



Barcode-based medication at the patient's bedside

Project Scope

unambiguously identify the individual dose and medication dispenser (e.g., the patient's tablet box) for a specific daily medication at the patient's bedside.

Project Outcome

The new GS1 standards-based system makes the medication allocation process significantly more efficient and more safe, especially since differentiating between medications is becoming increasingly difficult these days. "It was once possible to identify tablets based on their characteristic colours and shapes", explains Tuerk-Ihli. "Now, it is almost impossible to distinguish between the array of medications that share the exact same colour and form. GS1 standards and the performance of automatic comparisons help reduce possible errors in this area."

Process Description

Preparation of Medication

At medius KLINIK Nürtingen, labels are applied to the dispensers that carry the GSRN (Global Service Relation Number) and SRIN (Serial Relation Instance

Number) encoded in a GS1 DataMatrix barcode. The labels are generated by using the hospital information system (ORBIS) and linked to the individual patient record. When the dispenser is scanned, a medication overview for the patient and the specified date is displayed in ORBIS. At a glance, this shows what the patient has been prescribed and what dose of which medicine should be administered. The nurse then scans the barcode on the medication package. An automatic check is performed to ensure the medication and prescription correspond with or "match" each other. The dispensers are then loaded. Once complete, the certified nurse scans his or her ID badge to document specifically who dispensed the medication. It is also possible to scan an additional ID badge to record the presence of a supervisor.

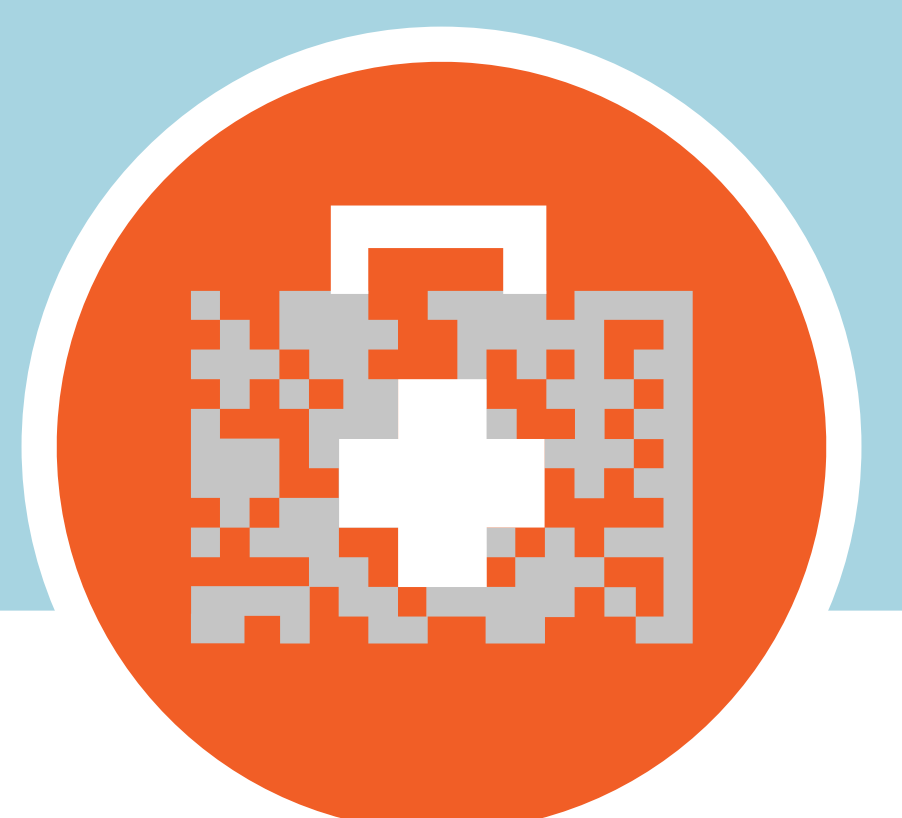
Process Description

Allocation of Medication

For several years, medius KLINIK Nürtingen has used mobile "thin client trolleys" with a 24" screen, a battery life of over 12 hours, disinfectable keyboards, tablets – basically everything required to meet the needs of a mobile digital hospital routine.

The hospital staff use the trolley to scan the medication dispensers directly at the patient bedside and perform a final check to see if the prescription has changed. Therefore, the nurse or caregiver scans the patient's wristband in order to verify the patient's identity and then scans his or her ID badge to document who issued the dispenser.

"We believe this project serves as a role model for other German hospitals", says Tuerk-Ihli. "The quality of documentation has improved and the efficiency of our processes has increased. It has reduced the incidence of adverse events due to medication dispensing errors and drug interactions. To a significant extent, the success of the project is due to the outstanding cooperation between the parties involved. Clinical experience, input from Agfa HealthCare (ORBIS) as well as the expertise of GS1 Germany – all merged to create a truly successful outcome."



Contact information

medius Kliniken
Gertrud Tuerk-Ihli
E g.tuerk-ihli@medius-kliniken.de

AGFA HealthCare GmbH
Martin Reitstaetter
E martin.reitstaetter@agfa.com

GS1 Germany GmbH
Sylvia Reingardt
E reingardt@gs1-germany.de