ICT support for Aging Well in Southwest Finland

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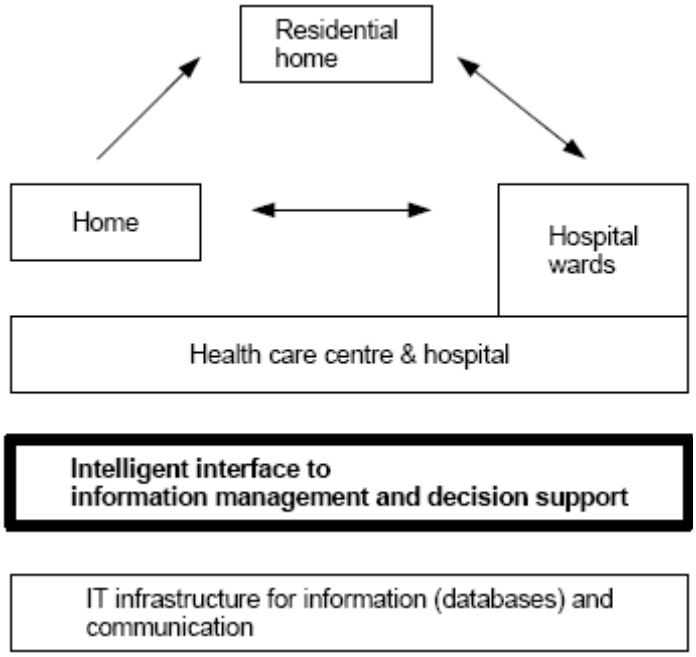
1. Background and conditions

Cognitive decline and limited ability in daily activities progress hand-in-hand, and the patient's life situation changes continuously by this progress. The assessment of a patient's life situation is a key task when providing the patient optimal care at different points in the progress of his/her disease. The assessment is used to establish the cause of dysfunctions, i.e., diagnosis, and appropriate interventions. Further, the continuity of qualified assessments reinforces decisions and treatment plans when used as evaluation of interventions. Finally, the outcome of different interventions can be used in planning of the organization of care and distribution of resources. In this context, tools are needed which can support social work and health care professionals in their daily work.

2. Approach / strategies / results:

The main goal of AgingWell is enhancing objectivity, or to be more precise, providing tools for objective and measurable elderly care. Aiming at objectivity is indeed equivalent to aiming at measurability, and measurability requires information and ontology infrastructures. In this respect it is important to note the need not just for static quantifications but also for observations of deviations within processes and distances to selected ideal situations. Monitoring also deviations provides further refinements to quality assurance and includes more real-time aspects to patient care management. AW creates this infrastructure and contributes to further development of software to support information management with respect to cognitive decline and limited ability in daily activities.



3. In order to provide support to assess and address the patient's life situation throughout the care process and at different levels of care, the scope of the systems need to include support for different professionals with each of their particular expertise and reasoning processes. It is important, on one hand, to develop the interactive reasoning component of a decision support system to enhance the creation of the optimal view of the patient's life situation, by using visualization and perceptualization techniques. This includes snapshots of the current state of the (incomplete) knowledge regarding a patient at each step of the care process. On the other hand, we need to perceptualise work and reasoning processes as another dimension of the patient view. As a supplement, the synthesis of these two perspectives can be used in valuations of interventions as well as the outcome of the care process. Interesting aspects in this context are economical effects of means to delay needs for hospital care, maintain level of cognition, function and ability.

4. Main impacts

The main purpose of the integration of eAW in home care is to improve elderly care by giving social workers and nurses means to establish correct assessments and appropriate care. As a consequence unnecessary suffering for patients and relatives will be diminished as well as cost for society. Domain knowledge will be disseminated and possible to access in an easy way. The eAW can also serve as a tool for consultations with experts when needed.
The impact for home care and nursing within residential homes is the eAW information scope that in fact is maturing into an overall record system structure for elderly care. ADL information is already included and is further refined. The overall ICF approach in particular with preventive aspects are included. The record system structure approach also considers relations between information residing more on the municipal and regional side as complementary to more clinically oriented information residing on the health care centre side.
Thus an important impact of eAW is work on standardization and terminological issues that is almost completely lacking in this field.

5. Recommendations

The information and care scope of eAW may well extend to include other psychiatric problems among elderly. Further, and perhaps primarily, it is important also to consider ”multiple diseases” among these patients, and to obtain an overall view of the patient situation.

Organisation of elderly care and its work processes should continuously be investigated so that appropriate and effective decision making can be imposed and placed in correct and optimal context.

6. Attachments

The eAgingWell software

eAW includes screening instruments for

- MMSE (Mini-Mental State Examination), a first test of cognitive decline
- selected subsets of ICF and ADL for measuring limited abilities related to daily activities

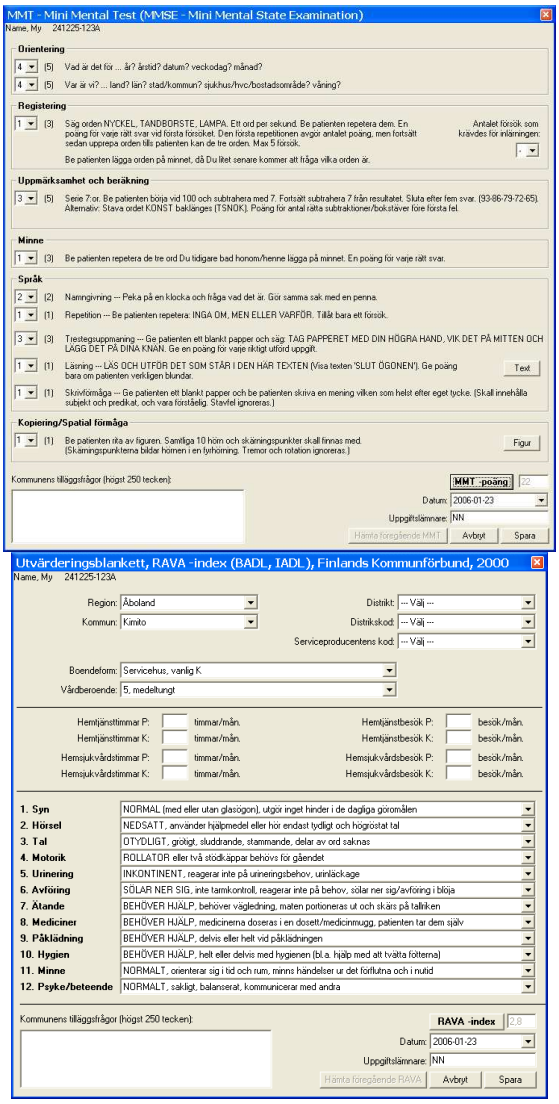
and presently under development are

- preventive home care, a general instrument for describing home environment conditions
- depression scale
- fall prevention scales

eAW in addition contains various basic statistical tools assisting professionals to communicate overviews etc to municipality leadership.

eAW exists in Finnish, Swedish and Estonian version. A Russian textual translation is already done, and discussions concerning a Flemish translation is on-going.

eAW is a commercial product owned by Four Computing Ltd. (Finland). eAW is presently used in more than 10 municipalities in Finland and Estonia.



MMSE and ADL/RAVA in eAW. Swedish screenshots.