

CO's CURE

Case Study: Chronic Low Back Pain

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Learning objectives:

1. Recognize the interaction of acute, perioperative pain with chronic pain.
2. Address patient and family expectations around pain relief.
3. Articulate how to perform a thorough post-surgical/chronic low back pain assessment and develop an appropriate treatment plan based on the results of the pain assessment.
4. Practice communication strategies for medical inpatients with similar cases with interprofessional colleagues.

Introduction:

The following low back pain, post-surgical case study is presented to engage in team-based care conversations to identify strategies on how to implement a standardized, evidenced-based pain assessment and develop a treatment plan based on results of the assessment using the SHM musculoskeletal pathways as a guide for pain management.

Case Presentation:

Carl is a 35-year-old man who works as a roofer with a past medical history of chronic lower back pain from an injury he sustained three years ago falling off a ladder. Injuries from the accident included cuts, bruises and a mild concussion along with a badly sprained back on the right side at the intersection of the right gluteus maximus muscle and left latissimus dorsi muscle. During Carl's first back specialist appointment, the physician explained and showed Carl exactly where the sprain was located. His physician recommended a conservative course of treatment which included 400mg ibuprofen TID physical therapy, a back brace, ice and Flexeril 5mg TID PRN for spasms. Carl's pain has not significantly improved over time despite ongoing physical therapy. He still takes the 400mg of ibuprofen TID and uses the Flexeril "occasionally", 1-2 per week.

In Carl's pre-op notes he described his lower back pain as aching, burning, sometimes stabbing. The pain radiates down through his right buttocks and at times up through his left shoulder depending on how he moves. Carl indicated sometimes it is localized, however other times the pain spreads from his lower back down through his buttocks. Carl reports he continues to have "occasional" once every-other-month, back spasms that have an intense, cramping, rippling effect that can be debilitating, keeping Carl out-of-work for up to two days.

Carl's chart from his primary care provider notes that Carl said he was "afraid to take any drugs" because he didn't want to become "an addict." "Besides" the physician' notes continued, "the drugs didn't work so why bother." Carl stated in his culture it is considered a weakness for men to show pain. Carl has resigned himself to the fact he will live his life with this ongoing lower back pain.

Today, Carl is being admitted to the medical surgical floor from the PACU after an uncomplicated laparoscopic cholecystectomy. On arrival to the floor at 1300, the PACU/floor nurse hand-off report includes the following information: BP 120/80, RR 12, temp 98.7, pulse 75. He has NS running at 100 mL/hr in a 16 gauge in the right hand; clean, dry no signs of infiltration. Carl's surgical incision site is clean and dry with Steri-Strips™ intact. Bowel sounds are hypoactive. He has no known drug allergies. The nurse notes in Carl's chart he takes the 400mg of ibuprofen TID for ongoing low back pain but has not had any today.

Case Presentation Continued

The nurse noted during her initial assessment that Carl's medication list showed Carl was taking 5mg Flexeril PRN for back spasms. Carl validated he "occasionally" needs one for his back spasms once or twice per week. Carl's wife quickly jumps in correcting Carl. He takes much more than 1-2 per week but she does not say how much more. Carl reports that his low back pain is never below a 2/10 on a good day and 8/10 on a bad day. He explains that his expectations are to have a pain of 0/10 in the hospital and that includes the back ache. Carl rates his pain 7/10 after receiving fentanyl 50 mcg IV for pain in the PACU about an hour before arriving to the floor, at 1200.

Carl did not take his ibuprofen today. He describes his post-surgical pain as slight burning and sharp pain around the laparoscopic sites.

Carl's surgeon's post-op orders for pain are as follows: 5mg oxycodone PO Q 4 hours for pain 4-6 and 1mg morphine IV Q 2 hours PRN breakthrough pain 7-10. The surgeon would like Carl to be transitioned to oral therapy only by post-op day one on the floor. His Foley® catheter was removed in the PACU. He is accompanied by his wife, brother, mother and father. Carl's mother and wife want to know when he can have his next pain medication. They want to make sure he is pain free before the staff get Carl out-of-bed.

Since the nurse already know that the lack of a proficient and uniform pain assessment is one of the most challenging barriers in achieving adequate pain control, the nurse chooses to do a complete pain assessment that does not include the use of numeric values or the visual facial pain scale (referred to as the Baker Wong Pain Scale). Rather, the nurse uses a more comprehensive approach to the pain assessment which includes understanding Carl's beliefs about pain and treatment. This is critical considering Carl has experienced chronic low back pain and has been using ibuprofen consistently for three years. More importantly there appears to be some discrepancy between Carl and his wife about his use of Flexeril. It is also important to understand the family's knowledge and attitude towards pain and pain medication. Since there has already been one request by the family for "pain medication" and a request from Carl for his Flexeril, this might be a good opportunity for education about a multi-modal approach to pain management including the use of ALTOs, engaging the family in developing an appropriate, holistic plan and setting realistic goals.

Intervention Questions:

1. What are your immediate next steps?
2. What are your short-term goals for Carl?
3. What are the longer-term goals for Carl and his family?
4. Who would you engage to brainstorm a strategy that would give Carl and his family the best opportunity for a successful outcome?
5. What would you consider the best pain management strategy for Carl?
6. How would you approach Carl and subsequently Carl's family to discuss his treatment plan?
7. What is your recommendation for Carl's post-discharge plan?
8. If you were limited to choosing just one treatment for Carl, what would be the most important action you would take with Carl and his family that would have the highest impact?

Discussion Points:

Consider these important elements in Carl's treatment:

Fact: In a national, population-based study of patients, opioid use prior to surgery was associated with longer opioid prescriptions and more refills after surgery.

1. Carl has no acknowledged history of preoperative opioid use, however there is lack of clarity about his use of Flexeril, so perhaps there is more to Carl's drug history.
 - Based on the information in the case study, including his post-surgical care orders, what immediate challenges do you see for Carl as he begins his recovery?
2. Carl takes a non-steroidal anti-inflammatory (NSAID) medication on a regular basis for back pain.
 - NSAIDs are part of the musculoskeletal ALTO pathway. Will you continue the NSAID?
 - If not, what are other options as you begin to pull together Carl's multi-modal plan?
3. While the use of the numerical pain scale can be helpful to assess pain relief, it is much more important to assess the patient's goals around functionality rather than a number for pain. Even still, Carl seems very familiar with the "numerical" pain scale and is expecting a pain score of 0/10.
 - How are you going to deal with this situation considering Carl and his family's history?
4. Consider the family dynamics and how the possible cultural orientation plays into the request for opioids. Education is going to play a key role in creating Carl's pain treatment plan.
 - What is the multi-modal treatment plan you and the team will pull together that is different than what Carl has done for the past three years?
 - Why has Carl not been successful?
 - What will you do differently to help Carl be successful?



Further Discussion/Treatment Options:

First, the nurse and provider discuss the importance of establishing functional pain goals with the patient and his family. They also discuss, as a group, that a pain of “0 out of 10” is an unreasonable expectation, particularly in the acute post-op setting. The provider brings up Carl’s mention of having some degree of lower back pain daily, a fact that she explains likely can’t be eliminated during his stay. The nurse asks the patient to describe how his current pain is limiting his normal daily functions. Carl explains that he does not feel like he can comfortably get out of bed to walk to the bathroom unassisted due to the degree of his lower back pain, as well as incisional pain from the surgery. They discuss that Carl’s functional goal is to increase his comfort enough by bedtime tonight where he can accomplish this task, with an ultimate goal of being able to go on a short walk around the medical/surgical unit with PT/OT.

The provider also talks to Carl about the dangers of initiating opioid therapy for his (primarily) lower back pain, discussing long term implications and lack of efficacy data. The provider instead offers an ALTO option in addition to Carl’s home ibuprofen: Lidocaine transdermal patches, along with non-pharmacologic treatments. The nurse explains to Carl that these are all options that he can utilize when he is discharged too.

Review Carl’s new treatment plan including:

- Ambulation
- Frequent position changes
- Alternation between acetaminophen and ibuprofen
- Lidocaine 5% transdermal patches to lower back and near incisional site
- Try headphones and guided meditation or music
- Try positioning devices in bed
- Ice/ heat for his back
- Extra pillows can help with positioning and comfort

The nurse and provider discuss with Carl and his family that the best option is try these interventions first to see if it helps with his lower back and incisional pain and then, if needed, he can still access the opioid pain medication, but only as a last resort. The provider also discusses her willingness to write a discharge prescription for the lidocaine transdermal patches if Carl finds them helpful. The nurse calls the pharmacist to see if there is any reason why Carl couldn’t keep the patches on his lower back for 24 hours at a time; the pharmacist conveys that a 24-hour period is fine so long as the skin does not get irritated. The pharmacist also tells Carl that if filling his prescription for the lidocaine patches is cost-prohibitive or his insurance does not cover them, he can get a very similar product over the counter.