Minutes of the Meeting of the Working Group on Quality Improvement

held at the 25th annual ESICM Congress in Lisbon (Congress Center Lisboa)

Date: Monday, 15th October 2012
Time: 09:00 – 10:30
Location: Room BM6

Attendents: Bertrand Guidet, Akos Csomos, Adrian Frutiger, Maria Foka, Otavio T. Ranzani, Theodoros Kyprianou, Andreas Valentin

The meeting was aimed to prepare and discuss the recent project of the WG on Quality Improvement – a study on the “The safety of intra-hospital transport of ICU patients (SEE 3)”.

Andreas Valentin explained briefly the background and objectives of the study to the new attendents:

Background:
Intra-hospital transports (IHT) of ICU patients have been shown to constitute a weak point in patient safety (see e.g. Benoit Fanara et al., Critical Care 2010). There is a large variation in the organization and execution of intra-hospital transport of ICU patients. It is likely that such variations are associated with the occurrence of critical incidents during the intra-hospital transport of ICU patients. If this is true it should be possible to identify preventive measures with respect to patient safety during such transports.

Objectives:
- Primary objectives: to determine the frequency, characteristics, and contributing factors of sentinel events during the intra-hospital transport (IHT) of ICU patients.
- Secondary objectives:
  - to assess the impact of organisational and environmental factors
  - to identify preventive measures to increase the safety of intra-hospital transports of ICU patients
  - to encourage awareness for safety problems during the intra-hospital transport of ICU patients in participating intensive care units.

After this short introduction a recent development was reported. The Research Institute for Health Care Management and Health Economics of the Vienna University of Economics and Business will join this project. The institute has extensive experience in research on safety culture and has developed the Vienna
Safety Culture Questionnaire. The proposal is now extended and will add to the SEE3 study an additional objective – the assessment of Safety Culture in participating ICUs and the assessment of environmental factors like the composition of transport teams and their related safety attitude (see figure below).

**Environment and team factors**

<table>
<thead>
<tr>
<th><strong>Environment (equipment and organisation)</strong></th>
<th><strong>(Quasi)constant (single survey)</strong></th>
<th><strong>Variable (multiple surveys)</strong></th>
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<tbody>
<tr>
<td></td>
<td>policies, staffing, equipment (maintenance), management priorities, safety climate, hospital specialty</td>
<td>transport route, preparation time, urgency, adequate staffing, planned vs. actual process</td>
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<tr>
<td><strong>Team (members)</strong></td>
<td>experience, training, technical &amp; non-technical skills (leadership, communication, decision-making)</td>
<td>level of team familiarity, situation awareness homogeneity, perceived leadership/communication, perceived stress, fatigue</td>
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Besides this new content the Research Institute will bring in the capacity to build a web-based data acquisition and to perform the statistics for SEE3.

The attendees of the meeting agreed with this new collaboration for the SEE3 study and welcomed this new development.

As already agreed in previous meetings SEE 3 will be performed by the following method:

- Multicenter, multinational study
- 2 week observation of IHT in ICU patients
- Measurements: Patients characteristics, transport characteristics, occurrence of critical incidents, event characteristics, grading of severity, clinical impact, contributing factors, preventive measures, safety culture
- Criteria for a IHT: The study will include only transports of patients from the ICU to a therapeutic or diagnostic facility within the same hospital (intra-hospital transport) and the way back to the ICU. The time within the therapeutic or diagnostic facility is not considered as transport. If a hospital has more than one building, a transport is considered as "intra-hospital" only if no public traffic area is touched during this transport.

The observation will assess sentinel events that did or could have harm to a patient. It will be a facilitated assessment on selected sentinel events related to:

- failure of equipment
- failure of power supply
- failure of oxygen supply
- removal of drains, lines
- loss of airway (tube, cannula)
medication error (wrong dose, wrong drug, wrong route)

In addition any significant physiological decline (cardiorespiratory instability) during the IHT will be assessed (RR systol < 90 or > 170 mmHg and/or O2 saturation <90% [more than 1 minute])

The attendees of the meeting discussed several details of the questionnaires that will be integrated in the detailed study protocol. Questionnaires should be available in several languages. A pilot study with < 10 ICUs is planned. The recent and still very preliminary timetable was presented as follows:

- Final study protocol 03/2013
- Pilot + Internet test 05/2013
- Announcement and call for participants: 09/2013
- Start of Registration 09/2013
- SEE 3 study period (14 days) 01/2014

Any suggestions for the SEE3 study or the future work of the WG are more than welcome. Please send any suggestions to andreas.valentin@meduniwien.ac.at.

The next meeting of the WG on Quality Improvement will take place during the next ISICEM Congress in Brussels (March 19-22, 2013). The exact time and location of the meeting will be communicated as soon as available.

Andreas Valentin