with datas. All the data will be sended to the server and the drug bag with a HF Tag will now wait for the nursing home staff to collect.

2) In the nursing home:

a) After the drug bag have taken to the nursing home. The nursing home staffs have to verify all the drugs by scaning HF Tags.

b) When it is drug dispensing time the nurse will use NFC-mobile to sense on resident's bed HF Tag. The NFC-mobile screen will display the resident's name and photo with the drugs name, pictures and informations about how the resedent should take the drugs which is shown in Fig. 7. These information are for nurses to determine if the drug they brought for resident is correct.

c) Nurse needs to click upload button on the mobile screen after finished drug dispensing. The system will send a completion time of medication onto cloud database as a record. The information which has uploaded to the cloud server is also useful for later on checks.

Fig . 7. After Sensing The Bed Card

E. Personal Orientation System.

The escape of resident will be a serious threat to their safety. This system is mainly design to prevent this tragedy. When the staff is too busy and didn't notice the residents has escaped from their rooms of nursing home. The system will sound the alarm to inform the staffs.

The UHF Reader is placed at each resident's room door. With the EPCglobal organizational forms UHF Class 1 Generation 2 Tag and its unique tag identification to identify the residents. When resident leaves the room the computer will send out a message to inform staffs as Fig. 8 shown. This is how our Personal Orientation System works with run-away possibility.

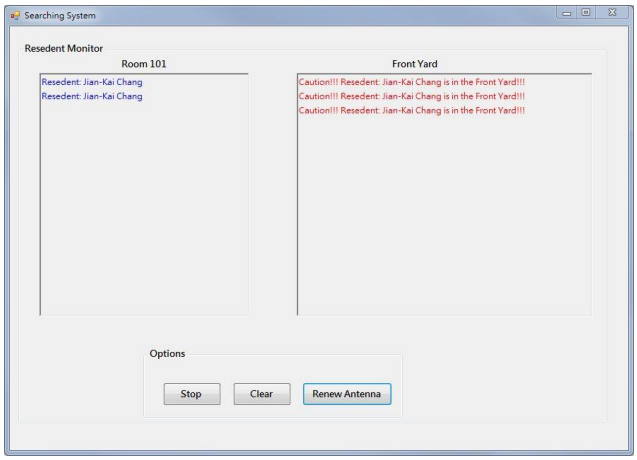

Fig . 8. Personal Orientation System

V. CONCLUSION

We found out the problems in the nursing house and hospitals by our visits. In this paper we designed a system which can improve the awful situations. Our Medical Nursing System have five main systems: Identity Management System, Environmental Sensing System, Biomedical System, Medication System and Personal Orientation System. Each system can work not only individually but also interactively.

Our system design is based on the architecture of IoT. We use RFID, sensor, WSN in Identify layer and use 2G/3G, Wi-Fi, ZigBee and Bluetooth to transfer the data. We expect our design to achieve Intelligence Medical Care.

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