

# Direct triaging to physiotherapist in primary care

## Development and evaluation of a triage model

Akademisk avhandling

som för avläggande av filosofi doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentliggöras i hörsal 2118, hus 2 Hälsovetarbacken, Arvid Wallgrens Backe, Göteborg, den 3 maj 2019, klockan 09:00.

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Avhandlingen baseras på följande delarbeten:

- I. Thorn J, Maun A, **Bornhöft L**, Kornbakk M, Wedham S, Zaffar M, Thanner C. Increased access rate to a primary health-care centre by introducing a structured patient sorting system developed to make the most efficient use of the personnel: a pilot study. *Health Management Research Services* 2010; 23: 166-171.
- II. **Bornhöft L**, Larsson MEH, Thorn J. Physiotherapy in Primary Care Triage – the effects on utilization of medical services at primary health care clinics by patients and sub-groups of patients with musculoskeletal disorders: a case-control study. *Physiotherapy Theory and Practice* 2015; 31 (1): 45-52.
- III. **Bornhöft L**, Larsson MEH, Nordeman L, Eggertsen R, Thorn J. Health effects of direct triaging to physiotherapists in primary care for patients with musculoskeletal disorders: a pragmatic randomised controlled trial. *Therapeutic Advances in Musculoskeletal Disease* 2019; 11: 1-13.
- IV. **Bornhöft L**, Thorn J, Svensson M, Nordeman L, Eggertsen R, Larsson MEH. More cost-effective management of patients with musculoskeletal disorders in primary care after direct triaging to physiotherapists for initial assessment compared to initial general practitioner assessment. *Submittad*.

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### Abstract

**Background:** There is evidence that early contact with physiotherapists leads to advantages for patients with musculoskeletal disorders. Many patients, however, initially seek contact with general practitioners (GPs) within primary care for musculoskeletal disorders. This often delays or replaces physiotherapist contact. Management interventions which ensure that appropriate patients are initially examined by physiotherapists may lead to advantages for patients, the healthcare system and the community. **Aim:** The general aim for this thesis was to develop a triage model for primary care with focus on musculoskeletal disorders and evaluate its effects on patients' health and attitudes as well as on its effects for other relevant stake-holders. **Methods:** Paper I is a descriptive study examining the development process of the triage model and its effects on access and efficiency at a primary healthcare centre. Paper II is a case-control study which compares the utilization of medical services between patients with musculoskeletal disorders, who were triaged directly to physiotherapist for initial assessment and treatment, and similar patients who were initially assessed by a GP. Paper III is based on a randomized controlled trial (RCT) and evaluates the effects of direct triaging to physiotherapist on patients' health and attitudes. Paper IV is a cost-effectiveness assessment, which compares the costs in relation to health effects for patients who have been triaged directly to physiotherapists, and is based on the same RCT as Paper III. **Results:** The triage model led to increased access, more efficient use of the personnel, greater patient satisfaction and a better work environment compared with the traditional primary care management model which was employed earlier. Patients who were triaged directly to physiotherapists utilized significantly fewer medical services during the following year compared to patients with initial contact with GPs in the retrospective study. Various health aspects, such as progression of pain, function and risk for chronicity, showed common tendencies to better values for the group initially assessed by physiotherapists in the RCT, and health-related quality of life was significantly improved. It is unclear how patient attitudes of responsibility for musculoskeletal disorders were affected by triaging to physiotherapists. The cost-efficiency assessment favoured triaging to physiotherapists over traditional management, showing greater health gains at lower costs from a societal perspective. **Conclusions:** Many positive effects of triaging directly to physiotherapists in primary care were found for patients, the healthcare organization and society. The studies in this thesis contribute to a small but growing bank of knowledge about the advantages of using physiotherapists as initial assessors in primary care. The triage model studied here seems to offer a feasible alternative to traditional management of musculoskeletal disorders within primary care.

**Keywords:** Physiotherapy, primary care, triage, musculoskeletal disorders