



Federal Public Services

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Moving away from traditional networks towards interactive dataset sharing

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How does my unit perform?



« If you cannot
measure it, you
cannot improve it »

Lord Kelvin

1824-1907



Quality control in medical care depends on the College of Physicians: Royal Decree 15/2/1999

Missions

- Define Quality Indicators and Evaluation Criteria
- Use a Electronic Registration
- Organize Control of Data
- Annual Report
- Financial report
- Feedback to the Units

Participation: voluntary basis

What is an efficient network ?

- Feedback to the units ➡ improve quality
- Analysis of the database ➡ relevant findings to implement new medical protocols and care policies
- Network is a partner for research projects to improve safety and efficient treatments

How to reach an efficient network?

- **Data: relevant, anonymous and clean**
- **Participating units: motivated by stimulating feedback**
- **Longitudinal evaluation**

Effects of actions

AIM: TO SHOW

How new IT tools utilised **on line** can modify the traditional vision of databases and networks



- Harmonisation of anonymous datasets allows very large international comparisons
- Big data can be analysed on line with a very high speed
- Individual units can interact in a dynamic way



eNewborn software

Primary Dataset: EuroNeoNet

- Interactive benchmarking and drilldown
- Includes the surveillance of nosocomial infections (NeoKiss- Belgium) and Follow-up
- Allows multi-level comparisons: regional, national international with one single login

Innovative:

- *Individual user: can perform personal research and question the database with aggregated data*
- *Combinations of study population with multiple filters*
- *Automated reports and statistics*

Belgium: participation of the NICUs increased from 60 to 100% after 3 years



Neonat Search

Search

Nic

Year

List

London Hospital demo0 Number of lines: 79

Year	Id	Ref.	Disposition	Weight	GestAge	Sex	M.Birth	In/Outborn	Auth.	Valid
2014	1	99700_2014_1	Home	1496	36+4	Female	No	Inborn		Yes
2014	10	99700_2014_10	Home	530	26+5	Male	No	Inborn		Yes
2014	11	99700_2014_11	TransferredToAnotherHospital	844	26+0	Male	1/2	Inborn	xy	Yes
2014	12	99700_2014_12	Died	921	25+0	Male	No	Inborn		Yes
2014	13	99700_2014_13	Died	923	25+0	Male	No	Inborn		Yes
2014	14	99700_2014_14	Home	1212	28+0	Male	No	Outborn		Yes
2014	15	99700_2014_15	Home	971	32+0	Male	2/2	Inborn		Yes
2014	16	99700_2014_16	Home	1807	31+5	Female	No	Inborn		Yes
2014	17	99700_2014_17	Home	1557	30+6	Male	No	Inborn		Yes
2014	18	99700_2014_18	TransferredToAnotherHospital	1393	32+0	Male	2/2	Outborn		Yes
2014	19	99700_2014_19	Home	1389	30+0	Female	No	Inborn		Yes

Example of automated on line report

NeoKiss PDF

Surveillance of nosocomiales
infections

Conclusion

Benefits of shared webbased datasets with state of the art on line technology among neonatal networks

- Quality improvement at unit, regional, national and international level
- Stimulator for clinical research projects at all network levels
- Collaborative platform for new treatments

Ex.: use of existing information to identify patient populations for specific treatments (ex. surfactant, ROP, BPD etc)

Conclusion

First steps for innovative international collaborations in neonatal datasharing have been taken

- datasets from UK, France and Belgium are harmonized and shared in a unique webbased platform eNewborn with top of the art internet tools for fast online treatment of large databases

Further development of dialogue interfaces of defined datasets (or on line registration of those) and using internet power could prove to be a major step towards new approaches in collaborative evaluation of neonatal treatments and regulations



The baby's
alright-
demanding a
computer



THANK YOU

Youtube link to eNewborn demo

<http://youtu.be/0lbIR0-sRuQ>