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## From the boardroom to the bedside and back

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## Summary

Every now and again, the media report on cases of mismanagement or dysfunctioning medical specialists in hospitals. Despite all the regulations, codes, recommendations and guidelines of how to do it, why do we still see headlines popping up in the media about unsafely hospitals? Reports about these cases often start with the question: “Where does the responsibility of the medical specialist end, and where does it begin for the executives and trustees?” or “How come nobody noticed this failure, or acted upon it sufficiently?” The main reason seems to be that responsibilities for specific quality-related elements have not been divided clearly enough. But also the fact that assuring quality requires quality management that allows professionals to deliver quality care. Below we will answer the main research question and the underlying research questions.

**Main research question: “How does the executive board’s policy follow through to the quality performance at the bed side, and does the information about this performance reach the boardroom for them to optimize their policy?”**

Improve quality of care from the boardroom to the bedside and back. That is, executive boards having quality on the agenda is associated with the implementation of quality management systems. Discussing quality allows them to review and respond to quality performance. This requires doctors and nurses to share information about quality performance, but also about other quality-related issues such as the progression of quality improvement projects. Subsequently, the executive board needs the system to gain information about where the hospital is going on the path to quality of care, and the system needs the board to gain momentum throughout the organisation by promoting and pushing the hospital’s quality agenda.

**How is the hospital governance taken shape in the Netherlands and does it affect quality performance?**

Hospital governance has evolved over the last decades, also in The Netherlands. Research evidence indicates that hospital boards in the past were not necessarily oriented towards improving quality performance, and that a business case for quality was lacking. The aim of Chapter 1 was to describe the hospital governance system in the Netherlands and to determine the quality orientation of executive boards and boards of trustees by means of a web-based survey. In addition, we investigated the relationship between the quality orientation and hospital performance. We observed that there has been a variety of policy guidelines that

promoted good governance. Returned questionnaires from 40 CEOs and 38 chairs of boards of trustees showed that the quality orientation of trustees and executive boards is growing and is widespread throughout many hospitals. However, we were not able to find a relationship between the quality orientation of trustees and executive boards and their hospital's performance. Hence, our conclusion is that executive boards should continue discussing quality performance in the boardroom and future research should focus on investigating the underlying mechanisms of improving the quality of care.

### **To what extent do medical specialists share information with the executive boards, and how are responsibilities for clinical governance divided?**

In many countries, medical specialists are key stakeholders in governing hospitals. This is especially relevant in The Netherlands where about 60% of the medical specialists are not employed by hospitals, but are independent entrepreneurs functioning within the broader hospital organisation. In Chapter 2 we explored whether aspects of clinical governance, i.e. performance information sharing and clear divisions of responsibilities between medical specialists and executive boards, have been taken up by medical specialists and executive boards in the Netherlands. Between November 2010 and February 2011, the chairs of 67 medical boards and 40 CEOs completed an online questionnaire concerning information-sharing and the clinical governance practices. Almost all respondents acknowledged the importance of information-sharing. However, the actual sharing differed by performance information type. Policy/management information was shared more often than patient care information. Similarly, medical specialists differ in responsibility they take for specific clinical governance tasks. In the end, executive boards and medical specialists should make agreements on which quality information is essential to use for policy-making. After all, executive boards have the explicit responsibility for the quality of care. Therefore, our conclusion is that medical specialists should take responsibility for sharing information with their executive board and to be accountable to complying with norms of good practice.

### **How can the implementation of quality management systems be assessed?**

Health care providers invest substantial resources to establish and implement hospital quality management systems. Nevertheless, few tools are available to assess implementation efforts and their effect on quality and safety outcomes. By means of a systematic literature review, our aims in Chapter 3 were 1) to identify

instruments that assess the implementation of hospital quality management systems, 2) to describe their measurement properties, and 3) to assess the effects of quality management on quality improvement and quality of care outcomes. From the initial 5261 references we deemed eighteen papers eligible for inclusion. Instruments to assess the implementation of quality management systems share a core set of domains (e.g. process management, the role of human resources and leadership and analysis and monitoring), although details of conceptualization and methodological rigor differed substantially. The absence of well-established instruments to measure quality management systems and the methodological shortcomings of existing instruments call for further research. Our conclusion is that hospitals can use this mixed method approach to determine their level of implementation, in order to gain relevant information about the areas that require further improvement.

### **What is the association between the board's quality agenda and the implementation of quality management systems?**

Agenda-setting is an important aspect of prioritization, and ultimately for hospital governance. In order to take action, executive boards should receive information about quality performance, review and discuss it during meetings, and make the right decision accordingly. In Chapter 4 we assessed whether there is a relationship between having quality as an item on the executive board's agenda, perceived external pressure (PEP) and the implementation of quality management in European hospitals. Returned questionnaires of CEOs and quality managers and audit data from 155 hospitals from seven European countries (Czech Republic, France, Germany, Poland, Portugal, Spain and Turkey) showed that discussing quality performance at executive board meetings more frequently was associated with a higher quality management system score (regression coefficient  $b = 2.53$ ;  $SE = 1.16$ ;  $P = 0.030$ ). We also found a trend in the associations of discussing quality performance with quality compliance and clinical quality implementation. PEP did not modify these relationships. Our study showed that quality management systems were implemented to a larger extent in hospitals where executive boards had quality on their agenda. Having quality on the executive board's agenda allows them to review and discuss quality performance more often in order to improve their hospital's quality management.

### **What are the arrangements for data collection of performance indicators for external accountability in Dutch hospitals, and how is it used for internal quality management?**

Hospitals are under increasing pressure to share indicator-based performance information. These indicators can also serve as a lever to promote quality improvement and quality performance within hospitals. In Chapter 5 we gained more insight in the arrangements of data collection for performance indicators for external accountability and its use for internal quality management in 14 hospitals in the Netherlands by conducting 72 semi structured interviews with quality managers and medical specialists. Our results showed that hospitals have different approaches to collecting data for performance indicators, and different ways of using, and not using, these data for quality management. Further analyses showed that the level of formalization of the responsibilities and procedures for data collection of the performance indicators was not necessarily associated with a more active use of the same data for internal quality improvement. Factors such as “linking pin champions”, pro-active quality managers and engaged medical specialists seemed to make the difference. In addition, a comprehensive hospital data infrastructure, in terms of electronic patient records and supportive software that contributes to data collection, appeared to be an additional prerequisite to produce reliable external performance indicators that were also actively used for internal quality improvement. Albeit that executive boards should support the implementation of a homogenous data infrastructure that allows performance indicators to be collected and calculated based on reliable data, our study also showed that the use of performance indicators for internal quality management relied to a great extent on ‘linking pin champions’. Our conclusion is that individuals can make a difference when the system is not ready yet, but that the arrangements for data collection need to be better structured to assure sustainable quality of care.

### **Conclusion**

Performing on the highest level of quality is something that all hospitals thrive for. CEOs have the explicit responsibility for the quality of care delivered in their hospital, whilst medical specialists have taken the oath of Hippocrates to do well to their patients. Taking a closer look at Deming’s plan-do-check-act cycle, it is apparent that check is a crucial phase in improvements. Checking how well the current direction of the hospital’s strategies is going begins with delivering good quality of care. But it does not end there. In order to be able to check whether alterations in strategies and internal investments need to be made, CEOs need to

receive and review information about the underlying processes and outcomes. Otherwise, the helmsman steers without knowing which direction the ship is going, and thus not knowing which lines to ease or which way to move the helm to. In other words, information has to come up to the helmsman so that proper measures can be taken adequately. In hospitals, the main duty is to provide good practice at the bed, which means that information from the bedside is essential in steering the hospital into the right direction. In Chapter 5 we saw that the registration in patient records, as well as retracting the information from them, differed tremendously. It varied from one-on-one calculations to rough estimations in determining the score on performance indicators.

To conclude, this thesis showed that executive boards can make a difference in the quality performance. It appeared to matter if quality of care is discussed in the board room, that the quality management system benefits from the engagement of both the executive board and medical specialists, and that medical specialists can contribute by sharing information about quality of care at the bedside all the way to the board room, and use the information for quality improvement initiatives at department level. In the end, quality of care is realized from the boardroom to the bedside and back.