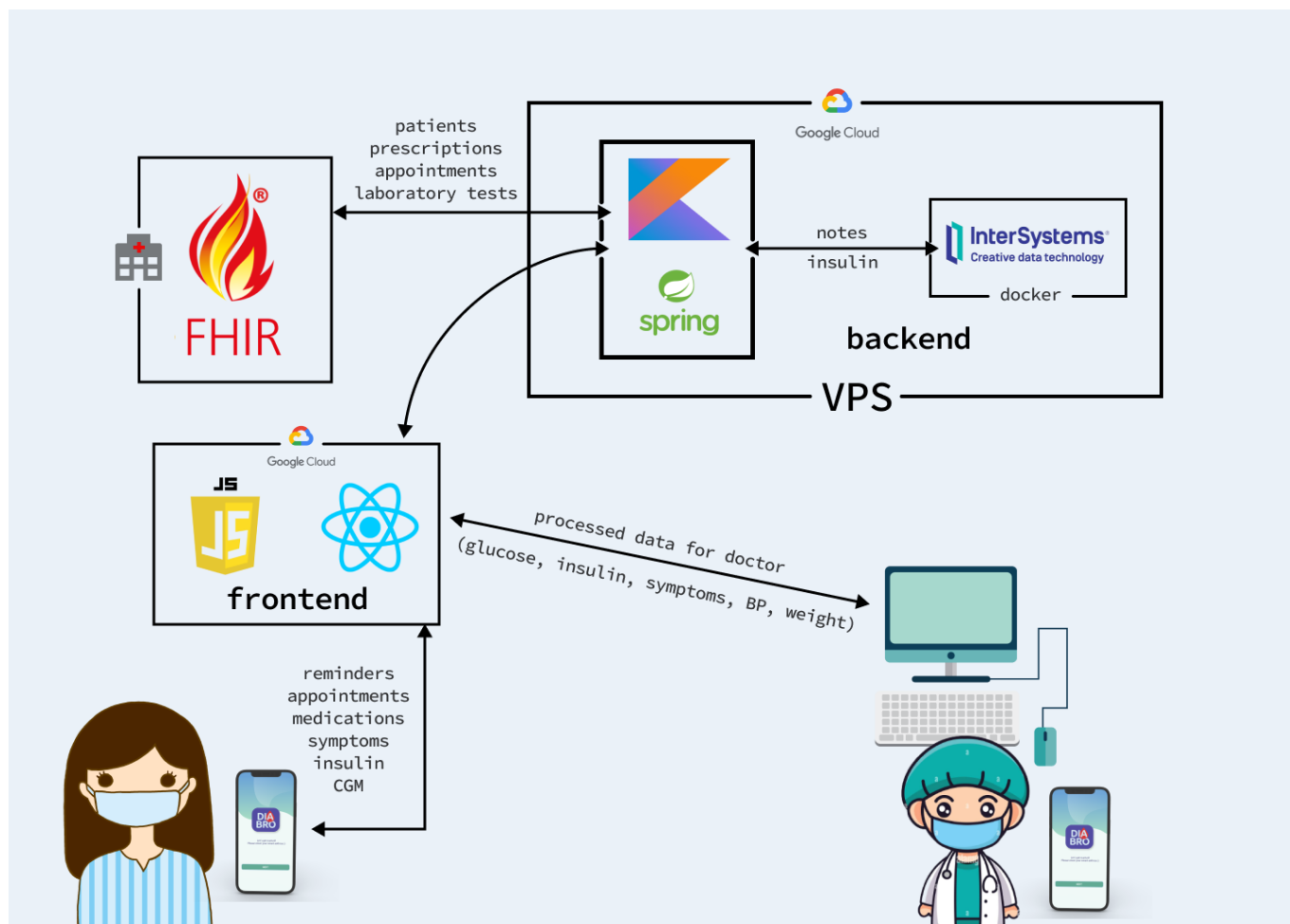
Feel free to take a look at our DiaBro mobile App. We made a web version for Demo, so you don't have to download and install it!

#FHIR #Interoperability #InterSystems IRIS
Check the related application on InterSystems Open Exchange