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Improving quality, safety and feasibility of the appointment-booking model for radiotherapy patients

Description: Until February 2013, conventional system for booking of radiotherapy appointments was based on personal communications between patient-pathway coordinator, patient and hospital staff, implying multiple layers of horizontal and vertical information-exchange. The model, consisting of 32 projected communications per case (Figure 1A), was demanding in terms of time, personnel and resources, resulting in suboptimal patient- and staff-satisfaction. Due to its complexity, conventional model was characterized by several potential ports-of-error introduction which could lead to uncertainties in patient management.

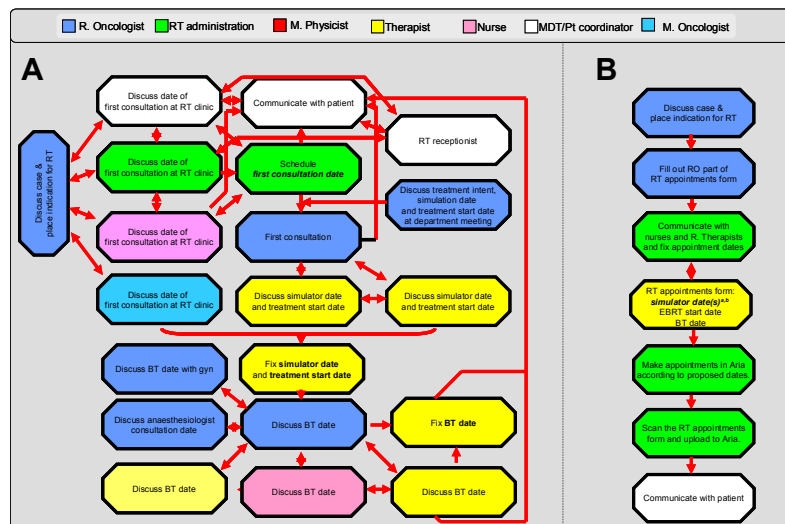


Figure 1. Diagram of conventional (A) and optimized (B) booking model.

Aims: We aimed to optimize the booking system, reducing the quantity of communications needed to schedule radiotherapy-related patient-appointments by 70% until June 2013 and to improve staff-satisfaction and patient safety.

Actions taken: Conventional booking model was reviewed. Process chart, reflecting current practice was created, revealing redundant complexity of several aspects of existent model and identifying the specific steps that required optimization. Next, four “Plan-Do-Study-Act” cycles were undertaken to arrive at an optimized solution. Feasibility of the optimized model was tested in practice from 01. 06. 2013 till 01. 03. 2014. Survey was conducted to assess staff-satisfaction with the process.

Results: Implementation of the optimized booking model resulted in reduction of projected number of work interruptions, phone calls and electronic mails to a total of 6 communications per case (Figure 2), enabling the staff to manage their time more efficiently. The process was streamlined to a single vertical line of communication (Figure 1B), reducing probability of introduction of errors. The staff-survey revealed improvement in satisfaction with the optimized when compared to the conventional model (Figure 3).

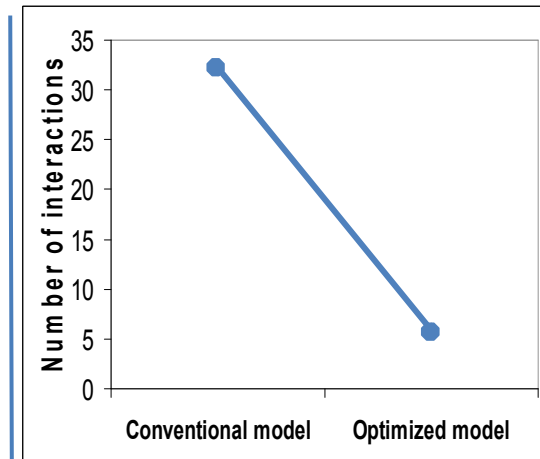


Figure 2 Number of staff interactions per model.

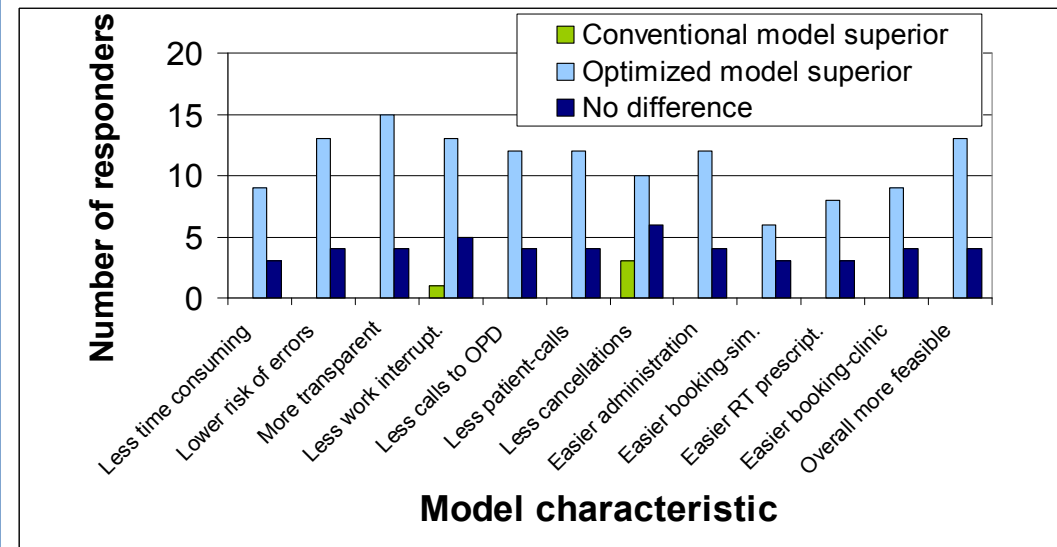


Figure 3. Results of staff-survey: Optimized model was superior to conventional model in all analyzed categories.