

# Implementation of a COVID-19 Musculoskeletal Clinic Triage to Improve the Number of Pilot Training Flights

Captain J. Tyler Bates, D.O.

Major Lauren Beers, DPT

U.S. Air Force. Columbus AFB, MS

## INTRODUCTION

- MSK pain is a considerable impact for military pilots <sup>(1)</sup>
- Physical therapy (PT) and osteopathic manipulation (OMT) are frequently used modalities for pain control in the pilot population
- Pilot training is a top priority due to a shortage of pilots <sup>(2)</sup>
- During the COVID-19 pandemic pilot training was declared mission essential
- Flight surgeon duties were shifted to managing COVID response and removed from clinic

GOAL: Preserve pilot training by treating pain while allowing physicians to fulfill COVID duties

## METHODS

- Encourage direct access PT with triage abilities
  1. Patients on flying status
  2. Post-operative patients
  3. Acute duty limiting pain
- Nurse triage in flight medicine clinic push to PT vs physician evaluation for medication management
- Follow up visits by telemedicine as available
- Comparison of means and simple statistical significance calculated <sup>(3)</sup>

## RESULTS

	PT Clinic	FM Clinic	# Flights ^	People DNIF *^
Mar 23, 2020 – Jun 23, 2020	166	60 (10% virtual)	10,473	188
Dec 23, 2019 – Mar 22, 2020	224	118	9,711	368
P-Value	< 0.01	< 0.001	0.5712	0.0014

- COVID duties fulfilled and other clinical needs met

## DISCUSSION

- Training flights were not impacted by scheduling change
- Clinic access was able to meet demands
- Physicians able to do COVID assignments
- Multiple limitations exist

MSK pain triage with a focus on duty limiting pain allowed physicians to fulfill COVID duties while preserving the flying mission



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## LIMITATIONS

- Many variables contributing to number of flights including weather and maintenance
- DNIF rate not isolated to MSK pain only
- Physical fitness testing paused due to pandemic
  - Decrease in overuse injuries
  - Decrease in appointments for text exception evaluations
- ^ Flights and DNIF tracked by month comparing Jan – Mar with Apr - Jun

## FUTURE DIRECTIONS

- Continue emphasis on direct access PT
- Able to use this model with decreased staff related to deployments and moves

## CLINIC SET UP

- Flight medicine 3 physicians (flight surgeon) and 1 PA
- PT clinic with 1 DPT and 2 technicians
- COVID duties include outside screening and testing and a COVID med director

## ACYONYMS

MSK – Musculoskeletal

FM – flight medicine

PT – physical therapy

OMT – osteopathic manipulation

\*DNIF – duties not including flying (grounded from flying)

## REFERENCES

1. Wagstaff AS, Jahr KI, Rodskier S. +Gz-induced spinal symptoms in fighter pilots: operational and individual associated factors. *Aviat Space Environ Med.* 2012;83(11):1092-1096. doi:10.3357/ase.3146.2012
2. Losey, S. Air Force: No progress in closing pilot shortfall. Military Times. 04Mar2020. <https://www.airforcetimes.com/news/your-air-force/2020/03/04/air-force-no-progress-in-closing-pilot-shortfall/>
3. Pocock SJ. The simplest statistical test: how to check for a difference between treatments. *BMJ.* 2006;332(7552):1256-1258. doi:10.1136/bmj.332.7552.1256

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