Understanding Changes in Musculoskeletal Referrals from Family Medicine Providers During COVID-19
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INTRODUCTION

• During the COVID-19 pandemic, many health systems have changed the way they provide care.
• In March 2020, telehealth visits increased by 154% compared to the same time period in 2019.1
• We analyzed how the COVID-19 pandemic and resultant changes in visit types, specifically an increase in telehealth visits, affected musculoskeletal referral patterns among family medicine providers.
• We aimed to determine whether the types of referrals placed during video or telephone visits might differ from in-person visits.

METHODS

• Referral reports to sports medicine (SM), orthopedics (Ortho), and physical therapy (PT) were generated from two university-based family-medicine clinics from 12/1/19-3/15/20 (pre-COVID) and from 3/16/20-9/30/20 (post-COVID).
• Data was analyzed to assess differences in referral pattern distributions.
• Statistical significance of the differences in referral pattern distributions was determined using chi-square analysis with alpha-level 0.05.

RESULTS

• 968 total referrals to SM, Ortho, and PT were placed pre-COVID, and 1302 referrals post-COVID.
• There was no statistically significant difference in number of referrals or referral distribution when single referrals were placed, nor with joint referrals (referral to PT placed during the same visit as a SM/Ortho referral).

<table>
<thead>
<tr>
<th>Type of Referral</th>
<th>Referrals Pre and Post COVID</th>
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<tbody>
<tr>
<td>Orthopedics</td>
<td>PRE-COVID 69.9% / COVID 70.8%</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>PRE-COVID 16.7% / COVID 16.8%</td>
</tr>
<tr>
<td>Sports Medicine</td>
<td>PRE-COVID 11.1% / COVID 9.4%</td>
</tr>
</tbody>
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• Distribution of SM and PT referrals based on visit type (phone, video, in person) was significantly different (p < 0.00001) when compared to Ortho referrals.
• A lower percentage of referrals to SM and PT were placed during phone visits than in-person or virtual visits.

DISCUSSION

Clinical Significance
• Overall musculoskeletal referral patterns among family medicine providers do not appear to have changed significantly as a result of the COVID-19 pandemic, despite increased prevalence of telehealth.
• The type of visit (in-person vs. video vs. telephone) may affect the type of referral placed. This seems to be particularly evident with telephone visits.

Limitations
• Small sample size and limited to one health system
• Relatively short data collection time period
• Phone visits are no longer used as frequently as during the beginning of the pandemic due to improved video visit capacity
• No information collected about whether a referral was made at follow-up visit i.e. if unable to gather enough information during initial telephone or video visit

REFERENCES


Figure 1. DeCastro A et al. Novel Techniques in Telehealth: The Virtual MSK Exam. Lecture at the Society of Teachers of Family Medicine Annual Spring Conference, May 2021.