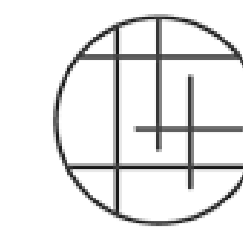


# Digital integration of the rapid Bosch Vivalytic Analyser for the transfer of data of analytical results and quality assurance compliant with the guidelines of the German Medical Association (RiLiBäk)

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## BACKGROUND

Point of care diagnostics has increased rapidly in recent years. Physicians and patients increasingly expect to obtain rapid, high-quality test results at bedside and at physician's practices for immediate diagnosis and based upon the results, optimized patient treatment.

The digital revolution of the past few years demands fully integrated systems that are a "must have" to avoid analog/digital rupture and which guarantee highest quality of analytical results based on an approved and/or accredited quality management system.

PCR diagnostics was performed in central lab locations since small POCT machinery had not been available. A fully interfaced and integrated Bosch Vivalytic analyzer would close this gap.

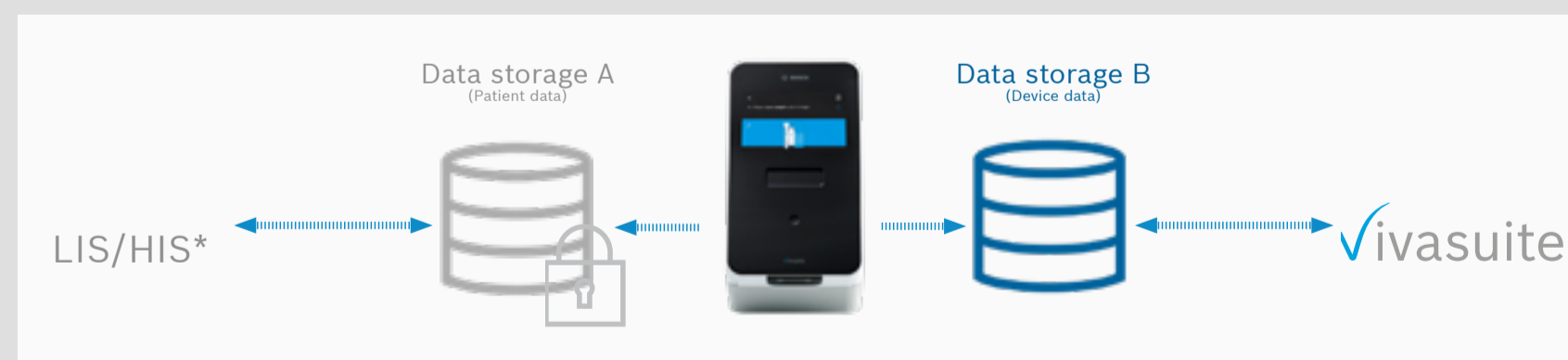
## OBJECTIVES

- a) interfacing based on standard protocols such as HL7
- b) investigate if bi-directional data transfer is stable, fully consistent and reliable
- c) examine if collected data is sufficient for quality management purpose according to the German RiLiBäk standard and develop a rudimentary software and documentation for quality assurance

## MATERIALS/METHODS

The study applied existing software (Vireq PoctGate®). Interface modification enabled the connection of the device to existing IT environments by using the HL7 standard data transfer protocol. The connection to databases of physician information systems, laboratory information systems and hospital information systems was tested and the data transfer verified. The documentation of the analytical results and transmitted data was examined regarding usability within the framework of quality assurance according to RiLiBäk.

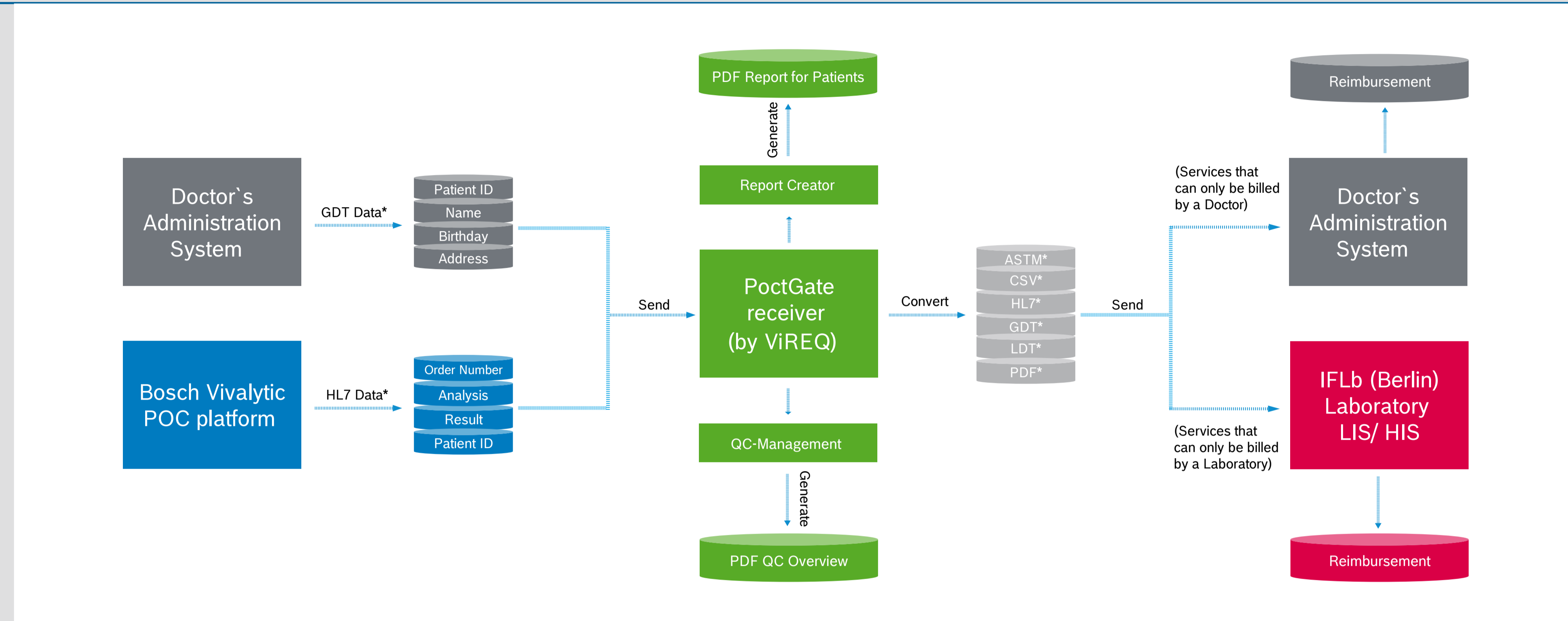
Keep control of your data with a separate Vivalytic data storage



Advantages of Vivasuite

Schedule remote software updates	Know when your devices were last synchronized	View all devices in one dashboard	View device information and general device data	Check for number and type of tests you ran
Bosch IoT Cloud device	Mobile device monitoring	Vivasuite user management	Save time with less "on-device" work	Get statistics relating to your device usage

## RESULTS



Point of Care measurement of the sample and creation of an HL7 report file	Results are timely available without an external Laboratory	Easy/comprehensive sending of patient data from the Administration System to PoctGate	Automatic transmission of the results to PoctGate	Create QC reports via an automatic service with the QC Management Center of PoctGate	Create result reports as PDF for patients with the Report Creator of PoctGate	Converting and transfer of results to the Doctor's Administration and/or the Laboratory System	Service accounting & reimbursement via Doctor's Administration and/or Laboratory System	Service accounting & reimbursement of special diagnostics (via Laboratory System)
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\*Format for transferring data between two systems

## CONCLUSION

The generated data demonstrates that a full integration of the Bosch Vivalytic analyzer into an existing digital environment such as a physician's practice, a laboratory or a hospital is possible, meaningful and purposeful while generating added value compared to a standalone device in an existing environment.