

Swedish Intensive Care Registry – “the first 15 years”

SICSAG 2015 Sept 4

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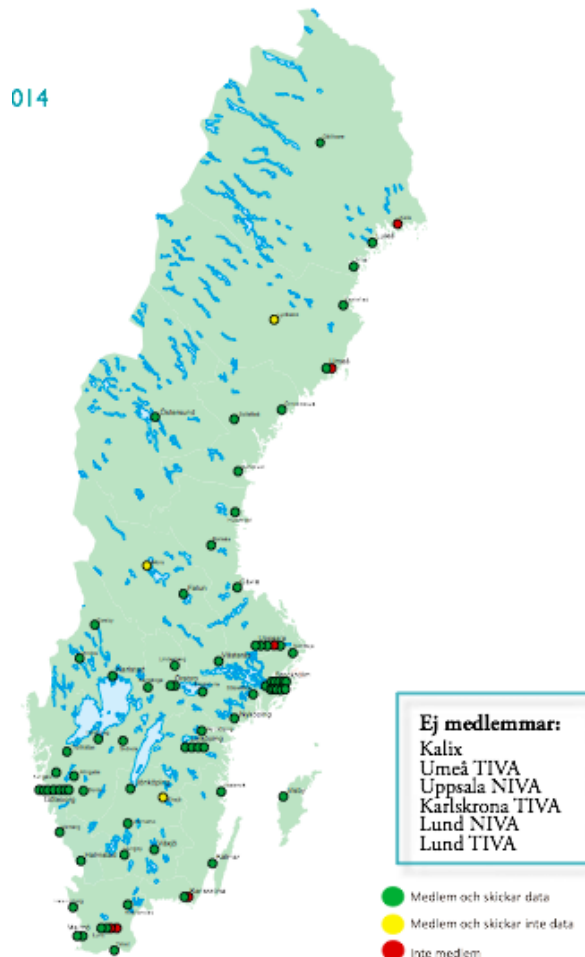
Swedish Intensive Care Registry

Senior consultant

Dep't of Intensive Care and Postoperative Services

Umeå University Hospital

Swedish Intensive Care Registry



78 of 84 ICU's register

66 general

5 thx

4 ped

3 neu

2 burn

1 ECMO

40.090 episodes (95%)

2013

No HDU's

Swedish Intensive Care Registry

- Founded 2001
- Patient information base @ Värmland Health Care Region
- Board of Directors (M.D., R.N.)
- CEO: Carl-Johan Wickerts (intensivist)*
- Director of Board: Christina Agvald-Öhman (intensivist)
- Värmland representative: Göran Karlström (intensivist)*

* = founder

15-year-old registry

- Mature, well validated
- Web-based submission
- Satisfied?
- Gold mine for research!
- Tool for head of the department
 - manpower
- Does someone else care?

Registry data - research

Samuelsson *et al. Critical Care* (2015) 19:129
DOI 10.1186/s13054-015-0873-1



RESEARCH

Open Access

Gender differences in outcome and use of resources do exist in Swedish intensive care, but to no advantage for women of premenopausal age

Carolina Samuelsson^{1,2*}, Folke Sjöberg^{3,4}, Göran Karlström⁵, Thomas Nolin⁶ and Sten M Walther⁷

Abstract

Introduction: Preclinical data indicate that oestrogen appears to play a beneficial role in the pathophysiology of and recovery from critical illness. In few previous epidemiologic studies, however, have researchers analysed premenopausal women as a separate group when addressing potential gender differences in critical care outcome. Our aim was to see if women of premenopausal age have a better outcome following critical care and to investigate the association between gender and use of intensive care unit (ICU) resources.

Methods: On the basis of our analysis of 127,254 consecutive Simplified Acute Physiology Score III-scored Swedish Intensive Care Registry ICU admissions from 2008 through 2012, we determined the risk-adjusted 30-day mortality, accumulated nurse workload score and ICU length of stay. To investigate associations with sex, we used logistic regression and multivariate analyses on the entire cohort as well as on two subgroups stratified by median age for menopause (up to and including 45 years and older than 45 years) and six selected diagnostic subgroups (sepsis, multiple trauma, chronic obstructive pulmonary disease, acute respiratory distress syndrome, pneumonia and cardiac arrest).

Results: There was no sex difference in risk-adjusted mortality for the cohort as a whole, and there was no sex difference in risk-adjusted mortality in the group 45 years of age and younger. For the group of patients older than 45 years of age, we found a reduced risk-adjusted mortality in men admitted for cardiac arrest. For the cohort as a whole, and for those admitted with multiple trauma, male sex was associated with a higher nurse workload score and a longer ICU stay.

Conclusions: Using information derived from a large multiple ICU register database, we found that premenopausal female sex was not associated with a survival advantage following intensive care in Sweden. When the data were adjusted for age and severity of illness, we found that men used more ICU resources per admission than women did.

Swedish Intensive Care Registry

Annual Report on our website

www.icuregswe.org

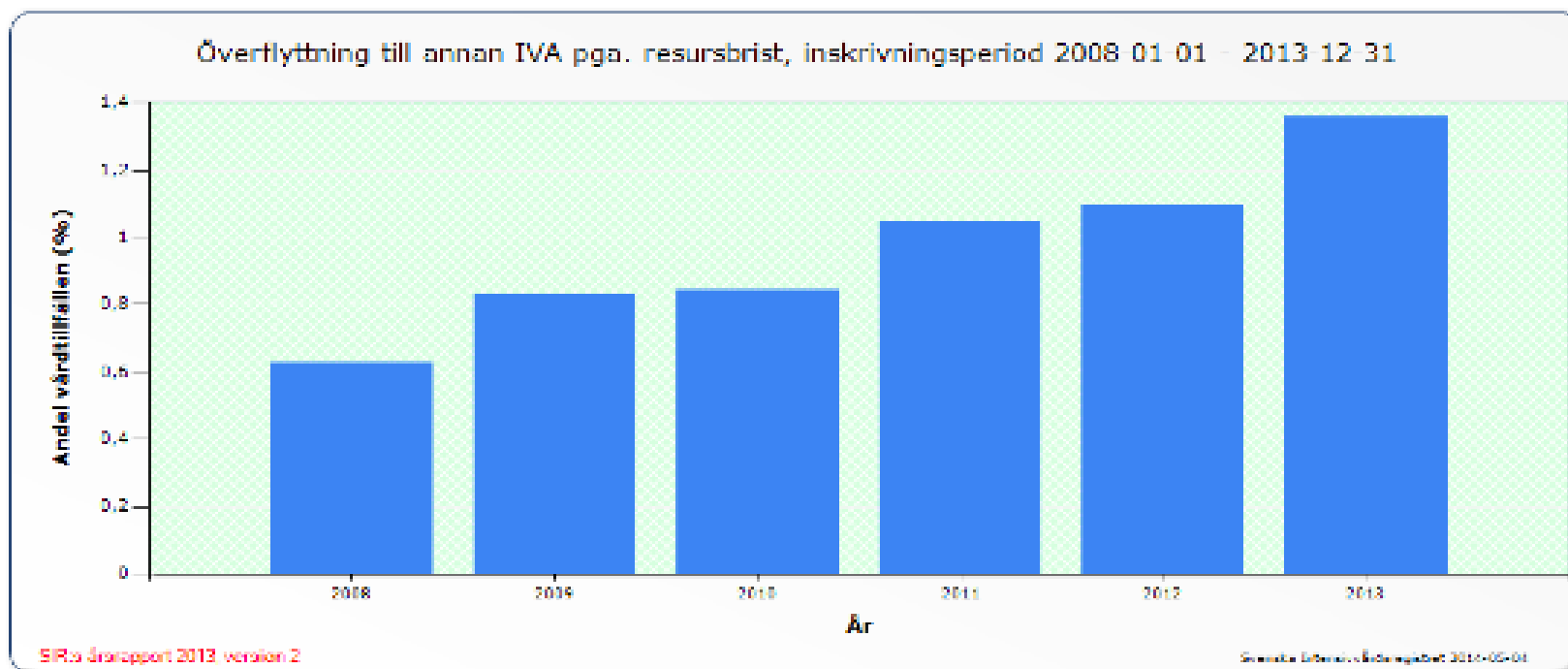
Open Comparison

National summary of all quality registries



Finding the “hot topic”

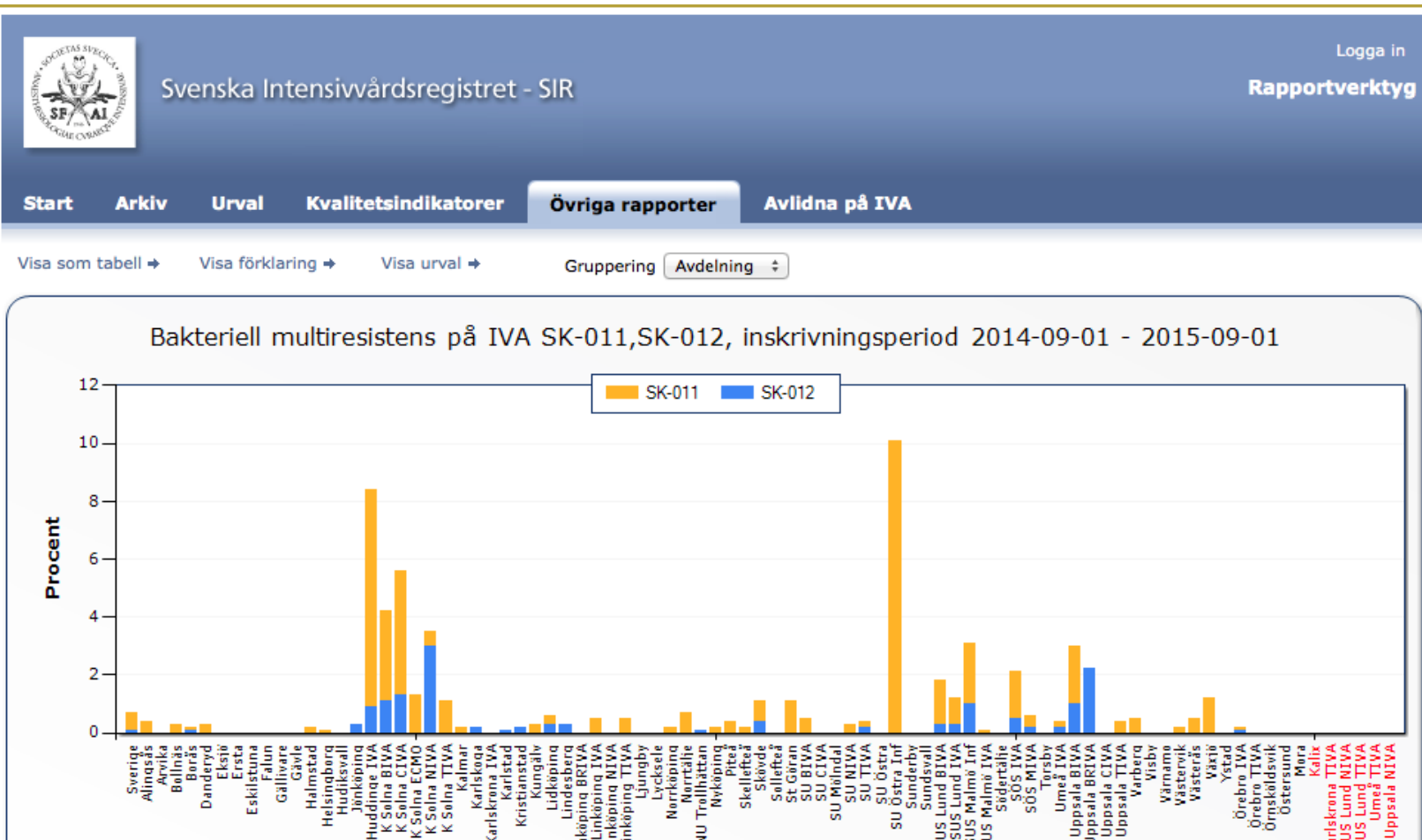
Discharge to another ICU because of resource scarcity
Annual report 2013 – media storm!



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Figur 3. Andel vårdtillfällen med överflyttning till annan IVA pga. resursbrist 2008 – 2013

Open access – for everyone



National focus

- Swedish Assoc. of Local Authorities and regions: all public service on local level
- Öppna Jämförelser (Open Comparisons)
- Quality indicators to visualise and rank caregivers
- All aspects of health care



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Swedish Association of Local Authorities and Regions

Members and employers' organisation

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Open comparisons



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Publicerad: 18 juni 2015  [Lyssna](#)

Hälsa, sjukvård




Hälsa, sjukvård

E-hälsa 

Folkhälsa 

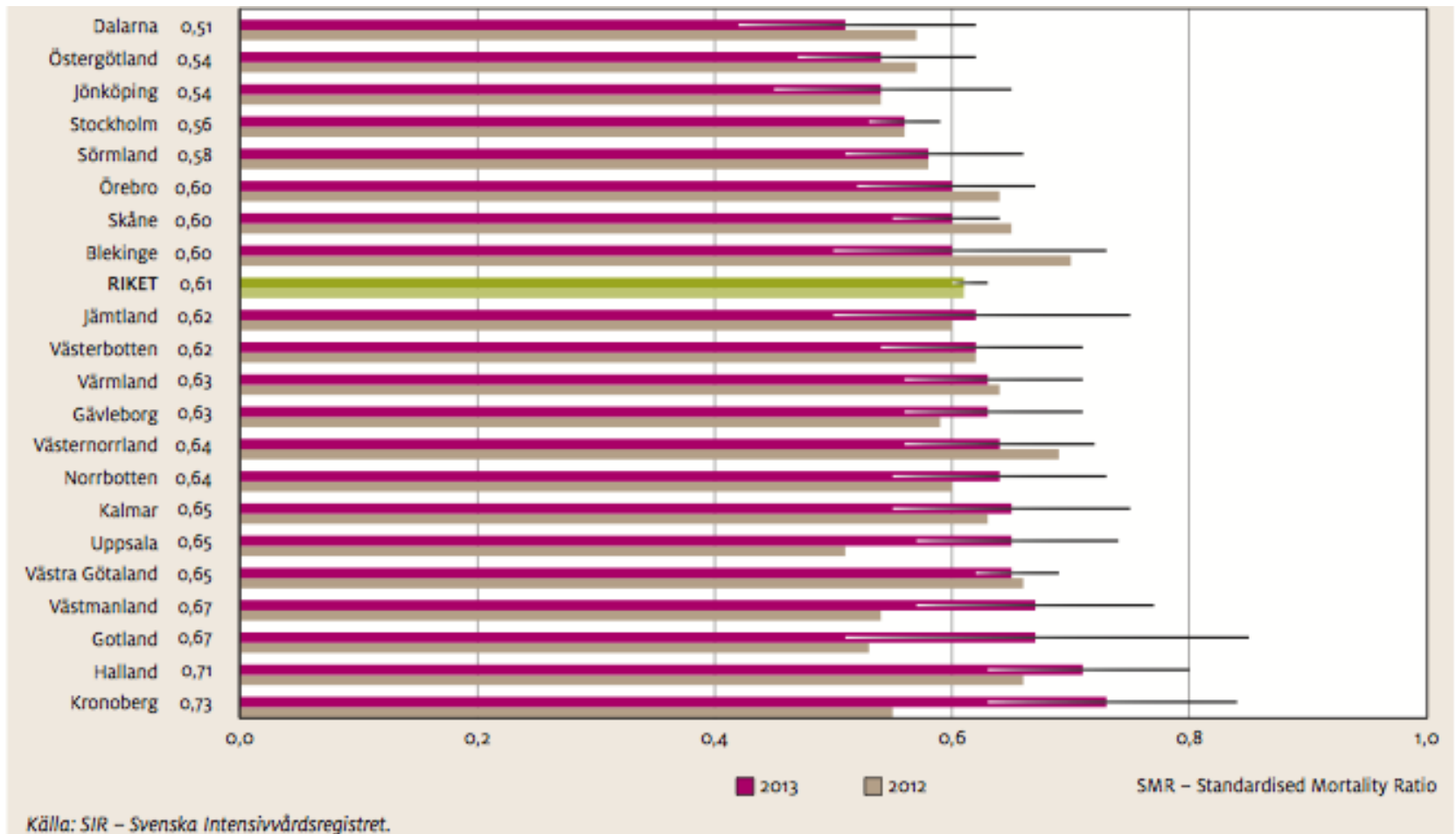
Jämlik vård och hälsa 

Kunskapsstöd, vård och behandling 

Läkemedel 

Patientinflytande 

Risk-adjusted mortality 30 d after admission (open comparison)



Dilemma – high quality data - underutilised

- Clinical directors need data
 - Internal audit
 - Quality improvement
 - Comparison w/ others
- How can your quality registry help?
- Funding 2015: 212 Mkr = 16,5 M pounds
 - 2016: cuts to 108 Mkr - ranking

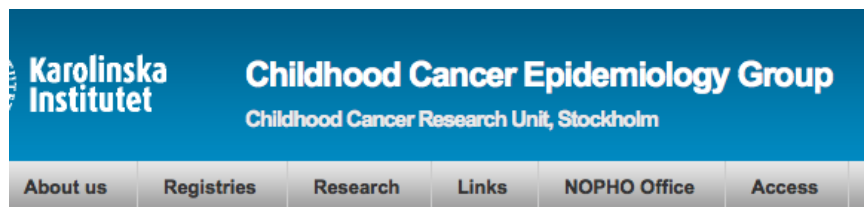
SKL initiative

- Situation recognised by authorities
- Agreement w/ government -> project
- Regional quality centers (6)
- Support registries in increasing validity, educating members in using out-data
- Aim: develop Qreg to become a tool for improving health care processes, follow up and research

Quality Registry Center

- 6 centers in Sweden: support registries
 - Technical
 - Statistics
 - Collaboration w/ other registries
 - Education:
 - coaching
 - teamwork
 - quality improvement
 - leadership

Quality registries



QR Project 2012-16

- Focus: eliminate double registering and make out-data more user-friendly
- Certifying = level 3-1, with increasing demands on quality
- K = registry candidate; “newcomers”
- 89 registries, 18 candidates funded 2015

Certifying – level 1

- Guidelines
- Open Comparison – data
- Coverage
- Patient information @ website
- Research and publications
- Member satisfaction – enquiry
- Expert review
- Validated data

**SIR Dec.
2014**

QRC Stockholm

- SIR one of 13 registries
- Several members educated, started quality improvement projects
- Collaboration w/ Dartmouth Institute
Microsystems Academy
- Leaders, co-workers and patients together



MICROSYSTEMS IN HEALTH CARE

WHAT IS A MICROSYSTEM?

Clinical microsystems are the essential building blocks of larger organizations and of the health system. They are the place where patients, families, and care teams meet. Clinical microsystems do the real, hands-on, value-added work within an organization. They are living units that change over time and always have a patient (person with a health need) at their center. Clinical microsystems must find ways to improve and innovate on a day-to-day basis if they are to thrive in a changing environment (*Value by Design*, p. 315).



SIR experience

- 4 ICU's educated by QRC Sthlm
- Project topics:
 - Reduce invasive ventilation
 - Decrease SMR
 - Analyze deceased who received treatment restrictions during ICU stay
 - Etc.

“This is the way to work with quality registry data” (Christina Agvald Öhman, SIR)

QRC Stockholm Coachingakademi

FÖRBÄTTRINGSARBETE MED STÖD AV KVALITETSREGISTER

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[HEM](#) > [NYHETER](#) > [INTERVJUER](#) > - DET ÄR SÅ HÄR MAN SKA JOBBA MED KVALITETSREGISTER.

- Det är så här man ska jobba med kvalitetsregister.

BY JENNYNBORK on 5 MARS, 2015



Vi ställde några frågor till Christina Agvald- Öhman som är ordförande i Svenska intensivvårdsregistret – SIR. Christina är med under denna omgång som registercoach till tre team och hon gick även själv coachutbildningen förra året.

Hur skulle du beskriva kvalitetsregistrens roll i förbättringsarbete?

- Jag tror det blir allt viktigare. Vi går nu ifrån att vara register som samlar data, vilket är nödvändigt i

QRC Stockholm

QRC **STHLM**
Kvalitetsregistercentrum

Microsystem Academy

microsystem academy

Sheffield Micro System Academy

MCA
Sheffield Microsystem
Coaching Academy

Patient representative

- Involving patients and next-of-kin
 - Required by health department
- Patient's experience and input
- SIR is currently establishing
- QRC offers education for pt repr.

ICU Follow-up

- A separate data collection; web based
- Reported in annual report and separate patient/family version
- > 16 yrs, \geq 96 hrs
- SF-36 scale
- 2-6-12 mo after
 - Outpatient or questionnaire
- 2 R.N. work part-time w/ follow-up at SIR
 - Lotti Orvelius, Eva Åkerman

ICU Follow-up

- Early contact (5-10 d) with pt. on ward
- Outpatient visit 2 mo after discharge (family member or friend accompanies)
- SF-36 and other data is registred
- Re-visit 6 och 12 months post-discharge

- Photo diary
- Other issues: PTSD, memories, sleep
- Visit the ICU
- Meet PT, social worker, other staff, if desired

Research network seminar

- New forum for critical care researchers to “mingle”
- Nov. 2015 at Swedish Intensive Care Society annual meeting
- Aim:
 - catalyze new constellations
 - promote registry data usage for medical student and resident (trainee) quality projects

Registry Annual Meeting

- Member input for development:
 - i.e. web-based learning tool for correct diagnosing
- Teaching sessions
- Working groups: pedi, neuro
- 2-way channel: members' voice
 - “Mentometer”

Other ways of support and communication

- Site visits: hands-on problem solving and brainstorming
- “Hot-line” personal guidance
- On-line support – FAQ
 - Visible for all

Summary

- The Swedish Intensive Care Registry is aiming to move from good quality data to become
 - More open
 - More exciting
 - More including

2016 Svenska Intensivvårdregistret