

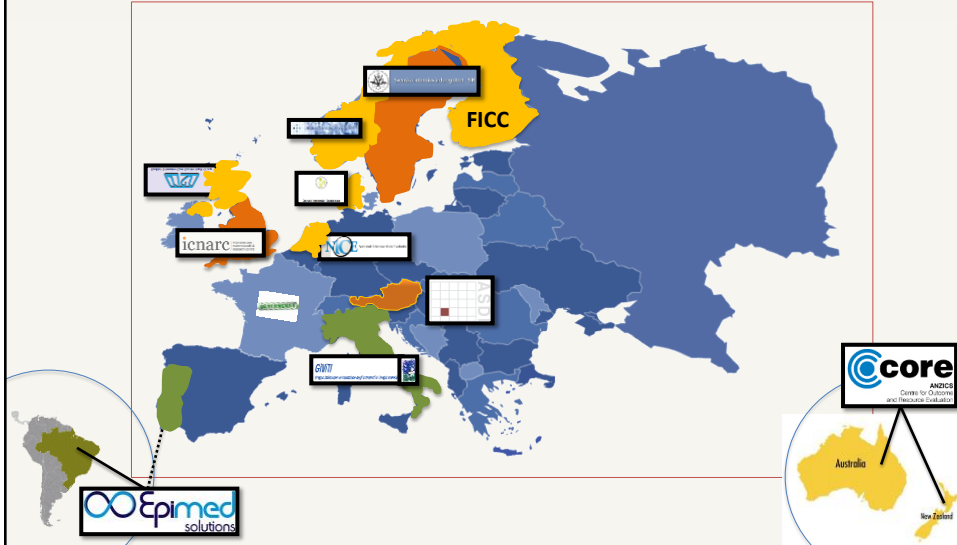
National ICU registries

Vergadering registratie ICU – Réunion
registre SI
October 2015

What is a national ICU registry

- No universal definition
- A registry confined to one country (mostly)
 - Covers at least 75% of all ICU admissions
- Funded and/or supported by national authorities
- Continuous registration of all ICU admissions using a common template
- Central data collection (database) with dedicated registry personnel
- Regular output (internal and external)
- Data available for various stakeholders

According to this definition: 8 countries



Dataset setup



- Minimal dataset



Minimal + extra modules

Information available

| Registry | Homepage | Language | Open access? | Hospital disclosure |
|----------|----------|----------|--------------------------|---------------------|
| ICNARC | Yes | Eng | Partial | No |
| SIGSAG | Yes | Eng | Yes (annual report) | Partial |
| NICE | Yes | Dutch | Yes (annual report) | Partial (-4) |
| ASDI | Yes | German | No | No |
| FICC | No | - | - | - |
| NIR | Yes | Nor | Yes (annual report) | Yes |
| Sir | Yes | Swe | Yes (annual report, +++) | Yes |
| DID | Yes | Dan | Yes (annual report) | Yes |
| GiViTy | Yes | Ital | No | no |

SINGAPORE

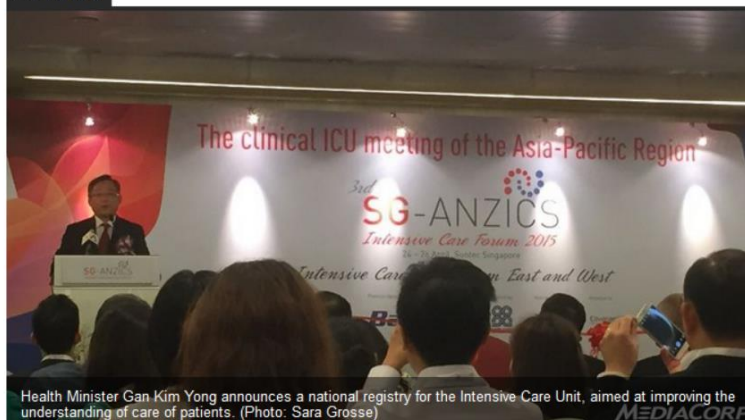
Intensive Care Unit data across hospitals to be standardised with new registry

Under a pilot that was started last year, there will be a national set of data to help improve the understanding of care of patients in Intensive Care Units.

By Sara Grosse, Channel NewsAsia

POSTED: 22 Aug 2015 14:07 UPDATED: 25 Apr 2015 00:41

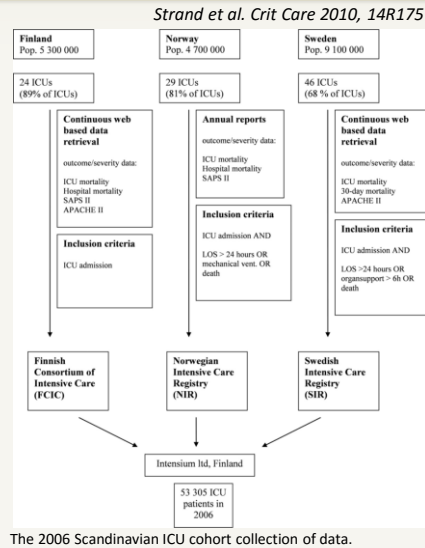
PHOTOS



Health Minister Gan Kim Yong announces a national registry for the Intensive Care Unit, aimed at improving the understanding of care of patients. (Photo: Sara Grosse)

Tri-registry Scandinavian ICU cohort

- 10 yrs ago
- Trivial starting point:
 - Short ICU LOS in reports from
 - Representative data?

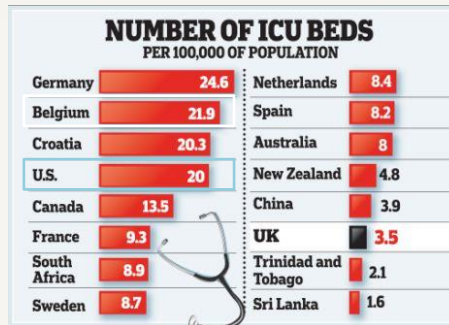


Tri-registry Scandinavian ICU cohort

- Difficulties:
 - No common dataset
 - Varying definitions..

| | Finland | Norway | Sweden |
|-----------------------|--------------------|---|--|
| Inclusion | All ICU admissions | ICU stay>24 hrs OR mech vent OR death | ICU stay > 24hrs OR organ support>6hr OR death |
| Classification | AP IV categories | SAPS II categories | AP II categories |
| Risk adjustment Model | AP II, SAPS II | SAPS II | AP II (SAPS 3) |
| Resource use | ICU LOS, TISS | ICU LOS, NEMS, NAS | ICU LOS, NCR11, NEMS |
| Outcome | ICU, Hospital | ICU, Hospital | ICU, 30 days |
| Limitations of care | | | |

Differences between countries

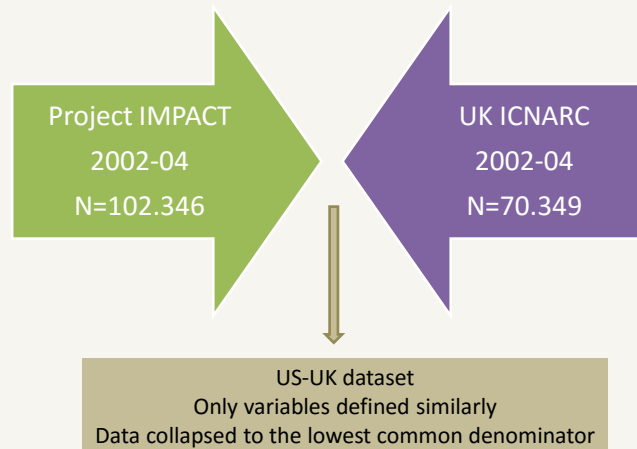


? How does this large difference in provision impact patient characteristics and outcomes?

Comparison of Medical Admissions to Intensive Care Units in the United States and United Kingdom

Hannah Wunsch^{1,2}, Derek C. Angus³, David A. Harrison⁴, Walter T. Linde-Zwirble⁵, and Kathryn M. Rowan⁴

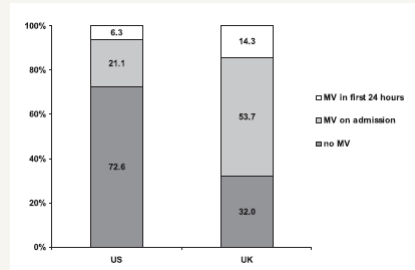
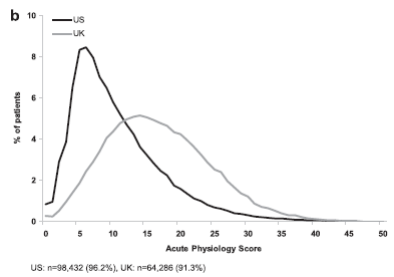
¹Department of Anesthesiology, and ²Department of Epidemiology, Columbia University, New York, New York; ³The CRISMA Center (Clinica Research, Investigation, and Systems Modeling of Acute Illness), Department of Critical Care Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania; ⁴Intensive Care National Audit and Research Centre, London, United Kingdom; and ⁵ZD Associates, Perkasie, Pennsylvania



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TABLE 2. LENGTH OF STAY AND PRIMARY HOSPITAL OUTCOMES FOR MEDICAL ADMISSIONS TO GENERAL ICUS IN THE UNITED STATES AND UNITED KINGDOM

| | United States | United Kingdom | P Value |
|--|----------------|-----------------|---------|
| ICU length of stay (d), median (IQR) | 1.9 (1–3.8) | 2.5 (0.9–6.6) | <0.001 |
| ICU length of stay (d), mean (\pm SD) | 3.5 \pm 5.2 | 5.8 \pm 10.1 | <0.001 |
| Primary acute hospital length of stay (d), median (IQR) | 6 (3–11) | 10 (3–24) | <0.001 |
| Primary acute hospital length of stay (d), mean (\pm SD) | 9.4 \pm 11.7 | 19.3 \pm 27.9 | <0.001 |
| ICU mortality, % | 10.3 | 29.2 | <0.001 |
| Primary acute hospital mortality, % | 15.9 | 38 | <0.001 |
| Survivors destination after discharge from ICU, % | | | |
| Floor | 66.5 | 66.3 | <0.001 |
| Intermediate care | 17.8 | 15.7 | |
| Other | 15.7 | 17.7 | |
| Survivors destination after discharge from primary hospital, % | | | |
| Another acute hospital | 6.1 | 23 | <0.001 |
| Skilled care facility | 29 | 6 | |
| Normal residence | 64.8 | 71 | |

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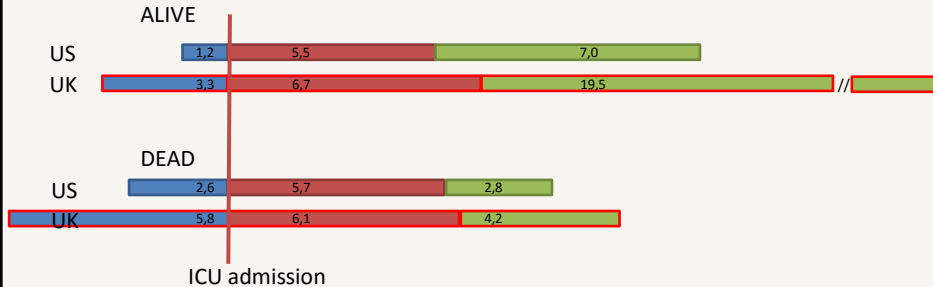
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Length of Stay depending on country:

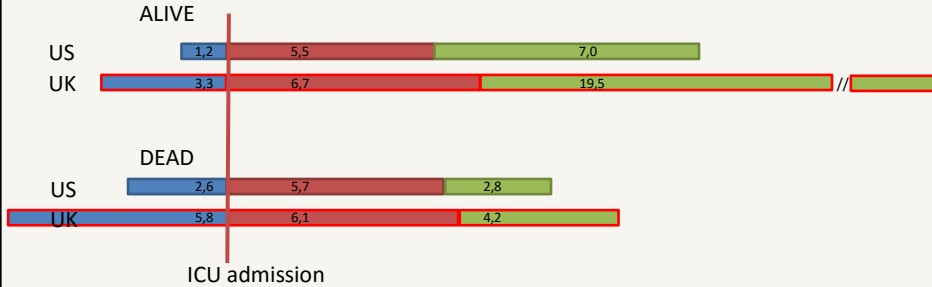


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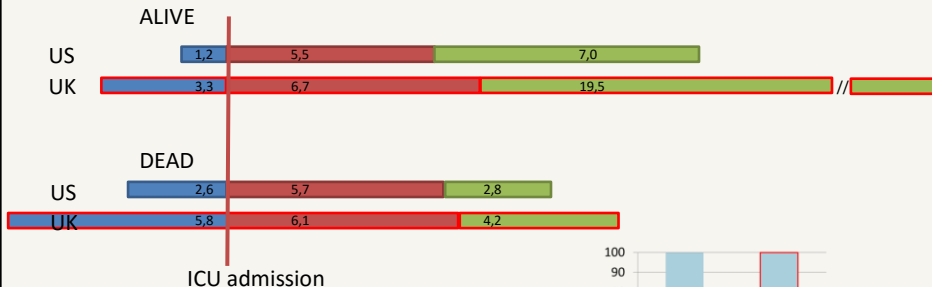
| Source of admission | US | UK |
|---------------------|-------|-------|
| Emergency Room | 58,0% | 33,4% |
| Hospital Floor | 17,5% | 36,9% |
| Other hosp | 1,8% | 6,1% |

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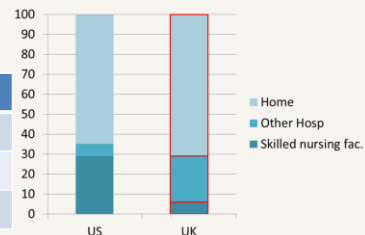
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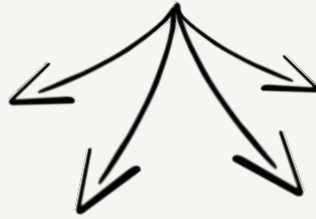


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Feedback performance

Introspection



National discussion day

*Multi Disciplinary
Team Meeting*

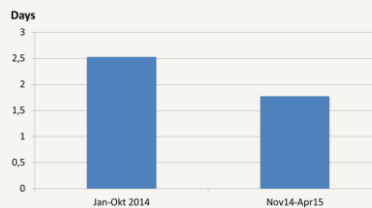



Registry data for Q improvement

- Swedish IC Registry
 - Target: Reduce ventilator days
 - Collaboration between
 - ICU (Uppsala Ak Univ Hosp)
 - SIR
 - QRC (Stockholm)
 - The Dartmouth Institute

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ERIC
European Registry of Intensive Care



ESICM
EUROPEAN SOCIETY OF
INTENSIVE CARE MEDICINE

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New Registry Submission
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Reports
About
Contact

Welcome to the European Registry of Intensive Care Medicine - ERIC

The European Registry on Intensive Care is intended to be a unique source of information about the structure and interests of European ICUs. The goal is to develop a high-quality database which represents European ICUs as accurate as possible.

To submit data to the registry, please click the button to the right.

New: You can now [login](#) to keep your data up to date.

ERIC
European Registry of Intensive Care

Home Registry Submission About Contact

Registry Submission

D - Research
Optional fields are marked with a *. All other fields are required.

Have you participated in research activities in the ICU during the last?

Yes

No

Submit to the Registry

- Founded in 2000, data from every ICU

Evaluation Finnish ICU consortium

- Finland, Switzerland
- Strategic aims: quality improvement, research
- Initiation of Db: 1990's
 - Initially founded by Finnish ICU clinicians, manually, 1FTE → 0,8 FTE
 - Now all automated (< PDMS), checked by senior physician
- Private organisation: consortium (FICC)
 - Intensium → TIETO software delivery (linking PDMS – Db)
 - Storage data in the cloud
- Personnel
 - 6 board members: physicians < 35 Finish ICUs (100%)
 - Biostatistician paid by consortium, working with TIETO (no personel on pay roll by consortium)

Evaluation Finnish ICU consortium

- Data collection: quarterly
- Data cleanage:
 - red flag if out of range
 - no warning in case of missing data
 - No procedure for bad data collection
- Dataset:
 - Core dataset (comorb, SAPS II, AP IV, SOFA, adm, location, monitoring, admission diagnosis (daily dx voluntary), outcome)
 - Periodic datasets, voluntary (Finn AKI, Finn ALI,...)
 - Centres own the data.
 - The data which is transferred to the consortium stays there.
- Research:
 - Without the permission of centres, unless identification of centres is possible.

Evaluation Finnish ICU consortium

- **Anonimisation level:**
 - Anonymous, but birth day included.
 - PDMS number as patient nr
 - Re-identification possible only on site
 - No informed consent
- **Benefits for participating centres:**
 - Reports free available on website, no yearly report at country level
 - Query creation (basic)
 - Benchmarking, open (10 yrs)
 - Quality improvement by benchmarking
- **Annual meeting**
 - Every 6 months, for QI and research