

miniQ

Support, medication, older people

Optimising drug treatment among older people through a patient-centred, web-based decision support system.

Overview

A web-based decision support system, miniQ monitors prescription drug use in older people and can be used to aid drug prescription and drug utilisation reviews. The interface is accessible by physicians, nurses, patients, relatives, pharmacists and pharmacologists, ensuring that any drug-related problems can be quickly identified and resolved.

We developed miniQ in response to the extensive and well-known problems of inappropriate medication being prescribed to older people and other drug-related issues (e.g. when older people are unknowingly prescribed multiple medications by different doctors, leading to a negative combinatory effect).



Key facts

Project started: 2016

KIC: EIT Health

Theme: Healthy living and active aging

No. of partners: 3



Market potential

Very few similar systems are available today and miniQ is unique as it offers:

- **Power:** analysis algorithms comprising both drug- and diagnosis-specific quality criteria and indicators, as well as assessment of potential adverse drug reactions based on a patient's symptoms
- **Flexibility:** possibility to load different sets of criteria and indicators
- **Versatility:** modules for patients and a range of medical practitioners
- **Functionality:** data capture and storage, decision support, statistics and reports
- **Deployability:** the web-based nature of the miniQ system makes it easy to scale up and to launch updates

EIT Health support

EIT Health is providing a platform for further project development and collaboration with our partners.

Societal impact

For older patients, who are the real beneficiaries of this service, the miniQ system will help to improve their health and quality of life. This will lead to the consumption of fewer healthcare resources, meaning a reduction in healthcare costs for society.

For physicians and nurses, who are the main users of the system, the benefits are better control over drug prescriptions and the treatment of elderly patients, and improved communication between medical professionals and patients.

Achievements so far...

- A strong, collaborative network has been developed between our partners in the UK, Sweden and Spain

The screenshot shows the miniQ system's interface for a patient named '191103anli'. On the left, there's a 'Läkemedelsanalyse' section with a tree view of medications: Isoprin retard, Trombyl, Brufen, Laxatol mp, Isoprin, Timolol alcen, Isoprin, Diprofin biophausa, and Laxiveral. A red box highlights 'Isoprin'. Below this is a 'Kvalitetsläpplanden' section with icons for parallel preparation, potential interactions (class C and D), and warnings about interactions with anticoagulants and long-acting benzodiazepines. In the center, tabs for 'FASS' (Förslag till alternativ), 'Alternativ', and 'Kvalitetsutvärderande' are visible. The 'FASS' tab is active, showing a detailed 'KVALITETSANALYS' section with points 1.6 through 2.3. The 'Alternativ' tab shows a 'MINA LÄKEMEDEL' section with 'Optiprin' listed. The 'Kvalitetsutvärderande' tab shows a 'POSSIBLA BIVERÖNINGAR' section with points 1.1 through 2.4. At the bottom, there are buttons for 'Startsida' and 'Sök'.

The screenshot shows the SeniorminiQ system's interface for a patient with ID '72120'. It features a header with four patient photos and navigation buttons: 'TIDIGARE ÅRENDEN', 'OM MINIGI', 'AVSLUTA', and 'Gå vidare >'. Below this is a 'MINA LÄKEMEDEL' section with 'Optiprin - Optiprin endos, 2,5 mg/ml' highlighted. To its right is a 'DOSERING' section with 'ORSAK' and 'BESVR' buttons. Further right is a 'DISKUSJONSFRÅGOR TILL LÄKARBESÖK' section with '5. DISKUSJONSFRÅGOR' and a 'HUR GØR JEG NU DÅ?' button. A sidebar on the right shows a 'Min läkemedelslista' with various medications like Diprofin biophausa, Verapami myan, Tabl. 80 mg, and Detrolol. A small video thumbnail shows an elderly couple using a computer. At the bottom, there's a 'Se en kort hjälppfilm om hur du gör på den här sidan' link.

The miniQ-system: miniQ and SeniorminiQ

Teamwork

Our team consists of the Karolinska Institutet, the University Hospitals of Birmingham NHS Foundation Trust and the Universidad Politécnica de Madrid.

Between the three partners, we will initially translate the different modules of the miniQ system into English and Spanish and adapt the system to national drug formularies and associated services in the UK and Spain. Discussions so far have been exciting and brought many new ideas; all the partners complement each other very well.

The screenshot shows the Monitor system's interface for patient '030308'. It includes a 'Patientdata' section with 'Läkemedellista' and 'Problemlista'. The 'Läkemedellista' table shows medications like Isoprin, Trombyl, Brufen, and Laxiveral. The 'Problemlista' table shows problems like 'Känslighet mot pharma', 'Allergi mot pharma', 'Organiskt beroende', 'Isoprin', 'Superfakt depot', 'Laxiveral', 'Furin', 'Alvedon', 'Klorzep', and 'Xendident'. A red box highlights 'Isoprin'. Below these are sections for 'Utbildande', 'Läkarskrift', and 'Ta bort'. The bottom part of the screen shows a 'Läkarskrift' table with rows for 'Nr', 'Datum', 'Problem', 'Läkemedel', 'Problem text', 'Atgärd', and 'Ätgärd'.

The miniQ-system: Monitor

More information

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