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Development of Standardized Technique using EHR to Describe Clinical Processes

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Abstract

This study aimed at the development of a standardized technique, to describe the clinical care process comparison using Electronic Health Record. We divided the clinical process into three parts; input, process, and output. In the care process, the flow chart was automatically made from EHR. There were two methods of record of the process. Event type and continuous type. The event type is a treatment act done single-engined. The continuation type is treatment continuously done. It was thought that this technique was suitable to describe the clinical process.

Keywords:

electrical health record, care process, flow chart

Introduction

It is important to compare content of the diagnosis and treatment process between facilities for the purpose of quality improvement of the medical treatment. For this, the clinical pathway and the clinical indicator have been used. The clinical pathway is prospective approach. Treatment route is first designed, and the one to discuss the result. The other clinical indicator is retrospective approach, and the method of examining the factor that influences in the result.

The method of comparing the diagnosis and treatment processes using EHR (Electronic Health Record) has not been standardized yet. Then, this study aimed at the development of a standardized technique, to describe the clinical care process comparison using EHR.

Methods

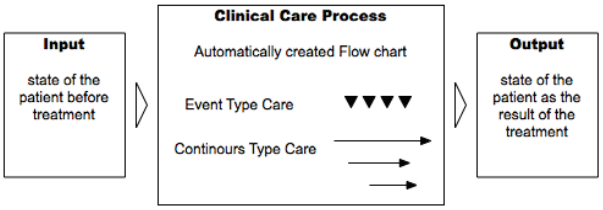
We divided the clinical process into input, process, and output. The state of the patient before the treatment was described in input. The state of the patient as the result of the treatment process were described in output. Flow chart, by the prescribed form, was made automatically from clinical information accumulated in EHR. The record of the patient of neonatal care unit was used.

Result

There were two methods of record of the process. Event type and continuous type. The event type is a treatment act done single-engined, such as endotracheal intubation etc. The continuation type is treatment continuously done, such as respirator and fluid infusion management etc.

Discussion

It was thought that this technique was suitable to describe the clinical process. A quantitative evaluation of the event type process was easy. A qualitative evaluation in the event type process became a problem. It was guessed that the continuation type influenced hospital days.



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