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Authors	Lu, Xiaoyu
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Improving patient understanding of low back pain in the primary care setting

Xiaoyu (Christine) Lu, MS3

University of Vermont College of Medicine

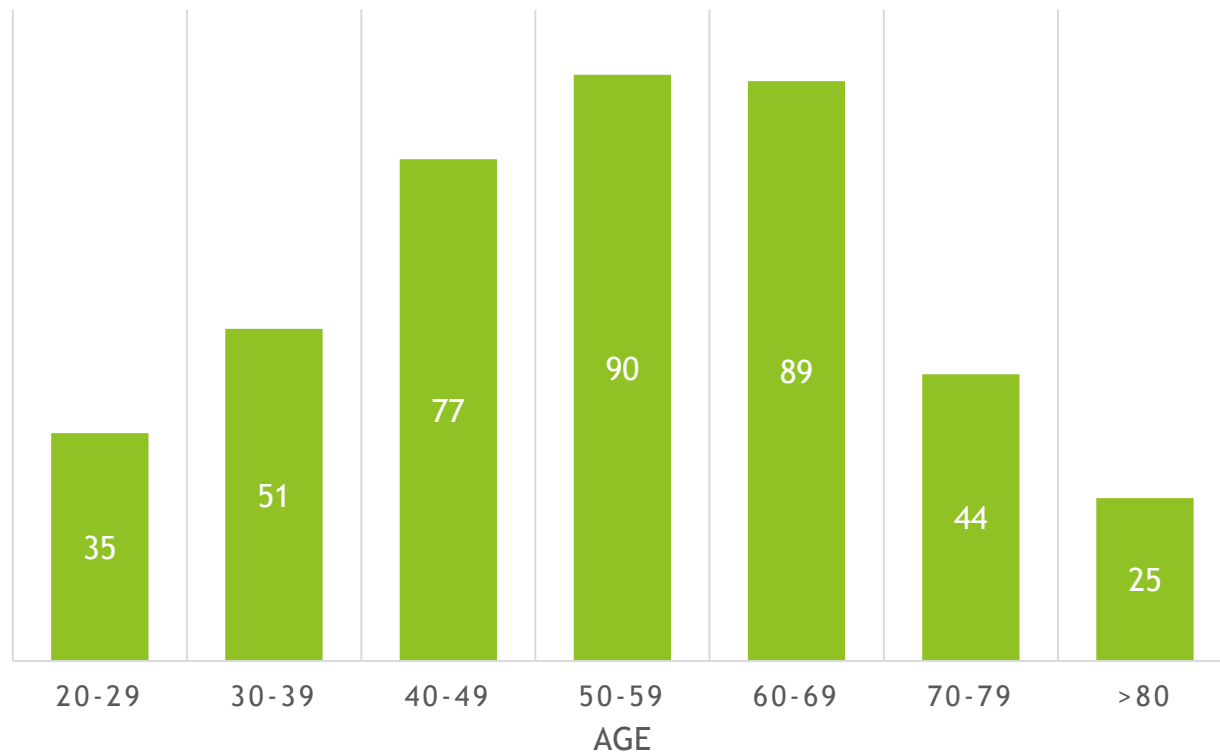
Family Medicine Clerkship, August - September 2016

Castleton Family Health Center, Bomoseen, VT

Preceptor: Bradley A. Berryhill, MD

Community need

Number of patients presenting with low back pain from September 2015 to September 2016



- ▶ **411 patients** ages 20-98 were seen over a **365-day** period for low back pain (LBP) at Castleton Family Health Center
- ▶ Adults in their 5th and 6th decades of life were most commonly afflicted by LBP
- ▶ **1/5** of patients who presented with LBP were under age 40

Public health cost

- ▶ Up to **80%** of individuals will experience LBP at some point in their lives¹
- ▶ LBP is the most common type of pain reported by U.S. adults across all age groups² and is the leading cause of disability worldwide³
- ▶ LBP results in **149 million** lost work days and costs more than **\$100 billion** in lost wages and productivity every year in the U.S.⁴
- ▶ Vermont Chronic Care Initiative (VCCI), a cost-saving program that targets the **top 5%** of Medicaid users, who account for **39%** of Medicaid costs, recognizes LBP as a chronic condition that may benefit from specialized care coordination⁵
 - ▶ VCCI, which led to **\$30.5 million** in health care savings in FY 2014, will only cost **\$2.6 million** in FY 2017⁵

Community perspective

- ▶ *“Last year I went to my doctor after having low back pain for several weeks. He referred me to the hospital for an x-ray, which showed arthritis at the base of my lower back. I received a referral for physical therapy . . . The education for my low back pain came from the physical therapist . . . I would benefit from input and education from my doctor. A little pamphlet focused on low back pain would be helpful before seeing a physical therapist in helping me learn what caused my low back pain and what I can do to alleviate it . . . Having a physically demanding job, I realize the need for me to maintain my health outside of work.”*

Assistant Recreation Director at Rutland Healthcare & Rehabilitation Center

- ▶ *“Low back pain is a major problem, but people will not come to the library for information on it. They do their research online . . . Having a pamphlet at the doctor’s office will remind patients to bring up the issue with their doctor.”*

Library Director of West Rutland Public Library

- ▶ *“The average patient that comes in with low back pain is in pain and frustrated and expects me to do something about it fast . . . They want Percocet, a quick fix . . . It would be good for people to understand how common low back pain is and how it’s preventable . . . I think it’s good to develop a brief, to-the-point educational objective that will get read and get people to get a better handle on what to expect if they seek treatment.”*

Physician Assistant at Castleton Family Health Center

Proposed intervention

- ▶ Develop educational pamphlet on LBP that addresses the following:
 - ▶ What is LBP?
 - ▶ What causes LBP?
 - ▶ What are the warning signs of LBP?
 - ▶ How is LBP treated?
 - ▶ How do you prevent LBP?
- ▶ Provide copies of pamphlet in waiting areas and rooms
- ▶ Encourage patients with LBP to read pamphlet
- ▶ Encourage providers to discuss pamphlet with patients

Result

- ▶ Providers acknowledged that there had been no existing educational materials on LBP in the office and thought the pamphlet was helpful
- ▶ Patients with LBP found the pamphlet to be useful and easy to read

PATIENT INFO: LOW BACK PAIN

By: Christine Lu, MS3

What is low back pain?

The low back is made up of the bottom portion of the spinal column and its supporting muscles. Low back pain (LBP), also known as lumbago, is a common complaint that can affect people of all ages. In fact, 8 out of 10 individuals will experience LBP at some point in their lives. The pain will usually go away on its own without treatment.

Common causes of LBP:

INJURY from overuse, bad posture, or sudden twisting movements

HERNIATED DISC a cushion in the spinal column bulges out and pinches a nerve; can cause leg pain or “sciatica”

DEGENERATIVE JOINT DISEASE arthritis of the spine

SPINAL STENOSIS an abnormal narrowing of the spinal canal that leads to nerve compression; can cause leg pain with certain activities or postures

When is imaging needed for LBP?

A good history and physical exam are generally all your provider needs to determine the cause of LBP. X-rays and MRIs are often not necessary, unless your provider suspects something more serious might be going on or your symptoms do not improve in a few weeks.

Let your provider know if you have any of the following:

- Loss of strength or sensation in your legs
- Loss of bladder or bowel control
- Unintentional weight loss of 10 pounds or more in the past 6 months
- Cancer
- Osteoporosis
- Fever greater than 101°F
- Intravenous drug use
- Corticosteroid use
- Significant injury or trauma

How is LBP treated?

SELF-CARE

- Cold compresses (apply heat later)
- Light exercise and stretching
- Avoid prolonged bed rest

MEDICINE (ask your provider about potential side effects)

- Acetaminophen (Tylenol)
- Ibuprofen (Advil)
- Naproxen (Aleve)
- Muscle relaxants
- Spinal injections

OTHER

- Physical therapy
- Surgery (rarely)

How to prevent LBP:

- Maintain a healthy weight
- Practice good posture
- Lift with your legs, not your back
- Stretch before exercising
- Don't smoke

Effectiveness & limitations

- ▶ The efficacy of the intervention may be assessed by asking patients to rate their understanding of LBP on a Likert scale before and after reviewing the pamphlet.
- ▶ An alternative strategy would be to ask patients to simply answer “yes” or “no” to whether they believe the pamphlet contributed to their understanding of LBP.
- ▶ The recurrence rate of LBP in patients who have read the pamphlet may be compared to that of the general patient population over a one-year period.
- ▶ It was not feasible to formally assess the efficacy of the intervention due to the short duration of the rotation.

Future interventions

- ▶ Distribute pamphlet to other health care facilities, public libraries, universities, and pharmacies in the community
- ▶ Develop a checklist to help providers stratify risk, increase diagnostic efficiency, minimize unnecessary imaging, and improve health care outcomes for patients presenting with LBP based on the following clinical features/criteria:
 - ▶ Age
 - ▶ Duration of pain
 - ▶ Significant injury or trauma
 - ▶ Limb weakness
 - ▶ Bladder/bowel incontinence, saddle anesthesia
 - ▶ Osteoporosis
 - ▶ Corticosteroid use
 - ▶ History of cancer, unexplained weight loss
 - ▶ Fever, infection
 - ▶ IVDU
 - ▶ Psychosocial needs
 - ▶ Prior imaging results

References

- ▶ 1. Rubin DI. Epidemiology and risk factors for spine pain. *Neurol Clin.* 2007;25(2):353-71.
- ▶ 2. National Center for Health Statistics. Health, United States, 2006: With Chartbook on Trends in the Health of Americans. 2006. <http://www.cdc.gov/nchs/data/hus/hus06.pdf>.
- ▶ 3. Hoy D, March L, Brooks P, et al. The global burden of low back pain: estimates from the Global Burden of Disease 2010 study. *Ann Rheum Dis.* 2014;73:968-974.
- ▶ 4. Guo H-R, Tanaka S, Cameron LL, et al. Back pain among workers in the United States: national estimates and workers at high risk. *Am J Ind Med.* 1995;28:591-602.
- ▶ 5. Vermont Agency of Human Services, Department of Vermont Health Access. Budget Document: State Fiscal Year 2017. 2016. [http://legislature.vermont.gov/assets/Documents/2016/WorkGroups/Senate%20Appropriations/FY%202017%20Budget/03%20%20Human%20Services/W-Department%20of%20Vermont%20Health%20Access~FY%202017%20Proposed%20Budget%20-%20Binder%20\(Revised\)~3-15-2016.pdf](http://legislature.vermont.gov/assets/Documents/2016/WorkGroups/Senate%20Appropriations/FY%202017%20Budget/03%20%20Human%20Services/W-Department%20of%20Vermont%20Health%20Access~FY%202017%20Proposed%20Budget%20-%20Binder%20(Revised)~3-15-2016.pdf).
- ▶ 6. Katz JN. Lumbar disc disorders and low-back pain: socioeconomic factors and consequences [review]. *J Bone Joint Surg Am.* 2006;88(2):21-24.
- ▶ 7. Atlas SJ, Deyo RA. Evaluating and managing acute low back pain in the primary care setting. *J Gen Intern Med.* 2001;16:120-31.