DRUG GPS

Stop the accidents – Eradicate medication errors

Version 1.0

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Not to do it is like driving without seat belt, airbag, and ABS

Nobody wants traffic incidents, but they happen anyhow

Medication: It is not the same person, who turns the wheel and steps on the gas pedal

There are more medication accidents than traffic incidents. More people die from medication errors than in traffic

Previously nobody could do anything about it

This document

This document is an account of the benefits of letting the "system" make an expert review automatically on your medicine list.

It is a statement that we now have data that can catch medication errors that were not previously discovered and which led to death and accident to an extent greater than the number of traffic accidents.

Facts about medication errors

- One in 50 consume at least 10 different kinds of medication on a regular basis
- 75% of them have a medication error without knowing it
- Half of these errors are serious
- More people die from medication errors than in traffic. The number of medication accidents exceeds the number of traffic incidents

Previously these errors were just statistics. Nobody acted to prevent them.

Risky medication has sometimes been subject to special labelling, but it has been impossible to prevent these errors.

This is mainly due to the fact that it has not been possible to introduce dose control because we lacked data for it. We can do that now.

Overview of the errors

Medication errors can be boiled down to the following:

	Frequency & Cause	Effect
Overdoses	The cause of most deaths Due to • Several med.s added up • (Sometimes a single drug) • Missed measurements	Bleedings that won't stop Internal bleedings (incl. stroke) Dangerous cocktails (sleeping pills, sedatives, opioids) Poisoning (methotrexate)
Package inserts	Errors are frequent (Nobody reads – but important) Tricky personal information	Contra-indications: STOP Precautions: Consider Other drugs: Interactions
Allergies	Rare but serious Previous consumption (anti-biotics, NSAID)	Can make life a hell
Interactions	Normally not serious "Alert fatigue"	Slight stronger or weaker effects "Stop" interactions

Interactions are the only thing that systems automatically warn about today.

Since the interactions often warn of too much, it has led to what is called "alert fatigue" – that is, "tired of warnings".

Since one can question some of the warnings, and since many important things do not come up, it has led the doctors to ignore the interactions and instead rely on their own overall assessment. It is often also sufficient. But the doctor's overall assessment is not sufficient when there are many drugs, or when the relationships are complex, and you do not get to ask the right questions or make the right examinations, because in a busy everyday life you do not think of a given connection.

It is completely as a traffic accident: they are usually averted in time, but sometimes they happen anyway. And we agree that security systems are therefore needed. Also for the good and experienced drivers.

The solution

The solution to the problem consists of the following.

- Databases linked to the medicine list with the amount of active substances in "one" of the product
- Structuring an otherwise complex area so that clinical information can be combined. The medicine taken seriously also in the data
- Intelligence to ask (only) the relevant questions (which you often forget), e.g:
  - Other diseases, if relevant,
  - other medicines [automatically derived],
  - pregnancy plans [but only for younger women],
  - kidney numbers, blood coagulation, heart rhythm, etc., if important for the medicine
- Anonymity even though it may be integrated with an identified service. Today, all data can end up in Russia and North Korea, so it is important that it is useless to others than the user him/herself

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How to do it – anonymously

Ref	Step	Description
1	Drug GPS	- Go to http://DrugGPS.org
2	Language	- Switch to English, in case this is not done already
3	Video	- Watch the intro video on how to use the system (5 minutes)
4A	Resume	- If you (or the PC you use) have been there before, then you have an email and can resume the link that is in the mail
4B	New	- Otherwise: ○ Click on "New person". It creates an anonymous user and creates a random password – and a user name from date and time ○ Provide an e-mail address (you can make it for the occasion and is thus stay 100% anonymous). This e-mail receives login information and a link back to the solution. You can change the password (so the mail cannot be used by anyone who may intercept it)
5	Intro	- Answers to the intro questions
6A	Medicine codes US ES DK NO	- Enter the medicine. If you do this for others, ask them to take a picture of all their medication in order to see the NDC codes (in the USA) ○ (US, ES, DK, NO) Enter the NDC codes and check that it is the right medicine that is shown
6B	Medicine dropdown CA FR IT	○ Or (and as the only option in FR, IT, CA): Choose the medicine from an alphabetical list of all approved medicine. The page takes a long time to load over a slow internet connection. In the US, DK, NO, ES it should only be used by those who do not have the medicine packs in front of them (and thus not the item numbers / the NDC) or who do not have a picture of the medicine
7	Amounts	- It assumes that all the medication is taken once a day. ○ You must change it for all the medications that are taken more often or less often than once a day. ▪ It does not matter whether it is in the morning or in the evening, the important thing is that the dose per day is correct ○ Medicine taken as needed: indicate the maximum dose taken. You can come in a situation where that is the case
8	Analyses	- You choose which analyses you want, even if they do not show a medication error (otherwise it only takes out the parts of the analysis, which show a mistake or a challenge). It may not choose the gene test. You may choose to know if you should take it

Ref	Step	Description
9	Extra questions	- At this point in the process, extra questions may arise, depending on the medicine, to be answered. In that case, the solution goes back to the profile and puts the additional questions o Answer the additional questions o You often have to indicate which diseases you suffer from. It asks you to check from a comprehensive list in order to ask once, and not again if you change the medicine later o When you have answered the additional questions, it goes back to the medicine
10	Reports	- You can either go through the results of the analysis or directly to the reports. o The short summary for the doctor¨ o The complete summery of the analysis - They only report points that are in error or if there are challenges.
11	Doctor's involvement	- You can specify whether the report has been submitted to a doctor, if there are challenges and errors on the medicine. And whether the doctor has said (after a possible correction) that the medicine is OK now. (This is intended for the doctor's involvement, as the solution can be set up to automatically involve the doctor so that it can see the report).
12	Further clarification	- You can ask for clarification anonymously. Forward the link from the system to "kn@oceanprocess.com" and request an extended conclusion (without guarantees). We'll send it back to the email. We can do that even if you have changed the password from the password of the mail. We can't see who you are
13	Measurements	- The solution then continues to collect data for measurements, if necessary, determined by the medicine
14	Shield	- You can then use the link - and update with the changes that take place in the medicine, information, and measurements – thereby using it as a shield against future errors

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About us

Ref	Topic	Details
1	Previous projects Delivered by the same people Based on the same advanced software	- Virk.dk - Vehicle inspection systems, when we privatized "Statens Bilinspektion" - Sygedagpenge. Integration #1 between Central Government and the Municipalities (KMD) - Digital registration in the Ship Register - Foreign students and researchers' housing in Denmark - COPD System in the Capital - Breast cancer online guide with Rigshospitalet (the University Hospital of Copenhagen)
2	Philosophy	- We make systems that work, and we live a quiet life with it. None of the above systems have been in the press - We have a nerdy approach. Data and functionality set the requirements, it is not the customer (e.g. the doctors) who makes the demands
3	Vision	- We make Google Maps for Health. Medication errors are only step 1 - The poor woman in Bangladesh must have the same service as the rich woman in Manhattan - Knowledge is free and global. Integrations cost - We have a vision that the world is headed for a globalization of the clinical area
4	Ocean Process A/S	- A front runner in this area - Possesses CureGPS.org (and .com etc.), DrugGPS.org, MedTjek.dk