POSTER ABSTRACT

Setting improvement priorities: Importance-Performance-Analysis in care pathways for integrated care

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Introduction: Care pathways are tools to coordinate and integrate care. All care pathways consist of multiple interventions. Adherence to these interventions is sometimes difficult in practice, leading to variation and underuse of care. This leaves room for improvement. An Importance-Performance-Analysis (IPA) helps to set the improvement priorities for integrated care teams. The goal of this presentation is to show the potential of using IPA to identify improvement priorities. This is illustrated with an example on colorectal cancer surgery.

Theory/methods: We performed a retrospective, cross sectional measurement in 12 hospitals in 4 countries to determine the variation and do the IPA in perioperative care for colorectal cancer surgery. Relevant interventions and indicators (e.g. nutritional screening, early mobilization) were determined based on a model care pathway. Data was collected from patient record analysis, and intervention adherence was analyzed.

In the IPA, all interventions from the model pathway were mapped in a matrix. The importance dimension is showed on the Y-axis, and is defined by the strength of the recommendation of each intervention, ranging from 1-5 (cut off ≥3). The performance dimension, on the X-axis, is defined by the adherence rate: in which percentage of patients was the intervention actually performed (cut off ≥70%)? This results in a 2-by-2 matrix, with the top-right quadrant showing interventions that are important and have a high adherence.

Results: In total, 230 patients were included. The overall median protocol adherence was 44% (range 16-75%). Only 1 patient received more than 70% of the recommended care.

The IPA showed only 6 out of 45 interventions in the top right quadrant. Over half of the interventions had an importance of ≥ 3, and an adherence of less than 70%, placing them in the top-left quadrant. This is the quadrant which shows underuse, or ‘missed care’.

Discussion: Our study shows wide variation in perioperative care for colorectal surgery, in 12 European hospitals, and an overall protocol adherence of 44%. This is a serious problem, since a ‘dose effect relation’ between protocol adherence and outcomes has been shown in previous research, where adherence rates of 70% and higher increased survival. Hence the cut off of 70% for ‘importance’.
However, there is ongoing debate about the relevance of all interventions in the protocol. An IPA gives a visual representation of adherence versus importance, and therefore helps in focusing improvement activities.

**Conclusions:** There is considerable variation in perioperative care for colorectal cancer surgery, and low protocol adherence. An Importance-Performance-Analysis is an intuitive and novel approach to visually represent the variation and adherence, and to show the improvement priorities. This method will support integrated care teams to focus their quality improvement initiatives.

**Lessons Learned:**
- Variation and low protocol adherence threaten quality of care
- Importance-Performance-Analysis provides an intuitive way to visualize ‘missed care’
- Setting the cut-off points in IPA can be challenging

**Limitations:** A limitation of our study comes from the retrospective design. Shortcomings in clinical registration may have led to under-documentation, resulting in an underestimation of protocol adherence.

**Keywords:** care pathways; important-performance-analysis; quality improvement