

Evaluation of a Family Medicine Orthopaedics (FM-ORT) Multidisciplinary Low Back Pain Care Delivery Model:

Allocating Appropriate Patient to Appropriate Level of Care at Appropriate Time

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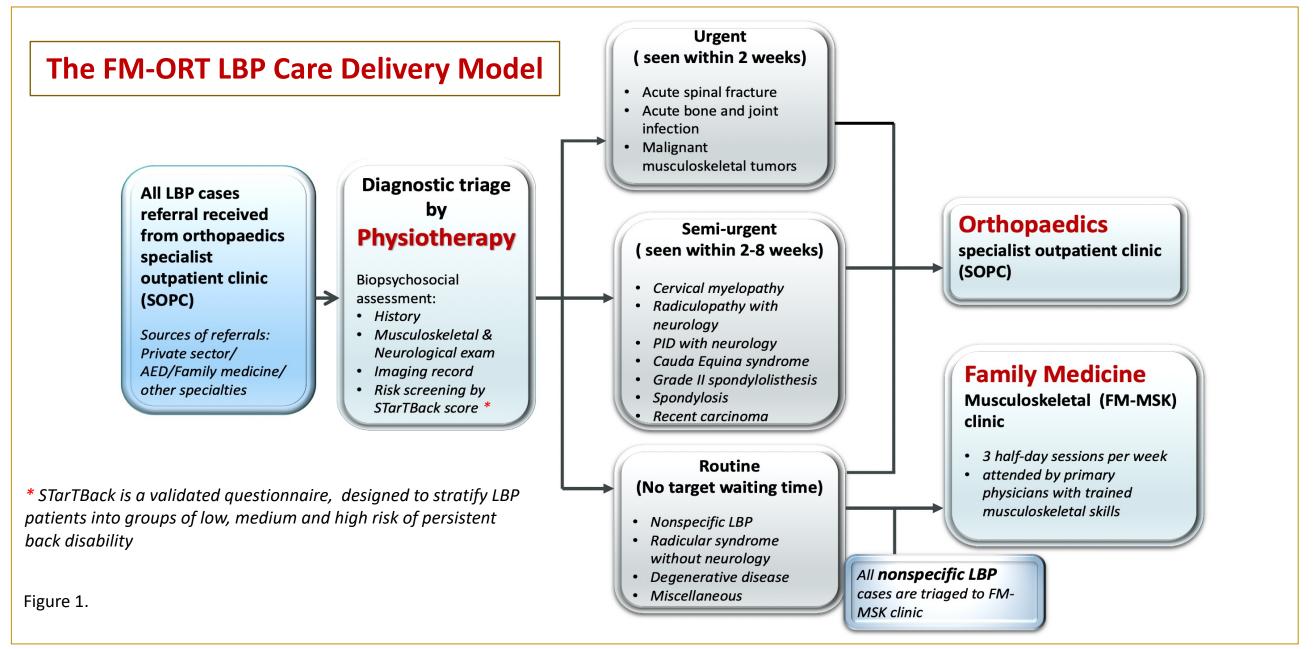
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Introduction

Low back pain (LBP) is a common and disabling condition with significant socioeconomic burden. Inappropriate or overuse of orthopaedic referrals have led to the long waiting time and delayed the timely care of those who may need early surgical interventions. A LBP care delivery model with collaborative input from the New Territories East Cluster (NTEC) family medicine department, orthopaedic surgeons and allied health professionals has been implemented in the Prince of Wales hospital since September 2017 (Figure 1). The healthcare model aims to provide risk-matched treatments by triaging low-risk LBP cases to primary care in order to reduce the burden of orthopaedic specialist outpatient clinic (SOPC). This study would like to evaluate the initial clinical effectiveness of the healthcare model.

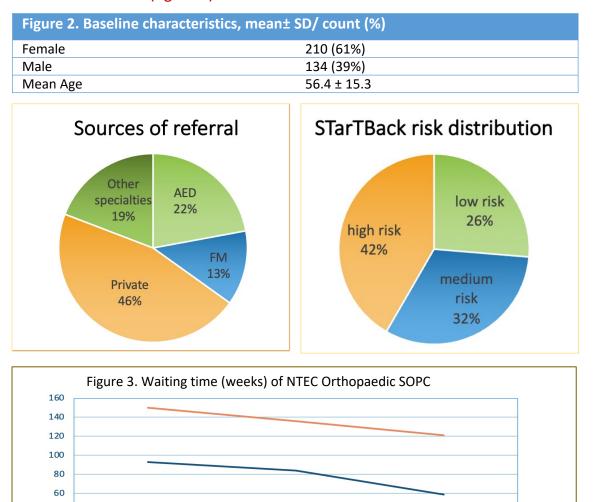
Method

LBP cases referred to orthopaedics department had initial assessment by physiotherapists and low-risk cases were triaged to family medicine (FM) musculoskeletal (MSK) clinic. The FM-MSK clinic was attended by family physicians with trained musculoskeletal skill. All new LBP cases seen by family physicians in 2018 were retrospectively reviewed from 1st Jan 2018 to 31st Dec 2020. Health care outcomes such as waiting time, mean number of visits, discharge rate and healthcare resources utilization were evaluated.



Results

In total, 344 LBP cases were seen at FM-MSK clinic in 2018. Baseline characteristics were shown in figure 2 and health care outcomes were shown in Table 1. With the commencement of model, the overall orthopaedic SOPC waiting time had reduced from 182 to 121 weeks (figure 3).



Median

2020

2021

40

20

2019

Table 1. Health care outcomes, mean± SD/ count (%)

Total (N=344)	
Mean waiting time (weeks)	10.8 ± 3.4
Discharge rate at first visit	79 (23%)
Discharge rate at 1 year	276 (80.2%)
Default rate at 1 year	47 (13.7%)
Mean number of visits before discharge	2.3± 1.2
Refer back to orthopaedics	5 (1.5%)
Refer physiotherapy	159 (46.2%)
Refer occupational therapy	73 (21.2%)
MRI ordered	5 (1.5%)
Adverse event	0 (0%)

Conclusion

The FM-ORT model provided effective healthcare and enhanced the overall LBP care service delivery.

Key Messages

- Stratified healthcare model for LBP allows timely patient care and lessens burden of orthopaedic SOPC
- ➤ Diagnostic triage by physiotherapy allows accurate patient stratification and provides preliminary patient advices and treatments which streamline the management process
- More family physicians with musculoskeletal skill are needed to enhance the musculoskeletal care in the primary care sector