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2022

## Improving Patient Education Surrounding Imaging Modalities

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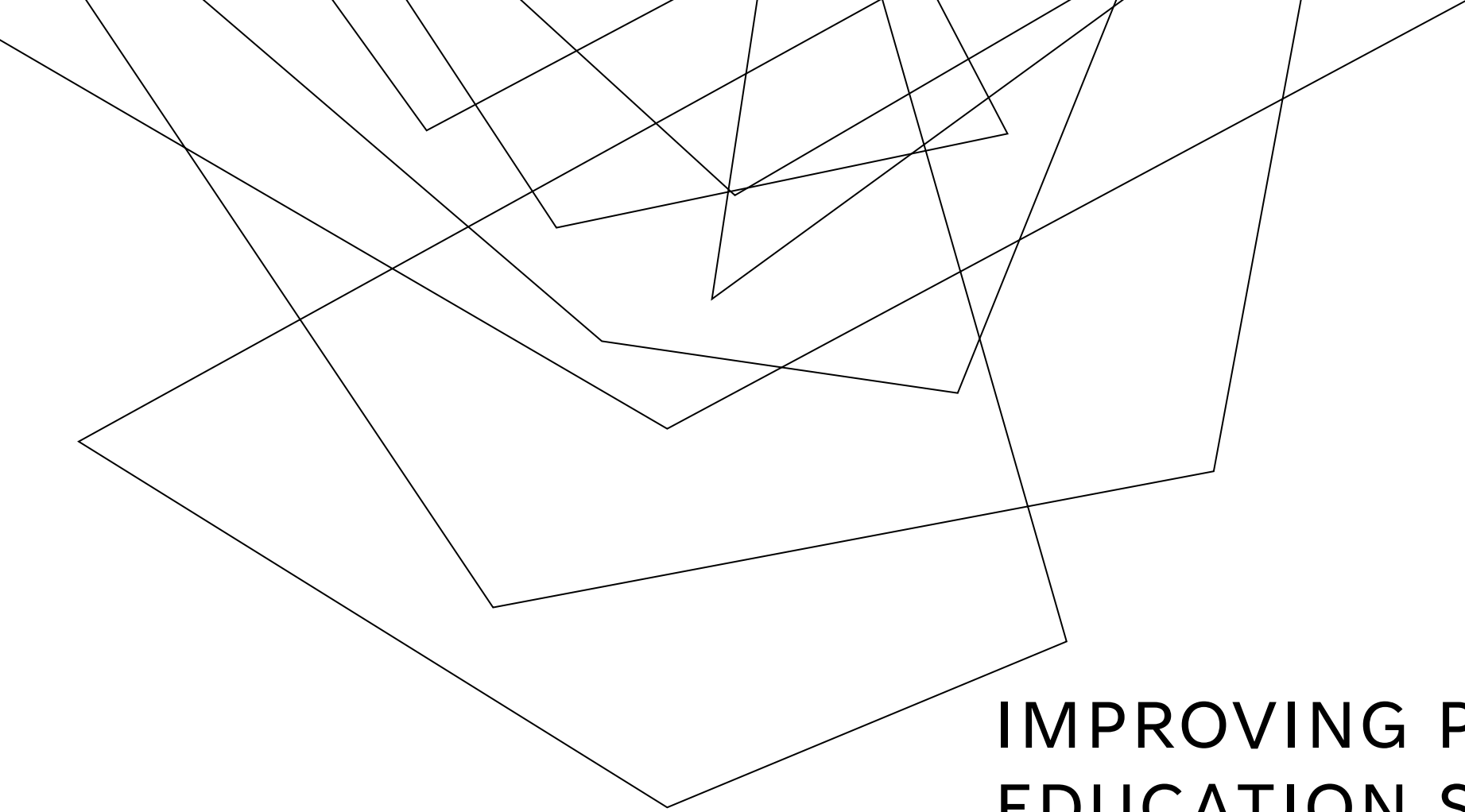
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### Recommended Citation

Drake, Taylor, "Improving Patient Education Surrounding Imaging Modalities" (2022). *Family Medicine Clerkship Student Projects*. 793.

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# IMPROVING PATIENT EDUCATION SURROUNDING IMAGING MODALITIES

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CVMC Berlin, May 2022

Mentor: Dr. Brian Rodriguez, CVMC Family Practice, Berlin

## PROBLEM IDENTIFICATION

Musculoskeletal visits account for **10-15%** of all primary care visits and **70%** of all new musculoskeletal injuries are treated by primary care physicians.<sup>1,2</sup> In the primary care setting, rates of inappropriate imaging are high.<sup>3</sup> Patients with musculoskeletal complaints may present to primary care clinics with the expectation of a referral for imaging of the injury, however, imaging may or may not be warranted. This incongruence has the potential to lead to inappropriate imaging, decreased patient satisfaction, and negatively affect the patient-physician relationship.

**AHEC Focus Area: medical practice transformation**

# PUBLIC HEALTH COST

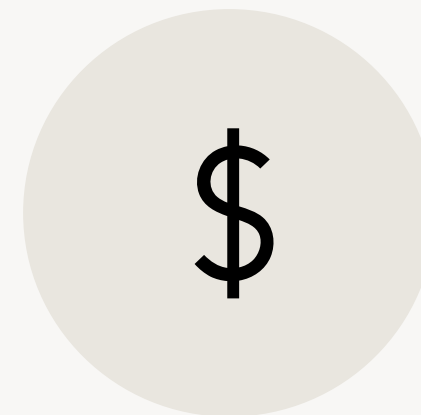
Every year, diagnostic imaging accounts for \$100 billion of US healthcare spending.<sup>4</sup>

Cost of imaging at Central Vermont Medical Center (2017)<sup>5</sup>

	MRI pelvis	MRI lumbar spine	MRI joint, upper extremity w/ contrast	MRI joint, lower extremity w/o contrast
Hospital charge	\$4575	\$4575	\$2850	\$2550
Physician charge	\$200	\$251	\$143	\$135
Total	\$4775	\$4826	\$2993	\$2685

A 2019 study revealed that in 2010 and 2013:

- More than **60%** of lumbar MRIs were deemed inappropriate
- Over **30%** of MRIs for shoulder and knee pain were inappropriate<sup>6</sup>



## COMMUNITY PERSPECTIVE



“Patients often think that imaging is the only way that we can diagnose a problem or that it is needed right away. That is not the case and not the right use of resources.”

- Dr. Brian Rodriguez, CVMC Family Medicine

“Patient education surrounding imaging is poor, however, it has become more variable due to the internet and information online. Time is really a major constraint to patient education.”

- Dr. Joseph Pekala, CVMC Radiology

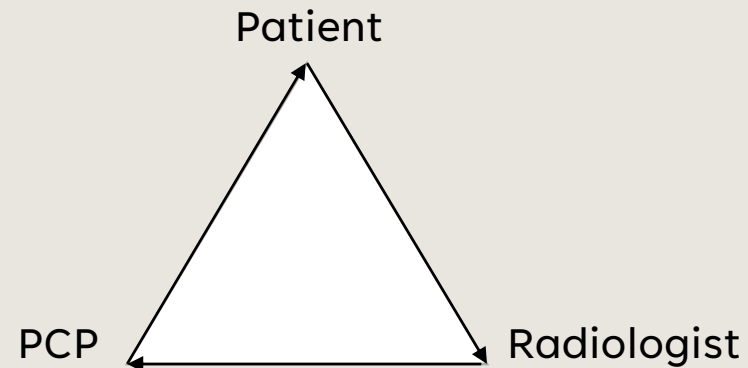
# INTERVENTION

Patient educational pamphlet, designed for display in exam rooms, describing workup of MSK complaints as well as:

- How the imaging study works
- A short list of advantages and disadvantages of the study
- What the study is best used for

# RESULTS

- Community response (including primary care physicians at CVMC Family Practice and radiologists at CVMC) has been encouraging of the project citing the need for **bridging the gap** surrounding imaging education for patients as well as providers



- CVMC Family Practice has agreed to display educational materials in exam rooms

## EVALUATION OF EFFECTIVENESS

- Utilizing simple questionnaires to evaluate patient knowledge and understanding of imaging and indications as they pertain to musculoskeletal pathology
- Surveying patient satisfaction of visit and determining whether or not education led to more satisfaction
- Surveying providers on perceived patient knowledge of imaging after materials have been made available



## RECOMMENDATIONS FOR FUTURE INTERVENTIONS

- Collaboration with several departments to establish more pronounced patient education initiatives and integration of specialty-specific guidelines and recommendations into general practice
- Incorporation of patient education into screening calls and nurse visits prior to full office visits
- Dissemination of material from reliable resources to patients post and pre visit
- EMR smart text companion as a reminder to providers and for patient after-visit summary
- Translation into multiple languages for accessibility

# REFERENCES

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