Quality improvement in **Danish health care**

EXPERIENCES IN THE LAST 10 YEARS AND CURRENT CHALLENGES

This paper gives an overview of Quality Improvement (QI) initiatives in Danish health care, how QI has progressed during the last ten years, and the future challenges we're facing. This article represents the authors' personal view. Others may well highlight other landmarks and issues in the development of QI in Denmark.

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The Danish Health care sector is mainly public and predominantly financed through taxes, with only a few private hospitals. General Practitioners (GPs) and private medical specialists are independent, but nearly all have contracts with their regional administrations to deliver health care services, for fixed fees. Admission to hospital generally is by referral through GPs, who act as gatekeepers, or through emergency departments and acute admission units. Planning for the health care system is strongly regulated by laws and statutes, as for instance, which medical specialties are allowed in which hospitals. In recent years a patient's general right was introduced, which gave a four week maximum waiting time for first appointment at an outpatient clinic, and another maximum of 4 weeks before starting treatment, for all diseases irrespectively of severity.
Hospitals and primary health care are managed by 5 regions, and before 2007, by 17 counties. The social care sector is managed by the 98 municipalities. All primary health care and hospital services are free for citizens.

Progress of quality improvement in Denmark, how did it evolve?

QI in the form of critical self-evaluation of professional performance has existed since clinical science began, but more systematic methods, designed especially for quality improvement, started to evolve in Denmark approximately twenty years ago. Initially they were almost entirely local and 'bottom up' projects, local attempts at introducing methods such as *Total Quality Management* or *accreditation*. At that time there was no binding national quality strategy, and most initiatives were based on voluntary participation. The most successful of these initiatives, with impact on today's practice, were:

- *Databases for clinical quality*. The first quality databases were created 20 years ago, but developed more rapidly from 10 years ago up to now. In the beginning the databases were created in single departments by enthusiasts, but they quickly spread to include surgical specialties or treatments. They focused mainly on outcome after different procedures, but often also included data on co-morbidity for statistical risk-stratification. The database for treatment of breast cancer is the oldest one, created in 1976 and still in use.[1] The purpose of the databases was a continuous monitoring of indicators. Some of the databases quickly started public reporting of the indicators in form of annual reports, while others more took form of scientific databases with irregular reporting.
- *The National Indicator Project (NIP)*. After these clinical quality databases were established, there arose a need among health

professionals for a more structured approach, including evidence-based continuous indicator monitoring; which was supported by the hospital owners. In 1999 The Danish NIP was established as a mandatory disease-specific quality system for all hospitals. From the year 2000, quality standards, indicators and prognostic factors were developed on 10 diseases: Acute abdominal surgery (bleeding gastro-duodenal ulcer and perforated peptic ulcer), Birth, Chronic Obstructive Pulmonary Disease (COPD), Depression, Diabetes, Heart failure, Hip fracture, Lung cancer, Schizophrenia and Stroke.

- *The Good Medical Department ('DGMA').* This initiative was created by the Danish Society for Internal Medicine in the year 2000, with a similar goal as the clinical databases, but with different methods and indicators. Instead of focussing on continuous indicators on disease specific results and complications, this initiative used cross-sectional analysis of predefined generic indicators on processes in several areas, such as referral, screening for dietary needs, diagnostic and treatment continuity and coordination. DGMA was closed in 2006 and the indicators were included in the later Danish accreditation system.
- *Patient safety.* As in many other countries, the *British Medical Journal* 2000 safety issue was influential – it dedicated an entire publication to patient safety and adverse events under the headline 'Reducing error. Improving safety'.[2] In Denmark, a study was performed showing similar rates of adverse events in Denmark; the Danish mortality-rate from harmful treatment of patients is similar to that of many other countries.
- This increased awareness led to a joint venture between health professionals, managers and politicians, which introduced a number of campaigns and initiatives, like the Danish version of 'Saving 1000 lives' and standard protocols or procedures for high-risk procedures.
- *Danish National Survey of Patient Experiences ('LUP').* Since 2000 questionnaires have been sent out biannually to a random selection of patients admitted to hospital. The aim is to collect the opinion of patients about the service they experienced. In the reports, data are summarized at the level of specialties, wards, hospitals and regions and they are available to the public. Some of the results are now incorporated in the Danish accreditation system.[3]
- *Accreditation.* The first attempt to include accreditation into the QI strategy began with two different approaches: Hospitals in the capital of Copenhagen were accredited the first time in 2002 by the American Joint Commission International (JCI), while hospitals in Southern Jutland accomplished accreditation in 2004 by the British Health Quality Service (HQS).

There were also other initiatives but these are probably the ones which most influenced the current situation with respect to Quality Improvement in Denmark.

Current situation for Quality Improvement in Denmark

The current situation can be described as a process of maturation of methods and implementation of the above initiatives on a national scale, together with increasing involvement from the national and regional administrations. It is now increasingly recognized that QI has to be an integral part of everyday management in the health care sector. QI has been institutionalised, but is still characterized by a lack of integration between the different initiatives, and by limitations in the fragmented health information technology systems.

Samenvatting

In dit artikel worden ervaringen met en uitdagingen voor kwaliteitsverbetering bij Deense ziekenhuizen op een rij gezet. De Deense gezondheidszorg is anders gefinancierd dan de Nederlandse, namelijk via het belastingstelsel. De eerstelijnszorg en de ziekenhuiszorg worden zonder kosten aan de burgers aangeboden. Er geldt ten aanzien van wachttijd voor toegang tot de polikliniek een eis van maximaal vier weken en nog eens maximaal vier weken tot start van de behandeling, ongeacht de aandoening.

Het artikel beschrijft eerst de ontwikkeling van de afgelopen tien tot twintig jaar. Aan de orde komen: de opzet van databases met klinische gegevens (zoals de kankerregistratie), het Deense Nationale Indicatoren Project voor 10 aandoeningen, 'Good Medical Department' op andere zaken dan klinische uitkomsten (zoals verwijzing, screening en continuïteit van zorg), initiatieven aangaande patiëntveiligheid (ook naar aanleiding van onderzoek naar vermijdbare sterfte en gezondheidsschade) en de ontwikkeling van een survey naar patiëntervaringen.

Kwaliteitsverbetering is in Denemarken steeds meer op een nationaal niveau gebracht. De database over klinische kwaliteit en het Nationaal Indicator Project zijn verder samengevoegd, er wordt meer gedacht in gestandaardiseerde zorgpaden (teneinde ook de gestelde eisen van toegang tot zorg te kunnen monitoren), er is een anonieme database voor het melden van incidenten opgezet en de survey voor patiëntervaringen loopt nog steeds. De grootste ontwikkeling betreft de invoering van accreditatie (ziekenhuizen, eerste lijn en apotheken). Dit is gebaseerd op het invoeren van 104 standaarden met 455 indicatoren. De kritiek op de belasting van het verzamelen van de data over die indicatoren is groot. De auteurs geven aan dat kwaliteitsverbetering in Denemarken wat gefragmenteerd is. De grootste uitdaging voor de komende jaren betreft het bereiken van meer samenhang. De overdracht van patiënten, de betrokkenheid van patiënten bij hun behandeling en dataverzameling bij de bron om de registratielast te kunnen beheersen zijn belangrijke thema's. Paradoxen als 'standaardisatie én innovatie' en 'kwaliteit én binnen budget' zijn ook in Denemarken zeer herkenbaar. Zo ontstaat de indruk dat de ontwikkeling van kwaliteitsverbetering in Denemarken een grote gelijkenis kent met die in Nederland.

The maturation and institutionalisation have had several implications. By request from the Regions, the databases for clinical quality and NIP have merged, also encompassing special indicators for monitoring of standardised pathways for cancer treatments, to form the *Regional Program For Clinical Qual-ity Improvement*.[4] The program has professionalised the epidemiological and implementation assistance work for the (approximately 60) different databases, as well as standardised annual reporting.

One initiative that has gained strength in the last years is *standardised pathways*, not only for treatment of cancer, but also for cardiovascular diseases. The pathways also define a minimum right for the patients to start specialised examinations within days and to start treatment within 4 weeks.

Measures to minimise adverse events have now become a part of the Danish *Act on Patient Safety*, a law from 2010, requiring every health professional to report any incidents to an anonymous database, and also requiring a root cause analysis of all severe events. Alongside there have been, and continue to be, several campaigns to raise awareness of risky processes and to implement more fail-proof solutions, like the WHO surgical checklist.

The *National Survey of Patient Experiences* is continuing, now annually, with an increasing number of patients included, and allowing more detailed reporting back into the system.

Accreditation has become an integral part of most of the Danish health care sector. In 2007 the Danish Health care Quality Programme (DDKM) was presented. For public hospitals the program is mandatory, but voluntary for private ones. The aim is to include the well-known indicators on structures and processes, but also disease-specific indicators, at first the 10 areas from NIP mentioned above. DDKM was initially heavily criticised for an overwhelming demand of collecting data for the proposed 120 standards and 700 indicators. It underwent a revision, ending with a hospital-model having 104 standards and 455 indicators, still a large number. DDKM was implemented in 2010, and, in 2012, all Danish public hospitals have been accredited for the first time, valid for a 3 year period. At the moment DDKM is under revision for the second accreditation round. Not only hospitals are part of the accreditation-programme; all pharmacies have been accredited, and currently standards and indicators are being finalized for acute pre-hospital measures, general practitioners and municipalities, the latter with focus on primary nursing-care at home, prevention aimed at children and youth, dental services, controlling drug abuse and alcohol and rehabilitation.

Challenges for Quality improvement in the coming years

Looking at QI today in Denmark, it still appears somewhat fragmented. Each initiative is governed by its own logic and organisation, and there is little mutual coordination.

Patients making transitions between sectors, departments, specialties etc. are currently the main focus, since transitions carry high risks and threats to good quality and patient-safety. To improve the situation the challenge is to find new ways of organising, even within hospitals, to support well defined patient pathways, while not sacrificing quality for patients who do not fit into these pathways.

Growing attention is being given to patient involvement in their own treatment, by building partnerships and mutual expectations.

For the increasing number of indicators that are required to be documented, the challenge is to build automatic data-collection from existing health care systems.

Standardisation as the primary tool to increase quality and patient safety in all areas is beginning to be challenged. Standardisation has its own risks and limitations, and not all situations can be put in formulas. The challenge emerges in building new ways of working with QI, where standardisation is combined with appropriate flexibility to respond to unforeseen critical situations and raising awareness of these.

Finally, one of the biggest challenges under the severest budgetary constraints we have seen for some years, is to ensure QI is an integral part of everyday management, as important as everything else.

QI has too much potential and is too important to be left solely to health professionals; it should be a common focus point between them and the management.

References

1 http://www.dbcg.dk.
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3 http://www.patientoplevelser.dk/index.asp?id=210.
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