

## **Interview with pharmacist**

*What do you feel is the main problem with prescriptions for elderly and disabled?*

If they use a high quantity of different medicines it is hard for them to remember what every pill does and when to take it and sometimes they forget how they have to use it.

*What is the hardest part of your job?*

It is hard to know if the patient is using the medicine (at the right moment), sometimes the patient thinks it is easier to take twice a day instead of three times, not knowing that it is important to take the medicine at the appropriate time. It is hard to figure out that the patient isn't taking his/her medication correct if they themselves think they do it correctly.

*How big is the issue of people taking the wrong medicine?*

As pharmacist I don't often hear about people taking wrong medication, but I know that about 2-3% of the hospitalization is due to wrong medication (see HARM-onderzoek 2012). The hospital often doesn't communicate with us when a patient is hospitalized due to wrong medication.

*How much benefit do you think a pill dispensing technology would provide?*

For the patients that forget to take medicine I think it's beneficial, but it is still hard to know if the medication is taken the right way.

*What would you find the most important features of this technology to be for yourself? What about the patient?*

If we get notification when medication isn't taken we can discuss this with homecare, in that way we know it before it has any big consequences.

For the patient it is helpful that they don't have to remember to take their medication.

*What concerns do you see with this technology?*

A lot of medication have an expiration date, so the amount of pills can't be too high. Also putting pill in one container instead of in a pill strip can have negative influence on the expiration date, for example due to the attraction of moisture.

*Do you feel this technology would increase or reduce your workload?*

If the pharmacists have to refill the containers it will increase to workload quite a bit, because we get medication in strips. To refill the module we will have to take the pills out of the strips.

*Do you think a notification for refilment of the pills is useful?*

I don't only think it is useful I think that it is necessary, because the patient is only taking the medicine out of the tray they will only notice it is empty when no pills comes out and then it already too late.

## **Some extra comments/tips from the discussion after the questions**

- There is medication with risky substances that are harmful for people who don't use the medicine, so you have to keep these pill inside a strip. This also applies for for example blood thinners, these medication is packed in a specific way to keep it good, when you remove the package the pill has to be used in 8 hours.
- You also have "if necessary" medication, it isn't possible to add a timer to it, the patient can take this whenever they think they need it.

- Next to the system of the doctors and pharmacist there has to be some sort of server the system can connect to, wherefrom it can take the information (how to use, conflict with other medication etc.) for the specific in the module that is placed inside the system.
- It is hard to say how many different kind of medication the patient has and this can also change, so it will be smart to make a system that is easily upgradable, for example by placing an extender on top of it.

#### **Some advantages of our system in comparison to the medicine roll**

- You can add a module that is only needed for a few days, that isn't possible with the medicine roll because the pouches can't be altered.
- "if necessary" medication can be added in our system, they patient can press a button on the screen when they think they need the medication, there is often a maximum they may user per day, that is also easily to maintain in the system.