ACENDIO 2013

9th European Conference of ACENDIO

E-Health and Nursing – Innovating for the Future

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E-HEALTH AND NURSING

Innovating for the Future

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E-HEALTH AND NURSING

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Message from the President of ACENDIO: going from E to M

Terminology is moving. What we used to call health informatics in the past, is changed in the last 10 years into eHealth. And we all know that our words are changing the way we think. eHealth is indeed a much broader concept and shows that the new technology is everywhere and embedded in all health processes. Just put an e in front of every word such as eID, ePrescriptions, eCare and you see a variety of new possibilities in front of you. The same will happen when we would launch the concept of eNursing. It would generate new perspectives on how nursing can be practiced within this new eHealth environment. It will have its impact on patients, the work of nurses, system requirement, governance, education and research. We are proud that ACENDIO is contributing to this in writing an eHealth and nursing strategy for the future. We discussed this in last conference and workshops in Dublin, Reykjavik and Torino. We will present the results during the Dublin conference. But the work will continue as the rapid development of technology in the field of mobile technology such as smartphones, tablets, apps, clouds and social media initiate a shift from eHealth into mobile Health (mHealth). mHealth is bringing the new world of technology in the reach of all patients and all practitioners, young and old, all around the globe. The 9th Biennial ACENDIO conference in Dublin will indeed lead us into the future of healthcare. We have a great programme for you with high level keynotes and more than 50 interactive sessions. I hope that you enjoy the conference, the networks, the friendship and the great Dublin hospitality. I wish you a good and inspiring conference.

Prof. Walter Sermeus

Message from the Chair of the Scientific Committee

I am proud to present you the proceeding of the European Conference of ACENDIO. The conference is exploring the state-of-art in worldwide e-health initiatives in nursing, describing best practice and looking for evidence of how these can contribute to five major goals: patient safety, quality of care, efficiency of care nursing service provision, patient empowerment and continuity of care.

Both themes are pertinent. E-Health is advancing at great speed, providing a wide range of digital solutions that are essential for health care innovations. At the same time, there is increasing awareness of quality and patient safety given the number of medical errors and adverse events that occur every year in hospitals and other healthcare settings. One of the main priorities in patient safety research, given by the WHO Alliance for Patient Safety in 2009, is that of coordination and communication. There is evidence that good teamwork, supported by high qualitative interprofessional communication and mutual respect, is leading to better quality of care, more patient satisfaction and shorter length-of-stay in hospitals.

This is what this conference is about: how nurses can take advantage of this growing digital e-health environment to take better care of their patients. In total 143 abstracts were submitted for the conference. Based on a scientific review process, we selected 48 oral presentations, 53 poster presentations and 3 workshops. I wish to thank all reviewers for their contributions to guarantee a high scientific standard for the conference. I would also like to thank all presenters for their

contributions to the conference. I wish all participants a good and inspiring conference.

Prof. Anna Ehrenberg

Greetings from the Chair of the Conference Committee

On behalf of the Conference Committee for the 9th International Conference of ACENDIO, I would like to welcome you to the Dublin, Ireland. In my 15 years of involvement with ACENDIO, I have always wanted to host the conference in Ireland and this became a reality in 2013. In a time of economic recession and public service cut-backs it is a moment of joy to welcome so many colleagues and experts to our beautiful and historic country.

This is a particularly apt time for the conference to take place in Ireland as Ireland holds the EU Presidency in the first half of 2013 and will host the EU eHealth Summit in May 2013. This will again bring informatics expertise together in Dublin and will be an impetus for the ongoing introduction of eHealth and informatics within our health system.

I would like to take this opportunity to thank all our keynoye speakers, and presenters and, of course, the participants, for the commitment and dedication demonstrated. I would also like to thank our colleagues in the Irish Nurses and Midwives Organisation and in the Healthcare Informatics Society of Ireland, who supported us and helped to make this conference successful.

Dr. Fintan Sheerin

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3. The development and validation of nursing related groups based on the Belgian Nursing Minimum Dataset.

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Background

Diagnosis Related Groups (DRGs) are the dominant patient classification system to describe patient care in hospitals. It is used for financing and reimbursement and management. There is

however strong evidence that nursing care is not well explained by DRGs. Explained variability of nursing costs by DRGs varies between 15% and 20% (Laport et al., 2010). On the other hand, it has been shown that nursing care and DRGs are complementary in explaining patient length of stay, hospital charges and even mortality or admission ratios (Welton & Halloran, 2005).

Belgium has since 1985 a long tradition in the systematic collection of nursing data in the Belgian hospitals through the Belgian Nursing Minimum Dataset (B-NMDS). In 2008, a second version of the B-NMDS was introduced in all Belgian hospitals (Sermeus et al., 2005) including 79 items. The item list was based on the Nursing Intervention Classification (Van den Heede et al., 2009). In 2009 a study was commissioned by the Belgian Ministry of Public Health to integrate this new B-NMDS into the Belgian hospital reimbursement system.

Research Aim

The aim of this study is to develop and validate nursing related groups (NRGs) from the Belgian Nursing Minimum dataset.

Methods

The study is using a mixed methods design. Based on the available B-NMDS data from 2008 and 2009 (N=1 378 326) nursing care profiles on the level of care episodes will be grouped into Major Nursing Categories (MNCs) and NRGs. Care episodes were defined as the time that the patient spend on a nursing ward during a 24-time period. The duration can be shorter than 24 hours on the day of admission, discharge or transfer. MNCs are grouped using cluster analysis. NRGs are developed within MNCs using

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classification and regression tree (CART) algorithm. Target variable for the decision tree was nursing intensity per care episode. The validity of the grouping into MNCs and NRGs was tested comparing the results of testing and evaluation datasets. The stability was tested by comparing the grouping structure based on the 2008 data and on 2009 data.

Next to the statistical analysis, three committees have been installed: a clinical committee to clinically validate the MNCs and NRGs, an organisation committee to validate the cost-weights assigned to each NRG. These cost-weights were based on nurse staffing levels and skill mix. Two Delphi-studies supported group work. The first Delphi-study aimed to allocate a nursing intensity weight and competence level to all items in the B-NMDS. The Delphi study ran by e-mail. In total 678 nurses and midwifes participated in the panel. A second Delphi-study aimed to allocate nurse staffing and skill-mix level to each NRG. In this Delphi-panel 140 nurses and midwifes participated.

Findings

Eight MNCs and 92 NRGs have been identified. Examples of MNCs and NRGs will be shown. The results of the validity tests will be presented

Implications

NRGs result in a valid grouping technique that can be used for hospital reimbursement purposes