Introduction

BACKGROUND: Quality assurance programs concerning effectiveness of care, different clinical presentations for the same diagnosis may vary the probabilities of achieving a successful outcome. To determine prognostic clinical presentations for the successful treatment of low back pain (LBP), physical therapy records need to accurately document patients’ LBP characteristics and outcomes. The recent introduction of electronic medical records (EMRs) into physical therapy clinics affords physical therapists the opportunity to create physical therapy records in which accurate prognostic information can be easily abstracted.

PURPOSES: The purpose of this investigation was to:
- Improve the frequency of documenting LBP clinical characteristics.
- Improve the reliability of abstracting clinical information from physical therapy EMRs.
- Assess the practicality and usefulness of a standardized LBP evaluation form.

Methods

Research Design

Research Design: Descriptive Study
This study was carried out in two stages:
Stage 1: Patients’ EMRs were abstracted retrospectively prior to the introduction of a standardized LBP evaluation form.
Stage 2: Patients’ EMRs were abstracted retrospectively following the introduction and use of a standardized LBP evaluation form by participating physical therapists.

This study was approved by the Committee for the Protection of Human Subjects at California State University, Sacramento and by the Sutter Health Central Area Institutional Review Committee.

Subjects:
Clinical information from the EMRs of 156 patients receiving physical therapy for LBP was abstracted. 100 records were abstracted prior to the introduction of the standardized LBP evaluation form. 56 records were abstracted following the introduction of the standardized LBP evaluation form.

Therapists:
Seventeen physical therapists participated in Stage 2 of this study by evaluating patients with LBP and documenting their findings on a standardized LBP evaluation form in the EMR.

Protocol:
Twenty-five clinical characteristics identified in the literature as prognostic of developing or improving from LBP were abstracted from patients’ EMRs (Table 1).

Table 1: Prognostic Clinical Characteristics Abstracted From Patients’ EMRs.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Stage 1</th>
<th>Stage 2</th>
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<tbody>
<tr>
<td>% of characteristics present ≤ 80% of time</td>
<td>11 of 21</td>
<td>0 of 22</td>
</tr>
<tr>
<td>% of characteristics reliably abstracted ≤ 80% of time</td>
<td>5 of 21</td>
<td>0 of 22</td>
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Considerations: Centralization of symptoms and presence of a psychological/belief avoidance characteristics were only documented when present, not when absent, so we were unable to determine the frequency which these characteristics are documented by physical therapists. Therapists’ feedback concerning the standardized LBP evaluation form (n=6 of 17):
- All therapists felt performing LBP evaluations using the standardized form took extra time.
- Three therapists felt the form included all appropriate clinical information. Specific suggestions for improvement included expanded neuro, sacroiliac, posture, palpation, and strength/function documentation sections.
- One therapist felt all the responses prompted on the form were appropriate. Most felt revisions of grids for recording clinical information was required.

Data Analysis:
Stage 1: Analyzed
- Frequency of documentation of prognostic characteristics
- Reliability of abstraction of prognostic characteristics

Stage 2: Analyzed
- Frequency of documentation of prognostic characteristics
- Reliability of abstraction of prognostic characteristics

Descriptive statistics were used to report frequency of documentation of LBP characteristics. Percent agreement used to report reliability of abstracting clinical characteristics from the EMR.

Results

Discussion and Conclusions

This study was approved by the Committee for the Protection of Human Subjects at California State University, Sacramento and by the Sutter Health Central Area Institutional Review Committee.

Therapists in this study performed all objective measures to assess usefulness of the evaluation form. Some objective measures are likely to be left out in a typical LBP evaluation depending on initial findings by the physical therapist. Therapist omissions would decrease observed percentages of clinical characteristic information in the EMR observed in Stage 2 of this study.

Implementation of a standardized LBP evaluation form improved documentation of clinical characteristics sufficiently to allow the EMRs to be used to perform quality assurance and evidence based practice studies.

Standardized LBP evaluation form after modification in response to physical therapists’ feedback.