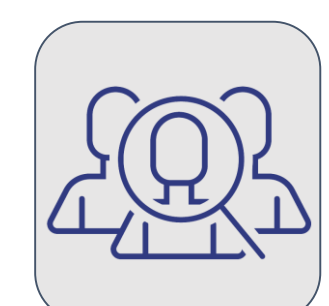


Background

The zScanner is a multi-platform mobile application, developed in the Czech Republic in 2019 for nurses and physicians. It provides fast, safe scanning and digitization of hospital documents, clinical photos of wounds and video examination for download to the hospital information system. The University Hospital Olomouc introduced this application in 2022 with the vascular access team (VAT) finding it to be a useful adjunct to their assessment, documentation and description of skin impairment in patients with vascular access devices (VAD). However, the use of early detection and management does require a certain level of expertise and knowledge. With this in mind, the information and technology and additional use of artificial intelligence may assist the less experienced staff in making correct decisions.

Objectives and methods

The zScanner can be used in four simple steps:



Find a patient
in HIS



Take a
picture



Make bedside
annotation

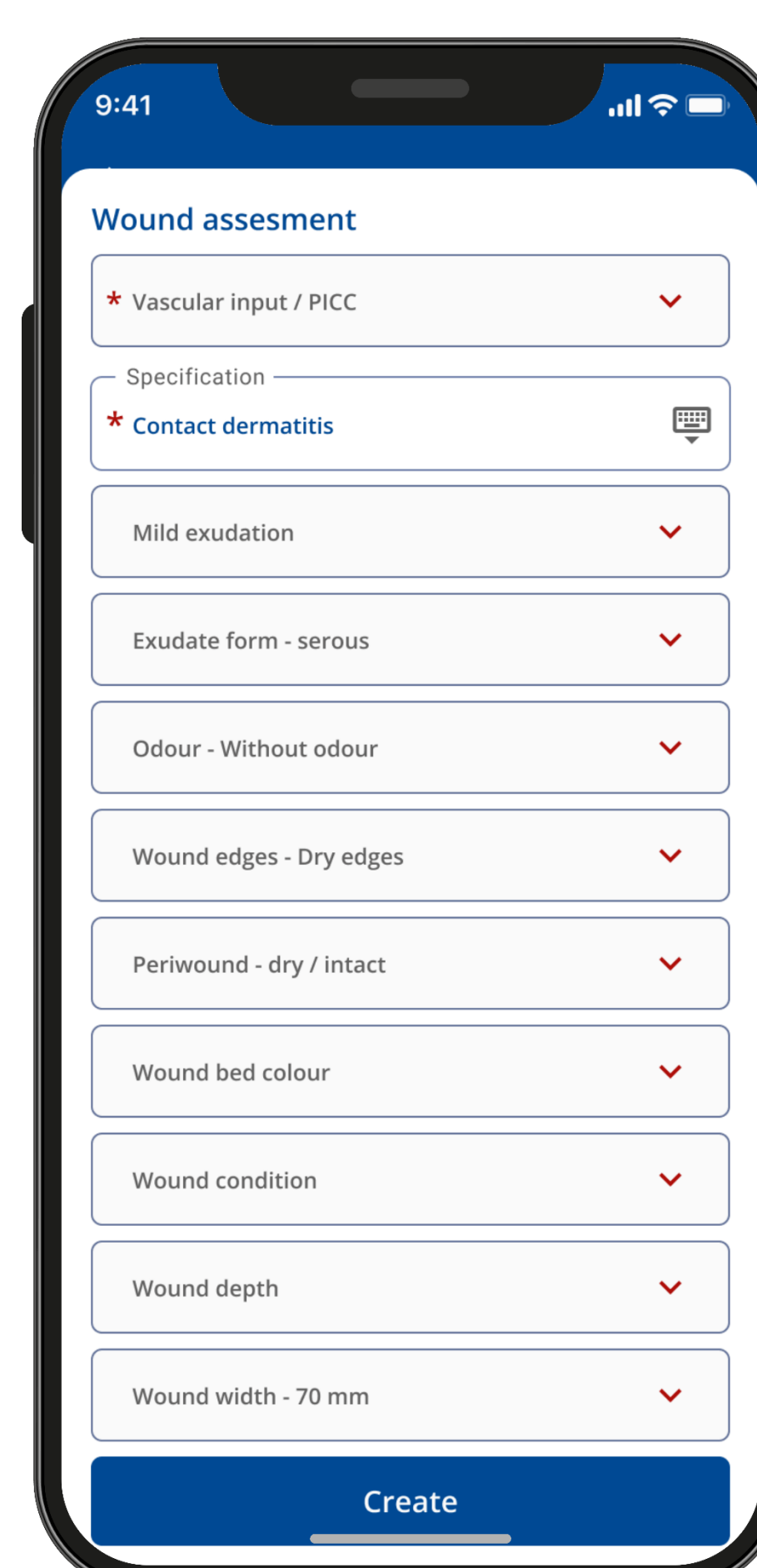
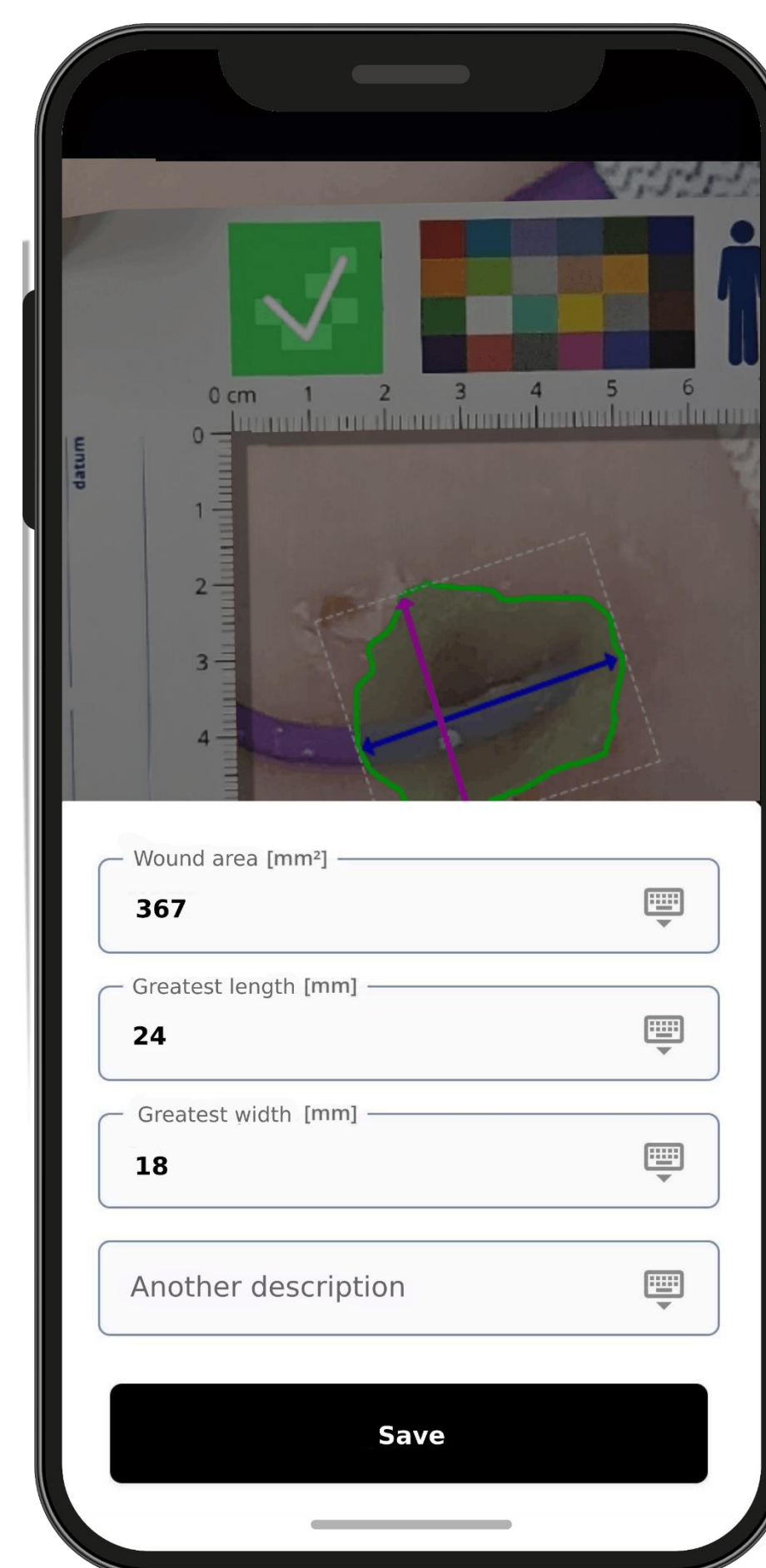
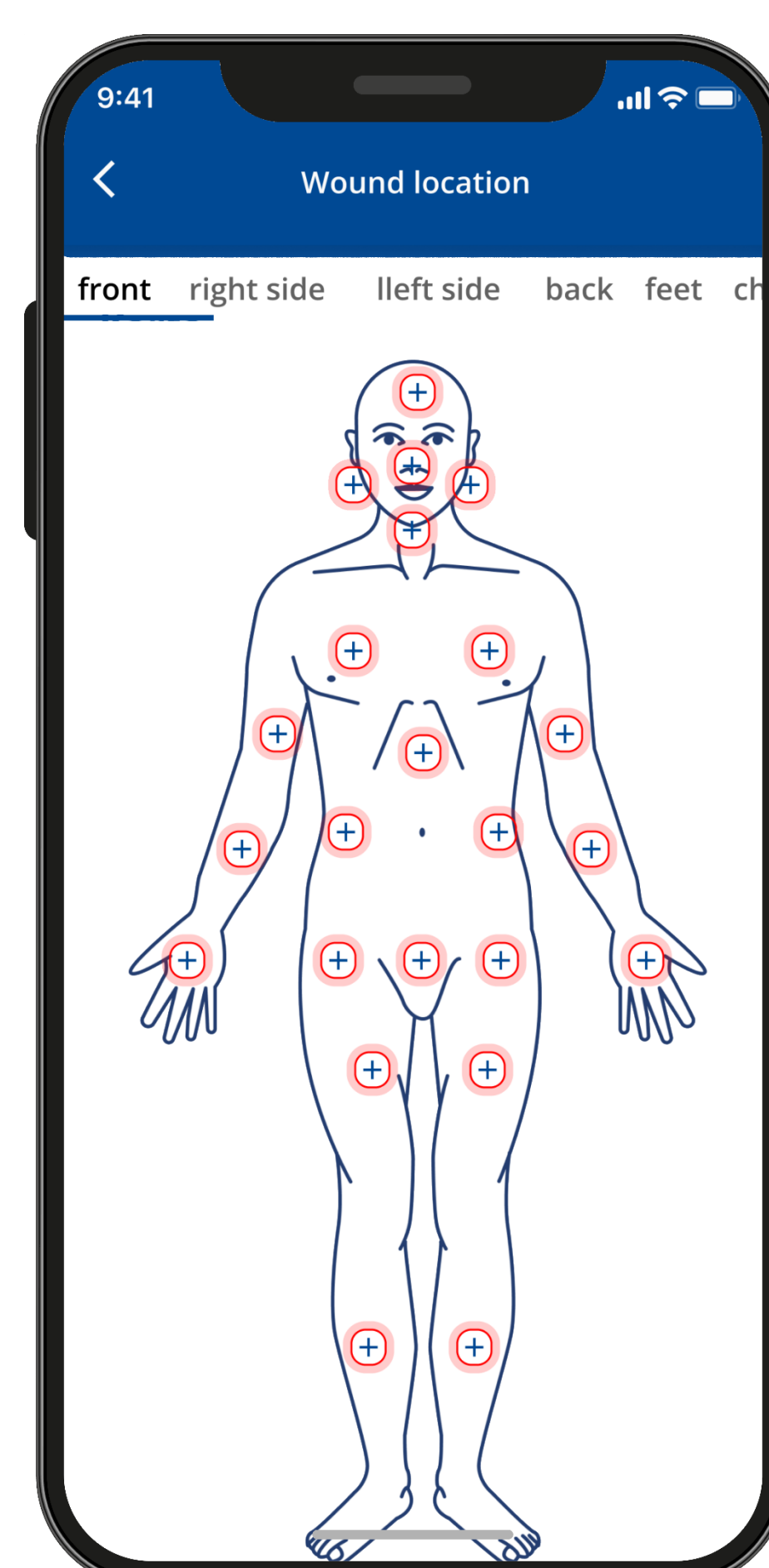


Digitize
information into
the HIS/PACS

This allows for secure document sharing and assessment of wounds, noting any improvement or deterioration, taking measurements of the affected areas, comparison of results, and on-going treatment.

Results

The zScanner has been under trial since October 2023 with some adjustments made to the use of the application. In December 2023 a hospital wide policy was developed and introduced for end-user guidance for use with the new technology. The plan is to include further measurements in conjunction with AI to compare a growing library of photos for future use.



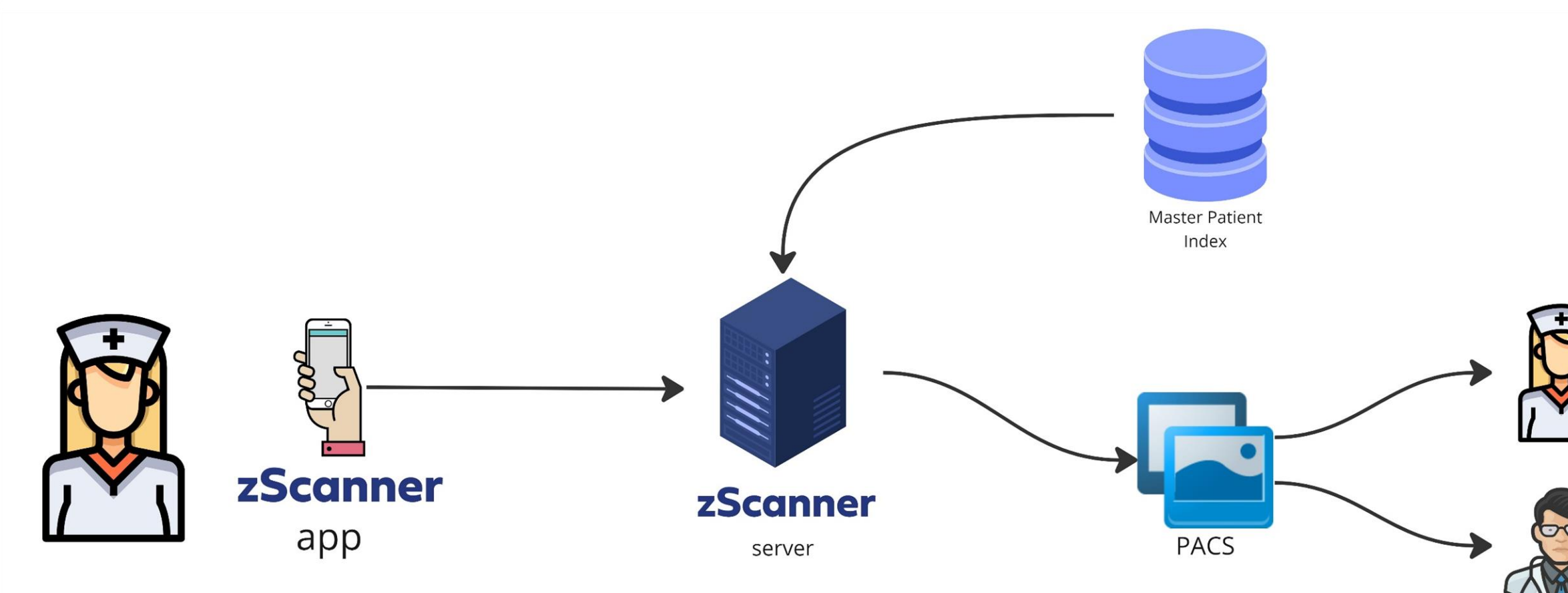
Surname, name: Unknown, Unknown
Date of birth: 3.4.1967
Sex: Male
ID: Unknown
Attending physician: 2.IK
Completion token:
Verification token:
Content date: 4.2.2024
Content time: 10:01 AM
Requisition number: ZS240402100158
Study date: tuesday, april 2, 2024
Study description: dermatitis

Content

- Language of Content Item and Descendants: Czech
- Observer Type: Person
- Person Observer Name: Galková Mária

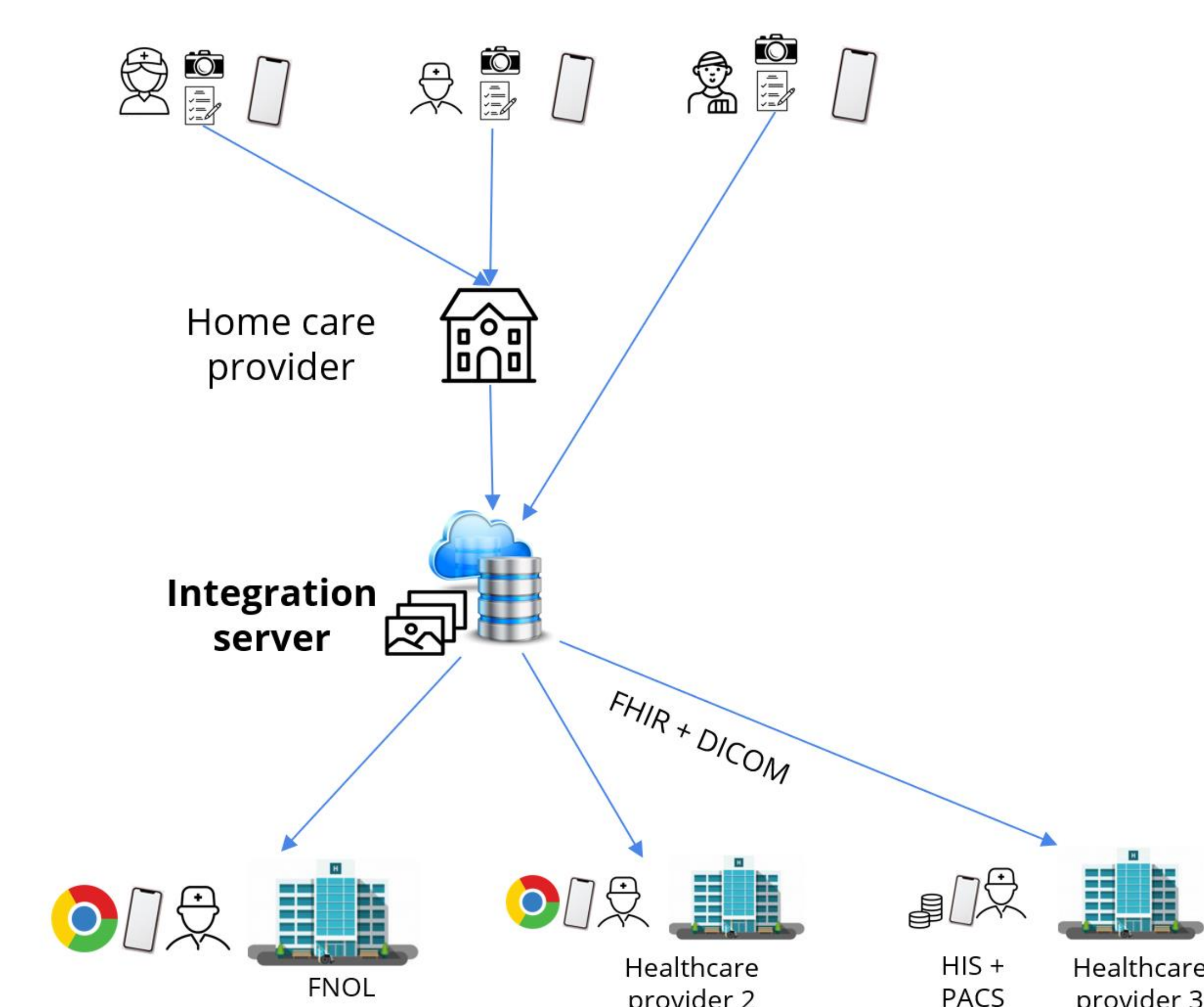
Findings

- Last photography: 02.04.2024 10:01:58
- Body part: front / right upper limb / arm
- Type of wound: Vascular input / PICC
- Specification: contact dermatitis
- Exudate level: mild exudation
- Exudate form: serous
- Wound odour: without odour
- Wound edges: dry
- Periwound: calm / intact
- Wound width [cm]: 7.00
- Wound length [cm]: 10.00



Conclusions

The zScanner application is to assist nursing staff to accurately monitor vascular access sites not only for inpatient and outpatient use but also in the homecare setting.



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