

Adherence – critical to all stakeholders (and solution in part).

Linnea Olsson*, Jesper Hassel*, Boo Edgar**

*Mevia, Gothenburg, Sweden

** Sahlgrenska School of Innovation and Entrepreneurship, Inst of Medicine, University of Gothenburg

The challenge of Non-adherence.

Non-adherence is one of the greatest challenges with drug development and therapies. Adherence is on average <50 %, which indicates the untapped potential in drug therapies and also causes unneeded suffering for the patient.(1) Increasing the adherence will effect health of the population greater than any improvement in specific medical treatments.(2) Non-adherence may be due to the patient, the patients life style, the medical regimen, the overall motivation and that is why supporting the patient is essential.(3) The cost for non-adherence in the treatment of chronic conditions is an annual \$637 billion for pharmaceutical companies (4) and \$375 billion in treatment cost in the US.(5) Solving the issues on adherence is therefore of high importance. The newly developed platform by Mevia, provides a platform to solve the adherence in the home care, usual prescription and during clinical trials with a high accuracy. We here report the initial testing.



mevia - How the adherence support system works.

1.

We connect any medical package to the web with our technology.

2.

On the web or through your mobile you can select your preferences regarding reminders in the mevia app.

3.

We support and remind those that you wish through SMS, home phone or email.



Features of the system.

- **Measures every medical event** – The device measures every time a trace is broken so that we see in real time when a pill is removed
- **High accuracy** – The amount of errors in transmission is less than 1/10,000
- **Complete flexibility** – Mevia can adapt the solution to any type of package and send reminders and notifications in any way that a user pleases
- **In real time** – Our devices record events and upload these instantaneously. Furthermore, the solution works seamlessly in more than 200 countries across the globe.
- **Cloud based API** – Our IT system is intended to connect to others to minimize the number of systems for the user.
- **Secured privacy** – Mevia has a fully adaptable system where the device is passive and quiet unless the patient wishes otherwise. This means that others do not need to know you've missed your medication.

The studies.

The development consists of two parts, a technical feasibility study followed by real world data with both elderly healthy subjects and patients. The solution used were the Mevia platform (6), using an add-on to different pharmaceutical packages providing automatic registrations of medical intakes, personal feedback and medical reminders. These early studies evaluated to what extent smart pharmaceutical solutions and adherence support may improve adherence to treatments.

Study results.

Study 1 - Technical feasibility

A technical feasibility test with 28 test subjects aged 25 - 69 with an average age of 42 and a 59% female and 41% male gender distribution that used placebo blister packaging to confirm functionality of the platform and all participants experienced the reminders as helpful.

Study 2 - Elderly group test

Fifteen healthy subjects over 80 years of age with a gender distribution of 80% female and 20% male used the platform with placebo in multi dose pouches for 4 weeks, that were to be taken the same time as their ordinary medications. This group of elderly had beforehand been trained in using a smart phone and/or tablet. The communication and reminders were sent to them via a developed app. With the support of the service the adherence was 87 %. 57 % experienced the services as good or excellent.

● = Taken.

● = Not taken.



87 % Adherence rate in the study.

VS

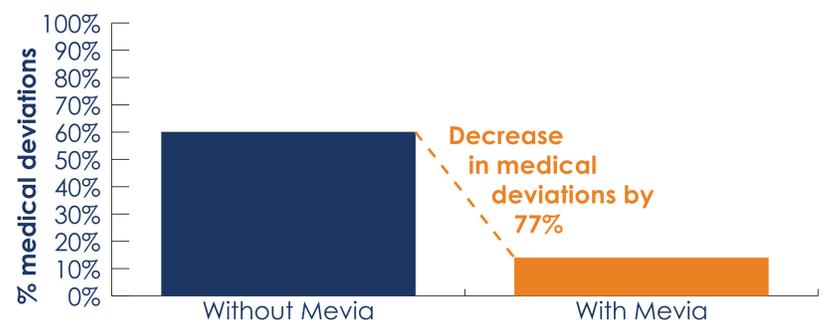


Usual adherence rates in other studies 50%

Study 3 - Home care test

In a home care setting, the platform was used for 21 care takers with over 40 home care personnel involved. The care takers where distributed as 48% male and 52% female with ages between 75-90. During the 3-month study the medical deviations decreased from 60 % to 14 % compared to the same period the year before.

Table: Mevia decreased medical deviations from 60% to 14%



Conclusion.

The adherence platform provided a high accuracy, for both patients, care takers and givers. Initial results highlight that the platform had a positive effect. However, larger studies will be needed to confirm these results.



Jesper Hassel
jesper@mevia.se



Boo Edgar
boo.edgar@gu.se

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All studies sponsored by:

